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PRINCIPLES FOR THE MANAGEMENT OF TUBERCULOSIS IN NEW SOUTH WALES (PD2014_050)


PURPOSE

This policy sets out the mandatory principles for the provision of Tuberculosis (TB) services in New South Wales (NSW).

TB Services are required to operate in accordance with this policy in conjunction with the current relevant guidelines for the prevention and control of tuberculosis in NSW, which reflect best practice for the clinical and public health management of TB.

MANDATORY REQUIREMENTS

All staff must adhere to these principles. All services related to the screening, care and management of people with active, latent, or suspected TB are available at no charge to patients within the NSW Public Health system. The treatment for people with active TB is to be administered by directly observed treatment.

IMPLEMENTATION

Chief Executives must ensure that:
- The principles and requirements of this policy are applied, achieved and sustained.
- Relevant staff are made aware of their obligations in relation to the Policy Directive.
- Documented procedures are in place to support the Policy Directive.

Clinicians:
- Must comply with this Policy Directive.

1. BACKGROUND

1.1 About this document

Tuberculosis (TB) continues to be a disease of public health significance in Australia. Each year there are over 1300 cases of active TB notified in Australia and approximately 40% of these cases live in NSW.

The clinical and public health management of patients with TB requires a collaborative approach. Treating physicians are responsible for the implementation of appropriate treatment strategies with the support of TB services.

NSW TB services are delivered through a network of metropolitan and regional local health districts, in a range of environments, including; large metropolitan chest clinics and community health centres in regional and rural areas.

Patients with suspected or confirmed TB should be referred to their local TB service. The TB service should review the case, develop a management plan with the treating physician and initiate appropriate public health actions.

TB services are required to operate in accordance with the current NSW policies and guidelines for the prevention and control of TB, which reflect best practice for the clinical and public health management of TB.
11. INFECTIOUS DISEASES, IMMUNISATION AND RELATED MATTERS

TB is a notifiable condition. Doctors, hospitals and laboratories are required to notify all cases of active TB to either their local chest clinic or public health unit, in accordance with the NSW Public Health Act 2010.

1.2 Key definitions

TB is caused by bacterium from the *Mycobacterium tuberculosis* complex. The disease most commonly occurs in the lungs (pulmonary TB), although it can affect any region of the body (extrapulmonary TB). The pulmonary form is most infectious.

2. DIRECTLY OBSERVED TREATMENT

Treatment for people with active TB should be administered by directly observed therapy (DOT), which means that a health professional observes the person take their medication and records the treatment that was administered.

Supervised TB treatment is a supportive measure provided to minimise the risk of development of drug resistance or reactivation of disease attributable to non-adherence, as well as facilitating early detection and attention to side-effects of TB treatment.

3. MANAGEMENT OF MULTI-DRUG RESISTANT TB

Multi-drug resistant TB (MDR-TB) is defined as disease caused by *Mycobacterium tuberculosis* bacilli that are resistant to isoniazid and rifampicin, with or without resistance to other first-line anti-tuberculous agents. MDR-TB represents an important public health concern for the effective control of TB.

In order to ensure best practice management of MDR-TB, an expert panel will be convened by Health Protection NSW to review all identified cases of MDR-TB in NSW. The expert panel will review and provide advice on the clinical and public health management and develop a case management plan for each case of MDR-TB.

4. SCREENING FOR HIV INFECTION

All patients diagnosed with TB in NSW should be tested for HIV using an HIV antibody/antigen test with standard informed consent.

Obtaining informed consent includes an explanation of the testing process, as well as a discussion of the possible outcomes of the test.

The HIV test should be undertaken shortly after TB diagnosis as the immediate commencement of antiviral therapy improves survival in people with advanced HIV infection and TB.

5. CHARGING FOR TB RELATED SERVICES

5.1 Provision of TB services free of charge to the patient

All services related to diagnosis and treatment of suspected or proven TB (active or latent) are available at no charge to patients within the NSW public health system. This includes the provision of services for TB-related investigations, care and treatment.
This policy applies to (but is not limited to) the following:

- All Australian residents, including prison inmates and persons in juvenile detention centres.
- Migrants and refugees referred by the Commonwealth and/or State Health Departments or their nominated delegates.
- Persons who are ineligible for Medicare benefits.
- Temporary residents or overseas visitors.
- Asylum seekers.
- Persons without legal status in Australia.

This policy applies regardless of whether the person attends with or without a referral from another health care provider.

5.2 Investigation

All clinical, laboratory and other investigations for cases, or suspected cases, of TB (active or latent) carried out through admitted patient and non-admitted patient services (including ambulatory care services) in NSW public hospitals and health facilities must be provided free of charge to the patient.

5.3 Treatment and medication

All medications related to the treatment of active or latent TB provided through admitted patient and non-admitted patient services (including ambulatory care) in NSW public hospitals and health facilities must be provided free of charge to the patient.

Medication and other treatments required for ensuring that TB treatment can be tolerated and/or completed without side effects must be provided free of charge to the patient.

Investigations required for patient monitoring prior to and during treatment, such as blood chemistry, audiometry and visual acuity, carried out through admitted patient and non-admitted patient services (including ambulatory care services) in NSW public hospitals and health facilities must be provided free of charge to the patient.

5.4 TB prevention

The provision of TB prevention services through admitted patient and non-admitted patient services (including ambulatory care) in NSW public hospitals and health facilities must be provided free of charge to the community and patients. These services include contact tracing assessments (TSTs, CXR and clinical evaluation), and professional and community education.

5.5 Circumstances where charging for TB services is permitted

Local Health Districts may apply a fee for services in the specific situations listed below (5.2.1-5.2.5). However, issues surrounding financial remuneration should not delay investigations, care, or treatment for persons with TB.

5.5.1 Occupational screening for students and new healthcare workers

Students and new health service employees who require screening for TB in accordance with the policy directive, PD2011_005 Occupational Assessment, Screening and Vaccination against Specified Infectious Diseases.
5.5.2 Occupational screening for existing healthcare workers

Employers (in both the public and private sectors) of healthcare workers are responsible for meeting the cost of occupational screening programs related to TB, including TST. The principle for charging employers for occupational screening is one of cost recovery.

5.5.3 Occupational screening (other than healthcare workers)

Any worker or group of workers requiring occupational screening for TB, unless this is related to contact screening, in which case it must be provided free of charge.

5.5.4 Immigration detention

Where TB Services are provided to a person held under Commonwealth immigration detention, including persons in community detention, the local health district may charge the Commonwealth Department of Immigration through its contractor at the appropriate ineligible patient rate.

5.6 BCG vaccination

TB Services may elect to charge patients a service fee for BCG vaccination.

5.7 Referral to private providers

Where a public health organisation initiates investigations (on behalf of a patient) with a private practitioner or service, the public health organisation is responsible for meeting the cost of the service or investigations and the patient is not responsible for meeting these costs. Local health districts should have mechanisms in place for the reimbursement of private practitioners.

5.8 Medicare benefits

Medicare benefits cannot be paid for professional services related to the care and treatment of TB provided for public patients in public health facilities funded by either the State or Commonwealth Health Department unless the Federal Minister for Health has directed that Medicare benefits are to be paid.

Services related to investigations, care, treatment, screening and BCG vaccination provided within the public health system cannot be billed to Medicare.

For a Medicare benefit to be payable for a patient in a public hospital, the patient must be classified as a private patient, at the time the service was rendered.
This Guideline is to be read in conjunction with the following Policy Directive:

**PD2009_005 Tuberculin Skin Testing**

**Introduction**

Tumor necrosis factor (TNF) is a proinflammatory cytokine which has a pivotal role in the pathogenesis of several autoimmune diseases, including rheumatoid arthritis and other inflammatory joint disease, psoriasis, and inflammatory bowel disease.

Three anti-TNF \( \alpha \) agents are now available in Australia (infliximab, etanercept, and adalimumab) to treat selected autoimmune diseases. However, TNF \( \alpha \) is a significant component of the human immune response to infection, and treatment with anti-TNF \( \alpha \) agents is associated with an increased risk of infection. The development of active Tuberculosis (TB) disease has occurred in some patients who have received anti-TNF \( \alpha \) therapy in countries with high TB prevalence.

The following guidelines have been developed to reduce the risk of active TB developing in patients receiving anti-TNF \( \alpha \) therapy.

**Before starting ANTI-TNF \( \alpha \) inhibitors all patients should have:**

1. A careful review of their history of exposure to TB, and an assessment to exclude active TB.
2. A baseline Tuberculin Skin Test for evidence of TB infection.a
3. A Chest X ray to exclude active TB and assess evidence of past or current TB.

**Latent Tuberculosis**

Patients with evidence of latent tuberculosis infection (LTBI) who have not previously received effective treatment for TB and in whom active TB is excluded should be treated with isoniazid (5mg/kg to maximum of 300 mg/day) and pyridoxine (25mg/day) for a period of 9 months. The first month of isoniazid treatment should be completed prior to starting an anti-TNF \( \alpha \) inhibitor. Evidence of LTBI may include:

1. TST \( \geq \) 5 mm
2. Radiological evidence of past TB

Patients with chest x-ray abnormalities, cough or other clinical features suggestive of active TB should have sputum examined for AFBs before commencing treatment with isoniazid.

Physicians should include the risk of potential adverse effects of isoniazid therapy in their assessment of the overall risk of commencing treatment with an anti-TNF \( \alpha \) inhibitor.

**Monitoring of isoniazid therapy.** patients on isoniazid preventive therapy should have monthly assessment of:

- their hepatic function
- their compliance with the prescribed medication, and
- the development of TB.

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a Footnote: While a positive IGRA is good evidence for Latent TB infection a negative IGRA may not exclude TB. Careful consideration must always be used when interpreting TB screening results.
11. INFECTIOUS DISEASES, IMMUNISATION AND RELATED MATTERS

11.6 Treatment of TB

Where active TB is diagnosed in a person receiving anti-TNF α therapy:

- cease anti-TNF α inhibitor
- reduce other immunosuppressants to lowest possible effective dose.

Patients with active TB should be referred to a NSW Chest Clinic for management and treatment of TB. Treatment should be in accordance with NSW Health TB treatment guidelines.

REFERENCES


TUBERCULOSIS – SPUTUM INDUCTION GUIDELINES (GL2009_006)

Guideline to reduce the risk of occupational exposure to TB during sputum induction procedures. Sputum induction is a procedure used for patients who have trouble producing sputum spontaneously. The patient inhales nebulised hypertonic saline solution, which liquefies airway secretions, promotes coughing and allows expectoration of respiratory secretions. Sputum induction is simple and non-invasive, and if successful, often precludes the need for bronchoscopy.

The procedure produced coughing so it is likely that infectious droplets, if present, will be expelled into the room air. Strict airborne respiratory precautions should be observed whenever sputum induction is performed.


TUBERCULOSIS IN CHILDREN AND ADOLESCENTS (GL2005_060)


Introduction

Tuberculosis (TB) in children and adolescents differs markedly from that in adults.

Many children acquire tuberculosis infection, which is characterised by delayed hypersensitivity and few organisms, but relatively few develop the disease. However, the risk of doing so remains lifelong. While the initial infection in most children occurs in the lungs, TB in children and adolescents should be considered, at least potentially, to be a systemic disease. The primary complex, comprising the site of infection and the involved regional lymph nodes, may heal or complications may develop from enlargement of these lymph nodes or their rupture and the spread of bacilli into the bloodstream, giving rise to disseminated disease. The risk of dissemination is greatest within the first 12-24 months after infection and in the first 3 years of life.
The following are important aspects of the disease in children and adolescents:

**Risk of disease following primary infection**

Data derived from studies in the United Kingdom in the 1950’s and 60’s, for children followed for up to two years after being infected, indicated that the risk of development of radiological changes in the chest consistent with TB infection were greatest in the first year of life and decreased progressively thereafter. iv

These studies demonstrated the span of risk for children progressing to active disease over a two year period as follows: children aged less than 1 year - 23 to 43%, children aged 1 to 5 years - 11 to 24%, children aged 6 to 10 years - 8 to 25% and for children aged 11 to 15 years – 16% with females having a higher rate of disease than males.

For children with a normal chest x-ray at the time of their first positive tuberculin skin test the lifetime risk of developing TB is between 2 and 10%. These risks are related to general health, nutrition and other disease states. Although one might expect, with better nutrition and living standards, that currently, the lifetime risk may be lower, there is some Australian data from adult research that indicate that this may not be the case.v

**Infectivity**

TB in children is primary TB, a disease which is predominantly one of delayed hypersensitivity with few organisms and variable immune response. Childhood TB is rarely contagious because:

- children usually have a small bacterial load;
- children very rarely have cavitating disease; and
- children usually swallow their sputum, and have a far less effective cough than adults.

Rarely children, and occasionally adolescents, may be infectious and have adult type disease.

**Diagnosis**

Diagnosis of TB infection is based on tuberculin skin testing (TST).

**Table 1: Recommended stratification of TST induration size to identify those requiring assessment for preventive therapy. *\n
The selection of an appropriate cut off for referral is influenced by the probability that the TST represents recent infection and the risk of progression to active disease if there is infection with TB.
### INFECTIOUS DISEASES, IMMUNISATION AND RELATED MATTERS

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<td>Recent high risk contacts of persons with infectious TB</td>
<td>Born or resident in countries with high prevalence of TB (≥50 cases/100,000pp)</td>
<td>Children ≥ 4 years of age without any risk factors</td>
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<tr>
<td>HIV infection or other immune suppressed (including steroids)</td>
<td>Locally identified high risk populations</td>
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<tr>
<td>TST conversion in the last 2 years</td>
<td>Children &lt; 4 years of age</td>
<td></td>
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<tr>
<td>Chest X-Ray evidence of past untreated TB</td>
<td>Travel or stay in high prevalence countries</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Persons with certain medical conditions (eg diabetes; prolonged corticosteroid or immunosuppressive therapy; haematological malignancies (eg Hodgkins, lymphoma); chronic renal failure; low body weight &amp; malnutrition</td>
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* All children < four years of age who have had close contact with a case of infectious TB should receive preventive therapy irrespective of TST response, until the second TST (3 months later) proves negative.

* BCG vaccination is unlikely to affect TST interpretation in children vaccinated ≥ 5 years previous. However, where BCG is recent (within 5 years) or where there have been 2 or more BCG vaccinations, the above stratification may need to be modified and the TST results should be interpreted individually by physicians experienced in TB medicine.

Diagnosis of TB disease is based on clinical symptoms and signs, chest x-ray or other investigations and smear and culture of infected body material (if available).

**Preventive therapy**

Preventive therapy in children with TB infection and no evidence of the disease is used to:
- reduce the lifelong risk of developing TB disease;
- reduce the risk of developing TB disease in the years immediately after acquiring the infection, particularly disseminated disease in children under the age of four years.

Six months isoniazid preventive therapy should be considered for otherwise healthy children and adolescents who have evidence of TB infection and no evidence of TB disease.

The incidence of liver toxicity from isoniazid in children is extremely low and routine monitoring of liver function is not recommended. Prophylactic pyridoxine is not normally recommended with isoniazid in children. Pyridoxine is recommended for children and adolescents on meat and milk deficient diets, those with nutritional deficiencies including all symptomatic HIV infected children, exclusively breast feed infants older than 6 months of age and pregnant adolescents.19

Child contacts of patients with drug resistant TB and especially multi-drug resistant TB should be individually assessed by an expert in TB care and treatment.

Children who have evidence of TB infection and show changes consistent with TB disease on a chest x-ray (including mediastinal lymphadenopathy) should be regarded as having the disease and given full treatment.
11. INFECTIOUS DISEASES, IMMUNISATION AND RELATED MATTERS

Treatment

Children with TB disease should be treated according to the guidelines published in the Journal of Paediatrics and Child Health.\textsuperscript{vii}

Directly observed therapy (DOT) should be regarded as the method of choice for TB treatment in NSW. DOT may be undertaken by well-motivated parents. When this occurs, regular contact (at least weekly) with the treating team is essential. Decisions relating to the supervision of TB medication need to be made by the treating team on a case-by-case basis.

References:


TUBERCULIN SKIN TESTING (PD2009_005)

This Policy Directive is to be read in conjunction with NSW Health Department Policy Directives:

- PD2013_032 BCG (Bacille Calmette Guerin) Vaccination
- PD2005_406 Patient Information and Consent to Medical Treatment
- PD2007_036 Infection Control Policy
- PD2013_043 Medication Handling in NSW Public Health Facilities
- PD2008_017 Tuberculosis Contact Tracing
- PD2015_011 Immunisation Services - Authority for Registered Nurses and Midwives
- GL2005_060 Tuberculosis in Children and Adolescents

1. Introduction

The procedures incorporated in this document are required to be complied with.

1.1 Definitions

The tuberculin skin test (TST) is used primarily to identify people infected with \textit{Mycobacterium tuberculosis} (MTB). It is used to identify such people because they have a 5-10% lifetime risk of developing TB disease\textsuperscript{1}. TST should therefore be targeted to those individuals at risk either of acquiring TB infection or of progressing to TB disease, once infected.

Preventive treatment of people infected with MTB reduces their risk of developing TB disease by up to 90\%\textsuperscript{2}.

1.2 Composition and Safety

The form of tuberculin used in Australia is purified protein derivative (PPD). PPD consists of bacteria-derived protein without viable organisms and is safe for use in immune compromised persons and in pregnancy.
11. INFECTIOUS DISEASES, IMMUNISATION AND RELATED MATTERS

1.3 Methods of TST Administration

In Australia, tuberculin skin testing is administered by the Mantoux method which involves the intradermal injection of 5 Tuberculin Units (TU) of PPD. Multiple puncture tests are also available to test the cell-mediated response to a variety of antigens including PPD. However, these are not recommended as an alternative to the TST as the dose is less precise and operator variability may be greater.

2. Indications/Contra-indications regarding TST

2.1 General Indications for TST

TST is routinely recommended for the following persons:
- people identified as close contacts of persons with infectious TB (as defined in Policy Directive PD2008_017 Tuberculosis Contact Tracing);
- health care and other workers in whom surveillance is proposed because of ongoing increased risk of acquiring infection;
- people with medical risk factors that increase the likelihood of latent infection progressing to disease;
- prior to BCG vaccination in those over 6 months old; and
- in certain clinical situations, to assist in diagnosing or excluding TB disease.

2.2 Contra-indications to TST

TST is best avoided in:
- persons who report any severe adverse reaction following previous TST;
- persons previously treated for active TB disease;
- persons with documented/known prior positive TST reactions;
- persons with a high fever or recent significant infection, eg measles and chicken pox;
- following recent immunisation with MMR, varicella and yellow fever within the last month as the risk of a false negative TST result is increased. Oral typhoid and oral polio (OPV) vaccines do not necessitate a delay in testing (OPV is no longer used in Australia but have been received overseas);
- the 9th edition of the Australian Immunisation Handbook does not mention oral rotavirus vaccination in the context of TST tests, but as with other live oral vaccines, there should be no need to modify timing of TST based on administration of this vaccine.

An undocumented history of a prior positive TST is not an absolute contra-indication to TST because patient recall is often inaccurate.

3. Methods

3.1 Who may administer TST?

- Medical Practitioners;
- Registered Nurses employed in an Area Health Service who have the requisite Authority as defined in the NSW Health Department PD2015_011 Immunisation Services – Authority for Registered Nurses and Midwives. These nurses may undertake TST following NSW Health Department Policies without the written order of a medical practitioner; and
- Registered Nurses who work under the written order of a medical practitioner, as PPD is a schedule 4 drug.
All health professionals performing TST should be appropriately trained to administer and interpret the test results.

3.2 Procedure for the administration of a TST

3.2.1 Confirm the identity of the patient to be tested

3.2.2 Obtain consent

- Informed consent is required. Verbal consent is sufficient, signed consent forms are not required for minor procedures such as TST administration;
- the procedure must be explained to the patient and documented in the patient’s medical record - see PD2005_406 Patient Information and Consent to Medical Treatment.

3.2.3 For consent to be valid

- The person must have the capacity to give consent, that is the person must be able to understand the implications of having the treatment or procedure;
- the consent must be freely given;
- the consent must be specifically for the procedure that is being undertaken; and
- the patient must be informed in broad terms of the procedure that is intended.

A person is incapable of giving consent if he/she cannot understand the general nature and effects of the proposed treatment, including implications and possible side effects or:

- is a child is under the age of 14 years, (consent of the parent or legal guardian is necessary); and
- is a school student, without written parental/guardian consent prior to an on-site school screening activity, regardless of age.

Note: while children between the ages of 14 and 16 may give consent, it is prudent to obtain consent of the parent or guardian.

3.2.4 What to do when a person is incapable of giving consent:

The provisions of the Guardianship Act apply to a person who is 16 years or older who is incapable of giving consent to the carrying out of medical or dental treatment.

TST is considered “medical treatment” within the meaning of the Guardianship Act (section 33(1)).

TST falls within the meaning of “minor treatment” under the Guardianship Act.

Section 36 of the Guardianship Act provides that for minor medical treatment consent may be given by the “person responsible” for the patient or by the Guardianship Tribunal. The person responsible for the patient is defined under section 33A of the Act.

Consent to undertake TST should be obtained in writing from the person responsible.

Minor treatment may be carried out without any consent if there is no person responsible for the patient, or there is such a person, but that person cannot be contacted or is unable or unwilling to make a decision concerning a request for that person’s consent for the treatment providing the medical practitioner supervising the carrying out of the TST certifies in writing in the clinical record that:

- the treatment is necessary and undertaking the TST will promote the patient’s health and well being; and
- the patient does not object to the carrying out of the TST.
Section 33(3) of the Act provides guidance on the definition of what constitutes a patient objecting to treatment.

Where it is necessary to obtain consent of the Tribunal legislation requires that applications for consent are made in respect of each patient concerned. Prior to granting consent the Tribunal considers the views of the patient, the person proposing the treatment, any person responsible for the patient, and any guardian appointed with respect to the patient’s treatment.

4. Pre TST Assessment

Obtain a history or documentation of the following:
- prior TB;
- any potential TB exposure;
- any previous TST and the result;
- BCG vaccination;
- medical conditions or treatment that may effect the TST result as outlined in section 10; and
- review the contraindications for TST as outlined in section 2.2.

5. Administration of the TST

5.1 Position

Seat the patient with the left arm resting on a table. Young children should be seated on their attendant’s lap with other arm held securely under the attendant’s arm. The child’s body is held firmly and at the same time the attendant holds the arm on which the test is to be carried out, slightly flexed.

5.2 Site

The anterior aspect of the left forearm at the junction of the upper and middle thirds, using an area away from blood vessels or skin lesions.

5.3 Dose of PPD for adults and children

Five (5) Tuberculin Units (TU) per 0.1ml is the standard dose for the TST.

5.4 Technique

Use either a single-use insulin syringe with a 29-gauge needle or a 1 mL single-use syringe with 26 or 27 gauge needle. Administer the PPD intradermally with the bevel of the needle uppermost. Inject slowly to produce a pale discrete “bleb” (lump) 5 to 10 mm in diameter. If leakage occurs, repeat the injection at another site at least 5 cm away or in the other forearm.

Repeated TSTs at exactly the same site may result in increased reaction. For this reason the requirement to vary the test site is particularly important in serial or repeated TSTs especially with the 2-step protocol4.

5.5 Advice to the patient

The patient should be given clear instructions and an information sheet advising of the following:
- not to cover the site with dressings;
11. INFECTIOUS DISEASES, IMMUNISATION AND RELATED MATTERS

- not to apply any lotions to the area;
- to avoid scratching the site if it becomes itchy;
- possibility of skin blistering and/or ulceration following the TST;
- when to return for reading of the TST; and
- to contact the clinic if concerned in the interim.

5.6 Infection control

All procedures should follow the current NSW Health Department PD2007_036 Infection Control Policy.

6. Storage of PPD
- PPD should be stored away from light at 2-8 degrees Centigrade. Discard product if exposed to freezing.
- PPD should be administered as soon as possible after drawing up into the syringe and following administration, as the solution can be adversely affected by exposure to light. PPD remaining in a vial may be kept in the refrigerator and used for up to 30 days before discarding, providing care is taken to avoid contamination of the vial\(^5\). It is essential that the date the vial is opened be recorded to ensure disposal occurs within the recommended timeframe.

7. Adverse reactions

Adverse reactions to TSTs are rare. They include:
- vaso-vagal reactions;
- immediate flare with a local rash;
- blistering and/or ulceration at the site of the injection;
- lymphangitis; and
- serious or life-threatening hypersensitivity reactions. These are extremely rare (0.08 reactions per million doses of PPD)\(^6\)

Although the risk of anaphylaxis is very low, adrenaline (and information re its dosage and administration) must be available when TST is being undertaken\(^7\).

8. Pregnancy

There is no evidence that TST poses any risk in pregnancy and/or when breastfeeding an infant\(^8\) or that tuberculin reactions are influenced by pregnancy\(^9\).

9. Reading

The tuberculin skin test should be read 48 to 72 hours after the injection, by measuring the diameter of indentation across the transverse axis of the forearm.
Only the induration should be measured, not the erythema (redness).

Record the TST results in millimetres (mm) of induration, not as positive or negative. A tuberculin skin test with no induration should be recorded as 0 mm.

The tuberculin skin test is to be read by the “pen technique”.

Slowly draw a line with a ballpoint from a point 2 to 3 cms away from the margin of the skin test reaction, towards its centre. Maintain skin tension by exerting slight traction in the opposite direction to the pen movement.

When the ballpoint reaches the margin of the indurated area you will feel definite resistance, lift the pen. Repeat the procedure from the opposite side of the reaction. Measure the distance between opposing lines with a ruler.

9.1 Documentation

Document in the patient’s medical record:

- the date the TST was administered;
- the dose of PPD administered;
- the batch number and expiry date of the PPD;
- BCG vaccination history, including age or ages at vaccination;
- the presence or absence of BCG scars;
- date the TST was measured;
- size in mm of the transverse diameter of induration;
- presence of vesiculation; and
- signature of the person administering the TST and reading the result.

10. Interpretation of TST results

The TST result should be interpreted in light of factors that increase the probability that the patient has been infected with TB. These include:

- recent high risk (close) contact with persons with infectious TB;
- residence in countries with high prevalence of TB (>50 cases/100,000 persons);
- persons with chest x-ray evidence of past, untreated TB;
- prior or current residence in high-risk congregate settings (e.g., prisons, homeless shelters, alcohol rehabilitation and drug treatment centres);
- prior vaccination with BCG;
- intravenous drug use;
- health care workers; and
- exposure to mycobacteria other than TB (MOTT).

The TST result may be decreased by:

- immuno suppressive therapy, malignancy and HIV/AIDS;
- acute viral or bacterial infections, including 5-17% of persons with active TB;
- infancy, advanced age, renal failure or significant malnutrition, and
- recent (within 4 weeks) live virus vaccinations.

Note that technical factors also influence the TST induration size. Such factors include:

- variation in the storage, handling and dosage of PPD used; and
- errors in administration or reading.
11. INFECTIOUS DISEASES, IMMUNISATION AND RELATED MATTERS

10.1 Prior vaccination with BCG

Most people vaccinated with BCG will develop, within 2 months, a TST reaction which will then wane variably over time. TST following BCG vaccination is not recommended to assess the effectiveness of BCG.

BCG vaccination given in infancy is unlikely to affect TST interpretation in adults\(^\text{16}\). Where BCG has been given in the last 5 years or more than one BCG has been administered the interpretation of TST results needs to be undertaken by a physician with experience in TB medicine\(^\text{17}\).

TST reactions > 20mm are rarely due to BCG alone\(^\text{18}\).

10.2 Evidence of TST conversion

Where serial tests are done a TST conversion is defined as an increase in the diameter of TST induration of \(\geq 10\)mm, between consecutive readings\(^\text{19}\). This increase usually occurs in 4 – 8 weeks following exposure to TB\(^\text{20}\).

TST conversion indicates recent TB infection. Occasionally false positive conversions may occur due to the TST booster phenomenon. The 2-step TST may assist in distinguishing true conversions from the booster phenomenon (see section 11 – Two-step TST and the Booster Phenomenon).

10.3 The size of the TST induration

The interpretation of TST reactions to identify those requiring assessment for preventive therapy is based on: (a) the probability that the TST represents recent infection and (b) the risk of progression to active disease if there is infection with MTB.

**Note that all children < 4 years of age who have had close contact with a case of infectious TB should receive preventive therapy irrespective of TST response, until the second TST (3 months later) proves negative (See GL2005_060 - TB in Children and Adolescents).**

Table 1. TST induration diameter which should be considered indicative of infection with MTB in various clinical settings

<table>
<thead>
<tr>
<th>(\geq5\text{mm})</th>
<th>(\geq10\text{mm})#</th>
<th>(\geq15\text{mm})#</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recent high risk (close) contacts of persons with infectious TB</td>
<td>Persons born or resident (for greater than 3 months) in countries with high prevalence of TB (&gt;100 cases/100,000)</td>
<td>People &gt; 4 years of age without any identified risk factors</td>
</tr>
<tr>
<td>Persons with HIV infection</td>
<td>Children &lt; 4 years of age without any identified risk factors</td>
<td>Health Care Workers with BCG vaccination in the past 10 years</td>
</tr>
<tr>
<td>Persons with organ transplants or immune suppressive therapy equivalent to prednisone &gt;15mg/day for &gt;1 month</td>
<td>Persons who live or spend time in high risk congregate settings (eg prisons, homeless shelters, alcohol rehabilitation and drug treatment centres)</td>
<td></td>
</tr>
<tr>
<td>Persons with CXR evidence of past untreated TB</td>
<td>Health care workers without prior BCG vaccination in the past 10 years</td>
<td></td>
</tr>
<tr>
<td>Intravenous drug users</td>
<td>Persons on prednisone equivalent to (\geq15\text{mg/day}) or for (\geq1) month or those with certain medical conditions eg diabetes; silicosis; some malignancies (head, neck, lung and haematological); chronic renal failure; gastrectomy or jejunal bypass; malnutrition or low body weight (&lt;10% below ideal body weight)(^\text{21})</td>
<td></td>
</tr>
</tbody>
</table>

# BCG vaccination is unlikely to affect TST interpretation in adults, if given in infancy. However, where BCG is recent (within 5 years) or where there have been 2 or more BCG vaccinations, the above stratification may need to be modified and TST results should be interpreted individually by physicians experienced in TB medicine.
11. INFECTIOUS DISEASES, IMMUNISATION AND RELATED MATTERS

10.4 TST positive persons

The recommended management for persons identified as TST positive is either preventive therapy or chest x-ray follow up.

If preventive therapy is not given, the person is to be counselled about the future risk of TB and to seek medical care if symptoms develop. Chest x-ray follow up is required in three to four months and then annually for two years. The risk of developing tuberculosis is highest within the first two years.

11. Two-step TST and the Booster Phenomenon

In some people previously exposed to Mycobacteria the ability to mount an immunological response to mycobacterial antigens wanes over time. These individuals may not initially react to a TST, but the TST may boost immunological memory for the mycobacterial antigens. If this does occur, a repeat TST shortly after the initial one will produce a much larger TST response (a boosted response). The initial TST result is therefore falsely negative and the second result should be considered the true result. However, this boosting phenomenon may be misinterpreted as a TST conversion.

The TST boosted response is maximal 1-5 weeks after the first TST, but can persist for 1-2 years. A 2-step TST is designed to avoid false negative baseline TSTs, so a subsequent positive TST is not misinterpreted as a TST conversion. The second TST of the 2-step procedure should be done 1-5 weeks after the initial negative TST. The results of the second TST should be taken as the baseline for future assessment of TST conversion.

The 2-step TST is ideally suited to the situation of health worker screening where it is expected that there will be repeat testing at future regular intervals, and it is desirable to identify booster phenomena so as not to confuse the results with genuine TST conversion in health care workers. The 2-step TST is not routinely recommended in contact tracing.

12. Alternative/in vitro tests

Interferon-y-release-assays such as the QuantiFERON tests (Cellestis Limited, Carnegie, Melbourne), are assays that detect cell mediated immune (CMI) responses to TB specific proteins that are secreted by the M.tuberculosis organism. These CMI responses are demonstrated to be both specific for M.tuberculosis infection and have less cross-reactivity with BCG and most non-tuberculosis mycobacteria.

The QuantiFERON - TB Gold® assay has been evaluated for use with immune competent healthy adults. A result of greater than 0.35IU/ml of interferon to the specific antigens indicates TB infection.

The assay has not been evaluated for use within children aged < 12 years, infants, pregnant women, immunocompromised individuals (HIV positive individuals), or people with certain clinical conditions predisposing immunosuppression (i.e. diabetes, silicosis, cancers, organ transplants), or those taking immunosuppressive medication. Studies are currently underway to assess the performance of QuantiFERON - TB Gold® within these groups.

The US Center for Disease Control and Prevention state in the Morbidity and Mortality Weekly Report of 16 December 2005/54/No.RR-15, that the QuantiFERON - TB Gold® assay may be used in certain circumstances to diagnose LTBI. However, the National Tuberculosis Advisory Committee is currently evaluating the results of international studies to determine the recommendations for use of QuantiFERON - TB Gold® in Australia. The TST continues to be the recommended methodology for diagnosing LTBI and QuantiFERON TB Gold® is not recommended for assessment of LTBI.

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Persons referred to NSW TB Prevention and Control Services for evaluation of LTBI following screening with QuantiFERON - TB Gold® must have their results assessed in conjunction with other clinical and laboratory information to determine the risk of TB infection and/or active TB. It is not considered necessary to undertake a TST in this group of people.

References

1. World Health Organisation TB Fact Sheet.
5. TUBERSOL Purified Protein Derivative Product Monograph, 2005.
11. INFECTIOUS DISEASES, IMMUNISATION AND RELATED MATTERS

BCG (BACILLE CALMETTE GUERIN) VACCINATION (PD2013_032)


PURPOSE

This Policy Directive sets out the recommendations for use of the Bacille Calmette Guerin (BCG) vaccination in New South Wales.

The BCG vaccination has a limited but important role in the prevention of tuberculosis in this setting. The recommendations in this Policy Directive ensure that the vaccine is used in accordance with existing evidence based recommendations.

MANDATORY REQUIREMENTS

All staff involved in the provision of BCG vaccination must adhere to these recommendations.

Administration of BCG vaccination is limited in New South Wales to Registered Nurses who have completed the Australian College of Nursing Immunisation for Registered Nurses course, including the BCG component, and medical practitioners.

IMPLEMENTATION

Chief Executives must ensure that:

- the principles and requirements of this policy are applied, achieved and sustained;
- relevant staff are made aware of their obligations in relation to the Policy Directive;
- all staff receive appropriate training to enable them to carry out their obligations in relation to this Policy Directive; and
- documented procedures are in place to support the Policy Directive.

Clinicians (BCG vaccination providers):

- must comply with this Policy Directive.

1. BACKGROUND

1.1 About this document

Bacille Calmette Guerin (BCG) vaccination should be used in accordance with the National Health and Medical Research Council (NHMRC) Australian Immunisation Handbook (10th Edition), Section 4.20 - Tuberculosis. The handbook provides information about tuberculosis (TB), the BCG vaccine (transport, storage, handling, dosage and administration), vaccination recommendations, contraindications, precautions, adverse events, and use in pregnancy.

People receiving a BCG vaccination must be counselled about the vaccination and provided with written information about the vaccine’s efficacy, advantages and disadvantages to promote the principle of informed consent to the vaccination.

Given the low incidence of TB in Australia and the variable efficacy in adults, BCG is not used in the general population.


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11. INFECTIOUS DISEASES, IMMUNISATION AND RELATED MATTERS

In the circumstance that a person requests or is referred for a BCG vaccination outside of the NSW Health recommendation, they must be reviewed by a medical practitioner with TB expertise to determine if the request/referral is appropriate and to assess if the medical benefits of the vaccination outweigh the potential risks.

The NHMRC Australian Immunisation Handbook refers readers to their State and Territory guidelines for advice on vaccination of healthcare workers, neonates and travellers as listed below. Although these groups may be at increased risk of TB, the value of BCG vaccine in preventing infection is unclear and therefore it is not routinely recommended.

1.2 Key definitions

High TB Incidence Settings: In the context of recommendations for BCG vaccination, high TB incidence settings are defined in the Australian Immunisation Handbook (10th Edition) as countries with an incidence rate of >40 cases of active TB per 100,000 population per year.1

1.3 National Guidelines

This Policy Directive is to be read in conjunction with the National Health and Medical Research Council Australian Immunisation Handbook (Current Edition).1

2. RECOMMENDATIONS

2.1 Children who will be travelling to high TB incidence settings

Because of the increased risk of severe disease, BCG is recommended for children less than 5 years of age who will be travelling to live in countries with a high TB incidence for longer than 3 months.

A list of countries with a high TB incidence can be found at the following web address: www.health.nsw.gov.au/Infectious/tuberculosis/Documents/countries-incidence.pdf

2.2 Healthcare workers who may be at high risk of exposure to TB

Because of the low prevalence of TB in Australia and limited efficacy of the vaccine, BCG is not recommended for protection against TB, including drug-resistant TB, for healthcare workers and healthcare students. The preferred strategy is one incorporating staff education, and infection control measures that minimise the potential for transmission. Where healthcare workers are exposed to a patient with TB, appropriate management procedures such as contact tracing and TB screening must be undertaken.

Healthcare workers should be assessed for TB in accordance with occupational screening and contact tracing policies (see PD2011_005 Occupational Screening and Vaccination against Specified Diseases and PD2008_017 Tuberculosis Contact Tracing).

2.3 Neonates weighing less than 2.5kg

Neonates weighing less than 2.5kg have a higher likelihood of immune suppression, may be less likely to respond to the vaccine, and are at risk of developing disseminated BCG infection.

In the circumstance where BCG is recommended for neonates, it should be deferred until they weigh at least 2.5kg or advice from a paediatrician with expertise in TB is obtained.

2.4 Travellers to countries with a high TB incidence

The use of BCG is not recommended in travellers who are 5 years of age and older independent of the duration of their planned stay in countries with a high incidence of TB. They should be recommended to have TST evaluation prior to and on return from travel.
TUBERCULOSIS CONTACT TRACING (PD2008_017)

This Policy is to be read in conjunction with the following Policy Directive:

PD2009_005 Tuberculin Skin Testing

Introduction

Contact tracing is an essential component of tuberculosis (TB) control and relies on prompt notification of the disease. Decisions about the extent of contact tracing are to be guided by sound clinical and epidemiological indications.

The aims of contact tracing are to:
- identify other people who may have been infected following contact with a person found to have TB,
- counsel people found to have latent TB infection (LTBI) and offer them treatment for LTBI, and
- identify further cases of TB among those in contact with the index case.

Timing and extent of contact tracing investigations

The estimated risk of transmission should guide the priority and rapidity of the contact tracing investigation.

Individuals have a right to be informed about substantial risks to their health and recommended courses of action to manage these risks. However, advising people of their potential exposure to TB can cause individual, organisational and community concern and must therefore be undertaken following a comprehensive, yet timely, risk assessment of the infectivity of the source case and development of a contact screening strategy. Where it has been determined that a person requires screening, TB service staff should notify the person of their potential exposure, the risk, and screening recommendations without delay. TB staff should undertake the following steps:

1. Categorise the case according to the likely degree of infectiousness
2. Obtain a list of contacts and categorise the contacts according to their estimated risk of exposure to TB, that is, high, medium and low risk of exposure
3. Assess all high risk contacts of suspected and confirmed pulmonary and laryngeal infectious TB cases first
4. Where there is evidence of transmission of infection to high risk contacts, assess and screen medium risk contacts
5. Consult with the NSW Tuberculosis Program Manager when:
   - the case works in a hospital, school, child care facility, or resides in an institution or long-term care facility,
   - screening may be indicated for more than 25 contacts; or
   - there is doubt about the priority or extent of contact screening required.
6. In most cases contact screening in relation to smear positive index cases will be initiated before the diagnosis of TB is confirmed on culture. TB contact investigations may be withheld, pending culture results, if nucleic acid amplification (NAA) test results for Mycobacterium tuberculosis (MTB) are negative and the clinical probability of TB in the index case is assessed as low.

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Convening an expert panel to develop a contact tracing strategy

It is recommended that the TB service should convene an expert panel to develop a contact tracing strategy when screening large groups (> 25 people) or for other difficult issues. Before convening an expert panel, advice may need to be sought from a person from the affected community or affected facility to assist in developing a screening strategy.

The expert panel should include the treating physician, the Area TB Coordinator, the Public Health Unit Director or Public Health physician and (where available) a laboratory expert. In order to maintain the privacy of an individual or facility and to avoid potential conflicts of interest in relation to the workplace or facility, it is recommended that the expert panel is limited to the people described above. Other relevant parties should be briefed as appropriate prior to and following the expert panel meeting.

Where the contact screening activity involves intra or interstate service providers the relevant TB Coordinators should be included in the decision making process.

Who should undertake contact tracing activities

TB contact tracing is an important public health activity that should be carried out by the Area Health Service TB Prevention and Control Service. The exception is where the TB Prevention and Control Services assesses that another service or organisation is more appropriate to undertake the screening activity. In that case, screening can be undertaken by others in collaboration with, and under the coordination of, the TB Prevention and Control Services/Chest Clinics.

Contact tracing and the Public Health Act

Obtaining information on contacts from other agencies or organisations must be done in compliance with privacy laws. To assist agencies and other organisations to cooperate with the provision of information without breaching privacy laws, it is recommended that a formal inquiry be commenced under section 71 of the Public Health Act 1991. Under section 71 of the Public Health Act 1991, the Director-General of the Department of Health can inquire into a significant matter relating to the health of the public. The power to commence such an inquiry [under section 71(1)] has been delegated from the Director-General to the Department’s Chief Health Officer, Deputy Chief Health Officer and also Medical Officers of Health/Directors of Public Health Units. Separate authorities need to be issued [under section 71(2)] to specified persons to allow those authorised persons to enter premises and inspect records relevant to the inquiry. The power to authorise persons under section 71(2) has also been delegated to the same officers.

When using the Public Health Act powers, sensitivity to the circumstances of the contact tracing activity and its scope must be considered. Advice from the NSW Department of Health’s Legal Branch should be obtained in all cases before these powers are used to ensure that the inquiry is properly constituted (there should be a written determination of the inquiry and its scope) and appropriate.

Categorise the infectiousness of the case

The likely degree of infectiousness of the case, determined from the clinical, radiological, bacteriological and nucleic acid test findings, can be categorised as follows:
High infectiousness
- sputum smear positive, or
- laryngeal involvement, or
- chest x-ray cavitation, or
- evidence of transmission to other contacts.

Medium infectiousness
- sputum smear negative, but sputum culture positive or nucleic acid test positive, or
- pleural disease (without pulmonary involvement), or
- bronchial washing smear positive.

Low infectiousness
- sputum smear negative and culture negative.

It is recommended that where doubt exists as to whether the patient has MTB or a Mycobacterium other than tuberculosis (MOTT), nucleic acid testing be undertaken to identify the organism. Patients who have disease or colonisation due to MOTT, and not MTB do not require contact tracing.

Sputum smear positive patients should be considered as having active TB unless:

a) the nucleic acid test is negative and clinical suspicion of tuberculosis is low, OR
b) the culture is negative for MTB and positive for MOTT.

To determine the likely degree of infectiousness of the case, sputum samples should be sought in all cases of tuberculosis, including people with extra-pulmonary TB.

Transmission of TB from children aged less than 10 years of age is rare, although it has been reported in association with the presence of pulmonary disease.

Determining the infectious period

Determining the infectious period is necessary in order to identify priority groups for contact tracing. In general, the infectious period should be considered to be 3 months before the TB diagnosis unless there is a clearly defined date of symptom onset. In some circumstances, an earlier start date should be used (i.e. in the event of a protracted, symptomatic illness or if the case has large lung cavities which imply prolonged illness and infectiousness).

The patient should be considered no longer infectious for the purpose of contact tracing if:
- effective treatment has been given for equal to or longer than two weeks (as confirmed by subsequent Mycobacterium tuberculosis drug susceptibility tests), and
- symptoms have diminished, and
- there is evidence of a mycobacteriologic response (i.e. a decrease in grade of sputum smear positivity detected on sputum smear microscopy).

The presence of multi-drug resistant organisms can extend the period of infectiousness.

Any patient with signs of extended infectiousness (regardless of their culture susceptibility results) should be reassessed for previously unidentified contacts.

More stringent criteria for determining the end of the infectious period should be applied for patients who are returning to congregate living settings (i.e. nursing homes, homeless shelters, correctional facilities). These people should have at least three consecutive acid fast bacilli (AFB) negative results from sputum collected 8 to 24 hours apart. At least one of these should be an early morning specimen.
11. INFECTIOUS DISEASES, IMMUNISATION AND RELATED MATTERS

Assigning priority in screening

Contacts should be categorised into the following risk groups:

**High risk group**
- Frequent, prolonged and close contact in an enclosed environment during the infectious period
- This group may include:
  - all people living in the same household or dwelling,
  - close relatives and friends, and
  - close work colleagues who share the same indoor small work area on a daily basis.

**Medium risk group**
- Frequent but less intense contact with the index case.
- This group may include: other close relatives, friends, classroom schoolmates, work colleagues and neighbours who are not included in the high risk group.

Obtaining details of medium risk contacts is not necessary initially, and need only be pursued if there is evidence of transmission in the high risk group.

**Low risk group**
- This group includes: other contacts at school or in the workplace or social environments not included in high or medium risk groups.

Obtaining details of low risk contacts is not necessary initially, and need only be pursued if there is evidence of transmission in the high risk and medium risk groups.

It is difficult to be prescriptive about the overlap between groups, and each screening activity needs to be evaluated and developed on an individual basis. After contact tracing has been carried out in each risk group, an evaluation of the results should be carried out to determine if transmission has occurred.

**Factors to consider when undertaking TB contact assessment and screening**

The risk of progression from latent to active TB is increased in:
- children aged less than five years,
- people with HIV infection,
- people receiving equal to or greater than 15mg of prednisone or its equivalent for more than four weeks,
- people receiving other immunosuppressive agents such as multiple cancer chemotherapy agents, anti rejection drugs for organ transplantation and tumor necrosis factor (anti-TNF α) antagonists,
- people with certain other medical conditions such as cancer, silicosis, diabetes mellitus, and renal failure and
- people who have undergone gastrectomy or jejunoleal surgery.

Where contacts are known to have risk factors for progression from latent to active TB (as described above), they should be offered screening regardless of the extent of exposure to an infectious case.

Air volume, exhaust rate and circulation predict the likelihood of transmission in an enclosed space. Dilution of infectious TB particles is influenced by the volume of air, local circulation and room ventilation.
11. INFECTIOUS DISEASES, IMMUNISATION AND RELATED MATTERS

Timing and extent of contact screening

Screen high risk contacts first

High risk contacts of highly infectious cases should be screened within seven days of diagnosis.

High risk contacts of cases of medium and low infectiousness should be screened within two weeks of diagnosis.

Contact tracing high risk contacts of extra pulmonary TB cases may be undertaken to identify a source case. Where TB infection is thought to be acquired in the distant past, contact screening may not be necessary.

Screening of medium and low risk contacts

Screening should progress to the medium risk contacts group only if there is evidence of transmission, that is, suspected recent tuberculin skin test (TST) conversion, in the high-risk group. Screening should progress to the low risk group only if there is evidence of transmission in the medium risk group.

As a guide, if ten or more close high risk contacts have been tested and none have evidence of TB infection, testing of more remote contacts is usually unnecessary. If fewer than ten contacts have been tested, and all are TST negative, careful consideration should be given to the theoretical risk of infection before stopping the contact investigation.

Screening procedures

The screening procedures are outlined below. The management of contacts depends upon the findings at the first and subsequent visits, as shown diagrammatically in Figures 1 and 2.

First assessment

At the contact’s first visit, a brief clinical history should be taken to:
- Clarify the exposure risk and define the period of potential exposure to the person with infectious TB to determine the appropriate time to undertake TST screening
- Record bacillus Calmette Guerin vaccination (BCG) status, previous evidence of latent TB, weight
- Check for symptoms of tuberculosis
- Check for presence of coexisting medical conditions which may increase the risk of progression from latent to active TB
- Check for circumstances that may interfere with the TST result (see section 10 – Interpretation of TST results in Policy Directive PD2009_005 Tuberculin Skin Testing).

In contacts with a history of TB or LTBI in the past, TST is not useful for assessing recent infection and a chest x-ray should be done to assess evidence of active disease.

All contacts in whom LTBI has not been documented including those who report a history of LTBI or TB disease should have a TST.
The TST reaction is read 48 to 72 hours later. If it is:
- positive, arrange for chest x-ray and physician review,
- negative, repeat in eight to ten weeks after the last exposure to an infectious case of TB.

Definition of negative and positive TST results can be obtained from PD2009_005 Tuberculin Skin Testing.

Second TST

The second TST should occur eight to ten weeks after the last exposure to an infectious case of TB. It is not required for contacts of extra-pulmonary cases or if first TST was done ten weeks or more after the last contact with the infectious case.

The TST reaction is read 48 to 72 hours later:
- If positive, arrange for chest x-ray and physician review,
- If negative, no further routine follow-up is required.

Immuno suppressed people must have a chest x-ray, and be referred to a physician for further management.

Follow up for specific contact groups

TST positive people

The recommended management for people identified as TST positive is either treatment for LTBI or chest x-ray follow up. In the absence of multi drug resistant (MDR) TB, treatment for LTBI is generally recommended if the person is thought to be recently infected and the risk factors for drug reactions is low.

In people with a positive TST, it is imperative that active TB is excluded before commencing treatment for LTBI.

If treatment for LTBI is not given, the person is to be counselled about the future risk of TB and advised to seek medical care if symptoms develop. For those who do not receive treatment, in the absence of MDR TB chest x-ray follow-up is required at baseline, and again at six months, 12 months and 24 months as the risk of developing tuberculosis is highest within the first two years following infection with TB.

Children

All child contacts aged less than five years old should have a medical assessment and TST at their initial assessment. High risk child contacts aged less than five years old who are TST negative on the first visit should be referred to a physician for treatment for LTBI pending the outcome of further TST assessment.

Children aged five years old or older who are TST negative and symptom free do not generally require a chest x-ray.

Children who are TST positive should be immediately referred for a physician’s assessment as a priority.
Pregnant women

Pregnant women who are contacts of active TB should have a TST undertaken. Women found to be TST positive should be referred for clinical assessment. If they have no symptoms, chest x-ray and treatment of LTBI may be deferred until after delivery provided that the woman is counselled and carefully monitored for symptoms of TB. If the woman develops symptoms an urgent referral to a chest clinic should be made.

Contacts of cases with Multi Drug Resistant TB (MDR TB)

Contacts who have received a diagnosis of TB infection attributed to an MDR TB case should be discussed at an MDR TB expert panel. Treatment of LTBI using isoniazid and rifampicin is unlikely to have any benefit in these people. The contact should be monitored by chest x-ray at baseline, six, nine, 12, 18 and 24 months and then annually for the next three years for a total of five years. The contact should also be counselled about the signs and symptoms of TB disease and their contact with MDR TB should active TB arise and they need to seek care in the future.

Contacts with immune suppression and HIV

High risk contacts with immuno suppressive conditions (including HIV infection) that render TST unreliable who are placed on treatment for LTBI should receive a full six months of LTBI treatment regardless of their TST result.

Education

Contacts should be advised about the nature of TB infection, its mode of transmission and symptoms, and the need to adhere to the prescribed follow up plan and treatment for latent TB (if provided). Where contacts develop signs and symptoms of active TB they should be counselled to seek urgent medical attention.

Contact tracing among airline passengers

Aeroplane travellers with infectious TB can pass the infection to other passengers in the same aeroplane. Current evidence indicates that this is only likely where the level of infectivity of the index case is moderate to high, and the flight is prolonged. In addition, the people at greatest risk are those seated in the immediate vicinity of the case.

Information about airflow in large jets supports the above. Air changes are frequent (from 6 to 20 per hour), and while 50 per cent of air is recirculated, High Efficiency Particulate Air (HEPA) filters are used in Boeing aircraft. The general direction of airflow is from the ceiling (enters at multiple duct outlets) to the floor (exits at floor grilles). Air eddies generally move laterally within each half of the cabin. In theory there is not a great deal of air movement longitudinally along the cabin.

There are also practical considerations in that follow up of contacts in this situation is often delayed, and highly resource intensive, particularly in terms of staff time. Positive tuberculin results are often difficult to interpret because of this delay, and due to the fact that many travellers are overseas-born from high prevalence countries.

Recommendations

Contact tracing is generally only necessary when:

- the case is sputum smear positive (and would have been so at the time of travel), and
- the total flight time was over eight hours.
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Those offered screening should be:

- passengers seated in the same row, and within two rows in front of and behind the case. Where the case was in a group of seats adjacent to the windows of the aeroplane, there should not be a need to screen passengers seated on the far side of the aircraft, unless the activities of the person with infectious TB while on board could have infected a greater number of people,
- any friends of at risk passengers (or friends of the case) who moved from elsewhere in the aircraft to spend large amounts of flight time near the index case,
- airline staff, only if they spent the majority of the flight working or seated near the index case.

Procedure

To initiate airline contact tracing:

- have the index case indicate which seat number they occupied, if known, and identify relevant row numbers for contact tracing as above,
- obtain the required passenger seating list from the airline. If the case is unable to remember their seat number, the entire list for the section of the plane (eg. economy class) will be required, after which the appropriate seats can be identified. Most airlines keep these records for approximately three months,
- to determine follow-up addresses, obtain copies of appropriate landing cards from the Commonwealth Department of Immigration and Citizenship (Border Systems and Data Initiatives Section). It may be simplest to request all cards, both to speed up the process and in case unexpected contacts (such as friends, as above) are identified; contact tracing can then proceed as usual, both intra and interstate,
- alternatively, the airline can nominate a medical practitioner to liaise with the NSW Department of Health Chief Health Officer (or their nominated delegate) to receive the name of the index case in medical confidence. Identifying passenger information provided to the airline is provided in medical confidence and is to be treated as highly confidential and not to be released to other people. The medical practitioner will then identify from the airline’s records passengers and staff who may have been exposed to the index case. The airline’s nominated medical practitioner will advise the NSW TB Program Manager of the contacts names and addresses to facilitate contact tracing.

Contact tracing in aged care facilities and the elderly

Elderly people (i.e. >70 years of age) may have tuberculin reactions that are difficult to interpret due to anergy or a high rate of LTBI that is unrelated to the infection from the index case. For these reasons the contact screening procedure is undertaken by chest x-ray evaluation and monitoring for symptoms of TB. In aged care settings, the primary objective of screening is to identify and treat contacts with active TB disease, rather than latent infection. Hence, TST are generally not helpful in contact investigations in aged care facilities.

Elderly people who receive chest x-ray screening and who have a normal baseline chest x-ray should have a follow up chest x-ray at six months, 12 months and 24 months after the baseline chest x-ray. If a period of greater than eight weeks has elapsed between last TB exposure and first chest x-ray, elderly people with a normal baseline chest x-ray can be followed up yearly for two years. With their consent the person’s general practitioner should also be informed about their TB exposure and about the signs and symptoms of TB.
Data to inform contact tracing evaluations

In order to evaluate the effectiveness of contact tracing the following data items should be collected for all contact tracing investigations and entered into the Notifiable Diseases Database:

- number of contacts screened,
- number of contacts diagnosed with active TB,
- number of contacts demonstrating TST conversion, and
- number of contacts commenced on treatment for latent TB.

Reference

**Figure 1: Management of contacts whose baseline tuberculin skin test is negative**

**First assessment**: Baseline TST indicated where:
- TST has not been done previously, or
- the result of past TST is negative or unknown

**Baseline TST negative** within 8-10 weeks following last TB exposure

- TST positive
  - CXR & refer to Chest Clinic physician
  - Active TB
    - Treatment for TB
    - LTBI treatment given
    - Routine follow-up during LTBI treatment

- TST negative
  - No follow up required unless symptoms develop
  - Baseline TST negative after 8-10 weeks following last TB exposure
  - Latent TB infection
    - Recommend treatment for LTBI unless contradictions apply
    - LTBI treatment not given
    - CXR at 6, 12 and 24 months, or as clinically indicated
Figure 2: Management of contacts whose baseline tuberculin skin test is positive

**First assessment**: Baseline TST indicated where:
- TST has not been done previously, or
- the result of past TST is negative or unknown

**Baseline TST Positive**

- CXR and refer to Chest Clinic physician
- Previous TST positive

**Active TB**
- Treatment for TB

**Latent TB infection**
- Consider treatment for LTBI
  - LTBI treatment given
    - Routine follow-up during LTBI treatment
  - LTBI treatment not given
    - CXR 8-10 weeks after last TB exposure
      - Active TB
        - Review by Chest Clinic physician & treatment for TB
      - Latent TB infection
        - CXR at 6, 12 and 24 months or as clinically indicated
NSW ABORIGINAL BLOOD BORNE VIRUSES AND SEXUALLY TRANSMISSIBLE INFECTIONS FRAMEWORK 2016-2021 (IB2016_020)

IB2016_020 replaces GL2007_002

PURPOSE

This Information Bulletin advises that the Information Bulletin IB2016_015 NSW Aboriginal Blood-Borne Viruses and Sexually Transmissible Infections Framework 2016-2020 has been rescinded, and superseded by the NSW Aboriginal Blood Borne Viruses and Sexually Transmissible Infections Framework 2016-2021.

KEY INFORMATION

The Aboriginal BBV and STI Framework 2016-2021 outlines the priorities for BBV and STI prevention, testing, treatment and management for Aboriginal people in priority settings including Aboriginal Community Controlled Health Services (ACCHSs) and other primary health settings, Local Health Districts (LHDs) and Non-Government Organisations (NGOs).


The Framework is aligned to support achievement of the goals and targets of the National Aboriginal and Torres Strait Islander Blood-Borne Viruses and Sexually Transmissible Infections Strategy 2014-2017.


301(06/05/16)
NEONATAL HEPATITIS B PREVENTION AND VACCINATION PROGRAM
(PD2017_036)

PD2017_036 rescindes PD2005_222

PURPOSE
This policy aims to ensure consistent implementation of the NSW Neonatal Hepatitis B Prevention and Vaccination Program in all Local Health Districts (LHDs). The policy focuses on screening of all pregnant women for hepatitis B disease and their referral to a specialist hepatology service and the follow-up and management of all infants born to hepatitis B surface antigen (HBsAg) positive women.

MANDATORY REQUIREMENTS
All pregnant women must be offered HBsAg screening and provided with verbal and written communication about hepatitis B disease and the neonatal hepatitis B vaccination program. All infants must be offered hepatitis B vaccine at birth (within 7 days) and all infants born to HBsAg positive women must also be offered hepatitis B immunoglobulin (HBIG) within 12 hours of birth. All infants born to HBsAg positive women must also be followed-up to ensure completion of their primary hepatitis B vaccination course and subsequent serology.

IMPLEMENTATION
Local Health Districts will:
- Establish definitive governance pathways to ensure that all implementation responsibilities (Sections 2, 3, 4 and 5) are assigned to the relevant staff to meet the requirements of this policy directive. This will require extensive consultation, collaboration and agreement within each LHD.
- Report to Health Protection NSW as specified in Section 6.
- Report to Health Protection NSW on the program’s Key Performance Indicators (Section 7).
- Manage Incident Information Management System reporting as detailed in Section 8.

Health Protection NSW will:
- Collate LHD quarterly and KPI reports and report on program performance to the Deputy Secretary Population and Public Health and Chief Health Officer.
- Provide support to LHDs regarding program implementation as required.

1. BACKGROUND
1.1 About this policy
This policy specifies the requirements for neonatal hepatitis B vaccination and reporting with regard to:
- Screening of pregnant women for hepatitis B surface antigen (HBsAg);
- Referral of HBsAg positive women to specialist services;
- Treatment of neonates born to HBsAg positive mothers;
- Follow-up of infants born to HBsAg positive mothers;
- Vaccination of all infants;
- Neonatal hepatitis B vaccination program data.

301(09/10/17)
This policy relates only to neonatal hepatitis B vaccination recommendations and should be read in conjunction with the current edition of *The Australian Immunisation Handbook*. The National Health and Medical Research Council’s hepatitis B vaccination recommendations for additional groups of people (i.e. Aboriginal people, health care workers and child care workers) should be followed as specified in the current edition of *The Australian Immunisation Handbook*.

Each Local Health District must have definitive governance pathways established to ensure that responsibilities are assigned to the relevant staff to meet the requirements of this policy directive.

1.2 Prevalence, Risk and Prevention

Hepatitis B virus is transmitted through contact with blood or body fluid of an infectious person, and is commonly acquired either perinatally, by sexual contact, by sharing injecting equipment or by exposure to infectious fluids. In NSW in excess of 2,000 new hepatitis B diagnoses are made each year and newly acquired cases of hepatitis B virus (HBV) mostly occur in young adults. Vaccination is the best way to prevent hepatitis B. A strategy for the prevention of hepatitis B through immunisation commenced in Australia in the early 1980’s and a universal infant hepatitis B program commenced nationally in 2000. In NSW an adolescent hepatitis B vaccination program commenced in 2004 and continued until 2013, when all infants vaccinated in the universal program reached adolescence. Currently all infants in NSW are offered four doses of hepatitis B vaccine, at birth, 6 weeks, 4 and 6 months of age. The rationale for recommending the birth dose for all newborn infants is not only to prevent vertical transmission from a mother with chronic hepatitis B infection (there may be incomplete or delayed maternal testing, reporting, communication or appropriate response), but also to prevent horizontal transmission to the infant in the first months of life from persons with chronic hepatitis B infection who are household or other close contacts. NSW Health has released its inaugural *NSW Hepatitis B Strategy 2014-2020* which details the priorities to reduce the transmission of hepatitis B in NSW.

1.3 Key definitions

**Australian Immunisation Register (AIR)** – a system that records the information about vaccinations given to all persons in Australia. The AIR was previously known as the Australian Childhood Immunisation Register (ACIR) which was established in 1996 and held the information about vaccinations given to children from birth up to seven years of age. The ACIR transitioned to the AIR in September 2016 and records information about vaccinations given at any age.

**Follow-up** – involves reasonable attempts (up to six attempts are considered reasonable) to contact a hepatitis B positive mother and provide advice on the importance of completing her infant’s primary hepatitis B vaccinations (if they are overdue) and serological testing requirements following completion of the primary hepatitis B vaccinations.

**Hepatitis B surface antigen (HBsAg)** – a protein on the surface of the hepatitis B virus. It can be detected in high levels in serum during acute or chronic hepatitis B virus infection.

**HBsAg positive serology result** – the presence of HBsAg indicates active hepatitis B infection which can be spread to others.

**Hepatitis B Immunoglobulin** – a protein extract from blood that provides temporary immunity to hepatitis B disease.

**Hepatitis B vaccination schedule** – the National Health and Medical Research Council (NH&MRC) recommends a birth dose of hepatitis B vaccine (administered within 7 days of birth) followed by three further doses at 6 weeks, 4 and 6 months of age.

**Incident Information Management System (IIMS)** – a state-wide system that records all healthcare incidents for follow-up by the relevant manager to minimise the clinical risks in health services through the management of health care incidents as they occur.
11. INFECTIOUS DISEASES, IMMUNISATION AND RELATED MATTERS

Incidents – refers to instances where the requirements of this policy have not been met and as specified in Section 8 Incident Information Management System.

Hospital Neonatal Hepatitis B Coordinator – a person who has been nominated by the hospital as an appropriate staff member with the knowledge and skills to coordinate the neonatal hepatitis B vaccination program and report to the local Public Health Unit (PHU) Immunisation Coordinator monthly and as specified in Section 6.

LHD Immunisation Coordinator – a senior public health unit officer responsible for liaising with the private and public hospitals in their local health district regarding implementation of the neonatal hepatitis B vaccination program and reporting to Health Protection NSW as specified in Attachment 4.

Lost to follow-up – an infant is considered ‘lost to follow up’ when they are overdue one month after their scheduled due date of their fourth dose of hepatitis B vaccine (includes birth dose) and their mother is not contactable by the Local Health District (LHD) Coordinator. This includes children who were born in Australia but have moved overseas. Children should only be classified as lost to follow-up when all reasonable attempts have been undertaken to contact the mother or their primary health care provider. A child who is lost to follow-up must not be counted in the ‘overdue for completion of hepatitis B’ reporting. Should an Aboriginal child be at risk of being lost to follow up, a referral should be made to the Aboriginal Immunisation Health Worker at the PHU to facilitate further follow up.

Neonate – a live newborn infant from birth to 28 days old.

Overdue for completion of hepatitis B vaccination course – an infant is considered overdue for completion of their hepatitis B vaccination course one month after the scheduled due date of the fourth dose (includes birth dose) of vaccine, however for reporting purposes, only infants who are three months overdue are counted in the ‘overdue for completion of hepatitis B course’ report and not counted in the lost to follow-up data.

1.4 Legal and legislative framework

Under the NSW Public Health Act 2010, hepatitis B disease is a Schedule 1 Category 3 notifiable medical condition, for example, laboratories are required to notify detection of viral antigen or of HBV deoxyribonucleic acid (DNA).

2 SCREENING AND REFERRAL

All pregnant women

- All pregnant women must be offered screening for hepatitis B surface antigen (HBsAg) and provided with verbal and written information about hepatitis B disease and the neonatal hepatitis B vaccination program (refer to the NSW Health *Hepatitis B Vaccination for your Newborn Baby* brochure). HBsAg positive women must be offered further testing to determine staging of disease and risk of infectivity, including viral load and history of prior maternal infant transmission.

- The screening results must be entered into the eMaternity or Cerner Maternity databases according to whichever system is used in the LHD. The results should also be recorded on the NSW Health Antenatal Card in case the woman delivers outside the LHD.

- Women who do not have a known HBsAg status at the time of admission to hospital or labour ward should have urgent HBsAg testing to determine their hepatitis B status as soon as possible.

- HBsAg positive pregnant women with a high viral load4 (>200,000IU/ml) or liver function test ALT result 40IU/L or higher must be referred to a liver clinic/specialist hepatologist (unless they are already under the care of a specialist) for an appointment to enable sufficient time for assessment and commencement of antiviral therapy according to local and/or international guidelines5 as anti-viral medication administered in the third trimester may further reduce the risk of transmission of hepatitis B to the neonate. Commencement of treatment will be at the discretion of the treating specialist.
• Management of all other HBsAg positive women (with a viral load ≤200,000IU/ml or liver function test ALT less than 40IU/L) must include monitoring of their hepatitis B disease and their infant’s screening and vaccination by either their GP or specialist liver service.

• An interpreter service must be used where there is any doubt about the woman’s English comprehension.

• An incident information management system (IIMS) report must be submitted according to the circumstances specified in section 8.

3. VACCINATION

All neonates

• Parents of all neonates should be given the *Hepatitis B Vaccination for your Newborn Baby* brochure to ensure informed decision making when consenting to the neonatal hepatitis B vaccination program.

• All neonates (regardless of the HBsAg status of the mother), must be offered hepatitis B vaccine preferably within 24 hours and definitely within 7 days of birth, and recorded in the eMaternity or Cerner Maternity database and the neonate’s Personal Health Record.

• The birth dose of hepatitis B vaccine must be given no later than 7 days of age, based on the expected period that the vaccine may be effective as prophylaxis, should an undetected exposure have occurred at birth, and to prevent interference with the next dose due at 6 weeks of age. Therefore, catch-up of the birth dose is not recommended if it has not been administered within 7 days of birth.

• Following the birth dose of hepatitis B vaccine, all infants require a three-dose course of hepatitis B-containing combination vaccine at 6 weeks, 4 and 6 months of age.

• Low birth weight and preterm newborn neonates do not respond as well to hepatitis B-containing vaccines as full-term infants. Thus, for low birth weight neonates (<2000g) and/or those born at <32 weeks gestation (irrespective of weight), it is recommended that the vaccine is given in a 4-dose schedule at 0 (birth), 2 (can be given as early as 6 weeks of age if infant’s weight is ≥1.5kg, seek specialist advice as necessary), 4 and 6 months of age, followed by either:
  • measuring the anti-HBs antibody level at 7 months of age, and if the antibody titre is <10 mIU/mL, giving a booster at 12 months of age (due to a better immunogenic response at this age compared with a younger age); or
  • giving a booster of a hepatitis B vaccine at 12 months of age (without measuring the antibody titre).

• The infant’s Personal Health Record must be updated at each encounter to ensure completeness of information to inform all clinicians involved in their care.

Neonates born to HBsAg positive mothers

Refer Section 5 for detailed information on screening and vaccination.

• Neonates born to HBsAg positive mothers must be offered hepatitis B immunoglobulin (HBIG) within 12 hours of birth and a total of four doses of hepatitis B vaccine at birth, 6 weeks, 4 and 6 months of age. The birth dose of hepatitis B vaccine can be given concurrently with HBIG using a different thigh.

• Counselling regarding the risks of contracting hepatitis B disease and its consequences should be provided by staff (with expertise in hepatitis B disease) to HBsAg positive mothers who refuse HBIG and/or hepatitis B vaccination for their infant. A report should be forwarded to the child protection services at Family and Community Services regarding HBsAg positive women who refuse HBIG and the birth dose of hepatitis B vaccine for their infant.

• An incident information management system (IIMS) report must be submitted according to the circumstances specified in section 8. All incidents must be discussed with the Nursing Unit Manager/Midwifery Unit Manager of the ward prior to maternal discharge.
4. IMPLEMENTATION RESPONSIBILITIES

- Each hospital maternity unit must designate one person as the Hospital Neonatal Hepatitis B Coordinator (‘Hospital Coordinator’) and forward their contact details to their LHD Immunisation Coordinator at the local PHU.

- Each LHD must designate one person as the neonatal hepatitis B vaccination program LHD Immunisation Coordinator.

- Within each LHD, collaboration between all relevant staff must occur to ensure that responsibilities are appropriately designated to ensure that:
  - pregnant women with a high viral load are referred to a liver specialist;
  - infants born to HBsAg positive women are followed up to check for timely completion of their primary hepatitis B vaccination course and subsequent serology, and;
  - infants with an anti-HBs level <10IU/mL or who are HBsAg positive are referred to the Paediatric Viral Hepatitis Network (at The Children’s Hospital, Westmead) or a local specialist service (e.g. Infectious Diseases Clinic at Sydney Children’s Hospital, Randwick) for ongoing management (see Section 11 ‘Resources’ for more information).

- Refer to Attachments 2-4 for reporting requirements and documentation.

5. FURTHER TESTING AND FOLLOW-UP OF INFANTS BORN TO HBsAg POSITIVE MOTHERS

- Attachment 5 provides a clinical pathway for the management of an HBsAg positive woman and her infant. The pathway may be adapted according to the model of care in each LHD, for example, in some LHDs all HBsAg positive women are referred to the liver clinic/specialist for assessment, treatment and management.

- All women with a high viral load must be referred (according to LHD policy) to a liver clinic/specialist for ongoing management. Her infant’s vaccination record must be checked to ensure timely completion of the primary hepatitis B vaccination schedule. Where a child is found to be late with their scheduled vaccinations, the woman should be prompted to make arrangements to have her child vaccinated.

- All infants born to a HBsAg positive woman are to be monitored for completion of their primary hepatitis B vaccination course (refer to the flowchart in Attachment 5).

- All infants born to HBsAg positive mothers require follow-up serology 3-12 months after completion of their primary hepatitis B vaccination course (and not before nine months of age) to check if they are protected. Mothers of infants born to HBsAg positive mothers must be educated prior to discharge about their infant’s requirement for follow-up serology as even optimal preventive measures fail in some cases.

- Each maternity unit must complete a neonatal hepatitis B follow-up letter (refer to the template in Attachment 1) for neonates born to HBsAg positive mothers and forward this letter to the mother’s doctor upon discharge from hospital (this could be the mother’s doctor or in their absence, it could be the mother’s obstetrician). The letter should be generated from the template in eMaternity or Cerner Maternity and amended as appropriate.

- A copy of the neonatal hepatitis B follow-up letter must be given to the mother upon discharge from hospital along with a full explanation regarding the infant’s follow-up requirements and documented in the infant’s Personal Health Record. Translation services should be used as required.
11. INFECTIOUS DISEASES, IMMUNISATION AND RELATED MATTERS

5.1 Infants born to HBsAg positive women with a high viral load

- Women with a high viral load >200,000IU/ml or liver function test ALT greater than 40IU/L, must be referred to a liver clinic/specialist for an appointment to enable sufficient time for assessment and commencement of antiviral therapy according to local and/or international guidelines.5

- A mechanism must be in place within each LHD to check that referred women have been booked in and attended the liver clinic for assessment.

- The liver clinic/specialist will decide on each woman’s requirement for treatment and management, including anti-viral treatment to prevent perinatal transmission, and according to current evidence and best practice guidelines.

- Each infant’s hepatitis B vaccination record must be checked for completion of the primary course and where a child has been identified as being not up to date, the mother must be prompted to make arrangements to have her child vaccinated.

- The mother’s GP must be provided with a letter recommending an infant serology test three months following completion of the infant’s primary hepatitis B vaccination course (not before nine months of age). Refer to Section 6 Reporting Requirements.

- Infants with an anti-HBs level <10IU/mL or who are HBsAg positive must be referred to the Paediatric Viral Hepatitis Network (at The Children’s Hospital, Westmead) or a local specialist service (e.g. Infectious Diseases Clinic at Sydney Children’s Hospital, Randwick) for ongoing management (see Section 11 ‘Resources’ for more information). The referral details must be documented in the records section of the infant’s Personal Health Record.

5.2 Infants born to HBsAg positive women with a low viral load

- Women with a viral load ≤200,000IU/ml and liver function test ALT less than 40IU/L, may be managed under the care of their GP or specialist liver clinic, according to LHD policy.

- Infants must be followed up to ensure timely completion of their hepatitis B vaccination course. The AIR overdue reports and/or hospital records and GP records may be used for this purpose. If a mother is unable to be contacted her infant should be considered as ‘lost to follow up’.

- Infants with an anti-HBs level <10IU/mL or who are HBsAg positive must be referred to the Paediatric Viral Hepatitis Network (at The Children’s Hospital, Westmead) or a local specialist service (e.g. Infectious Diseases Clinic at Sydney Children’s Hospital, Randwick) for ongoing management (see section 11 ‘Resources’ for more information).

- All attempts to contact the mother (and outcomes) must be documented and retained as specified in the State Records Authority of New South Wales (2004) General Retention and Disposal Authority Public Health Services: Patient/Client Records. Refer to Section 6 Reporting Requirements.

6. REPORTING REQUIREMENTS

- The Hospital Coordinator must:
  - Collate the Maternity Unit Record Form (Attachment 2) for every infant born to a HBsAg positive mother, provide a copy to the LHD Coordinator monthly and store the original report in the infant’s medical record. Ensure that the mother’s doctor details are complete;
  - Complete the Hospital Coordinator Monthly Report Form (Attachment 3), and;
  - Forward Attachments 2 and 3 to the LHD Immunisation Coordinator monthly.
• Should a neonate who is born to an HBsAg positive mother be transferred to another hospital, local processes must be determined to ensure they are included in the delivery unit’s monthly report to the LHD Immunisation Coordinator as appropriate.

• A neonatal hepatitis B follow-up letter (refer to the template in Attachment 1) must be forwarded to the mother’s doctor which includes a full explanation of the infant’s follow-up requirements.

• The LHD Immunisation Coordinator is responsible for collating the neonatal hepatitis B vaccination program data from their maternity units and must report quarterly to the Manager of the NSW Health Immunisation Unit (Attachment 4) by the specified reporting timeframes as follows:

Table 1: LHD Immunisation Coordinator Reporting Schedule

<table>
<thead>
<tr>
<th>Birth Cohort</th>
<th>Report Form Due</th>
</tr>
</thead>
<tbody>
<tr>
<td>Births Jan, Feb, March</td>
<td>the following 31 December</td>
</tr>
<tr>
<td>Births April, May, June</td>
<td>the following 31 March</td>
</tr>
<tr>
<td>Births July, Aug, Sept</td>
<td>the following 30 June</td>
</tr>
<tr>
<td>Births Oct, Nov, Dec</td>
<td>the following 30 Sept</td>
</tr>
</tbody>
</table>

• While the LHD Immunisation Coordinator reporting schedule incorporates timeframes to allow follow up of infants at 9 months of age, the Hospital Coordinator reporting to the LHD Immunisation Coordinator should be monthly, due the 8th working day of the following month.

• The LHD Immunisation Coordinator must report to the AIR (via secure email) on children identified as having moved overseas.

7. KEY PERFORMANCE INDICATORS

The LHD Immunisation Coordinator must also report annually on hospital performance against the following indicators:

• 100% of women screened for hepatitis B during pregnancy or up to 2 hours following delivery (if no antenatal care was received);  
• 100% of HBsAg positive women tested for viral load and liver function  
• 100% of infants born to HBsAg+ women administered HBIG within 12 hours of birth;  
• 100% of infants born to HBsAg+ women administered hepatitis B vaccine within 7 days of birth;  
• 100% of women with a high viral load >200,000IU/ml or liver function test ALT 40IU/L or higher referred to a liver clinic/specialist hepatologist for an appointment prior to 32 weeks gestation;  
• 100% of infants born to HBsAg positive women recommended for completion of serology three months after primary hepatitis B vaccination course, and;  
• 100% of incidents (as specified in Section 8) are entered onto the Incident Information Management System.
8. INCIDENT INFORMATION MANAGEMENT SYSTEM (IIMS)

An IIMS report must be submitted by the person that identifies an incident when:

- A pregnant women has not been screened for hepatitis B during pregnancy or up to 2 hours after delivery;
- A neonate born to a HBsAg positive mother has not received hepatitis B immunoglobulin within 12 hours of birth;
- A neonate born to an HBsAg positive mother has not received hepatitis B vaccine within 7 days of birth;
- A HBsAg positive mother is not provided with a copy of the infant’s follow-up letter to the GP;
- An infant born to an HBsAg positive mother has not been followed-up (refer to “follow-up” in section 1.3 Key Definitions) to ensure completion of the hepatitis B vaccination course and follow-up serology recommended (does not include ‘lost to follow-up’ infants).

9. LIST OF ATTACHMENTS

1. Neonatal Hepatitis B Follow up Template Letter to GPs
2. Maternity Unit Record Form
3. Hospital Coordinator Monthly Report Form
4. LHD Immunisation Coordinator Quarterly Report Form
5. Flowchart Referral and Management of HBsAg+ women and infants in NSW

10. REFERENCES


www.ncirs.edu.au


http://dx.doi.org/10.1016/j.jhep.2017.03.021


11 RESOURCES

Hepatitis B Vaccination for your Newborn Baby Brochure

Pregnancy – Protection & Vaccination from Preconception to Birth

Both brochures are available in 23 community languages on the NSW Health website at www.health.nsw.gov.au/immunisation

Paediatric Viral Hepatitis Network – Gastroenterology services including liver clinics

Infectious Diseases and Microbiology at Sydney Children’s Hospital, Randwick:
Attachment 1

NEONATAL HEPATITIS B FOLLOW UP LETTER TEMPLATE TO GPs

Follow up of babies born to hepatitis B surface antigen positive (HBsAg) mothers

Baby of [Insert First name] [Insert Last name]

DOB: [Insert date of birth] Time of birth: [Insert time] MRN: [Insert MRN] Gender: [Insert sex]

This baby’s mother was HBsAg positive, accordingly the baby was given…..

- Hepatitis B immunoglobulin (HBIG) within 12 hrs of birth [insert date/time]:
- Hepatitis B vaccine within 7 days of birth [insert date/time]:

What to do next.

1. Vaccinate the infant on time with Infanrix-hexa® at 2 months (can be given as early as 6 weeks), 4 and 6 months of age.
2. Serologically test the infant for confirmation of immunity 3 to 12 months after completing the vaccination course (and not before 9 months of age). Anti-HBs and HBsAg should be measured.

It is estimated that up to 90% of infants infected with hepatitis B virus (HBV) as neonates become chronic HBV carriers. Therefore, preventing neonates becoming HBV carriers can avoid the serious complications associated with hepatitis B infections.

For neonates born to HBsAg positive mothers, the NH&MRC recommends that following the birth dose of hepatitis B vaccine and HBIG, three subsequent doses of Infanrix-hexa® vaccine should be administered at 6 – 8 weeks, 4 and 6 months of age. There is no need to catch-up the birth dose of hepatitis B vaccine if it is not administered within the first 7 days of life.

Serologic confirmation of post-vaccination immunity of all infants born to HBsAg positive mothers is required 3 to 12 months after completion of the primary vaccination course (and not before 9 months of age). Hepatitis B surface antigen antibody (Anti-HBs) and HBsAg levels should be measured. Children who have Anti-HBs antibody levels ≥ 10 m IU / mL and are HBsAg negative are considered to be protected.

If the Anti-HBs antibody level is < 10mIU/mL, the possibility of hepatitis B infection should be investigated and expert advice sought regarding revaccination and/or further testing. Children who test HBsAg positive should be referred to a paediatrician experienced in viral hepatitis.

Additional important considerations include:

- Specialist assessment of HBsAg positive mothers.
- Hepatitis B vaccination is recommended for any susceptible household contacts.

Please do not hesitate to contact the immunisation team at your local Public Health Unit on 1300 066 055 if you require any additional advice regarding the management of this infant.

[insert name] Hospital
[Insert date] printed
Order this form via the Stream Direct Catalogue as a POD item number NH700268
Attachment 3

HOSPITAL COORDINATOR MONTHLY REPORT FORM

NAME OF HOSPITAL: _______________________________________

REPORT FOR MONTH: ____________________ YEAR: ____________

<table>
<thead>
<tr>
<th>INDICATORS</th>
<th>MONTHLY TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Number of women who birthed (live births)</td>
<td></td>
</tr>
<tr>
<td>2. Number of women who birthed and had been screened for HBsAg</td>
<td></td>
</tr>
<tr>
<td>3. Number of women who birthed and tested HBsAg positive</td>
<td></td>
</tr>
<tr>
<td>4. Number of HBsAg+ Indigenous women</td>
<td></td>
</tr>
<tr>
<td>5. Number of women with viral load &gt;200,000IU/mL or liver function test ALT 40IU/L or higher</td>
<td></td>
</tr>
<tr>
<td>6. Number of all live neonates</td>
<td></td>
</tr>
<tr>
<td>7. Number of neonates born to HBsAg positive mothers</td>
<td></td>
</tr>
<tr>
<td>8. Number of neonates born to HBsAg positive mothers who received HBIG</td>
<td></td>
</tr>
<tr>
<td>9. Number of neonates born to HBsAg positive mothers who received HBIG within 12 hours of birth</td>
<td></td>
</tr>
<tr>
<td>10. Number of neonates born to HBsAg positive mothers who received hepatitis B vaccine within 7 days of birth</td>
<td></td>
</tr>
<tr>
<td>11. Number of all neonates who received hepatitis B vaccine within seven days of birth</td>
<td></td>
</tr>
<tr>
<td>12. Number of incidents identified (refer to section 8 IIMS)</td>
<td></td>
</tr>
<tr>
<td>13. Number of incidents reported in IIMS</td>
<td></td>
</tr>
</tbody>
</table>

Completed by (print name): _____________________________________________

Contact phone number: __________________________________________________

Forward this form monthly to the Neonatal Hepatitis B Vaccination Program LHD Immunisation Coordinator

301(09/10/17)
**LHD QUARTERLY REPORT FORM**

**LOCAL HEALTH DISTRICT:**

**SUBMITTED BY** (please print name):

<table>
<thead>
<tr>
<th>Birth Cohort</th>
<th>Report Form Due</th>
<th>Date Report Submitted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Births Jan, Feb, March</td>
<td>the following 31 December</td>
<td></td>
</tr>
<tr>
<td>Births April, May, June</td>
<td>the following 31 March</td>
<td></td>
</tr>
<tr>
<td>Births July, Aug, Sept</td>
<td>the following 30 June</td>
<td></td>
</tr>
<tr>
<td>Births Oct, Nov, Dec</td>
<td>the following 30 Sept</td>
<td></td>
</tr>
</tbody>
</table>

**PERFORMANCE INDICATOR**

1. Number of women who birthed
2. Number of women who birthed and had been screened for HBsAg
3. Number of women who birthed and tested HBsAg positive
4. Number of HBsAg+ Indigenous women
5. Number of women with viral load >200,000IU/ml or liver function test ALT 40IU/L or higher
6. Number of all live neonates
7. Number of neonates born to HBsAg positive mothers
8. Number of neonates born to HBsAg positive mothers who received HBIG
9. Number of neonates born to HBsAg positive mothers who received HBIG within 12 hours of birth
10. Number of neonates born to HBsAg positive mothers who received hepatitis B vaccine within 7 days of birth
11. Number of all neonates who received birth dose hepatitis B vaccine within 7 days of birth
12. Number of neonates born to HBsAg positive mothers who are more than 3 months overdue for their six month [i.e. 4th dose] hepatitis B vaccination*.
13. Number of infants born to HBsAg positive mothers who are lost to follow-up**
14. Number of incidents identified (refer to section 8 IIMS)
15. Number of incidents reported in IIMS

Forward this form quarterly to the Manager Immunisation Unit, Health Protection NSW at: vaccreports@doh.health.nsw.gov.au

* Infants are overdue one month after the scheduled date of their 4th dose of hepatitis B however for reporting purposes, only infants who are three months overdue are counted in the 'overdue for completion of hepatitis B course’ report and not counted in the lost to follow-up data. Attempts to contact with the mother must be ongoing

** Infants are ‘lost to follow-up’ when all reasonable attempts to contact the mother are exhausted – these infants are not counted in the overdue report.
11. INFECTIOUS DISEASES, IMMUNISATION AND RELATED MATTERS

ATTACHMENT 5

REFERRAL & MANAGEMENT OF HBsAg+ WOMEN & INFANTS

Pregnant woman screened for HBsAg

Liver clinician/specialist assumes clinical management including antiviral treatment (AVT) to prevent perinatal transmission if appropriate

At birth, infant offered hepatitis B immunoglobulin (HBIG) within 12 hours and hepatitis B vaccine within 7 days of birth

Mother and infant discharged from hospital with advice regarding importance of completion of primary hepatitis B vaccination course and serology 3 months following completion of primary course (and not before 9 months of age)

Infant referred to specialist paediatric service for ongoing management

Infant's record of vaccination monitored for completion of primary hepatitis B vaccination at 6 weeks, 4 and 6 months. Advise woman on timing of ceasing AVT

Letter to GP recommending infant serology 3 months following completion of primary hepatitis B vaccination course

Infant's Anti-HBs level <10 IU/mL or HBsAg+

Infant referred to specialist paediatric service for ongoing management

YES

High viral load >200,000IU/ml or ALT ≥ 40 IU/L

Mother and infant discharged from hospital with advice regarding importance of completion of primary hepatitis B vaccination course and serology 3 months following completion of primary course (and not before 9 months of age)

Infant's record of vaccination monitored for completion of primary hepatitis B vaccination at 6 weeks, 4 and 6 months. Advise woman on timing of ceasing AVT

Letter to GP recommending infant serology 3 months following completion of primary hepatitis B vaccination course

Infant’s Anti-HBs level <10 IU/mL or HBsAg+

Infant referred to specialist paediatric service for ongoing management

YES

NO

HBsAg+

YES

Viral load and LFT (ALT) testing

High viral load >200,000IU/ml or ALT ≥ 40 IU/L

At birth, infant offered birth dose hepatitis B vaccine followed by primary vaccination schedule at 6 weeks, 4 and 6 months

Mother and infant discharged from hospital with advice regarding importance of completion of primary hepatitis B vaccination course and serology 3 months following completion of primary course (and not before 9 months of age)

Infant's record of vaccination monitored for completion of primary hepatitis B vaccination at 6 weeks, 4 and 6 months. Advise woman on timing of ceasing AVT

Letter to GP recommending infant serology 3 months following completion of primary hepatitis B vaccination course

Infant’s Anti-HBs level <10 IU/mL or HBsAg+

Infant referred to specialist paediatric service for ongoing management

YES

HBsAg+

END

References:
1. Royal Australian and New Zealand College of Obstetricians and Gynaecologists (RANZCOG) Management of Hepatitis B in pregnancy (July 2016)

*This clinical pathway may be adapted according to the model of care with each LHD i.e. where all HBsAg+ women are referred to the liver clinic/specialist for assessment

NOTE: Women who do not have a known HBsAg status at the time of admission to hospital or labour ward should have urgent HBsAg testing to determine their hepatitis B status and infants born to HBsAg+ women must be managed as specified in this policy. The infant’s Personal Health Record must be updated at each encounter.
OBSELETE IMMUNISATION POLICY DIRECTIVES: PD2005_085 and PD2005_098 (IB2017_019)

PURPOSE
The purpose of this Information Bulletin is to advise that two immunisation policy directives have been made obsolete; PD2005_085 Immunisation Register – Australian Childhood and PD2005_098 Children Overdue for Immunisation (Guidelines for the active follow-up of).

KEY INFORMATION
The processes detailed in PD2005_085 and PD2005_098 are out-dated and do not relate to current immunisation practices of reporting immunisations to a national register and following up children who are overdue for their immunisations. Effective initiatives are currently in place to monitor childhood vaccination rates and promote on-time vaccination as follows:

- Australian Immunisation Register (AIR) immunisation coverage reports are reviewed quarterly by the NSW Health Immunisation Unit and public health unit immunisation coordinators.
- Low immunisation coverage areas are identified and strategies are initiated to improve uptake and facilitate timely reporting to the AIR. NSW Health also communicates directly to new parents regarding their infant’s primary immunisation schedule and promotes on-time vaccination through the ‘Save the Date to Vaccinate’ immunisation campaign that commenced in 2013 and has continued annually.
- The NSW Aboriginal Immunisation Health Worker Program ensures that parents of Aboriginal children who are overdue for their immunisations are contacted. Aboriginal childhood immunisation rates have increased substantially since the introduction of this program in at five years of age and are higher than non-Aboriginal children at five years of age.
- Under the Australian Government’s ‘No Jab No Pay’ initiative, a number of children who were previously under/unvaccinated have since been vaccinated.
- An amendment to the NSW Public Health Act 2010 is expected in late 2017 which will further strengthen immunisation requirements for children attending child care.

301(20/07/2017)
IMMUNISATION SERVICES - AUTHORITY FOR REGISTERED NURSES AND MIDWIVES (PD2015_011)


PURPOSE

The purpose of this policy directive is to:

- Specify the specialist training requirements for registered nurses and midwives to become an Authorised Nurse Immuniser, and
- Detail the Authority that applies to Authorised Nurse Immunisers to provide immunisation services which are complementary to those provided by medical practitioners.

MANDATORY REQUIREMENTS

Authority for specially trained registered nurses and midwives to provide immunisation services without direct medical authorisation has been issued under the Poisons and Therapeutic Goods Act 1966 and was published in the New South Wales Government Gazette No. 15, on 7 February 2014. This Policy Directive supersedes Policy Directive PD2008_033 Immunisation Services – Authority for Registered Nurses. All Authorised Nurse Immunisers are required to abide by this policy directive.

A list of medications which the Authority applies to is listed in section 1.3 of the attached procedures. Section 2.1 in the attached procedures describes the mandatory training requirements for registered nurses and midwives to become an Authorised Nurse Immuniser. Specific conditions which Authorised Nurse Immunisers are subject to during immunisation service delivery are detailed in section 2.2, additional considerations for conducting immunisation clinics are detailed in section 2.3 and employer responsibilities are listed in section 2.4.

IMPLEMENTATION

This policy directive applies to Authorised Nurse Immunisers only. It is not applicable to registered nurses and midwives who have not completed the specified training but who may administer vaccines under the direction and authorisation of a medical officer.

Authorised Nurse Immunisers must:

- Administer vaccines as recommended by the National Health and Medical Research Council and in accordance with the current edition of The Australian Immunisation Handbook.
- Possess the knowledge, skills, attitudes and experience to competently deliver a quality immunisation service to the community.
- Have a commitment to continuous self-education to ensure professional competence to practise as an immunisation service provider.

Employers must:

- Ensure that an Authorised Nurse Immuniser is currently registered with the Australian Health Practitioner Regulation Agency (AHPRA), and
- Ensure that an Authorised Nurse Immuniser fulfils the requirements specified in the attached procedures.

NSW Health will:

- Ensure that the Authority is updated following the introduction of new vaccines to the National Immunisation Program Schedule, and
- Ensure that immunisation policies are current and in accordance with the current edition of The Australian Immunisation Handbook.
The Australian College of Nursing will:

- Facilitate immunisation education through the provision of the College’s immunisation course for registered nurses and midwives which conforms to the current edition of the National Guidelines for Immunisation Education for Registered Nurses and Midwives, and
- Liaise regularly with NSW Health regarding the College’s immunisation course content and currency and as appropriate, and
- Assess overseas and interstate Authorised Nurse Immuniser’s qualifications for recognition of prior learning to practise in NSW.

1. BACKGROUND

1.1 About this document

NSW Health is fully committed to improving immunisation coverage rates and achieving national goals and targets. The immunisation status of members of the community is seen to be greatly improved if registered nurses and midwives, who have specialised training, are able to provide vaccination services that are complementary to those performed by medical practitioners.

The Immunisation Services – Authority for Registered Nurses and Midwives policy directive outlines the mandatory conditions which specially trained registered nurses and midwives must comply with to ensure an effective and efficient immunisation service delivery.

1.2 Key definitions

**Adverse Event Following Immunisation (AEFI)** – an unwanted reaction following administration of a vaccine, which may or may not be caused by the vaccine; adverse events may be at the site of the injection, or may be a general illness or a general allergic reaction.

**Authorised Nurse Immuniser** – a registered nurse or midwife who has completed an immunisation education program as specified in section 2.1.

**Authority** – the special permission granted under the Poisons and Therapeutic Goods Act 1966 for specially trained registered nurses and midwives to provide immunisation services without direct medical authorisation.

**Immunisation** - the process of inducing immunity to an infectious agent by administering a vaccine.

**Medical authorisation** – when a medical officer prescribes a medication for administration by a registered nurse/midwife/enrolled nurse.

**Public Health Act** – a government act introduced to promote, protect and improve public health, control risks to public health, promote the control of infectious diseases, prevent the spread of infectious diseases and recognise the role of local government in protecting public health.

**Registered Nurse/Midwife** - a person who has completed appropriate registered nurse/midwifery training, is registered with the Australian Health Practitioner Regulation Agency and legally able to practice within the scope of their registration.

**Specialised training** – The Australian College of Nursing (or equivalent interstate/overseas course approved by the College) immunisation course for registered nurses and midwives which conforms to the National Guidelines for Immunisation Education for Registered Nurses and Midwives (2001).
Vaccine – a product often made from killed viruses or bacteria, or from live weakened strains of viruses or bacteria; the vaccine is capable of stimulating an immune response that protects against natural (‘wild’) infection.

1.3 Legal and legislative framework

Authority has been granted under the NSW Poisons and Therapeutic Goods Act 1966 to enable appropriately trained registered nurses and midwives provide immunisation services without direct medical authorisation. The Authority was published in the New South Wales Government Gazette No. 15, on 7 February 2014 and applies to the following medications:

- Adrenaline
- Diphtheria toxoid
- Haemophilus influenzae (type b) vaccine
- Hepatitis A vaccine
- Hepatitis B vaccine
- Human papillomavirus vaccine
- Influenza vaccine
- Measles vaccine
- Meningococcal vaccine
- Mumps vaccine
- Pertussis vaccine
- Pneumococcal vaccine
- Poliomyelitis vaccine
- Rotavirus vaccine
- Rubella vaccine
- Tetanus toxoid
- Tuberculin (purified protein derivative)
- Tuberculosis vaccine
- Varicella vaccine

2. REQUIREMENTS UNDER THIS POLICY DIRECTIVE

Registered nurses and midwives must meet the education requirements outlined in section 2.1 and must comply with the specific conditions outlined in section 2.2 in order to deliver immunisation services to the community as an Authorised Nurse Immuniser. Employers must adhere to requirements specified in section 2.4.

2.1 Immunisation course requirements

2.1.1 To become an Authorised Nurse Immuniser a registered nurse/midwife must have successfully completed:
- The NSW Department of Health Immunisation Accreditation Program for Registered Nurses, or
- The immunisation education program administered by the Australian College of Nursing or its predecessors, or
- An interstate or overseas immunisation education program that conforms to the National Guidelines for Immunisation Education for Registered Nurses, as approved by the Australian College of Nursing.

2.1.2 Registered nurses, who have completed the NSW Health Department Immunisation Accreditation Course for Registered Nurses prior to 2001 and, who undertook additional specialist training in the administration of Tuberculin Skin Test (TST) or Bacille Calmette-Guérin (BCG), may continue to administer these vaccines, if they are employed by a Local Health District TB Service.

2.1.3 Registered nurses, who have completed the NSW Health Department Immunisation Course for Registered Nurses prior to 2001 and who now wish to undertake additional specialist training in the administration of TST or BCG, and who are employed by a Local Health District TB Service, must undertake the complete immunisation education course as described below in point 2.1.4.
2.1.4 The immunisation education program for registered nurses and midwives is administered by The Australian College of Nursing as follows:

**Immunisation for registered nurses and midwives**
This course is based on the *National Guidelines for Immunisation Education for Registered Nurses and Midwives (2001)*. The course content includes:
- The theoretical foundations of immunisation
- The public health perspective
- The immune system and vaccination
- Epidemiology and vaccine preventable diseases
- Myths and realities of immunisation
- Valid consent and other legal aspects
- Adverse events following immunisation
- Handling, storage and administration of vaccines, and
- Health promotion.

**Immunisation: Tuberculosis**

*Only registered nurses* employed by a Local Health District within a designated TB Service, who have written approval from the Local Health District TB Coordinator and NSW TB Program Manager, can undertake the Immunisation: Tuberculosis course.

A pre-requisite to undertake this course is the successful completion of the NSW immunisation course for registered nurses and midwives. The course comprises two topics with both having a theoretical and a practical component:
- **TST (Topic 1):** This topic will enable the registered nurse to competently assess clients for risks, signs and symptoms of tuberculosis; to safely administer TSTs; accurately read and document reactions and to review TST policy and procedures (Topic 1 can be completed without enrolment for Topic 2).
- **BCG (Topic 2):** This topic will authorise registered nurses to administer BCG vaccinations without the direction of a medical officer within NSW (Topic 1 is a prerequisite for Topic 2).

2.2 Immunisation service delivery requirements

An Authorised Nurse Immuniser providing immunisation services to the community must:
(1) Be employed in connection with a vaccination program, and
(2) Administer vaccines only in connection with that vaccination program, and only as specified in the current edition of National Health and Medical Research Council’s *The Australian Immunisation Handbook*, and
(3) Undertake the appropriate vaccine storage, pre and post-vaccination assessment and administration of each vaccine at all times in accordance with the procedures specified in the current edition of the National Health and Medical Research Council’s *The Australian Immunisation Handbook*, and the current edition of the *National Vaccine Storage Guidelines Strive for 5*, and
(4) Carry an anaphylaxis response kit, and administer adrenaline, as specified in the current edition of National Health and Medical Research Council’s *The Australian Immunisation Handbook* for the treatment and management of anaphylaxis during each vaccination clinic, and
(5) Report adverse events following immunisation (AEFIs) to the local Public Health Unit, as required under the NSW Public Health Act 2010, and
(6) Report vaccines administered to children < 7 years of age to the Australian Childhood Immunisation Register, and

238(05/03/15)
(7) Report human papillomavirus (HPV) vaccinations to the National HPV Register as appropriate, and
(8) Ensure that a medical practitioner is contactable for medical advice at all times during the vaccination clinic, and
(9) Annually review best practice policy for immunisation to maintain authority to immunise. This may be, but is not limited to, attendance at updates or seminars on current practices, and
(10) Obtain an annual statement of proficiency in cardio-pulmonary resuscitation.

2.3 Immunisation Clinics – additional requirements

Additional considerations for Authorised Nurse Immunisers to deliver a safe and effective immunisation service include:
- **Immunisation clinic area** – must ensure patient privacy and safety.
- **Vaccine storage area** – must be a secure location that the public cannot access.
- **Vaccine cold chain storage equipment** – must be monitored and comply with the current edition of the *National Vaccine Storage Guidelines Strive for 5*.
- **Anaphylaxis response kit** – must be checked and placed in a readily accessible location prior to each immunisation clinic.
- **Emergency response protocols** – should be developed that include (but are not limited to), anaphylaxis response kit contents, phone access (particularly in rural/remote areas) and pre-identified roles and responsibilities during a severe adverse event following immunisation.
- **Sharps containers** – must be placed in an appropriate location to avoid needle stick injuries. The handling and disposal of sharps must be in accordance with the National Health and Medical Research Council’s *Australian Guidelines for the Prevention and Control of Infection in Healthcare* (2010).
- **Resources** – current editions of *The Australian Immunisation Handbook* and the *National Vaccine Storage Guidelines – Strive for 5* must be readily available during each immunisation clinic.

2.4 Employer responsibilities

Employers must ensure that Authorised Nurse Immunisers are currently registered with the Australian Health Practitioner Regulation Agency and legally able to practice within the scope of their registration in NSW. Employers must also ensure that Authorised Nurse Immunisers fulfil the requirements specified in sections 2.1, 2.2 and 2.3 of this policy.

3. REFERENCES


The public health response for people exposed to an infectious or otherwise hazardous agent may include the urgent provision of prophylactic medication. In addition, in some circumstances, the public health response includes urgent provision of a medication to treat a person who already has the infection.

The Policy Directive - Statewide Standing Orders for the Supply or Administration of Medication for Public Health Response authorises an appropriately educated registered nurse to administer and/or supply specified medications and sets out procedures for dispensing, supplying and administering medications for the purpose of treatment or prophylaxis against certain notifiable conditions or to those who fit an agreed case definition. This Policy Directive when activated for public health response, applies where provision of medication is required as a result of exposure to certain notifiable conditions. Settings may include health facilities where availability of an authorised prescriber would delay a timely response, residential care facilities, airports, schools, or workplaces.

MANDATORY REQUIREMENTS

This Policy Directive does not require further authorisation by Institutional / Local Health District Drug and Therapeutics Committees and overrides any inconsistent local policy.

This standing order will be submitted to the NSW Therapeutic Advisory Group for review annually by Health Protection NSW.

IMPLEMENTATION

Roles and Responsibilities

NSW Ministry of Health:

- Ensure the mandatory requirement for annual review by the NSW Therapeutic Advisory Group.

Chief Executives, Health Service Executives, Managers:

- Ensure services and personnel are aware of their roles and responsibilities under the policy.

Public Health Unit Director:

- Ensure that local protocols and procedures are in place to support implementation of the policy
- The Standing Order activation section is completed prior to each occasion of use
- In order to fulfil the standing order, dispensing of medications will need to be arranged with a public hospital pharmacy department, on behalf of the public health organisation, and at the request of the Public Health Officer (if a medical officer) or an authorised prescriber designated by the district’s public health unit director / Public Health Officer.

Medical Public Health Officer:

- The Medical Public Health Officer must check the medication record (Section 8.2 or 8.3) documenting the drug supply and CONFIRM BY SIGNING this entry WITHIN 24 hours.
11. INFECTIONOUS DISEASES, IMMUNISATION AND RELATED MATTERS

1. BACKGROUND

1.1 About this document

The Statewide Standing Orders for the Supply or Administration of Medication for Public Health Response authorises a registered nurse to administer and / or supply for administration specified medications and sets out procedures for ordering, dispensing, supplying and administering medications for the purpose of treatment or of prophylaxis against certain notifiable conditions or to those who fit an agreed case definition.

This Policy Directive is intended for use by registered nurses employed in a public health organisation for the supply or administration of medication for Public Health response in ‘off site’ settings to the public health organisation. In the case of administration of vaccines for a public health response, although it is desirable, it is not mandatory for the registered nurse to be an Authorised Nurse Immuniser. Settings may include health facilities where availability of an authorised prescriber would delay a timely response, residential care facilities, airports, schools, or workplaces.

Competency to administer medications is included in the qualifications of medical practitioners, dentists, nurse practitioners, midwife practitioners, registered nurses, and registered midwives, but only in accordance with any practice conditions imposed by the person’s place of employment and the endorsements, notations and conditions on the person’s registration.

The following statewide standing orders are for:
- The management of influenza cases and contacts
- The management of meningococcal disease contacts
- The management of measles contacts
- The subsequent use of adrenaline (epinephrine) to treat anaphylaxis.

1.2 Key definitions

<table>
<thead>
<tr>
<th>Case</th>
<th>Individual diagnosed with a condition meeting standard defining criteria.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contact</td>
<td>Individuals who meet the definition of a contact for a specified disease as documented in public health guidelines.</td>
</tr>
<tr>
<td>Clearance</td>
<td>Use of medication to prevent secondary cases, through elimination of the bacteria from possible carriers in the defined network of close contacts of each case.</td>
</tr>
<tr>
<td>Medical Public Health Officer</td>
<td>Public Health Officer under the Public Health Act (who is a medical officer), or a medical officer designated by the District’s Public Health Unit Director / Public Health Officer.</td>
</tr>
<tr>
<td>Medication</td>
<td>Used singularly throughout the Policy to describe a drug, medicine, pharmaceutical preparation (including a compounded preparation), therapeutic substance, and vaccine.</td>
</tr>
<tr>
<td>Prophylaxis</td>
<td>Use of medication to prevent illness in contacts of a known case of disease.</td>
</tr>
<tr>
<td>Public health organisation</td>
<td>A local health district, or statutory health corporation, or an affiliated health organisation in respect of its recognised establishments and recognised services.</td>
</tr>
<tr>
<td>Registered Nurse</td>
<td>Includes nurses and midwives registered with the Nursing and Midwifery Board of Australia.</td>
</tr>
<tr>
<td>Supply</td>
<td>To administer or dispense medications to a group or a specific patient and is consistent with the definition of supply in section 3 of the Poisons and Therapeutic Goods Act 1966. Includes administration of a single dose or medication pack dispensed for treatment or prophylaxis by a Registered Nurse.</td>
</tr>
<tr>
<td>Treatment</td>
<td>Use of medication to treat an individual case of disease</td>
</tr>
</tbody>
</table>
11. INFECTIOUS DISEASES, IMMUNISATION AND RELATED MATTERS

1.3 Legal and legislative framework

Section 121 of the Public Health Act 2010 allows the Secretary of the NSW Ministry of Health to appoint individuals to the position of Public Health Officer for a part of the State or for the purpose of exercising particular public health functions. These functions include the investigation of matters affecting public health and coordinating activities in relation to the reduction of any risks to public health in that part of the state.

Clauses 170 and 171 of the Poisons and Therapeutic Goods Regulation 2008 allow the Secretary of the NSW Ministry of Health to authorise (for the purposes of the Act) a particular person (by means of an instrument in writing given to the person) or a specified class of persons (by means of an instrument published in a manner approved by the Secretary) to supply restricted substances according to clause 53 of the regulation. The authorisation only applies to registered nurses or midwives employed by a public health organisation for the medications listed in the standing orders included in this policy.

2. IMPLEMENTATION OF STATEWIDE STANDING ORDERS FOR PUBLIC HEALTH RESPONSE

When a statewide standing order is applied, public health organisation executives are to ensure:

A registered nurse operating under this standing order is aware of their responsibility to:

- □ Determine whether the patient meets the criteria for the standing order and explain the treatment and its purpose to the patient (or guardian)
- □ Check that the patient is not showing signs and symptoms requiring immediate medical review and contact the medical officer or refer to the emergency department for immediate review as required
- □ Determine any known allergies, hypersensitivity to the medication or contraindications to treatment and contact the medical officer to discuss how to proceed
- □ Obtain patient / guardian consent from the patient receiving treatment. Nurses or midwives who are authorised to initiate medications have the same obligations as medical practitioners when obtaining consent for the procedures which they are authorised to perform
- □ Document all assessments and details relating to the supply or administration of medication
- □ Remain competent in cardio-pulmonary resuscitation, and the administration of adrenaline (epinephrine) in the management of anaphylaxis
- □ Practice under the Policy Directive PD2013_043 - Medication Handling in NSW Public Health Facilities
- □ Record the name of the person and the date the medication is supplied to the patient on the medication label at the time of supply - where this information is not available at the time of supply from the hospital pharmacy
- □ Record the administration / dispensing of each medication (see sections 8.1, 8.2 and 8.3) and
- □ Ensure records relating to the administration / dispensing of medication are retained in accordance with the State Records Authority General Retention and Disposal Authority for Public Health Services: Patient / Client Records (GDA 17).
11. INFECTIOUS DISEASES, IMMUNISATION AND RELATED MATTERS

The Medical Public Health Officer is aware of their responsibility to:

- Brief the registered nurse on the relevant section of the Standing Order and complete the Standing Order activation section prior to each occasion of use
- Arrange dispensing of medications with the public hospital pharmacy department, including the estimated quantity required
- Be able to be contacted to provide advice to the registered nurse during the treatment or prophylaxis program, and
- Check the medication record (section 8.2 or 8.3) documenting the drug supply and confirm by signing this entry within 24 hours.

The public hospital Pharmacy Department is aware of their responsibility to:

- Label all medication that is to be supplied for dosing at a later time with the name(s) and strength(s), active ingredient(s) of the medication and the directions for use, including duration of use and other required information. If known, the patient’s name must be included on the label. Additional information that should also be supplied includes the Consumer Medicine Information (Full manufacturers product information accessible via CIAP).

3. MEDICATIONS FOR TREATMENT OF INFLUENZA

Purpose

This standing order sets out procedures for ordering, supplying and administering the anti-influenza medications oseltamivir (Tamiflu®) and zanamivir (Relenza®), for the purpose of treatment of influenza.

This standing order authorises a registered nurse, who practices in accordance with the requirements set out in section 2, to administer and/or supply the specified medications for the treatment of influenza to those who fit the agreed clinical case definition of influenza-like-illness according to NSW Health Public Health Response Guidelines\(^1\) or on laboratory diagnosis of influenza. Anti-influenza medications have been shown to attenuate disease in cases of influenza if given early in the course of the illness (within 48 hours of developing symptoms). There may be benefit in providing anti-influenza medications to hospitalised patients after 48 hours.

Medications - oseltamivir and zanamivir

This standing order does NOT apply to the following patient groups. A medical officer must approve the supply of anti-influenza medications to these groups:

- Oseltamivir to children under the age of 1 year
- Zanamivir to children under the age of 5 years
- Pregnant or breast-feeding women.

Oseltamivir is approved for use as treatment in children 1 year and older, and zanamivir is approved for use as treatment in children five years and older. The decision to administer to children under these ages should only be taken when the potential benefit is considered to outweigh the risk of harm. In these circumstances the medications must be prescribed by a medical practitioner following consultation with a paediatrician.

Oseltamivir and zanamivir should be used with caution in pregnant or breast-feeding women and only where the potential benefit is considered to outweigh the risk of harm. Treatment may only be prescribed by a medical officer.

If the registered nurse applying the standing order has any concerns regarding patient safety for provision of the medication (e.g. people with significant chronic illness or immunosuppression), the nurse should arrange for the Medical Public Health Officer or emergency department to review so the supply or administration of medication can occur as soon as possible.

### 3.1 Standing order for supply of oseltamivir (Tamiflu®) for TREATMENT

<table>
<thead>
<tr>
<th>Title</th>
<th>Standing order for Influenza TREATMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drug(s)</td>
<td>Oseltamivir (TAMIFLU®)</td>
</tr>
</tbody>
</table>

#### Presentation
- 30 mg, 45 mg and 75 mg capsule
- 6 mg/mL powder for oral suspension - reconstitute with 55 mL water

**Indication**
Oseltamivir is approved for use as treatment of Influenza in adults and children one year and older.

#### Contraindications
- History of hypersensitivity or allergy to oseltamivir, fructose intolerance (this applies to oral suspension only), routine haemodialysis or continuous peritoneal dialysis, subjects with creatinine clearance <10mL/min, history of renal impairment (seek medical advice)
- The safety and efficacy of oseltamivir in paediatric patients have not been established in children aged less than 1 year of age.

#### Precautions
- Use with caution in pregnant or breastfeeding women
- Use with caution in adults with chronic renal impairment (reduce dosage)*

#### Dose
**Recommended dose of oseltamivir for treating patients more than one year of age**

<table>
<thead>
<tr>
<th>Bodyweight in kg</th>
<th>Recommended dose</th>
<th>Equivalent volume for 6 mg/mL oral suspension</th>
</tr>
</thead>
<tbody>
<tr>
<td>15kg or less</td>
<td>30mg</td>
<td>5mL</td>
</tr>
<tr>
<td>More than 15kg to 23kg</td>
<td>45mg</td>
<td>7.5mL</td>
</tr>
<tr>
<td>More than 23kg to 40kg</td>
<td>60mg</td>
<td>10mL</td>
</tr>
<tr>
<td>More than 40 kg</td>
<td>75mg</td>
<td>12.5mL</td>
</tr>
</tbody>
</table>

*Dosage for adults with renal impairment:
- Creatinine clearance 30 – 60 mL/min 30 mg TWICE daily for five days
- Creatinine clearance 10 – 30 mL/min 30 mg ONCE daily for five days
- Seek medical advice prior to supply or administration of oseltamivir for patients with creatinine clearance of less than 10 mL/min and for patients on haemodialysis or chronic ambulatory peritoneal dialysis.

**Dose frequency**
TWICE daily for five days

**Administration**
As a result of reported gastrointestinal upset, oseltamivir should be taken with food. For young children, the dose can be mixed with soft food e.g. yoghurt, honey to disguise the taste of the medicines.

**Drug Interactions**
Information derived from pharmacology and pharmacokinetic studies of oseltamivir suggest that clinically significant drug interactions are unlikely.

**Adverse effects**
- Common: Nausea and vomiting (most common in first 1-2 days); headache;
- Rare: GI bleeding; haemorrhagic colitis increased liver enzymes; hepatitis; rash; allergy including anaphylaxis; severe skin reaction; neuropsychiatric event e.g. abnormal behaviour, hallucinations, delirium (mainly in children); laxative effect (suspension). See product information for full list.

**Documentation**
Obtain consent, explain side effects, and provide consumer medicine information and patient information sheet

**Related Documents**
- NSW Health Influenza Factsheet
- Consumer Medicine Information for Tamiflu®
- Patient Information Sheet for Tamiflu (section 8.4)

1 The drug information provided is to act as a guide only, for further information reference should be made to the Australian Medicines Handbook and full manufacturers product info <accessible via CIAP: > If contraindications, precautions or interactions are present refer to MO before administration.
### 3.2 Standing order for supply of zanamivir (RELENZA®) for TREATMENT

<table>
<thead>
<tr>
<th>TITLE</th>
<th>Standing order for Influenza TREATMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drug(s)</td>
<td>Zanamivir (RELENZA®)</td>
</tr>
<tr>
<td>Presentation</td>
<td>5 mg powder / blister; four blisters in each Rotadisk. Powder is inhaled by mouth using a delivery device called a DISKHALER</td>
</tr>
<tr>
<td>Indication</td>
<td>Zanamivir is approved for use as treatment of Influenza in adults and children 5 years and older</td>
</tr>
<tr>
<td>Contraindications</td>
<td>History of hypersensitivity to zanamivir or lactose.</td>
</tr>
</tbody>
</table>
| Precautions | - Use with caution in pregnant or breast-feeding women and subjects with severe asthma or chronic respiratory disease  
- Children may not be able to inhale zanamivir properly, resulting in inadequate tissue concentrations. |
| Dose | 10 mg (two 5mg blisters) inhaled |
| Dose frequency | TWICE daily for 5 days |
| Administration | Refer to the “patient instructions for use” for the Diskhaler use. Patients with asthma should use their bronchodilator prior to using zanamivir. If new onset wheeze develops after using zanamivir, discontinue therapy. |
| Drug Interactions | No clinically significant drug interactions have been reported in clinical studies to date. |
| Adverse effects | Adverse effects are rare (0.1%) and include bronchospasm (may be fatal); dyspnoea allergy including oropharyngeal oedema, rash and anaphylactic / anaphylactoid reaction. See Product Information for full list. |
| Documentation | Obtain consent, explain side effects, and provide Consumer Medicine Information for Relenza and patient information sheet for Relenza. |
| Related Documents | NSW Health Influenza Factsheet  
Consumer Medicine Information for Relenza  
Patient Information Sheet for Relenza (section 8.5) |

**Standing order activation: (to be completed for each occasion of use)**

<table>
<thead>
<tr>
<th>Date:</th>
<th>Public Health Officer Name:</th>
<th>Signature:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reason for activation:</td>
<td>(Include Index case record number or outbreak response name as applicable)</td>
<td></td>
</tr>
</tbody>
</table>

280(18/8/16)

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1 The drug information provided is to act as a guide only, for further information reference should be made to the Australian Medicines Handbook and the full manufacturers product info <accessible via CIAP: > If contraindications, precautions or interactions are present refer to MO before administration
4. MEDICATIONS FOR THE PROPHYLAXIS OF INFLUENZA

**Purpose**

This standing order sets out procedures for ordering, supplying or administering the anti-influenza medications oseltamivir (Tamiflu®) and zanamivir (Relenza®), for the purpose of prophylaxis of influenza.

This standing order authorises a registered nurse, who practices in accordance with requirements set out in section 2, to administer and / or supply the specified anti-influenza medications for the prophylaxis against influenza to those who fit an agreed case definition.

Prophylaxis should be provided as soon as possible but not if more than seven days has elapsed since the last contact with a probable or confirmed case of influenza. Once it is determined that prophylaxis is required, administration or supply should commence as soon as possible. The clinical condition of all contacts of the confirmed case of influenza should be reviewed prior to administration or supply of prophylaxis to determine whether they have developed symptoms or signs of influenza infection.

**Medications - oseltamivir and zanamivir**

This standing order does NOT apply to the administration or supply of:

- Oseltamivir to children under the age of 1 year
- Zanamivir to children under the age of 5 years
- Pregnant or breast-feeding women.

The decision to administer to children under these ages and pregnant or breast-feeding women should only be taken where the benefit is considered to outweigh the risk, and medication must be prescribed by a medical practitioner including consultation with a paediatrician for children.

If the registered nurse applying the standing order has any clinical concerns regarding patient safety for provision of the medication, the nurse should arrange for the Medical Public Health Officer or emergency department to review so the supply or administration of medication can occur as soon as possible.
### Standing order for supply of oseltamivir (Tamiflu®) for PROPHYLAXIS.

<table>
<thead>
<tr>
<th><strong>TITLE</strong></th>
<th>Standing order for Influenza PROPHYLAXIS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Drugs</strong></td>
<td>oseltamivir (TAMIFLU®)</td>
</tr>
<tr>
<td><strong>Presentation</strong></td>
<td>30 mg, 45 mg and 75 mg capsule 6 mg/mL powder for oral suspension - reconstitute with 55 mL water</td>
</tr>
<tr>
<td><strong>Indication</strong></td>
<td>Oseltamivir is approved for use as prevention of Influenza in adults and children 1 year and older.</td>
</tr>
</tbody>
</table>
| **Contraindications** | - History of hypersensitivity or allergy to oseltamivir, fructose intolerance (this applies to oral suspension only), routine haemodialysis or continuous peritoneal dialysis, subjects with creatinine clearance <10mL/min, history of renal impairment (seek medical advice)  
- The safety and efficacy of oseltamivir in paediatric patients have not been established in children aged less than 1 year of age. |
| **Precautions** | Use with caution in pregnant or breastfeeding women  
Use with caution in adults with chronic renal impairment (reduce dosage)* |
| **Dose** | **Recommended dose of Tamiflu for patients more than one year of age** |
| **Bodyweight in kg** | **Recommended dose** | **Equivalent volume for 6 mg/mL oral suspension** |
| 15kg or less | 30mg | 5 mL |
| More than 15kg to 23kg | 45mg | 7.5 mL |
| More than 23kg to 40kg | 60mg | 10 mL |
| More than 40kg | 75mg | 12.5 mL |
| **Dose frequency** | ONCE daily for 10 days |
| **Administration** | As a result of reported gastrointestinal upset, oseltamivir should be taken with food. For young children, the dose can be mixed with soft food e.g. yoghurt, honey to disguise the taste of the medicines. |
| **Drug Interactions** | Information derived from pharmacology and pharmacokinetic studies of oseltamivir phosphate suggest that clinically significant drug interactions are unlikely. |
| **Adverse effects** | - Common: Nausea and vomiting (most common in first 1-2 days), headache;  
- Rare: GI bleeding; haemorrhagic colitis increased liver enzymes; hepatitis; rash; allergy including anaphylaxis; severe skin reaction; neuropsychiatric event e.g. abnormal behaviour, hallucinations, delirium (mainly in children); laxative effect (suspension). See product information for full list. |
| **Documentation** | Obtain consent, explain side effects, and provide consumer medicine information and patient information sheet |
| **Related Documents** | NSW Health Influenza Factsheet  
Consumer Medicine Information for Tamiflu®  
Patient Information Sheet for Tamiflu (section 8.4) |

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1 The drug information provided is to act as a guide only, for further information reference should be made to the Australian Medicines Handbook and the full manufacturers product info <accessible via CIAP: > If contraindications, precautions or interactions are present refer to MO before administration.
### 4.2 Standing order for supply of zanamivir (Relenza®) for PROPHYLAXIS.

<table>
<thead>
<tr>
<th>TITLE</th>
<th>Standing order for Influenza PROPHYLAXIS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drug(s)</td>
<td>zanamivir (RELENZA®)</td>
</tr>
<tr>
<td>Presentation 1</td>
<td>5 mg powder / blister; four blisters in each Rotadisk. Powder is inhaled by mouth using a delivery device called a DISKHALER</td>
</tr>
<tr>
<td>Indication</td>
<td>Relenza is indicated for prophylaxis of infection due to influenza A and B in adults and children (greater than or equal to five years) to reduce transmission among individuals in households with an infected person.</td>
</tr>
<tr>
<td>Contraindications¹ and exclusions</td>
<td>History of hypersensitivity to zanamivir or lactose.</td>
</tr>
<tr>
<td>Precautions¹</td>
<td>Use with caution in pregnant or breast-feeding women and subjects with severe asthma or chronic respiratory disease</td>
</tr>
<tr>
<td>Dose ¹</td>
<td>10 mg (two 5mg blisters) inhaled</td>
</tr>
<tr>
<td>Dose frequency¹</td>
<td>ONCE daily for 10 days</td>
</tr>
<tr>
<td>Administration¹</td>
<td>Refer to the “patient instructions for use” for the Diskhaler use. Patients with asthma should use their bronchodilator prior to using zanamivir. If new onset wheeze develops after taking zanamivir, discontinue therapy.</td>
</tr>
<tr>
<td>Drug Interactions¹</td>
<td>No clinically significant drug interactions have been reported in clinical studies to date.</td>
</tr>
</tbody>
</table>

**Adverse effects¹**

- Adverse effects are rare (0.1%) and include bronchospasm (may be fatal); dyspnoea allergy including oropharyngeal oedema, rash and anaphylactic / anaphylactoid reaction.
- Note: there is a warning in the product information regarding an association between zanamivir and neuropsychiatric symptoms (e.g. delirium or abnormal behaviour); however, at present, evidence suggests that these rare events are more likely to be due to influenza.
- See Product Information for full list.

**Documentation**

Obtain consent, explain side effects, and provide consumer medicine information and patient information sheet.

**Related Documents**

- NSW Health Influenza Factsheet
- Consumer Medicine Information for Relenza®
- Patient Information Sheet for Relenza (section 8.5)

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1 The drug information provided is to act as a guide only, for further information reference should be made to the Australian Medicines Handbook and the full manufacturers product info <accessible via CIAP: If contraindications, precautions or interactions are present refer to MO before administration
5 CLEARANCE ANTIBIOTICS FOR MENINGOCOCCAL DISEASE

Purpose
This standing order sets out procedures for ordering, supplying or administering ciprofloxacin, ceftriaxone or rifampicin for close contacts of a case of meningococcal disease. Among close contacts, there is often an asymptomatic individual who is carrying the organism that caused the infection in the index case. The purpose of clearance antibiotics is to eliminate meningococci from any carrier in the defined network of close contacts of each case of meningococcal disease, to reduce the risk of further transmission and prevent further cases of invasive disease.

This standing order authorises a registered nurse, who practices in accordance with requirements set out in section 2, to administer and / or supply the specified antibiotics to contacts of cases of meningococcal disease in the seven days prior to onset of illness according to criteria specified in the national guidelines including:

- Household of a case (including sexual partners)
- Child care facilities or family day care where the case of meningococcal disease was in the same room for more than four hours
- School or university contacts who are “household-like” contacts
- Health care workers who have intubated the case without a face mask or done mouth to mouth resuscitation (after onset of illness)
- Contacts in seats adjacent to the case during long distance travel (more than eight hours)

Medication should be provided as soon as practicable to identified contacts, but should not be provided if more than four weeks have elapsed since the last contact with a probable or confirmed case of meningococcal disease.

Medications
Three antibiotics, ciprofloxacin, ceftriaxone and rifampicin, are considered equally effective as clearance antibiotics for use by defined contacts of a case with meningococcal disease.

The recommended medication for specific patient groups:

- Ciprofloxacin is the preferred medication for all age groups and for women on the contraceptive pill. Ciprofloxacin is currently not available as a suspension except through the Special Access Scheme.
- Ceftriaxone is the preferred medication for use in pregnant women and in women who are breastfeeding.
- Rifampicin can be used for children under 12 who cannot be appropriately dosed with ciprofloxacin tablets.

Where compliance may be an issue, use of ciprofloxacin, which requires only a single oral dose, may be advantageous unless otherwise contraindicated.

---

3 Potential impact on cartilage development for prepubertal children. However, when given for prophylaxis as a stat dose, the effect is unlikely to be a concern
### 5.1 Standing order for ciprofloxacin for close contacts of meningococcal disease

<table>
<thead>
<tr>
<th>TITLE</th>
<th>Standing order for meningococcal contacts - ciprofloxacin</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Drug(s)</strong></td>
<td>ciprofloxacin</td>
</tr>
</tbody>
</table>
| **Presentation** | Tablets - 250mg, 500mg  
Ciprofloxacin is currently not available as a suspension except through the Special Access Scheme |
| **Indication** |  
- Clearance of meningococcal carriage in close contacts of known cases.  
- Ciprofloxacin is the preferred option for women taking oral contraceptives |
| **Contraindication** |  
- Not to be given in pregnancy or during breastfeeding  
- Allergies to ciprofloxacin or other quinolones / fluoroquinolones |
| **Precautions** |  
- Adrenaline (epinephrine) must be available for the registered nurse or midwife to administer if anaphylaxis occurs.  
- Use with caution in patients with cystic fibrosis, central nervous system disorders, such as severe cerebral arteriosclerosis or epilepsy, renal impairment, and liver damage.  
- G6PD deficiency - increases risk of haemolytic anaemia.  
- Potential impact on cartilage development for prepubertal children. However, when given for prophylaxis as a stat dose, the effect is unlikely to be a concern.  
- Avoid direct sunlight and ensure adequate hydration |
| **Dose** |  
- **Adults:** 500mg  
- **Children younger than five years:** 30mg/kg up to 125mg  
- **Children five to 12 years:** 250mg |
| **Dose frequency** | Single dose |
| **Administration** |  
- Oral (with a full glass of water)  
- If possible, recipients should be observed for 30 minutes post-ingestion. |
| **Drug Interactions** |  
- Ciprofloxacin may interact with, omeprazole, thyroxine warfarin, cyclosporin, metoclopramide, NSAIDs, and other medicines. Check with a pharmacist for any clinically relevant interactions in patients taking other medicines.  
- Patients are advised that ciprofloxacin may enhance the effects of caffeine. |
| **Adverse effects** |  
- Common (>1%): rash, itch, nausea, vomiting, diarrhoea, abdominal pain, dyspepsia.  
- Infrequent (0.1-1%): headache, dizziness, insomnia, depression, restlessness, tremors, arthralgia, arthritis, myalgia, tendonitis, interstitial nephritis, raised liver enzymes.  
- Rare (<0.1%): blood dyscrasias, peripheral neuropathy, hepatitis, tendon rupture, anaphylaxis, psychotic reactions, severe skin reaction, QT prolongation. See Product Information for full list.  
- The majority of listed adverse effects are very unlikely as only a single dose is being given. |
| **Documentation** | Obtain consent, explain side effects and provide consumer medicine information and patient information sheet |
| **Related Documents** | NSW Health Meningococcal disease Factsheet  
Consumer Medicine Information for ciprofloxacin  
Patient Information Sheet for ciprofloxacin (section 8.7) |

**Standing order activation:** (to be completed for each occasion of use)

<table>
<thead>
<tr>
<th>Date:</th>
<th>Public Health Officer Name:</th>
<th>Signature:</th>
</tr>
</thead>
<tbody>
<tr>
<td>280(18/8/16)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1 The drug information provided is to act as a guide only, for further information reference should be made to the Australian Medicines Handbook and the full manufacturers product info <accessible via CIAP: > If contraindications, precautions or interactions are present refer to MO before administration  
2 Chemoprophylaxis for meningitis. In: eTG complete [Internet]. Melbourne: Therapeutic Guidelines Limited, 2015 Jul
### Standing order for meningococcal contacts - ceftriaxone

<table>
<thead>
<tr>
<th><strong>Title</strong></th>
<th>Standing order for meningococcal contacts - ceftriaxone</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Drug(s)</strong></td>
<td>ceftriaxone</td>
</tr>
<tr>
<td><strong>Presentation</strong></td>
<td>Powder for injection 250mg, 500mg, 1G per vial</td>
</tr>
</tbody>
</table>
| **Indication** <sup>1</sup> | ▪ Clearance of meningococcal carriage in close contacts of known cases.  
▪ Ceftriaxone is the preferred option during pregnancy. |
| **Contraindications** <sup>1</sup> | ▪ Not to be given to premature neonates up to corrected age 41 weeks or infants less than 4 weeks old  
▪ Known allergy to the cephalosporin class of antibiotics or a major allergy to penicillin (anaphylaxis, angioneurotic oedema, urticaria).  
▪ Lignocaine should not be used as a diluent for intramuscular injection in patients who are hypersensitive to lignocaine |
| **Precautions** <sup>1</sup> | ▪ Adrenaline (epinephrine) must be available for the registered nurse or midwife to administer if anaphylaxis occurs.  
▪ Not to be injected intravenously  
▪ History of hypersensitivity to cephalosporins, penicillins or other drugs  
▪ History of antibiotic-associated pseudomembranous colitis  
▪ History of gastrointestinal disease (particularly colitis), severe renal impairment (e.g. dialysis), lignocaine toxicity, chronic hepatic disease, and malnutrition. |
| **Dose** <sup>1</sup> | **Adults:** 250mg IM  
**Children less than 12 years of age:** 125mg IM  
**Note:** Not in children less than four weeks old |
| **Dose frequency** <sup>1</sup> | Single dose |
| **Administration** <sup>1</sup> | ▪ Deep intramuscular injection in lignocaine solution 1% to reduce pain at the injection site  
▪ Dissolve the contents of 500mg vial in 2mL or 1g in 3.5mL of lignocaine 1% solution, administered by deep intragluteal injection. The lignocaine solution must never be administered intravenously. Product is for single use in one patient only. Discard any residue. |
| **Drug Interactions** <sup>1</sup> | No drug interactions of particular concern |
| **Adverse effects** <sup>1</sup> | ▪ Common or infrequent: diarrhoea, nausea, vomiting, pain and inflammation at injection site, rash, headache, dizziness, allergy.  
▪ Rare (<0.1%): neurotoxicity (eg confusion, seizures, encephalopathy) particularly with high doses and / or renal impairment, blood dyscrasias, thrombocytopenia, bleeding, renal impairment.  
▪ The majority of listed adverse effects are very unlikely as only a single dose is being given.  
▪ See Product Information for full list. |
| **Documentation** | Obtain consent, explain side effects, and provide consumer medicine information and patient information sheet |
| **Related Documents** | NSW Health Meningococcal disease Factsheet  
Consumer Medicine Information for ceftriaxone  
Patient Information Sheet for ceftriaxone (section 8.8) |

**Standing order activation:** (to be completed for each occasion of use)

<table>
<thead>
<tr>
<th>Date:</th>
<th>Public Health Officer Name:</th>
<th>Signature:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1 The drug information provided is to act as a guide only, for further information reference should be made to the Australian Medicines Handbook and the full manufacturers product info <accessible via CIAP: > If contraindications, precautions or interactions are present refer to MO before administration
5.3 Standing order for rifampicin for close contacts of meningococcal disease

<table>
<thead>
<tr>
<th>TITLE</th>
<th>Standing order for meningococcal contacts - rifampicin</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drug(s)</td>
<td>rifampicin</td>
</tr>
<tr>
<td>Presentation</td>
<td>Capsules - 150mg, 300mg, Tablets - 600mg, Syrup - 100mg/5mL</td>
</tr>
<tr>
<td>Indication</td>
<td>Clearance of meningococcal carriage in close contacts of known cases. (Rifampicin is not indicated for the treatment of meningococcal infections.)</td>
</tr>
<tr>
<td>Contraindications ¹</td>
<td>Jaundice, history of hypersensitivity to any of the rifamycins, severe liver disease, pregnancy</td>
</tr>
</tbody>
</table>
| Precautions ¹ | - Hepatic disease; malnourishment; concomitant TB and leprosy; concomitant hepatotoxic drugs; sodium metabisulfite allergy for those taking rifampicin syrup; porphyria; diabetes; premature and newborn infants.
- Rifampicin stains body fluids such as urine, sweat and tears, an orange, red or brown colour. Soft contact lenses should not be worn until the urine has returned to its normal colour, as they may become stained.
- Women taking the oral contraceptive pill should use another form of contraceptive for the cycle during which they are taking rifampicin.
- Pregnancy – may cause bleeding problems in newborn. If used in last few weeks of pregnancy, Vitamin K should be given to mother and newborn infant.
- Lactation - Rifampicin is excreted in breast milk and infants should not be breastfed by a patient receiving rifampicin. |

<table>
<thead>
<tr>
<th>Age</th>
<th>Recommended dose</th>
<th>Equivalent volume of 100mg/5ml oral liquid</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-2 months</td>
<td>20mg</td>
<td>1 mL</td>
</tr>
<tr>
<td>3-11 months</td>
<td>40mg</td>
<td>2 mL</td>
</tr>
<tr>
<td>1-2 years</td>
<td>100mg</td>
<td>5 mL</td>
</tr>
<tr>
<td>3-4 years</td>
<td>150mg</td>
<td>7.5 mL</td>
</tr>
<tr>
<td>5-6 years</td>
<td>200mg</td>
<td>10 mL</td>
</tr>
</tbody>
</table>

Note: Ciprofloxacin is preferred for children older than 6 years if able to tolerate tablets

<table>
<thead>
<tr>
<th>Dose frequency ²</th>
<th>All dosages are TWICE daily (every 12 hours) for 2 days</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administration ¹</td>
<td>Rifampicin should be taken on an empty stomach at least 30 minutes before or two hours after food.</td>
</tr>
</tbody>
</table>

| Drug Interactions ¹ | If taking concomitant antacids, rifampicin should be given at least one hour before the ingestion of antacids. Rifampicin interacts with numerous drugs by accelerating their breakdown and reducing their activity. Check pharmacology texts and/or obtain advice from a pharmacist for patients taking other medications. Examples of interacting medicines include but are not limited to oral anticoagulants (e.g. warfarin), anticonvulsants (e.g. phenytoin, phenobarbitone), antiarrhythmics, tamoxifen, antipsychotics (e.g. haloperidol), antifungals (e.g. fluconazole, itraconazole), antiretroviral drugs (e.g. zidovudine, saquinavir, indinavir), beta-blockers, calcium channel blockers (e.g. diltiazem, verapamil), clarithromycin, corticosteroids, |

¹ The drug information provided is to act as a guide only, for further information reference should be made to the Australian Medicines Handbook and the full manufacturers product info (accessible via CIAP: > If contraindications, precautions or interactions are present, refer to MO before administration


11. INFECTIOUS DISEASES, IMMUNISATION AND RELATED MATTERS

| Adverse effects
| Common (>1%): Gastrointestinal symptoms (e.g. nausea, vomiting, cramps); rash; body fluid, soft contact lens discolouration (red/orange); Rare (<0.1%): hepatitis. See Product information for full list. Rare adverse effects such as hepatitis are very unlikely as the course for prophylaxis is short. |

6 POST-EXPOSURE PROPHYLAXIS OF MEASLES

Purpose

This standing order sets out procedures for ordering, supplying or administering normal human immunoglobulin (NHig) or measles-mumps-rubella vaccine (MMR) for measles post exposure management of susceptible contacts. A person considered ‘susceptible’ to measles is someone who cannot provide acceptable presumptive evidence of immunity to measles as described in ‘Measles: Control guidelines for NSW Public Health Units’.

This standing order authorises a registered nurse, who practices in accordance with requirements set out in section 2, to administer the specified immunoprophylaxis to defined contacts to protect them from developing measles. Defined contacts may include:

- All household members of the case
- All people sleeping overnight in the same room as the case (e.g. in a hospital, boarding school or military barracks)
- All children and adults at family day care, child care, preschool, school or other educational setting who share a classroom with the case
- People who shared a waiting area at the same time as the infectious case (such as patients in a health care facility’s waiting room and any people accompanying these patients) and people who were in a waiting area or consulting room previously occupied by an infectious case for up to 30 minutes after the case has departed
- All work colleagues of the case who share the same work area
- Others who attend or work in the same educational institution as the case, and may have spent time in the vicinity of the case, but do not share a classroom (e.g. a high school, college, lecture theatre block)
- Others who may have been present in the general area where the case was known to be (e.g. cinemas, shopping centres, aeroplane flights and restaurants).

280(18/8/16)
Immunoprophylaxis

Cases of measles are infectious for around four days prior and four days after the onset of rash. NHIg or MMR should be given as soon as practicable to identified contacts. MMR can be administered within 72 hours (three days) of first contact with an infectious case and NHIg can be administered up to 144 hours (6 days) after first contact. NHIg can be ordered from the Australian Red Cross Blood Service using the order form at http://www.blood.gov.au/system/files/documents/form-nhig-201115-online.pdf.

Determine the appropriate prophylaxis according to the NSW Health Control Guidelines for Measles based on the time since exposure, age and underlying conditions of the contact:

- Immunocompromised: NHIg
- Pregnancy: NHIg
- Babies under 9 months: NHIg
- Babies at 9 months, children and adults: MMR within 72 hours, NHIg 3-6 days

6.1 Standing order for Measles-Mumps-Rubella Vaccine

<table>
<thead>
<tr>
<th>TITLE</th>
<th>Standing order for Measles IMMUNOPROPYLAXIS – MMR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drug(s)</td>
<td>Measles-Mumps-Rubella Vaccine</td>
</tr>
<tr>
<td>Presentation</td>
<td>Vials of lyophilised vaccine 0.5 mL (contains live attenuated virus) Store vials at two to eight deg. C. (Refrigerate. Do not freeze.). <strong>Maintain cold chain at all times and protect from all light.</strong></td>
</tr>
<tr>
<td>Indication</td>
<td>Active immunisation to prevent measles in susceptible contacts of confirmed cases of measles.</td>
</tr>
</tbody>
</table>
| Contraindications | - People with impaired immunity, including AIDS or HIV with impaired immunity, high-dose oral corticosteroids, high-dose systemic immunosuppressive treatment or general radiation, lymphoma, leukaemia.  
  - Untreated tuberculosis  
  - Pregnant women  
  - Allergy to MMR or any component of the vaccine |
| Precautions | - Adrenaline (epinephrine) must be available for the registered nurse or midwife to administer if anaphylaxis occurs.  
  - Patients should be observed for a sufficient period (at least 20 minutes) for the occurrence of early onset reactions seen with measles vaccine  
  - Recent administration of blood product containing antibody (such as NHIg)  
  - Vaccination with another live vaccine in the past 4 weeks  
  - Avoid pregnancy for 28 days after MMR vaccination  
  - Children with a history of seizures- may require treatment to reduce fever 5-12 days after vaccination  
  - Do not use after expiry date on label. |
| Dose | For both adults and children, the dose of MMR is the same. Reconstitute using diluent supplied. |
| Dose frequency | Single dose - where a second dose is required, the minimum interval between doses is four weeks. |
| Administration | Subcutaneous injection - Inject the total volume of the single dose vial (about 0.5mL) into skin of the deltoid muscle or the anterolateral thigh. |

1The drug information provided is to act as a guide only, for further information reference should be made to the Australian Medicines Handbook and the full manufacturers product info <accessible via CIAP: > If contraindications, precautions or interactions are present refer to MO before administration.
### 11. INFECTIOUS DISEASES, IMMUNISATION AND RELATED MATTERS

<table>
<thead>
<tr>
<th>Drug Interactions(^1)</th>
<th>Immunosuppressants. Immunoglobulin products should not be administered within three weeks after MMR.</th>
</tr>
</thead>
</table>
| **Adverse effects\(^1\)** | - Common (＞1%): Headache, Fever may occur 5-12 days after vaccination and last 2-3 days. Fever may be high and should be managed with paracetamol. Lymphadenopathy and rash may occur 1-3 weeks after vaccination and are usually transient. Transient injection site reactions.  
- Infrequent (0.1-1%): febrile seizures, parotid swelling, arthritis and arthralgia (in children) may occur 1-3 weeks after vaccination and are usually transient.  
- Rare (＜0.1%): thrombocytopenia, chronic joint symptoms. It is uncertain whether encephalopathy occurs, however if it is associated it is less frequent than occurs with measles infection, Anaphylaxis following injection of MMR is rare. There is NO association between MMR vaccination and autism, |
| **Documentation** | Obtain consent, explain possible adverse effects and provide consumer medicine information for MMR and patient information sheet |
| **Related Documents** | NSW Health Measles Factsheet  
Consumer Medicine Information sheet for MMR  
Patient Information Sheet for MMR vaccine (section 8.9) |

**Standing order activation:** (to be completed for each occasion of use)

<table>
<thead>
<tr>
<th>Date:</th>
<th>Public Health Officer Name:</th>
<th>Signature:</th>
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**Reason for activation:** *(Include Index case record number or outbreak response name as applicable)*

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280(18/8/16)
# Standing order for Normal Human Immunoglobulin

<table>
<thead>
<tr>
<th>TITLE</th>
<th>Standing order for Measles IMMUNOPROHYLAXIS - Normal Human Immunoglobulin</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drug(s)</td>
<td>Normal Immunoglobulin - VF</td>
</tr>
</tbody>
</table>
| Presentation | Vials of solution for intramuscular injection, 160 mg/mL: 2 mL, 5 mL ‘Normal Immunoglobulin-VF’  
Store vials at 2 to 8 deg. C. (Refrigerate. Do not freeze). **Maintain cold chain at all times and protect from all light** |
| Indication | Passive immunisation to prevent measles in susceptible contacts of confirmed cases of measles |
| Contraindications | - Coagulation disorders that would contraindicate intramuscular injections (such as severe thrombocytopenia)  
- Individuals with isolated immunoglobulin A (IgA) deficiency, unless they have been tested and shown not to have circulating anti-IgA antibodies |
| Precautions | - Seek expert advice prior to administration if live vaccines (e.g. polio, measles, varicella-zoster) have been given within the last 3 weeks.  
- Must not be injected intravenously  
- Do not use if the product appears to be turbid by transmitted light or contains any sediment  
- Do not use after expiry date on label. Must be used immediately after opening the vial and any unused solution discarded  
- Should be given with caution to patients with a history of prior systemic allergic reactions following the administration of human immunoglobulin preparations.  
- Consult with obstetrician or GP for pregnant women. |
| Dose | Immunocompromised: 0.5mL/kg - to max of 15 mL  
All others: 0.2mL/kg - to max of 15 mL |
| Dose frequency | Single dose |
| Administration | - NH Ig should be brought to room temperature before use, and given slowly by deep intramuscular injection in the buttocks, using a large gauge (19 or 20mm) needle.  
- Where large doses of NHIG are required the dose should be divided in two and injected in each buttock. Hyaluronidase and/or a suitable local anaesthetic may be added to the injection if desired.  
- NH Ig should not be given intravenously. An attempt to draw back on the syringe after IM insertion of the needle should be made in order to ensure that the needle is not in a small vessel. |
| Drug Interactions | - Passively acquired antibody can interfere with the response to live, attenuated virus vaccines. Contact must be informed that they are unable to receive any live vaccines (polio, measles, varicella-zoster) for at least 5 months after IMI NH Ig (6 months for immunocompromised patients).  
- Immunoglobulins should not be administered for at least two weeks after a vaccine is given. |
| Adverse effects | - Common: Local tenderness, erythema and muscle stiffness may occur at the site of injection and may persist for several hours. Mild pyrexia, malaise, drowsiness and urticaria have been reported occasionally after injection.  
- Rare: Skin lesions, headache, dizziness, nausea, general hypersensitivity reactions and convulsions. Anaphylaxis following injection of NHIG is very rare. |
| Documentation | Obtain consent, explain side effects and provide consumer medicine information and patient information sheet |
| Related Documents | NSW Health Measles factsheet  
Consumer medicine information sheet  
Patient Information Sheet for NH Ig (section 8.10) |

1The drug information provided is to act as a guide only, for further information reference should be made to the full manufacturers product info
7 ADRENALINE (EPINEPHRINE) FOR ANAPHYLAXIS

Purpose
This standing order sets out procedures for administering adrenaline (epinephrine) for the management of anaphylaxis subsequent to the administration of antibiotics or immunoprophylaxis under public health standing orders.

Symptoms and signs of anaphylaxis
Anaphylaxis causes respiratory and/or cardiovascular signs or symptoms AND involves other organ systems such as skin or gastrointestinal tract, with:

- Skin signs, such as the rapid development of urticarial lesions or erythema, angioedema
- Abdominal cramps, diarrhoea and/or vomiting.
- Signs of upper airway obstruction, such as hoarseness and stridor.
- Indications of lower airway obstruction, such as subjective feelings of retrosternal tightness, dyspnnaea or wheeze.
- Limpness and pallor, which are signs of severe anaphylaxis in children.
- Profound hypotension in association with tachycardia, and/or other signs of cardiovascular disturbance, such as sinus tachycardia or severe bradycardia, and weak or absent pulses, when severe.
- Alteration in level of consciousness.

Management of anaphylaxis

- If the patient is unconscious, place them on the left side and position to keep the airway clear. If the patient is conscious, place supine in ‘head down and feet up’ position (unless this results in breathing difficulties).
- Give adrenaline (epinephrine) by intramuscular injection (see standing order for dosage) for any signs of anaphylaxis associated with respiratory and/or cardiovascular symptoms or signs. Although adrenaline (epinephrine) is not required for generalised non-anaphylactic reactions (such as skin rash without other signs or symptoms), administration of intramuscular adrenaline (epinephrine) is safe.
- If there is no improvement in the patient’s condition within five minutes, repeat dose of adrenaline (epinephrine) every five minutes until improvement occurs. Make every effort to call for assistance after first dose.
- If oxygen is available, administer by facemask at a high flow rate.
- Call for professional assistance and call an ambulance. Never leave the patient alone.
- Begin expired air resuscitation for apnoea, check for central pulse. If central pulse not palpable, commence external cardiac massage (ECM).
- All cases should be admitted to hospital for further observation and treatment.

Experienced practitioners may choose to use an oral airway if the appropriate size is available, but its use is not routinely recommended unless the patient is unconscious.

Antihistamines and/or hydrocortisone are not recommended for the emergency management of anaphylaxis.
### 7.1 Standing order for adrenaline (epinephrine) for management of anaphylaxis

**TITLE**
Standing order for adrenaline (epinephrine) for anaphylaxis subsequent to the administration of antibiotics or immunoprophylaxis under public health standing orders

**Drug(s)**
adrenaline (epinephrine):1000

**Presentation**
Solution for injection (clear, colourless) 1 mg/1mL

**Indication**
The drug of choice in the emergency treatment of acute severe anaphylactic reactions due to insect bites, drugs and other allergens.

**Contraindication**
Nil relevant

**Precautions**
- Adrenaline (epinephrine) injection contains no antimicrobial agent. It should be used only once and any residue discarded. Adrenaline (epinephrine) injection should not be used if it is coloured.
- NOT to be injected intravenously
- Use a 1mL syringe to improve the accuracy of measurement when drawing up small doses
- Local ischaemic necrosis can occur from repeated injections in one site
- Check expiry date of adrenaline (epinephrine) injection prior to use and on a regular basis.

**INTRAMUSCULAR ADRENALINE (EPINEPHRINE) DOSAGE**

<table>
<thead>
<tr>
<th>Age</th>
<th>Weight (approx)</th>
<th>Adrenaline (epinephrine) 1:1,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 1yr</td>
<td>5-10 kg</td>
<td>0.05 - 0.1 mL</td>
</tr>
<tr>
<td>1-2 yr</td>
<td>10 kg</td>
<td>0.1 mL</td>
</tr>
<tr>
<td>2-3 yr</td>
<td>15 kg</td>
<td>0.15 mL</td>
</tr>
<tr>
<td>4-6 yr</td>
<td>20 kg</td>
<td>0.2 mL</td>
</tr>
<tr>
<td>7-10 yr</td>
<td>30 kg</td>
<td>0.3 mL</td>
</tr>
<tr>
<td>10-12 yr</td>
<td>40 kg</td>
<td>0.4 mL</td>
</tr>
<tr>
<td>more than 12 yrs and adult</td>
<td>More than 50 kg</td>
<td>0.5 mL</td>
</tr>
</tbody>
</table>

**Dose frequency**
Make every effort to call for assistance after first dose
Repeat doses every 5 minutes until improvement occurs

**Administration**
Intramuscular injection preferably in the mid-anterolateral (upper outer) thigh (do not inject into buttocks).

**Drug Interactions**
No drug interactions of particular concern

**Adverse effects**
Fear; anxiety; restlessness; headache; tremor; weakness; dizziness; palpitation; respiratory difficulty; hypertension; injection site necrosis. See Product Information for full list.

**Documentation**
Adrenaline (epinephrine) recipients should be referred to hospital for further observation and treatment

**Related Documents**
Nil

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1 The drug information provided is to act as a guide only, for further information reference should be made to the Australian Medicines Handbook and the full manufacturers product info <accessible via CIAP: > If contraindications, precautions or interactions are present refer to MO before administration

11. INFECTIOUS DISEASES, IMMUNISATION AND RELATED MATTERS

Standing order activation: (to be completed for each occasion of use)

<table>
<thead>
<tr>
<th>Date:</th>
<th>Public Health Officer Name:</th>
<th>Signature:</th>
</tr>
</thead>
</table>

**Reason for activation:** (Include Index case record number or outbreak response name as applicable)

8 ATTACHMENTS

8.1 Procedure checklist for RNs / midwives to administer or supply medications

☐ Arrange the supply of medications from the designated public hospital pharmacy department. The Medical Public Health Officer should advise the Pharmacy of the medicines required, the estimated quantity and patients’ details, if known.

☐ Arrange the supply of an anaphylaxis kit (adrenaline (epinephrine) and 1ml syringes) and be familiar with the adrenaline (epinephrine) treatment protocol, found on the back cover of the current edition of “The Australian Immunisation Handbook” 1.

☐ Assess the eligibility for case or contact in accordance with the NSW Health Public Health Control Guidelines 2.

☐ Explain the rationale and purpose of the medication to the case / contact (or parent / guardian).

☐ Check with the case or contact (or parent / guardian) if they:
  1. Are pregnant
  2. Have any known allergies
  3. Are currently taking any interacting medications or
  4. Have pre-existing medical condition(s) where the use of a particular medication may be contraindicated or precautions may be required.

☐ Should the case or contact have a contraindication or precaution to the medication, contact the Medical Public Health Officer.

☐ Explain the adverse effects of the recommended medication.

☐ Provide the Patient Information Sheet, the Consumer Medicine Information Sheet(s), and the NSW Health Fact Sheet and advise them to inform their general practitioner of the treatment at the next visit.

☐ For each person, document the following details: name, address, date of birth, sex, phone number; whether the person has any relevant conditions established above; that information has been given. The form provided in the Appendix 8.2 and 8.3 should be used to document these details.

☐ Record whether valid consent has been given.

☐ Supply recommended medication, labelled by the pharmacist for that patient / contact name. If the name was unknown by the pharmacist at the time he/she packaged and labelled the medication, the Registered Nurse / midwife is to hand write the name, drug frequency, dose, duration and date on the label at the time of supply.

☐ The Medical Public Health Officer must be available to provide advice to the registered nurse if there are any concerns or questions.

☐ For each individual, document as appropriate the administration details and the number of doses supplied.

☐ At the completion of any mass vaccination / treatment program, the Medical Public Health Officer must review, and sign and date the records as soon as possible and ideally within 24 hours, to confirm that the program was conducted in accordance with the standing order.

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8.2 Record of supply / administration - medication records for Individuals

<table>
<thead>
<tr>
<th>Date:</th>
<th>Index Case ID:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surname:</td>
<td>First name:</td>
</tr>
<tr>
<td>Address:</td>
<td>Phone number:</td>
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<tr>
<td></td>
<td>MRN (where applicable):</td>
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<tr>
<td></td>
<td>DOB:</td>
</tr>
<tr>
<td></td>
<td>Male</td>
</tr>
</tbody>
</table>

- **Pregnant:** Yes ☐ No ☐
- **Breastfeeding:** Yes ☐ No ☐
- **Allergies:** Yes ☐ No ☐
- **Details:** ____________________________________
- **Current Medications:** Yes ☐ No ☐
  - Provide details:
  - ____________________________________
- **Other precautions and/or contraindications present?**
  - Yes ☐ No ☐
  - Provide details:
  - ____________________________________

- If precautions or contraindications identified have they been discussed with a medical officer? Yes ☐ No ☐
- **Advice given by medical officer:** ____________________________________
- **Other issues addressed:** ____________________________________

- Purpose of medication and adverse effects explained
- Counselling and education provided where medications are supplied for later use
- Informed consent obtained from individual / guardian
- Individual / Guardian has been provided with NSW Health Fact Sheet
- Individual / Guardian has been provided with Patient Information Sheet(s)
- Individual / Guardian advised to inform their doctor of the treatment at the next visit
- Contact / Guardian has been supplied with medications
  - If not provided, to be collected by…………………………………………from……………………………….

<table>
<thead>
<tr>
<th>Medication and presentation:</th>
<th>Dosage and route:</th>
<th>Amount supplied:</th>
</tr>
</thead>
<tbody>
<tr>
<td>RN’s name:</td>
<td>RN’s signature:</td>
<td>Date:</td>
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Following supply of medication / immunoprophylaxis, the Medical Public Health Officer is to check this medication record documenting the supply and CONFIRM BY SIGNING this entry WITHIN 24.

<table>
<thead>
<tr>
<th>Medical Officer's name:</th>
<th>Medical Officer's signature:</th>
<th>Date:</th>
</tr>
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</table>

280(18/8/16)
11. INFECTIOUS DISEASES, IMMUNISATION AND RELATED MATTERS

This form will be used as: PHU Prescription Fax Form OR Standing Order Form
(if used as a Standing Order Form, Medical Officer to sign as soon as possible)

<table>
<thead>
<tr>
<th>Surname:</th>
<th>First Name</th>
<th>Pregnant: Y / N</th>
<th>Breastfeeding: Y / N</th>
<th>Allergies: Y / N</th>
<th>Details:</th>
<th>Medication:</th>
<th>Dose and frequency:</th>
<th>Dose administered:</th>
<th>Amount supplied:</th>
<th>If not supplied, to be collected by:</th>
<th>From:</th>
<th>Adverse Effects explained: Y / N</th>
<th>Informed Consent obtained: Y / N</th>
<th>Fact sheet supplied: Y / N</th>
<th>Information sheet(s) provided: Y / N</th>
<th>Advised to inform GP on their next visit: Y / N</th>
</tr>
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<tbody>
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<td>Address:</td>
<td>MRN (where applicable)</td>
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Index case ID: __________________________ |

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<th>Designation:</th>
<th>Signature</th>
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<table>
<thead>
<tr>
<th>Surname:</th>
<th>First Name</th>
<th>Pregnant: Y / N</th>
<th>Breastfeeding: Y / N</th>
<th>Allergies: Y / N</th>
<th>Details:</th>
<th>Medication:</th>
<th>Dose and frequency:</th>
<th>Dose administered:</th>
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<th>If not supplied, to be collected by:</th>
<th>From:</th>
<th>Adverse Effects explained: Y / N</th>
<th>Informed Consent obtained: Y / N</th>
<th>Fact sheet supplied: Y / N</th>
<th>Information sheet(s) provided: Y / N</th>
<th>Advised to inform GP on their next visit: Y / N</th>
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<th>Surname:</th>
<th>First Name</th>
<th>Pregnant: Y / N</th>
<th>Breastfeeding: Y / N</th>
<th>Allergies: Y / N</th>
<th>Details:</th>
<th>Medication:</th>
<th>Dose and frequency:</th>
<th>Dose administered:</th>
<th>Amount supplied:</th>
<th>If not supplied, to be collected by:</th>
<th>From:</th>
<th>Adverse Effects explained: Y / N</th>
<th>Informed Consent obtained: Y / N</th>
<th>Fact sheet supplied: Y / N</th>
<th>Information sheet(s) provided: Y / N</th>
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<th>Name:</th>
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</table>

Medical Officer’s Signature: ................................................................. Print
Name: ........................................................................................................ Date: ..........................
8.4 Tamiflu® (oseltamivir) Patient Information Sheet

Read this sheet together with the Consumer Medicine Information Sheet for Tamiflu®

What Tamiflu® (Oseltamivir) is used for
Tamiflu is a medicine used for the treatment and prevention of influenza (an infection caused by the influenza virus). It has no effect on the common cold or other respiratory virus infections.

Tamiflu belongs to a group of medicines that attack the influenza virus and prevent it from spreading inside your body.

Tamiflu is absorbed to the key sites of influenza infection and treats the cause. Taking Tamiflu can help you feel better faster. You will also be less likely to develop complications of influenza, such as bronchitis, pneumonia and sinusitis.

Do not give Tamiflu to children under the age of one year.

How much to take
Take Tamiflu exactly as has been prescribed.

Instructions for taking Tamiflu
- Tamiflu is available as capsules or syrup
- You have been prescribed (Please check the appropriate box):
  - Tamiflu twice a day for five days as treatment for influenza.
  - Tamiflu once a day for 10 days as prevention for influenza.
- Tamiflu should be taken with food
- For young children, the dose can be mixed with soft food e.g. yoghurt, honey to disguise the taste of the medicines.
- Tamiflu should be started as soon as possible.

You should not take Tamiflu if you:
- Have had an allergic reaction to Tamiflu
- Are undergoing haemodialysis.

Tell your nurse or doctor if:
- You are pregnant or breast-feeding
- You have any type of kidney disease.

Adverse effects of Tamiflu
Some people feel unwell with nausea and vomiting or stomach ache. Mostly these are mild and transient. Taking Tamiflu with food can reduce these adverse effects.

Tell your doctor if you notice anything else that is making you feel unwell, even if it is not listed above.

Interactions with other medicines
Tamiflu has no significant interactions with other medications

8.5 Relenza® (zanamivir) Patient Information Sheet

Read this sheet together with the Consumer Medicine Information Sheet for Relenza®

What Relenza® (Zanamivir) is used for
Relenza is a medicine used for the treatment and prevention of influenza (an infection caused by the influenza virus). It has no effect on the common cold or other respiratory virus infections.

Relenza belongs to a group of medicines that attack the influenza virus and prevent it from spreading inside your body.
11. INFECTIOUS DISEASES, IMMUNISATION AND RELATED MATTERS

Relenza is delivered directly to the primary site of infection in the lungs. It works by attacking the influenza virus. Using Relenza can help you feel better faster. You will also be less likely to develop complications of influenza, such as bronchitis, pneumonia and sinusitis.

Do not use Relenza in children under the age of five years.

Instructions for taking Relenza

- Relenza comes as a fine powder in small pockets (known as blisters) in a round foil sheet (disk)
- You have been prescribed (please check the appropriate box):
  - Relenza 2 inhalations (1 blister / inhalation) twice daily for five days – as treatment for influenza
  - Relenza 2 inhalations (1 blister / inhalation) once daily for 10 days – as prevention for influenza
- Relenza requires the use of the Diskhaler to deliver the medicine in the blister directly to the lungs. Use one blister for each inhalation.
- Relenza should be started as soon as possible.

Using the Relenza Diskhaler

The medicine in your Relenza Disk is taken by breathing it in using the Relenza Diskhaler. Follow the instructions for use provided in the box containing the Diskhaler.

You should not use Relenza if you:

- You have had an allergic reaction to zanamivir or lactose.

Tell your nurse or doctor if:

- You are pregnant or breast-feeding
- You have asthma or any other breathing problems.

Adverse effects of Relenza

Most people using Relenza find that it causes no problems. However, very rarely, some people feel unwell with shortness of breath, wheezing, swelling of the face or in the mouth or throat, an itchy raised skin rash, skin that may blister, peeling of the skin, fainting and light headed.

Tell your doctor if you notice anything else that is making you feel unwell, even if it is not listed above.

Interactions with other medicines

Relenza has no significant interactions with other medications.

8.6 Rifampicin Patient Information Sheet

Read this sheet together with a Consumer Medicine Information Sheet for rifampicin

Rifampicin is an antibiotic that can be given to those in close contact with a person who has developed a meningococcal infection. The purpose of this antibiotic is to clear any meningococcal germs being ‘carried’ in the throats of contacts so that they cannot lead to meningococcal infections in other people.

This ‘clearance’ antibiotic cannot treat someone who is already developing the infection, so you still need to look out for symptoms and signs of meningococcal disease. (See Fact Sheet)

Instructions for taking rifampicin

- Rifampicin is taken twice a day for two days (a total of four doses are needed). It is available as tablets, capsules or syrup.
- Rifampicin should be taken on an empty stomach, either half an hour before eating or two hours after eating.
- Rifampicin should not be taken at the same time as antacids. Take rifampicin at least 1 hour before taking antacids, if antacid therapy is required.
You should not take rifampicin if you:

- Are allergic to rifampicin
- Have severe liver impairment (with jaundice)
- Are alcoholic or
- Are pregnant.

If rifampicin is unsuitable, you will need to take another antibiotic to get rid of the meningococcal germs. The nurse will discuss this with you.

Adverse effects of rifampicin

The most common adverse effects are gastrointestinal symptoms, such as nausea, vomiting, and cramps or rash. Rifampicin can colour body fluids a red/orange colour, so urine, faeces, sweat and tears may become orange-red. People who wear soft contact lens should use glasses while taking rifampicin as rifampicin may permanently stain them.

Other adverse effects are rare and very unlikely as the course of rifampicin is very short.

Tell your doctor if you notice anything else that is making you feel unwell, even if it is not listed above.

Interactions with other medicines

Rifampicin can interact with many drugs. It is important that you inform the nurse or public health officer if you are taking any prescription, over the counter or complementary medicines before you take rifampicin.

Rifampicin can reduce the effectiveness of oral contraceptives. While taking rifampicin, women taking the oral contraceptive pill should continue to take the active pills, omitting any pill-free or sugar pill interval and continuing for at least seven days after the last dose of rifampicin before stopping the active pills for the normal pill free or sugar pill interval. They should talk to their nurse, pharmacist or doctor if they are unsure of what to do. They should also use additional barrier contraception, such as condoms, while taking rifampicin and for four weeks after the last dose of rifampicin.

8.7 Ciprofloxacin Patient Information Sheet

Read this sheet together with the Consumer Medicine Information Sheet for ciprofloxacin

Ciprofloxacin is an antibiotic that can be given to those in close contact with a person who has developed a meningococcal infection. The purpose of this antibiotic is to clear any meningococcal germs being 'carried' in the throat of contacts, so that they cannot lead to the meningococcal infections in other people. This ‘clearance’ antibiotic cannot treat someone who is already developing the infection, so you still need to look out for symptoms and signs of meningococcal disease (see Fact Sheet).

Instructions for taking ciprofloxacin

- The dose of ciprofloxacin is a single dose taken in tablet form.
- The tablet should be swallowed whole with a full glass of water.
- Do not take the tablet if you have taken antacid/indigestion medicines or medicines containing iron or mineral supplements within the previous four hours. Wait until four hours have passed.

You should not take ciprofloxacin if you:

- Have had a previous allergic reaction to ciprofloxacin
- Are pregnant or are breast-feeding.

If ciprofloxacin is unsuitable, you will need to take a different antibiotic to get rid of the meningococcal germs. The nurse will discuss this with you.

Adverse effects of ciprofloxacin

Adverse effects are unlikely as only a single dose of ciprofloxacin is being taken. A few people may feel unwell after taking ciprofloxacin with nausea (feeling sick) or vomiting, mild diarrhoea; or dyspepsia (heartburn).
11. INFECTIOUS DISEASES, IMMUNISATION AND RELATED MATTERS

A very uncommon adverse effect is a severe allergic reaction. If you develop facial swelling, tightness in the throat, breathing difficulties, severe itching or a rash, you should seek medical attention immediately (ring 000).

Tell your doctor if you notice anything else that is making you feel unwell, even if it is not listed above.

Interactions with other medicines

Ciprofloxacin may interact with some medicines. If you are taking any other medications you should check with your doctor or pharmacist before taking ciprofloxacin. It is quite safe to take ciprofloxacin if you are taking the oral contraceptive pill.

8.8 Ceftriaxone Patient Information Sheet

Read this sheet together with the Consumer Medicine Information Sheet for ceftriaxone

Ceftriaxone is an antibiotic that can be given to those in close contact with a person who has developed a meningococcal infection. The purpose of this antibiotic is to clear any meningococcal germs being ‘carried’ in the throat of contacts, so that they cannot lead to meningococcal infections in other people.

This ‘clearance’ antibiotic cannot treat someone who is already developing the disease, so you still need to look out for symptoms and signs of meningococcal disease.

Ceftriaxone is given as a single injection into muscle tissue, such as in the thigh or buttock. Ceftriaxone is safe in pregnancy and in breastfeeding women.

You should not have ceftriaxone if you:

- Are allergic to ceftriaxone or other cephalosporin antibiotics or
- Have ever had a severe or immediate allergic reaction to penicillin antibiotics.

Adverse effects of ceftriaxone

Adverse effects are unlikely as only a single dose of ceftriaxone is being given. A few people may feel unwell after receiving ceftriaxone with pain at the injection site; diarrhoea, feeling sick, vomiting; headache or dizziness.

A very rare adverse effect is an allergic reaction - if you develop facial swelling, tightness in the throat, breathing difficulties, severe itching or a rash you should seek medical attention immediately (ring 000).

Tell the nurse if you notice anything else that is making you feel unwell, even if it is not listed above.

8.9 Information for Measles contacts: Measles Mumps Rubella (MMR) Vaccine

What is MMR Vaccine?

MMR vaccine is given at age 12 months and again at 18 months of age to immunise children against measles, mumps and rubella. MMR vaccine is also given to susceptible people who may have been exposed to cases of measles. MMR vaccine can make the body produce antibodies against measles and will protect against the disease developing if it is given within 72 hours after exposure to the virus.

How safe is it?

MMR is an extremely safe vaccine. Although the MMR vaccine is made using proteins related to egg, it is safe to provide the vaccine even in people with known allergies to eggs. MMR vaccine should not be given to pregnant women, those with previous allergy to MMR vaccine, or people with impaired immunity such HIV patients and those having cancer treatment.

Because autism usually starts to be noticed when a child is one to two years of age, which is when MMR is given, there was a suggestion of a link between MMR and autism. A great number of studies have been carried out and consistently show NO link to autism.
Can I still get measles?

MMR vaccine usually gives good protection against measles. Even so, some people will still get measles, although the illness is likely to be milder than usual. People receiving MMR vaccine should continue to watch for the symptoms of measles, which include fever, cough, sore eyes and a red, blotchy rash. If you or your child develops these symptoms, please call your family doctor. Your doctor will be able to advise you about the appropriate steps to take.

Adverse effects of MMR

The most common side effects are tenderness and redness at the site of injection, which may persist for several hours afterwards. Malaise, fever and / or rash may occur 5-12 days after vaccination, lasting 2-3 days. Fever can be managed with paracetamol. Rare side effects include swelling of the lymph glands (lymphadenopathy), swelling of the parotid glands which are salivary glands on the side of the face (parotitis), joint pain (arthralgia) and allergic reactions including rash (urticaria) and swelling of the lips or tongue (angio-oedema). Very rarely, reduced platelets in the blood (thrombocytopenia) and anaphylaxis – a severe allergic reaction – can result. In case this occurs we ask you to wait at the clinic for 15 minutes after your injection.

Tell the nurse if you notice anything else that is making you feel unwell, even if it is not listed above.

8.10 Information for Measles contacts: Normal Human Immunoglobulin

What is normal human immunoglobulin?

Normal human immunoglobulin is an injection that contains antibodies against a number of infections and is given to susceptible people who may have been exposed to cases of measles. If given early enough, it can prevent or reduce the severity of illness in these people.

To be effective, the correct dose of normal immunoglobulin must be given. The dose is calculated according to the person’s weight, up to a maximum of 15mL.

How safe is it?

Normal immunoglobulin is prepared from blood donated to the Australian Red Cross Blood Service, and is screened and treated to ensure that it does not contain HIV, hepatitis B or hepatitis C viruses.

Normal immunoglobulin can be given safely to healthy people of all ages, including babies and pregnant women. It should not be given to people who have had a previous allergic reaction to it, or who have disorders of their immune system affecting the production of certain antibodies.

Can I still get measles?

Normal immunoglobulin usually gives good protection for three to four weeks against measles. Even so, some people will still get measles, although the illness is likely to be milder than usual. People receiving the injection should continue to watch for the symptoms of measles, which include fever, cough, sore eyes and a red, blotchy rash. If you or your child develops these symptoms, please call your family doctor. Your doctor will be able to advise you about the appropriate steps to take.

Adverse effects of normal human immunoglobulin

The most common side effects are tenderness and muscle stiffness at the site of injection, which may persist for several hours afterwards. Sometimes there may be redness at the injection site or a fever. Rarely, there may be allergic reactions including rash (urticaria) and swelling of the lips or tongue (angio-oedema). Very rarely, anaphylaxis – a severe allergic reaction – can result. In case this occurs we ask you to wait at the clinic for 15 minutes after your injection.

Should I get vaccinated against measles as well?

Normal immunoglobulin can reduce the effectiveness of certain “live virus” vaccines, including measles-mumps-rubella (MMR), if these vaccines are given too soon afterwards. Ideally a person should wait for five months before being immunised with these vaccines. Please speak to your family doctor or immunisation clinic before you or your child are next immunised.

Tell the nurse if you notice anything else that is making you feel unwell, even if it is not listed above.
INFLUENZA – NSW HEALTH INFLUENZA PANDEMIC PLAN
(PD2016_016)

PD2016_016 rescinds PD2010_052

PURPOSE

The primary purpose of the NSW Health Influenza Pandemic Plan (the Plan) 2016 is to provide guidance to NSW Health staff and agencies on how to effectively prepare for and respond to an influenza pandemic, in order to minimise the adverse health impacts on the NSW population and reduce the burden and disruption to health-related services in NSW.

The Plan also aims to contribute to whole-of-government response activity to reduce the adverse social and economic impacts associated with an influenza pandemic in NSW.

The Plan is intended to be flexible enough to provide guidance on the response to a large outbreak of any highly transmissible respiratory pathogen with significant morbidity and mortality.

MANDATORY REQUIREMENTS

NSW Health agencies and services must ensure that District level and health facility level pandemic plans align with the planning assumptions, emergency management principles and planned strategic response activities outlined in the Plan. A pandemic plan checklist for Local Health Districts (LHDs) and Specialty Health Networks (SHNs) is provided in Appendix 8 of the Plan.

IMPLEMENTATION

Preparing for and responding to an influenza pandemic is a whole-of-health responsibility. The Plan presents a range of state-level strategic options for NSW Health agencies and services in preparation for and response to an influenza pandemic, but does not provide operational detail.

Appendix 7 of the Plan outlines roles and responsibilities for all health-related agencies and services in NSW in preparation for and response to an influenza pandemic. Additional detail on roles and responsibilities for specific key response areas are provided throughout the document.

1 INTRODUCTION

This is the NSW Health Influenza Pandemic Plan. The plan provides a framework to aid the New South Wales health sector response to an influenza pandemic and to outbreaks of other respiratory pathogens with pandemic potential. The plan is always ‘active’.

This plan provides a strategic outline of a range of possible NSW Health response activities that will need to be tailored during an influenza pandemic response.

Supporting documents for specific functional or technical areas of the pandemic response are maintained separately by individual NSW Health agencies.

The development of this sub plan has been informed by the following pandemic plans:

- National health influenza pandemic plan – Australian Health Management Plan for Pandemic Influenza (AHMPPi)
- NSW whole-of-government influenza pandemic plan – NSW Human Influenza Pandemic Plan (NSW HIPP).
An influenza pandemic will have a sustained impact over many months and a specific pandemic plan and different organisational arrangements drawing on existing public health systems are required. The aim is to ensure overall management of the health system whilst responding to the pandemic.

This plan will be reviewed:
- On conclusion of an emergency during which this plan was implemented
- On the introduction of any major structural, organisational or legislative changes which affect NSW Health or key stakeholders
- Under direction from the Health Secretary or Chief Health Officer
- Every five years.

Throughout this plan, ‘NSW Health’ refers to the broader NSW public health system including NSW Ministry of Health (MoH), Local Health Districts (LHDs), Sydney Health Networks (SHNs), and other health agencies such as the Clinical Excellence Commission (CEC), the Agency for Clinical Innovation (ACI), and shared services.

**INFLUENZA AND OTHER POTENTIAL PANDEMIC VIRUSES**

The influenza virus causes an acute viral disease of the respiratory tract. Influenza is primarily spread person-to-person by inhalation of and/or contact with infectious droplets, produced by infected people when they cough or sneeze.

Typical signs and symptoms of influenza include: fever, cough, myalgia, sore throat, headache, fatigue and chills. Infection may also occur without symptoms. Severe influenza-related complications include viral pneumonia or secondary bacterial pneumonia. Influenza may also cause a deterioration of chronic diseases such as chronic obstructive pulmonary disease or congestive heart failure.

Influenza is generally categorised into three types - A, B, and C – with outbreaks of influenza A and B occurring regularly every year. Seasonal influenza vaccination is an important intervention to reduce morbidity and mortality for groups at risk of severe disease, as listed in the *Australian Immunisation Handbook*.

Influenza viruses are characterised by distinct differences in their surface proteins (antigens). Both influenza A and B strains have a tendency to mutate leading to small changes in these surface proteins (antigenic drift). Novel influenza strains with pandemic potential may emerge when one strain undergoes a large mutation affecting its surface proteins or when different strains mix their genes in an infected host through genetic re-assortment (antigenic shift).

Only novel influenza A viruses have been known to cause pandemics. However other respiratory viruses with pandemic potential might also emerge or re-emerge (such as SARS coronavirus).

The population health impact of an influenza pandemic is determined by how readily it can be transmitted (i.e. transmissibility) and the seriousness of the illness it causes (i.e. clinical severity). The most severe pandemics are associated with a new influenza A virus that is both highly transmissible and causes severe illness, such as the 1918 ‘Spanish Influenza’ pandemic. Pandemic influenza viruses that tend to cause milder illness can still have a major population health impact, as everyone in the community will be susceptible to infection (e.g. the 1957 A(H2N2) pandemic).

For a novel influenza virus to have pandemic potential it must meet three criteria:
- Humans have little or no pre-existing immunity against the virus
- The virus leads to disease in humans
- The virus has the capacity to spread efficiently from person to person.
11. INFECTIOUS DISEASES, IMMUNISATION AND RELATED MATTERS

This plan is designed to be flexible and adaptable enough to also guide the response during a severe influenza season or to another respiratory pathogen with pandemic potential. The key factors determining the specific response measures for a specific pathogen include its mode and ease of spread, whether it is transmissible prior to the onset of symptoms, and the severity of the illness it produces.


KEY ASPECTS OF THE NSW RESPONSE

1.1 Objectives of the response

The key objectives of the pandemic response in NSW are to:

- Minimise transmission, morbidity and mortality of the pandemic virus in the NSW population
- Inform, engage and empower the public and health professionals to assist in the response to the pandemic
- Minimise the burden on the NSW Health system, health support services and partner agencies to respond to the pandemic
- Ensure that all health sectors work in partnership to provide a coordinated and timely response
- Maintain effective functioning across health services to manage other health issues during the pandemic response so as to achieve optimum health outcomes for the NSW population during a sustained influenza pandemic.

These objectives are in accordance with those outlined in the AHMPPI and NSW HIPP.

1.2 Principles guiding the NSW response

The principles guiding the overall pandemic response in NSW are as follows:

- **Use of existing systems where possible** – to avoid duplication and to ensure resilience of pandemic arrangements as far as possible (e.g. existing seasonal influenza surveillance systems, emergency department activity coordination).

- **Flexible approach** – to be responsive to the range of possible patterns of spread through NSW during a pandemic, and the spectrum of pandemic infections ranging from asymptomatic to severe illness.

- **Proportionate response** – to use pandemic response strategies that can be scaled up or down, proportionate to the clinical severity of the pandemic virus and to the needs of the NSW population.

- **Recognising additional needs of at-risk and vulnerable groups** – to ensure that additional health support is provided for groups at risk of severe disease, such as Aboriginal people and people with chronic conditions, and which recognises the needs of people from culturally and linguistically diverse backgrounds in NSW.

- **National coordination** – to work collaboratively with other jurisdictions to ensure national consistency in pandemic response measures wherever possible and be guided by the Australian Health Management Plan for Pandemic Influenza (AHMPPI).
1.3 Planning assumptions and scenarios

The NSW Health response will need to be flexible for a range of pandemic scenarios dependent on the clinical severity of infection caused by the pandemic virus, as summarised in Table 1.

Key planning considerations for a pandemic response include the following:

- **Extended response time** – healthcare services across the state need to be prepared for a marked increase in demand for healthcare services that may last an extended period of time.

- **Unknown origin** – a pandemic virus could emerge at any time of the year and anywhere in the world, including Australia. However, the most likely scenario is for a virus to emerge and be identified overseas, and then be imported into Australia by infected travellers over the next few weeks to months.

- **Border screening ineffective** – as infected travellers may have no symptoms on their arrival into Australia, border screening of incoming passengers is unlikely to be of benefit in preventing a pandemic influenza strain entering the country.

- **Rapid community spread** – a pandemic influenza virus may cause widespread community illness very quickly due to a short incubation period and the lack of existing immunity in the population. Once the pandemic strain enters NSW it is likely to spread to all parts of the state within a few weeks.

- **Similar at-risk groups** – it is reasonable to expect that population groups already known to be at increased risk of severe influenza infections will also be at increased risk during the next pandemic. The health needs of at-risk groups (such as pregnant women, people with chronic diseases) and communities with higher numbers of at-risk individuals (such as Aboriginal communities) need to be taken into account in planning for and responding to a pandemic.

- **Early information critical for responses** – epidemiological and clinical information about the novel virus – such as how severe the disease is, how readily it is passed from person to person, which people are most impacted (e.g. particular age groups, predisposing co-morbidities) – may be gained from both local and overseas experience. This evidence will, together with health service impact data, help to inform the implementation of health response strategies to minimise the rate of spread and reduce the overall impact of the pandemic.

- **Multiple pandemic waves possible** – experience with past pandemics suggests that there may be subsequent waves of infection in the months after the first wave dissipates. The impact of the pandemic virus in subsequent waves will be strongly influenced by the level of acquired immunity in the community and by decisions around influenza vaccination programmes.
11. INFECTIOUS DISEASES, IMMUNISATION AND RELATED MATTERS

Table 1: Planning scenarios for the NSW Health response to a pandemic

<table>
<thead>
<tr>
<th>Level of clinical severity</th>
<th>Potential population health impacts</th>
<th>Potential health sector response measures/considerations ¹</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td>Majority of cases have illness of mild to moderate severity</td>
<td>Early general public communications to inform and provide practical risk reduction measures</td>
</tr>
<tr>
<td></td>
<td>At-risk groups may experience severe disease and death</td>
<td>Targeted communications to groups at higher risk</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Implement hospital surge management strategies to cope with increased demand as the outbreak spreads in the community</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Close engagement with the primary care and community pharmacy sectors in response strategies</td>
</tr>
<tr>
<td>Medium</td>
<td>Clinical presentations for influenza-like illness above what is expected for a severe influenza season</td>
<td>Social distancing measures may be considered</td>
</tr>
<tr>
<td></td>
<td>More severe disease and deaths in at-risk groups and young people</td>
<td>Early and frequent communications for the community and at-risk groups regarding response strategies</td>
</tr>
<tr>
<td></td>
<td>Healthcare staff absences may be high</td>
<td>Optimise resources across health services to achieve overall health outcomes for the population</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Consider implementing additional surge/demand management actions, such as delaying or reducing non-urgent activities, surge staffing, and alternative models of care</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Continuing close engagement with the primary care and community pharmacy sectors in response strategies and consideration of alternative models of care</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Diagnostic testing may need to be prioritised to effectively utilise resources</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Antiviral and vaccine use focus on at-risk groups</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Work with other government stakeholders to control spread</td>
</tr>
<tr>
<td>High</td>
<td>Clinical presentations for influenza-like illness may be very high in the population</td>
<td>Social distancing measures likely</td>
</tr>
<tr>
<td></td>
<td>Majority of cases in the community may experience severe illness</td>
<td>Strong coordination and prioritisation to ensure hospitals maintain essential services</td>
</tr>
<tr>
<td></td>
<td>Death rates may be high for at-risk groups</td>
<td>Surge staff strategies and alternate models of care to respond to high staff absences</td>
</tr>
<tr>
<td></td>
<td>Specialist and critical care capacity in hospitals may be challenged</td>
<td>Laboratory testing targeted to utilise resources effectively</td>
</tr>
<tr>
<td></td>
<td>Healthcare staff absences may be high</td>
<td>Priority on supporting the health of at-risk groups, including Aboriginal people</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Antiviral and vaccine policy may focus on preventing illness and transmission in the population</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Potential use of overflow facilities within LHDs to support patient care and management, including residential care facilities and other suitable venues</td>
</tr>
</tbody>
</table>

¹ Note that lower level responses also apply in higher level scenarios.
2 GOVERNANCE ARRANGEMENTS

2.1 National governance

National arrangements are detailed in the AHMPPi and the NAPHIP. Department of Health (DoH) oversees the national pandemic response, collecting and analysing national surveillance data and managing the National Medical Stockpile.

The Australian Health Protection Principal Committee (AHPPC) coordinates inter-jurisdictional health preparedness and the response to the pandemic. The NSW Chief Health Officer represents NSW on AHPPC.

AHPPC is supported by groups such as the Communicable Diseases Network of Australia (CDNA) and the Public Health Laboratory Network (PHLN), both of which have NSW Health representatives.

2.2 NSW whole-of-government governance

The NSW State Emergency Management Plan (EMPLAN) and the NSW Human Influenza Pandemic Plan (sub plan to EMPLAN) identify NSW Health as the lead (combat) agency, with decision-making authority, for any human infectious disease emergency.

Unlike other emergencies where NSW Health involvement as a supporting agency is coordinated by the State Health Services Functional Area Coordinator (HSFAC), when NSW Health is the combat agency (i.e. during a pandemic), it is the Incident Controller who leads the response. The Incident Controller is the Health Secretary.

Where a coordinated whole-of-government response is required, the Incident Controller and the State HSFAC will liaise with the State Emergency Operations Controller (SEOCON), under the provisions of EMPLAN.

The Human Influenza Pandemic Plan enables the formation of a peak strategic and policy decision-making body, of which the Minister for Health, Health Secretary and Chief Health Officer will be key advisors, to coordinate the whole-of-government response to a pandemic.

2.3 NSW Health governance

A pandemic will be managed using existing systems and resources as far as possible. The Health Secretary, as Incident Controller, will have overarching responsibility for Health’s response to a pandemic and will establish an incident management team to oversee the response across the Health system.

Core members of the State Pandemic Management Team include:

- Health Secretary (Chair)
- Chief Health Officer/ Deputy Secretary Population and Public Health
- State HSFAC
- Deputy Secretary – System Purchasing and Performance
- Deputy Secretary – Governance Workforce and Corporate
- Deputy Secretary – Strategy and Resources
- Director – Public Affairs, Ministry of Health
- Chief Executive – Agency for Clinical Innovation
- Chief Executive – Clinical Excellence Commission
- Chief Executive – HealthShare NSW
- Chief Executive – NSW Health Pathology
- Chief Executive representation from metropolitan and regional NSW local health districts
- Additional representatives may be invited as required.
Pandemic-specific response groups (e.g. system performance, public health) may be implemented by the State Pandemic Management Team to manage state-wide coordination of their respective portfolio areas. These groups may choose to use an incident management system such as AIIMS as the basis of operational management arrangements. To avoid duplication of advice, requests and activity, it is essential that relevant information is communicated across response groups.

NSW Health Chief Executives remain responsible for the operation of their health services and can draw on the support of the State Pandemic Management Team and local emergency management resources.

Existing emergency management arrangements described in NSW HEALTHPLAN (PD2014_012) are available to support coordination of whole-of-health resources or provision of expertise as needed, however, during a pandemic, the provisions of this plan override those of HEALTHPLAN.

The State HSFAC will assist with coordinating any required reporting to the State Emergency Management Committee (SEMC) and support the Incident Controller as required.

Table 2 below summarises the key NSW Health governance arrangements in NSW during a pandemic.

**Table 2: NSW Health governance arrangements during the pandemic**

<table>
<thead>
<tr>
<th>Role</th>
<th>Responsibilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Secretary (Incident Controller)</td>
<td>• Overarching responsibility for pandemic preparation, response and recovery</td>
</tr>
<tr>
<td></td>
<td>• Chair of the State Pandemic Management Team</td>
</tr>
<tr>
<td></td>
<td>• Participates in peak NSW whole-of-government pandemic strategic and policy</td>
</tr>
<tr>
<td></td>
<td>decision-making bodies</td>
</tr>
<tr>
<td></td>
<td>• Incident Controller responsibilities as per section 7, #706 EMPLAN</td>
</tr>
<tr>
<td>Chief Health Officer (CHO)</td>
<td>• Liaises with the Minister for Health and the Health Secretary to provide</td>
</tr>
<tr>
<td></td>
<td>advice and make recommendations regarding response management</td>
</tr>
<tr>
<td></td>
<td>• NSW representative on the Australian Health Protection Principal Committee</td>
</tr>
<tr>
<td></td>
<td>• Member of the State Pandemic Management Team</td>
</tr>
<tr>
<td></td>
<td>• Participates in peak NSW whole-of-government pandemic strategic and policy</td>
</tr>
<tr>
<td></td>
<td>decision-making bodies</td>
</tr>
<tr>
<td>State Health Services Functional Area</td>
<td>• Supports the Incident Controller as requested, including liaising with State</td>
</tr>
<tr>
<td>Coordinator</td>
<td>Emergency Operations Controller (SEOCON) regarding whole of government support</td>
</tr>
<tr>
<td></td>
<td>• Member of the State Pandemic Management Team</td>
</tr>
<tr>
<td>State Pandemic Management Team</td>
<td>• Coordinates strategic management of NSW Health’s response to a pandemic</td>
</tr>
<tr>
<td></td>
<td>• For membership see previous page</td>
</tr>
<tr>
<td>LHD/SHN Chief Executives</td>
<td>• Responsible for LHD/SHN preparation for, operational response to and</td>
</tr>
<tr>
<td></td>
<td>recovery from a pandemic</td>
</tr>
<tr>
<td>LHD/SHN Health Service Functional Area</td>
<td>• Support LHD Chief Executives with pandemic response activities as requested</td>
</tr>
<tr>
<td>Coordinators</td>
<td></td>
</tr>
</tbody>
</table>
3 PANDEMIC STAGES AND KEY RESPONSE STRATEGIES

The framework for pandemic management in NSW is one of prevention, preparedness, response and recovery (PPRR). This aligns with the response stages outlined in the AHMPPI and the NSW response arrangements detailed in this plan.

The AHMPPI response stages (summarised in Appendix 5) focus on pandemic preparedness and operational response for the health sector but also guide the whole-of-government response. The AHMPPI pandemic stages are independent of the global pandemic phases as declared by the World Health Organization (WHO).

A detailed summary of the key state-level NSW Health responsibilities at each stage of the pandemic are presented in Appendix 6.

3.1 Prevention

The period prior to the identification of a novel pandemic influenza strain affecting humans is an important time to optimise existing influenza surveillance systems and ensure they are applicable to pandemic responses. This includes laboratory surveillance to identify novel influenza strains with pandemic potential.

NSW Health also collaborates closely with the NSW Department for Primary Industries in its efforts to prevent and control outbreaks of influenza in animals to minimise the risk of transmission to humans.

3.2 Preparedness

During the preparedness stage, potential pandemic pathogens that have emerged would be under close monitoring and surveillance by international and national health agencies to allow a tailored and proportionate response.

Within NSW, pandemic preparedness requires active engagement and communication with a range of stakeholders including:

- Clinical groups in health facilities most affected, including emergency departments, infectious diseases, infection control and critical care
- Peak general practice groups and other primary care and pharmacy groups
- Other government agencies and community groups that may be impacted.

Preparedness of the health system requires development of the workforce, particularly through training in infection control and through participation in exercises testing responses to a range of pandemic scenarios.

Pandemic response capacity relies on, and builds upon, seasonal influenza response measures embedded in the health system. This includes robust infection control practices (such as hand-washing, respiratory etiquette, isolation of cases) and routine influenza vaccination for healthcare workers and at-risk populations. This also includes interventions to optimise emergency department performance at times of peak influenza activity in the community.

3.3 Response

Once a new human virus with pandemic potential has been identified a range of major pandemic response strategies will be considered. Under the AHMMPPI, the response stage is delineated into four sub-stages including: Standby, Initial action, Targeted action and Stand down reflecting the need to tailor response activities according to the spread and impact of the pandemic virus in Australia.

The transition through pandemic response stages will be guided by emerging data on the clinical severity and transmissibility of the virus and its impact on the population. The decision to transition through the different stages will be taken by the Australian Government in consultation with states and territory jurisdictions. The Health Secretary in consultation with the State Pandemic Management Team will determine the transition through different response stages in NSW.
The *Standby stage* may vary considerably in duration depending on the spread of the pandemic virus once it reaches Australia. It represents a period of time to ensure enhanced arrangements are in place to coordinate the early response to the pandemic in NSW; for example, communications, governance, surveillance and any border activities if appropriate.

During the *Initial action* stage, detailed clinical and epidemiological data are gathered to understand the nature of the virus and its potential impact in NSW.

During the *Targeted action* stage, as the pandemic becomes more widespread and the demand on health care services increases, tailoring response measures will require regular review of data from disease surveillance and from monitoring of health system and workforce impacts. The effectiveness of any interventions implemented will be assessed to help ensure that the best use is made of the resources available to achieve optimum health outcomes for the population.

During the *Stand down* stage, the decreasing impact of the pandemic may not be the same across geographical areas or population groups in NSW. Targeted response measures may still be required for some LHDs with higher activity, as other areas wind down their activities and move into recovery.

### 3.4 Recovery

The states and territory jurisdictions have primary responsibility for managing the *Recovery* stage. All NSW Health agencies will work together to support health services and community recovery.

Considerations for LHDs/SHNs and other NSW Health agencies during the recovery stage include the need to plan for services and staff to transition back to “normal” levels/duties. This is an important stage to conduct intra- and interagency evaluations and lessons learnt exercises and incorporate these lessons into future plans and strategic policies.

Auditing and replenishing stockpiles of essential medical supplies and equipment is also a key activity during the recovery stage.

### 4 ROLES AND RESPONSIBILITIES

The MoH, which for the purposes of this plan includes Health Protection NSW (HPNSW), is responsible for state-wide strategic planning and the implementation of key response activities for a pandemic through the State Pandemic Management Team. This will require close collaboration between all NSW Health and partner agencies.

Appendix 7 outlines the specific responsibilities of MoH Divisions and key NSW Health supporting agencies.

LHDs/SHNs are responsible for planning and delivering health services for their populations according to the principles outlined in this plan. An implementation checklist for LHDs/SHNs is provided in Appendix 8 to support the development of a district-level operational plan for a pandemic.

All NSW Health agencies must undertake regular training, exercises and have business continuity plans, policies and guidelines in place for a pandemic. During the response stage, all NSW Health agencies will be required to provide relevant expertise and advice according to their portfolio. It will be important during a pandemic response to seek feedback and disseminate information through key networks.
5 COMMUNICATION

Timely and accurate communication with the public, healthcare workers, government agencies and industry will assist with maintaining a coordinated and controlled response to a pandemic.

The AHMPPPI contains information on the national coordination and sharing of information and strategies for how this information is communicated to health stakeholders and the public during the pandemic response.

5.1 Communicating with the public

At the national level, the coordination of the content, delivery and timing of communication messages for the public will be crucial for ensuring confidence in our response to the pandemic. The National Health Emergency Media Response Network (NHEMRN) is responsible for developing and disseminating national communication messages and adaptations for specific audiences.

The NHEMRN is made up of all state and territory health department media units, relevant government agencies, national medical colleges, National Aboriginal Community Controlled Health Organisation (NACCHO) and parts of the private sector directly involved in emergency management.

The Australian Government’s Department of Foreign Affairs is responsible for issuing travel warnings to Australians during the pandemic.

In NSW the Public Information Functional Area Coordinator (PIFAC), established under EMPLAN, coordinates public information messages on behalf of all government agencies during a multi-agency coordinated emergency response. During a pandemic, the Health Communications Controller works closely with the PIFAC.

MoH Public Affairs Unit will coordinate the response to media enquiries, including the development and dissemination of key messages on behalf of NSW Health at the state level. MoH Strategic Relations and Communications Branch will be responsible for the development and dissemination of state-wide resources and healthcare awareness campaigns in collaboration with MoH Population and Public Health Division. MoH Public Affairs Division and Strategic Relations and Communications Branch will support the Health Communications Controller to develop an integrated communication plan, including use of new media, to ensure coordination of all state-level communications during a pandemic.

The Health Communications Controller in close liaison with the PIFAC will coordinate the timing and release of national messages via NHEMRN during a pandemic.

Health content experts (e.g. public health or clinical services) will work with the Health Communications Controller to develop consistent state-wide public information messages delivered by a qualified spokesperson.

A pandemic can result in a large surge of inbound calls from the public to LHDs. LHDs should plan for options that help utilise existing local telecommunications infrastructure to manage demand as far as possible during a pandemic. If the surge of inbound calls to either the LHDs and/or MoH substantially increases, the Public Health Controller may activate contact centre capacity. The PIFAC in liaison with the Health Communications Controller may also activate the state Public Information Centre.

Some culturally and linguistically diverse (CALD) populations will require tailored and clear messages to address specific health concerns. MoH will work with health partner agencies, including the Aboriginal Health and Medical Research Council of NSW, NSW Multicultural Health Communication Service, NSW Refugee Health, community elders and leaders, to develop a consistent state-wide and coordinated approach to developing and disseminating information and resources for CALD groups during the pandemic.

LHDs should coordinate public messages of local relevance (including those specific for CALD populations) with the approval of the Health Communications Controller.

MoH will work with NSW Multicultural Health Communications Service to ensure that the state-wide NSW Health Care Interpreter Service is briefed as early as possible during a pandemic, so that it can respond accordingly to any increased demand for interpreter services.
5.2 Communicating within the NSW health system

During a pandemic, information about changes to specific aspects of the NSW pandemic response such as infection control recommendations, clinical services, and case definitions will need to be quickly and reliably communicated to healthcare workers, including staff working in NSW Health agencies, Aboriginal health services and community healthcare providers such as GPs and community pharmacies.

The State Pandemic Management Team will coordinate dissemination of relevant information to NSW Health agencies via key contacts (such as Chief Executives, Directors of Clinical Operations, LHD HSFACs, Public Health Unit (PHU) Directors or LHD emergency operations centres).

MoH in collaboration with the DoH will disseminate national messages regarding key pandemic response actions (e.g. change in pandemic stage) to general practitioners (GPs) and community pharmacies.

MoH communicates with the primary health care community (e.g. GPs, Aboriginal health services, community pharmacies) both through their peak bodies and existing reference groups and through direct communications, such as GP practice fax alerts. The National Health Services Directory may also be utilised for emailing information as required. MoH will continue to convene meetings with the peak private hospital groups and aged care facility agencies (e.g. Aged and Community Services NSW and ACT) to keep them informed about pandemic influenza planning developments and to encourage them to adopt appropriate pandemic management policies in their facilities.

The Centre for Aboriginal Health (NSW Health) will convene an Aboriginal Medical Services Advisory Group to consult with Aboriginal health services during a pandemic.

LHDs/SHNs are responsible for maintaining and utilising existing networks and channels of communication to notify local service providers, including any private hospitals, of any changes in key pandemic response activity during a pandemic. LHDs/SHNs are responsible for managing communication with their employees. These messages will complement those being released by the NSW and Australian governments but will add tailored local messages as appropriate.

5.3 Communicating with key government agencies and industry

The Health Communications Controller will liaise closely with cross-government agencies.

The PIFAC is responsible for coordinating communications to business and industry across NSW in consultation with the MoH and Health Communications Controller and other relevant agencies. This would ensure agencies or services providing contractual services to the NSW Health system (e.g. waste disposal and cleaning contractors) are adequately informed of any changes to the pandemic response in NSW.

6 MITIGATION OF TRANSMISSION

6.1 Infection control

The overall aim of infection control measures is to reduce exposure to and transmission of a pathogen. The AHMPPI outlines several infection control strategies for managing a pandemic virus in healthcare facilities and in the community.

There is good experimental evidence to demonstrate that influenza is transmitted directly through infectious droplets (i.e. from coughing and sneezing) or indirectly through contact with surfaces contaminated by respiratory droplets (e.g. skin, clothing or objects).

The risk of transmission can be greatly decreased by:

- Individual measures (e.g. hand hygiene and respiratory etiquette)
- Appropriate use of standard, contact and droplet infection control precautions
- Appropriate use of PPE (e.g. gloves, gowns, eye protection and respiratory protection, as appropriate)
- Organisational environmental measures, including: signage; triaging and patient management; isolation rooms and/or cohorting of patients; increased environmental cleaning; and staff vaccination when available.
6.2 Healthcare facilities

Many infection control methods are applied on an ongoing basis, as outlined in the NSW Health Infection Control Policy (PD2007_036). More stringent methods may be used across the health system during a pandemic, as outlined in Minimising Transmission of Influenza in Healthcare Facilities guideline (GL2010_006).

If there is a reasonable risk of airborne transmission, additional airborne precautions may need to be added to existing infection control measures in healthcare facilities.

In the setting of a pandemic with medium to high clinical severity, enhanced infection control (such as additional environmental cleaning) and isolation measures (e.g. visitor screening) may be recommended to protect at-risk inpatients from transmission of pandemic influenza within healthcare facilities. Minimum standards for environmental cleaning in healthcare facilities are outlined in the NSW Health Environmental cleaning policy (PD2012_061).

Through ongoing workforce training schemes, LHDs are responsible for ensuring all personnel working within facilities of their district are equipped with adequate infection control skills.

6.3 Community resources

Communication materials (e.g. pamphlets, online factsheets, mass media advertisements, social media campaigns and signage) in community settings can be effective tools for promoting good infection control practices in the community.

Members of the general community will also require information on strategies to minimise their risk of exposure to influenza and to reduce the risk that they will transmit the virus to others in households, schools, workplaces and public spaces. This may include guidance on early treatment to reduce the infective period.

MoH will work with LHDs to ensure this information is distributed to members of the general public through appropriate channels and in a timely fashion (see Communication section). Information provided to primary and community health care providers will include recommendations on clinical assessment and management, including infection control, laboratory testing, antiviral treatment and vaccination.

6.4 Social distancing

Social distancing is a community-level intervention to reduce normal physical and social population mixing in order to slow the spread of a pandemic throughout society, as described in the AHMPPPI. Minimising the number of contacts of an infectious case can help reduce transmission of the pandemic virus. A range of social distancing interventions are discussed in the AHMPPPI (pgs. 143-152), including school and/or workplace closures, cancellation of mass gatherings and home isolation and quarantine of cases and contacts (see section below).

The decision to implement widespread and significant social distancing measures would be carefully considered by national and state whole-of-government processes. The implementation of social distancing measures in NSW would depend on the timing and stage of the pandemic response, along with the transmissibility and clinical severity of the pandemic virus.

Depending on the extent to which social distancing measures are applied, the effect on workforce absenteeism and the disruption to daily life may be considerable. The compliance with and benefits of social distancing measures are likely to be highest when the disease is clinically severe.

MoH in partnership with the PIFAC will develop and disseminate public messages emphasizing the rationale and importance of following social distancing procedures as appropriate.
6.5 Home isolation and quarantine

During a severe pandemic, symptomatic individuals may be recommended to remain in home or hospital isolation and this may be extended to exposed contacts (i.e. home quarantine). Both methods are important ways of reducing further virus transmission. Voluntary measures are preferred as compliance is generally high when the community is provided with the rationale behind the measures. Public health powers are an option to enforce quarantine or isolation and this may be considered in the context of a pandemic virus associated with severe clinical outcomes.

A key aspect of emergency preparedness is encouraging self, family and community resilience to improve individuals’ ability to self-manage in home isolation (for cases) and quarantine (for contacts, if recommended). This may include the promotion and use of community resources such as a plan for a home emergency kit and emergency pantry list.

This guideline also outlines a range of strategies for health agencies on how to collect surveillance data from cases and contacts in home isolation and quarantine. This includes the use of phone calls and/or SMS systems, as well as NCIMS to collect and record epidemiological data.

Support in sourcing alternative accommodation for large numbers of people would be provided by the State Emergency Operations Controller under the arrangements detailed in the NSW HIPP. However, this is unlikely to be a useful measure during a pandemic and would only be recommended in extreme circumstances.

It is essential that the health and welfare needs of those in home isolation and quarantine are adequately addressed. Arrangements for accessing support from other NSW agencies are detailed in the NSW HIPP.

7 HEALTHCARE DELIVERY - FACILITIES

Hospitals and other healthcare facilities will need to consider a range of service options to enable them to continue to deliver optimal health outcomes to the population, both for pandemic and non-pandemic patients. Communications within and between LHDs to share information on approaches to service delivery will be important in identifying the best service delivery options for each facility.

During the pandemic response, CEs may wish to consider a range of healthcare facility models to assess, manage and treat pandemic patients according to the spread and potential impact of the virus.

- During the Initial action stage, when the pandemic virus has only just emerged in NSW, LHDs may wish to consider enhanced ED triage for patients presenting with ILI and/or respiratory complications.
- During the Targeted action stage, as the pandemic virus spreads more widely in the community, LHDs may need to consider alternative models of care that preserve the capacity of EDs to respond to other patients with acute care needs either within or outside of the facility.

LHDs/SHNs should liaise with private health and aged care about key response strategies utilised during a pandemic in NSW.

Private hospitals are encouraged to adopt pandemic planning and management policies similar to those outlined in this plan. Private hospitals providing public services should prepare their plan together with the relevant LHD.

LHDs should incorporate EDs, critical care units and PACs into their business continuity planning for responding to a pandemic. These business continuity plans should include consideration of the need for additional resources to support:

- Staffing in critical demand areas
- Infection control, including PPE
- Medical supplies and equipment (e.g. ventilator equipment and medications).

Facility managers in LHDs should review food and linen production and distribution requirements during a pandemic, in consultation with HealthShare NSW in order to support the clinical management of patients within healthcare facilities.
7.1 **Clinical management**

During a pandemic, demand for acute care is predicted to be very high. Adjustments may need to be made to the routine delivery of hospital services to maximize the benefit of scarce resources in the most effective and ethical way. Principles guiding the management of demand and capacity within healthcare services include:

- That care given to people will be maximised within the available resources
- Plans should be consistent with the aim of preserving and maintaining essential healthcare services
- Changes to service delivery and clinical protocols should reflect changes in local and/or regional demand where appropriate
- Decisions regarding surge capacity and demand management should be coordinated at a strategic level within the health care service to ensure consistency of approach
- That a phased approach be used in scaling back any healthcare services to ensure demand management reflects the pandemic impact at the time
- Coordination by Health system support staff to ensure cross-district consistency of access is maintained.

Prior to the pandemic, LHDs and SHNs should identify all acute services that they provide, how services might be prioritised and plan for alternative mechanisms of service delivery where necessary. This planning work should encompass all local health service providers.

In developing plans for healthcare demand management during a pandemic, LHDs and SHNs should consider inter-related elements of healthcare services, including:

- physical aspects of capacity (e.g. beds, wards and ventilation equipment)
- hospital staff numbers (e.g. of clinical, allied health and administrative staff) and ability for staff to cross over to other areas
- clinical services and protocols (e.g. types of services and models of care).

While governance for service delivery changes within LHDs rests with LHD Chief Executives, statewide agreement will be sought wherever possible for any major changes to services, such as criteria for admission, triage or discharge, or new clinical management guidelines. This will be with the aim of promoting equitable delivery of healthcare across all districts.

Groups of specialist physicians (e.g. infectious diseases, maternal and newborn care and critical care) will be consulted to provide expert advice on the appropriate clinical management of patient groups.

7.2 **Emergency departments (EDs)**

EDs are a critical part of the hospital response to a pandemic in NSW. The level of response needed by EDs should be based on data on the epidemiology of the pandemic virus and the capacity of EDs to respond.

Guidance on clinical models of care and the role of ED staff during a pandemic are provided in the Australasian College of Emergency Medicine (ACEM) guidelines on the Management of severe influenza, pandemic influenza and emerging respiratory illnesses in Australasian Emergency Departments.

EDs will need to monitor capacity to manage suspect and/or infected patients throughout the pandemic to help inform LHD planning in regards to the establishment or stand down of different models of care. For example, the ACEM guidelines include consideration of advanced screening stations outside EDs, designated ‘flu areas’ within EDs and/or establishment of stand-alone PACs (see below).
7.3 Pandemic assessment centres

Pandemic Assessment Centres (PACs) are stand-alone facilities, separate (physically and operationally) from existing hospital EDs, which are used for triaging and assessing individuals with ILI. PACs provide one option for healthcare facilities to respond to increased patient demand during a pandemic but they may not be the most appropriate option for all facilities, particularly where alternative strategies already exist.

PACs may be activated by LHDs/SHNs at any time. The Health Secretary, in consultation with LHD CEs, may also direct the opening of PACs.

The purpose of PACs is to ensure:

- EDs and GP surgeries are not overwhelmed with suspected influenza cases and can continue, as far as possible, with their routine business
- Hospital-associated transmission of influenza is minimised by ensuring potentially infectious patients visiting the clinic are kept separate from other patients seeking care in the hospital facility
- A standardised method for assessing and managing patients is adopted
- Anti-viral medication is commenced as required.

In the preparation period, each LHD should identify appropriate sites and develop a staffing and resource plan for PACs. As far as possible, staff for PACs should not be drawn from existing ED staff, or from intensive care or specialist units. Consideration should be given to sites suitable for a range of pandemic scenarios, from mild to severe.

MoH provides guidance on the set-up, operation and resourcing of PACs to support LHDs during the pandemic. MoH will provide a standardised PAC patient form to enable appropriate assessment of patients and collection of data to inform the response at the LHD and state level.

To operate PACs efficiently, LHDs/SHNs will need to ensure there is adequate staffing, IT, network and internet access to enable collection and reporting of PAC service data. LHDs should consider how to inform local healthcare providers of PAC locations and operating hours should the need arise.

Private hospitals with EDs may also consider having plans for establishing PACs.

7.4 Critical care services

Critical care services may experience a significant increase in demand for personnel, specialised equipment (e.g. ventilators) and beds. Careful and detailed planning is essential for managing demand in intensive care units (ICUs), high-dependency units, paediatric intensive care units (PICUs), neonate intensive care units (NICUs) and medical retrieval services, as these services operate at or near full capacity on a regular basis.

The standard treatment for pandemic patients will mainly consist of antiviral medication (if indicated and available), antibiotics for secondary pneumonia, and supportive care. The use of mechanical ventilation or extracorporeal membrane oxygenation (ECMO) as treatment modalities for individual patients remains a clinical decision.

Communication will be essential between all critical care services in LHDs/SHNs and MoH to help build an epidemiological profile of the novel virus within clinical settings. MoH will engage and obtain strategic advice from the Medical Controller, ACI (including the Critical Care Taskforce), and the Sydney Children’s Hospitals Network (SCHN, including the Paediatric Controller) on the prioritisation and delivery of critical care services for adults and children during a pandemic.

Complex ethical and clinical treatment issues can occur during a pandemic, especially when healthcare demand exceeds supply. Strategies for managing capacity and ensuring evidence-based and equitable care for patients requiring intensive care are outlined in NSW Health policy Influenza Pandemic – providing critical care (PD2010_028).

LHDs/SHNs may choose to designate other hospital areas (e.g. operating theatres or general wards) as intensive care surge areas. Some children may be able to be treated and managed at adult hospitals.
7.5 Isolation spaces within healthcare facilities

Isolation spaces are an important component of isolating patients with communicable respiratory infections to contain further spread of the infection. If isolation of individuals is not possible, healthcare facilities may determine that isolation by cohort can occur. Purpose-built isolation spaces, as well as alternate facilities, may be used during a pandemic.

Further guidance on isolation and cohorting of patients to control outbreaks is provided in the NHMRC (2010) *Australian Guidelines for the Prevention and Control of Infection in Healthcare* (see B3.2).

7.6 Hospital in the home

Hospital in the home (HITH) services allow a range of clinical conditions to be effectively and safely managed without a person needing to stay in hospital. HITH services are already provided by many LHDs and SHNs and may be used or expanded during a pandemic response so that there are sufficient beds available for patients who need to be in hospital for their care.

7.7 Overflow facilities

Overflow facilities are used to accommodate patients when it is impractical to manage them at home or in a hospital. Healthcare facilities, including private hospitals, would be used preferentially. However, schools, warehouses, convention centres, hotels or sports arenas may be alternative sites.

Overflow facilities may be needed during a long-lasting and/or large-scale health emergency. During a pandemic they may serve as facilities to care for the large additional number of patients requiring treatment and management. The care provided in overflow facilities is generally supportive rather than interventional.

Depending on the infrastructure, staff and capacity within LHDs, the care provided in overflow facilities could include:

- Acute care for cohorted patients
- Expanded ambulatory care (low-level care for non-pandemic patients)
- Palliative care (acute and low-level care).

Each LHD should identify initial overflow facility sites, and planning should detail the circumstances where and when overflow facilities would be established and how these facilities would be staffed appropriately. Geographic variability in attack rates may dictate that overflow facilities are not established in all LHDs simultaneously during a pandemic.

In the event of a severe and widespread pandemic in NSW, the Health Secretary may instruct LHD CEs to open overflow facilities to ensure delivery of essential health services.

7.8 Health workforce issues

Pandemics present significant workforce challenges for NSW Health. Different services may experience increased demand for staff at the same time (e.g. clinical, public health, administrative, support and human resources staff). Staff absenteeism during a pandemic has the potential to place significant further strain on the health workforce.

The risk of occupational acquisition of influenza infection by healthcare workers is low, relative to community settings. However, perceived safety at work is a critical determinant of staff willingness to work during pandemic events, particularly for workers responsible for the care of children in the home environment.
7.8.1 Staff management

A number of inter-related workforce issues have been identified as being particularly pertinent during a pandemic, including:

- The levels of personal protection deemed acceptable by healthcare workers
- Infection control and disease control issues directly impacting upon staff availability (such as quarantine of exposed workers)
- The availability of sufficient staff, including recruitment, retention and equitable allocation issues
- The capacity to support staff in preparing for, responding to and recovering from a pandemic.

Absenteeism levels will vary according to the severity, duration and timing of the pandemic. However, health services should prepare contingency human resource plans in the event of high levels of absenteeism. This should include both positions in critical health services and critical administration areas. Plans should be regularly disseminated and additional training may be needed to prepare staff to work under different conditions.

The Public Health Workforce Surge Guidelines (GL2014_003) have been developed to assist LHDs in understanding when and how to identify, recruit and utilise surge staff for public health aspects of the pandemic response.

To ensure continuity of government services during a pandemic, the NSW Government has a Memorandum of Understanding with Unions NSW which sets out employment conditions that would apply during the pandemic, including attendance, salary payments and ability to require staff to provide additional support outside their usual job description.

Human resource plans should:

- Advise staff that they may be called upon at short notice to temporarily work different hours, in a different location or in a different way
- Ensure staff are aware that requests for flexibility on their part will be made with regard to appropriate use of their skills and their award conditions (NB: only clinical staff should be assigned clinical roles during the pandemic)
- Determine minimum staffing levels sufficient to safely maintain services
- Identify part-time staff who can work additional hours
- Identify staff who are prepared to defer annual or long service leave
- Identify casual staff who can work additional hours (while at the same time appropriately managing worker fatigue)
- Identify displaced employees or those on ‘return to work’ plans who can be deployed
- Identify staff who can provide non-clinical support and can be redeployed
- Identify agency resources which can be called upon
- Identify a manager/s and support staff to coordinate planning, communication, resource management and the orientation of staff.

Healthcare workers may believe that they are at increased risk of becoming infected themselves and/or transmitting infection to their friends and families. The adequacy of current Employee Assistance Programs and other systems to support the mental health needs of healthcare workers should be carefully considered and augmented if insufficient.

Managers in all NSW Health and affiliated organisations have a duty of care for staff under Work Health and Safety legislation to ensure that the exposure of healthcare workers to influenza is minimised, such as through appropriate infection control measures and use of PPE. Managers must ensure that all work health and safety risks are assessed and documented, in line with obligations under legislation.

Staff immunisation programs are an important risk mitigation strategy. All NSW Health agencies are required under the Policy Directive - Occupational assessment, screening and vaccination against specified infectious diseases (PD2011_005) - to ensure that staff in their district are appropriately screened and immunised (which includes offering seasonal influenza vaccination to all staff).
7.8.2 Education and training

The Health Education and Training Institute (HETI) will work in collaboration with MoH and LHDs to develop appropriate state-wide staff training programs relevant for the pandemic response. LHDs are responsible for regular delivery of staff education and training and for ensuring staff meet training requirements for pandemic preparedness and response as appropriate.

Specialised training may be required for the following groups:

- Front-line clinical healthcare staff such as paramedics and those working in EDs, ICUs and respiratory wards (e.g. refresher training in use of PPE)
- The public health workforce
- Laboratory services
- Primary healthcare and acute clinical staff
- Emergency services or other surge staff personnel supporting a pandemic vaccination clinic or overflow facility
- Clinical staff who will be assessing and managing patients in PACs (e.g. training in the use of clinical screening and triaging protocols).

In particular, critical care units including ICUs and High Dependency Units are staffed by personnel with specific medical or nursing intensive care training, many of whom work in more than one hospital, creating particular challenges for workforce surge. LHDs/SHNs must consider where to source additional personnel and provide additional training to ensure staff can work in intensive care (e.g. personnel trained in respiratory medicine or anaesthesia).

8 HEALTHCARE DELIVERY - COMMUNITY

Under NSW HEALTHPLAN, NSW Health may request assistance from health supporting agencies during a pandemic; these include residential care facilities, private health facilities, local government councils and primary healthcare networks. In preparation for a pandemic, MoH works with peak bodies, professional associations and other stakeholder groups to determine the most appropriate role for services that deliver healthcare within a community during a pandemic. Services may be asked to focus on maintaining core business or to take on specific pandemic-related roles depending on the severity of the pandemic.

Community healthcare providers may also be asked to participate in the deployment of alternative models of care to respond to clusters of illness in remote communities. The LHD in consultation with community health providers would be responsible for the implementation and operational management of alternative facilities or models of care in the community.

Other community healthcare providers (e.g. drug and alcohol services, dentists, physiotherapists or specialist rooms) should be prepared to implement screening, increase infection control and appropriately manage or defer attendance by people with ILI during a pandemic.

8.1 General practice

MoH works closely with primary care peak bodies in NSW to determine the most appropriate role for general practice during a pandemic. A key challenge for general practice will be the maintenance of routine services for patients when experiencing a potentially significant increase in demand during a pandemic. The Royal Australian College of General Practitioners (RACGP) has released the Managing pandemic influenza in general practice guidelines (as well as an implementation toolkit – see Appendix 4) which outline strategies to help GPs maintain business continuity during a pandemic. The RACGP has also developed Infection prevention and control standards for GPs and other community health providers which would be essential in the preparation and response to pandemic influenza.

LHDs/SHNs should work with their primary health networks to plan the local implementation of national and state pandemic response activities and to coordinate care between general practices and LHD facilities. GPs in rural and remote areas may have little support or relief available from other healthcare providers. LHDs/SHNs should consider and develop ways to work with GPs in rural and remote areas, and involve them in local pandemic planning. Additional roles for nursing staff in primary health networks in remote communities during a pandemic response should also be considered.
8.2 Community pharmacies

Community pharmacies may be asked to take on additional tasks or provide surge workforce capacity during a pandemic. Pharmacies are kept informed about pandemic phase changes through engagement between MoH and the NSW Pharmacy Guild and provided with advice to inform their customers about treatment for ILI.

MoH will consult with the NSW Pharmacy Guild and LHDs/SHNs to help identify any additional tasks (e.g. assistance with distribution of oseltamivir suspension and other anti-viral medications) that may be requested from community pharmacies.

8.3 NSW Ambulance and patient transport

It is anticipated that the NSW Ambulance workload will increase during a pandemic. This will require enhanced triaging of all patients to ensure NSW Ambulance is able to maintain core service delivery to emergency cases. NSW Ambulance is also responsible for providing coordination and communication processes across the service during emergency or campaign type operations. This includes close liaison with the NSW Health Non-Emergency Patient Transport (NEPT) Hub for the expected increase in non-emergency patient transports. Specific command and control operational arrangements are detailed in NSW Ambulance operational plans.

The State HSFAC may request support from the State Emergency Operations Controller for moving large numbers of people to alternate accommodation (e.g. relocating people from the airport that have been exposed to the virus during a flight). NSW Ambulance personnel may be best placed to assist with moving smaller groups of people.

HealthShare NSW is responsible for ensuring pandemic readiness for all Greater Metropolitan NEPT services; including business continuity and surge staff planning. Operational interagency liaison will occur between NSW Ambulance and HealthShare NSW and frontline supervisors during a pandemic.

8.4 Mental health services

Mental health services need to continue to provide core services (e.g. inpatient acute care, rehabilitation and emergency psychiatric services) during a pandemic as well as providing extra support services for mental health workers, other healthcare workers and members of the broader community. Mental health NGOs, GPs, peak bodies and consumer and carer organisations will be key stakeholders in planning and preparedness.

Individuals may develop short or long-term mental health concerns as a result of community anxiety, prolonged isolation or other significant changes to daily life experienced during a pandemic. The particular mental health needs of specific populations must also be considered. It will be important to ensure clear, consistent and timely public communication is produced and disseminated to reduce anxiety.

The psychological issues for healthcare workers in a pandemic will be significant, requiring clear, consistent and frequent communication to reduce community anxiety associated with exposure in the workplace. Many patients with mental health concerns are managed by clinicians in primary care. Early communication between the local LHD and GPs will be important to ensure smooth continuity of care.

The NSW Health Mental Health Line will be briefed on the pandemic and will be the main point of contact for those wishing to access or consult with mental health services. MoH may also activate the Mental Health Disaster Help Line if a specific service is required or if there are large numbers of people seeking assistance.

In order to continue to provide core mental health services to patients, alternative delivery mechanisms may be needed, including telephone or internet consultations and/or alternative access points for medication monitoring. Any decision regarding reduction of services would need to be made in consultation with the Mental Health Controller following full consideration of risk factors and the level of support available in the community.

The MoH Mental Health and Drug & Alcohol Office and LHD Mental Health Directors remain actively involved in pandemic planning to ensure mental health services are incorporated into LHD planning (e.g. developing protocols for the treatment of acutely mentally ill patients with pandemic influenza).
8.5 Correctional and detention facilities in NSW

Corrective Services and Juvenile Justice NSW (as part of the Department of Justice NSW) are responsible for the operational management of services and programs to manage adult and juvenile offenders respectively in corrective facilities or in the community in NSW. The Justice Health and Forensic Mental Health Network (JH&FMHN) as a state-wide specialty NSW Health network, maintains guidelines on supporting the health of adult and juvenile offenders during an influenza pandemic in NSW.

Correctional facilities present unique challenges in relation to social distancing and mitigating the impact of a pandemic. A range of strategies including screening prior to transport, isolation and quarantine are implemented by the JH&FMHN in consultation with Corrective Services NSW, Juvenile Justice NSW, the Department of Justice and NSW Police. JH&FMHN health facility centres, while not linked to specific hospitals, may also serve as PACs in consultation with the relevant LHD.

Immigration detention facilities are the responsibility of the Australian Government; however some detention facilities are contractually operated and managed by private providers. In the event of an influenza pandemic affecting detainees within NSW immigration detention facilities, NSW Health would collaborate with the Commonwealth to implement a range of strategies to support the health of detainees, such as case and contact follow-up, management and treatment.

8.6 Schools and children’s services

The NSW Department of Education is responsible for early childhood centres, public primary and secondary schools as well as some adult tertiary education centres such as campuses of TAFE NSW.

During a pandemic, early childhood centres and schools may be a focus of social distancing measures (during the Standby and/or Initial action stage) to reduce the community-level impact of pandemic influenza, as children typically have higher infection rates, shed virus longer than adults and may be less capable of maintaining high levels of infection control (e.g. adequate hand washing).

It is important to note that school closures have only been shown to be moderately effective at reducing transmission rates and the timing and duration of closures would need to be carefully considered (see AHPMPPI). Therefore a range of measures designed to help reduce social mixing of students in order to reduce transmission of the pandemic virus may be considered by MoH (e.g. cancellation of extra-curricular or after-school activities).

MoH would liaise closely with the NSW Department of Education, the Catholic Education Commission of NSW and the Association of Independent Schools of NSW to ensure the agreed implementation of any social distancing measures in early childhood centres and/or schools was timely, appropriate and communicated to relevant services and families in NSW.

8.7 Residential care facilities

People living in residential care facilities represent a potentially vulnerable population to the pandemic virus due to a variety of factors such as older age, disability, chronic illness and close living arrangements.

Most residential aged care services are the responsibility of the Australian Department of Social Services (DSS). However MoH and LHDs work closely with DSS and non-governmental organisations (e.g. Aged and Community Services NSW and ACT), facility managers and private providers in NSW on a regular basis to help protect the public health of residents through investigation and control of any infectious disease outbreaks.

All residential care facilities in NSW are encouraged to have plans in place for an influenza pandemic. CDNA maintains guidelines on the Prevention and management of influenza outbreaks in residential care facilities. Seasonal influenza outbreaks represent an opportunity for residential care facilities to test any plans, revise arrangements with health partners and incorporate any lessons learnt.

During a pandemic, MoH would work closely with the Commonwealth to ensure communications to residential care facilities in NSW regarding response strategies were coordinated in a timely and appropriate manner.
The AHMPPI acknowledges that some population groups will be at risk of severe morbidity or mortality from a pandemic virus. Depending on the clinical epidemiology of the pandemic virus, at-risk groups may include traditional seasonal influenza at-risk groups as listed in the Australian Immunisation Handbook, including infants, older people, people with chronic conditions, pregnant women and Aboriginal people.

Other population groups may also be at increased risk of influenza complications during an influenza pandemic because their health needs may not be met by traditional or mainstream health services, or they may have difficulty accessing health services and emergency resources. This includes some people from culturally and linguistically diverse backgrounds, including refugees, and the homeless.

LHDs need to consider how to identify and support at-risk populations in their district to ensure timely and appropriate information and healthcare is given during a pandemic. This will include appropriate models of care for ensuring that at-risk groups can access anti-viral medication and/or vaccination during a pandemic. Engaging and building relationships with local GPs, multicultural health networks, community and other care providers will be important in preparing to support the health needs of at-risk groups during a pandemic.

9.1 People with chronic diseases

During a pandemic, MoH would work with the ACI, NSW Pharmacy Guild and LHDs/SHNs to ensure people with chronic conditions are adequately supported in the community to manage their conditions. Public messaging may be used to encourage people with chronic conditions to maintain their treatment and seek advice for exacerbations.

The NSW Chronic Disease Management Program (CDMP) is a free service delivered by LHDs which targets NSW adults who have difficulty managing their condition and are at risk of hospitalization. The CDMP model supports care coordination and integration across the primary health care sector. LHDs should work with local GPs and other community providers (e.g. pharmacies) to develop effective business continuity and workforce surge plans that explore the best use of the CDMP and/or alternative models of care that support people with chronic conditions in the community.

9.2 People from culturally and linguistically diverse (CALD) backgrounds

During a pandemic, MoH would leverage off existing relationships with the NSW Multicultural Health Communication Service, NSW Refugee Health Service and the NSW Healthcare Interpreters Service to ensure the health needs of people from CALD backgrounds are supported. These services provide established pathways of communicating with multicultural families, children and young people, older people and people living in rural areas.

Strategies to support culturally appropriate communication with CALD groups during a pandemic are outlined in the Communications section of this plan. MoH would also work with the NSW Multicultural Health Communication Service and NSW Refugee Health Service to ensure that other not-for-profit organisations (e.g. Ethnic Community Council) and ethnic medical associations (e.g. Australian Chinese and Vietnamese Medical Associations) are briefed on the key pandemic response strategies over time so that support services could be provided if appropriate. The NSW Community Relations Council can provide links with community leaders in different CALD groups across NSW if appropriate.

LHDs/SHNs should ensure district level pandemic plans incorporate profiling, mobilisation and health services appropriate for CALD groups during a pandemic. Partnership arrangements in the delivery of health services for CALD groups during a pandemic should also be outlined, such as non-governmental organisations, primary health networks and community outreach services.

It will be important to ensure CALD groups are aware of strategies that will help them mitigate any risk of contracting or transmitting pandemic influenza within their community, such as infection control practices and social distancing measures, and how to access locally appropriate health services for prevention or management of pandemic influenza (e.g. PACs and pandemic vaccination clinics). This might include promotion and use of multilingual resources, local interpreter services, bilingual GPs and local refugee health services (including paediatric clinics and refugee health nurses where available).
11. INFECTIOUS DISEASES, IMMUNISATION AND RELATED MATTERS

9.3 Other at-risk groups

Depending on the clinical epidemiology of the pandemic virus, other groups including infants, the elderly and pregnant women might also be at increased risk of severe morbidity and mortality.

Strategies to support the health needs of infants and the elderly in regards to outbreaks of pandemic influenza in early childhood centres and residential facilities are outlined in the Healthcare delivery – community section of this plan.

10 ABORIGINAL PEOPLE

Aboriginal communities are a particular focus for pandemic planning as they are characterised by having higher numbers of at-risk individuals (i.e. people at higher risk of severe complications from influenza infections) than the general community.

NSW Health also recognises the importance of embedding the needs and interests of Aboriginal people in the development, implementation and evaluation of all NSW Health initiatives, as described in the Aboriginal Health Statement and Impact Guidelines (PD2007_082). Consistent with the principle of working in partnerships, adequate and appropriate pandemic planning for Aboriginal communities will only be achieved through effective partnership arrangements.

There are a number of barriers for Aboriginal people to access mainstream health services, such as availability, location, cost and continuity of care. For a range of reasons there may be potential for wide-spread reluctance of Aboriginal people to present to EDs, PACs and other mainstream health services during a pandemic.

LHDs must ensure that appropriate services are available to mitigate the impact of pandemic influenza in Aboriginal communities.

MoH works with the Aboriginal Health & Medical Research Council (AH&MRC) and LHDs to determine the most appropriate service delivery role for Aboriginal health services during a pandemic. Aboriginal Community Controlled Health Services (ACCHS) should be engaged through established partnership arrangements at a district level. Collaborative planning arrangements with non-ACCHS providers of health and health-related services for Aboriginal people should also be developed and implemented.

PHUs and LHD Directors/Managers of Aboriginal Health can facilitate partnerships with ACCHSs for advice on pandemic planning and its cultural appropriateness for Aboriginal people and communities. The MoH Centre for Aboriginal Health is available as another source of advice on Aboriginal health policy and programs at the state level. Due to the strength of kinship and family relationships, LHDs also need to work with Aboriginal health services and community representatives to develop and promote appropriate social distancing methods.

MoH maintains detailed guidance on how these partnership arrangements with ACCHS and Aboriginal communities in NSW should work in regards to planning for and responding to a pandemic.

11 SURVEILLANCE AND MONITORING

CDNA is responsible for determining any national changes in the case definition of the pandemic virus to enable accurate identification of cases and contacts. The Chief Health Officer will advise LHDs, GPs and community pharmacies and other partner agencies of changes to the case definition. LHDs are responsible for informing health facilities as well as private hospitals and Aboriginal health services (in collaboration with the Centre for Aboriginal Health) within their district of changes.

MoH will be primarily responsible for conducting and coordinating surveillance data collection and timely reporting of data to DoH on behalf of NSW Health. DoH will facilitate development of data transfer protocols for this process and will feed back information and analyses to jurisdictions via CDNA and AHPPC. MoH will inform LHDs of any changes to surveillance arrangements as the pandemic progresses.
LHDs are responsible for conducting and coordinating the early and enhanced data collection on cases and contacts during the pandemic. This enhanced data collection is to be undertaken in parallel with the core responsibilities of LHDs during the pandemic, including the appropriate assessment, treatment and management of cases and contacts. Surveillance data will be a key component of health situation reports and reporting through any emergency operation centres established at state and LHD levels.

**Surveillance arrangements**

During the early response stage (i.e. Initial action stage), detailed data on individual confirmed cases and household contacts will be needed to inform the national and state response to the pandemic as described in the AHMPPI.

Intelligence gathering within Australia will be less important if there is high quality surveillance information available characterising the severity and transmissibility of the pandemic strain from the studies carried out overseas prior to the arrival of the pandemic virus into Australia.

As the pandemic progresses and community transmission becomes established (i.e. Targeted action stage) it will be less important and less feasible to identify and follow-up each new case and their contacts. Surveillance activities will then focus on monitoring the impact of the pandemic on the community in general and on the health system in particular.

As the pandemic response transitions to the Stand down and Recovery stages, the new virus may remain circulating in the population and potentially become a new seasonal influenza virus. It will be important to continue to monitor the pandemic virus for a second wave of infection and/or for antiviral resistance using routine surveillance systems.

**11.2 Surveillance systems and data**

Wherever possible, existing routine surveillance systems will be used during the pandemic. This approach aligns with the AHMPPI and the Population Health Surveillance Strategy NSW 2011 to 2020. Routine surveillance for human influenza occurs year-round in NSW but increases during the winter influenza season.

The following systems may be utilised during a pandemic:

- **Virological surveillance** – identifying and monitoring virus types and strains over time. Laboratories across NSW notify confirmed cases of influenza to PHUs. In addition, several public and private laboratories contribute a proportion of virological samples sent each year to the World Health Organization Collaborating Centre (WHO CC) for Reference and Research on Influenza (Melbourne) for monitoring antigenic changes in the influenza virus.

- **Syndromic surveillance** – monitoring and detecting any increased presentations for ILI in emergency departments or in the community through general practice. Current examples include the Public Health Real-time Emergency Department Surveillance System (PHREDSS) and eGPS, a program to monitor ILI consultations in sentinel GP practices.

- **Clinical surveillance in hospitals** – for monitoring hospitalisations or ICU admissions related to severe respiratory disease for adults or children. Current examples include FluCAN (the Influenza Complications Alert Network) and the Australian Paediatric Surveillance Unit.

- **Case and outbreak notification** - PHUs receive influenza notifications from laboratories and reports of outbreaks of ILI in institutions such as residential aged care facilities. Notification data are managed with the state-wide Notifiable Conditions Incident Management System (NCIMS).

- **Mortality surveillance** - Death registration data from the NSW Registry of Births, Deaths and Marriages are reviewed for deaths attributable to pneumonia and influenza on a weekly basis. Statistical estimates are then produced to predict the number of influenza-related deaths against a baseline estimate of deaths occurring each year.
11. INFECTIOUS DISEASES, IMMUNISATION AND RELATED MATTERS

- **Initial action stage / First Few 100 surveillance** – for a limited period at the start of pandemic, LHDs may be required to assist with the national effort to actively follow-up suspected and confirmed cases of pandemic influenza and their household contacts to examine transmissibility of the pandemic virus, the severity of infections and the groups at risk of severe disease. This enhanced data will be managed in NCIMS and shared with the National Notifiable Diseases Surveillance System (NNDSS) under existing arrangements.

- **Health facility impact monitoring** – data on the capacity of healthcare services to manage demand (e.g. ED presentations/admissions and bed/ventilation capacity). The Patient Flow Portal currently managed by MoH provides data on bed capacity and patient flow/transfers at the health facility level. Impacts on other areas such as on ED performance, surgical waiting lists, and staff absenteeism will also need to be monitored.

- **Detailed clinical surveillance in intensive care units** – for monitoring severity and clinical outcomes of patients admitted to ICU with suspected or confirmed influenza and/or viral pneumonia.

- **Vaccine distribution and monitoring data** – if and when a pandemic vaccine becomes available the current vaccine distribution and monitoring system may need to be enhanced to monitor the distribution and uptake of pandemic vaccines.

- **Adverse event following immunisation (AEFI) surveillance** – the existing AEFI system will be utilised by DoH and MoH to monitor adverse events associated with any new pandemic vaccine, particularly adverse events that may not have been detected in pre-licensure vaccine trials.

In addition, other surveillance data may need to be collected depending on the severity of the pandemic and the response strategies utilised in NSW, including:

- International border monitoring (if implemented)
- Workforce absenteeism monitoring.

During the pandemic, routine and enhanced data collection may also need to be supported by additional targeted research studies. These studies are likely to be coordinated at a national level. Pandemic research conducted in NSW will be subject to the capacity and interest of different agencies in NSW, including universities, research institutes, LHDs and other Health agencies.

11.3 International border surveillance

The Australian Government is responsible for developing and implementing policies relating to international border control activities. Roles and responsibilities relating to airports are outlined in the **National Pandemic Influenza Airport Border Operations Plan (FLUBORDERPLAN)**. The suite of border measures that the Australian Government may consider during a pandemic are outlined in the **AHMPPI**. The Australian Government has broad quarantine powers supported by legislation, as listed in Appendix 3.

MoH would respond to requests from the Australian Government via AHPPC to provide assistance with international border control and related risk management activities and the implementation of any measures in NSW. MoH would notify LHD Chief Executives of any border assistance required.

MoH routinely works with relevant LHDs to support Biosecurity Officers (Australian Department of Agriculture and Water Resources) with their border health screening work at international points of entry (airports and seaports) as needed, including providing training and assessing referrals.

MoH supports South East Sydney LHD to conduct the Airports and Seaports Human Biosecurity Program with a focus on cruise ships and Sydney International Airport. South East Sydney LHD would likely take a lead role in supporting border agencies at Sydney International Airport if additional border surveillance activities were recommended.
12 LABORATORY

At the national level, PHLN provides expertise and national guidelines for public health labs involved in microbiological testing.

NSW Health Pathology has primary responsibility for maintaining appropriate provision of laboratory services across NSW during a health emergency, including a pandemic. NSW Health Pathology response plans should be referred to for more detail on laboratory roles and responsibilities.

Supporting NSW guidelines for a laboratory response to an emergency may also be developed to help prepare public and private laboratories to respond to a health emergency such as an influenza pandemic.

12.1 Operational aspects of the laboratory response

In order to have an adequate state-wide capacity to detect novel pandemic viruses in humans, certain laboratories have the capability and capacity to develop tests for novel viruses with pandemic potential.

Diagnostic laboratories face a risk of high demand for diagnostic tests throughout the pandemic, and may also have to deal with increased staff absences. Laboratories should regularly review business continuity plans in order to ensure their capability and capacity to respond to a pandemic.

- During the Initial action stage of the pandemic (i.e. before the pandemic virus becomes widespread in NSW), the emphasis of laboratory testing will be on early, accurate diagnosis of all cases to identify and determine the spread of the virus across NSW, and to inform case and contact management.

- During the Targeted action stage (i.e. as the pandemic becomes more widespread), the pre-test probability of the pandemic virus being the cause of the illness becomes high. Clinicians will need to be advised to restrict testing to cases where the result will directly impact on clinical management.

- Experience from the pandemic in 2009 suggests that there may be particularly high demand on laboratory capacity when there is widespread influenza activity in the community, even following advice to clinicians. Some screening of test requests may be required to prioritise testing.

- During the later stages of a pandemic, testing should focus on cases admitted to hospital, particularly those in at-risk groups, where the outcome affects clinical management of the patient. Testing may also be used to monitor for strain drift and antiviral resistance.

Serological testing using a specific test for the pandemic virus may be useful for retrospective diagnosis, particularly for severely ill patients for whom specimens were not collected or were negative for the virus. Serological studies may be considered to inform a more robust estimate of the prevalence of infection, and assist in formulation of vaccine strategy.

13 ANTIVIRAL MEDICATIONS

Antiviral medication may be administered to cases to reduce the severity and duration of infection and to shorten the period when the patient is infectious. The medication is most effective if taken within 48 hours of symptom onset. Antiviral medications can be used for treatment of cases, and for both pre-exposure and post-exposure prophylaxis.

During a pandemic, antiviral medications, including those held within the National and NSW stockpiles, will be prioritised for treatment.

Widespread use of antiviral medications as prophylaxis (either pre-exposure or post-exposure) is not recommended as this may deplete a critical treatment resource. The limited use of anti-influenza medication as prophylaxis may be recommended by AHPPC for certain priority groups, such as at-risk contacts or healthcare workers treating pandemic influenza patients during a particularly severe pandemic.
MoH in consultation with LHDs, ACI and other clinical care networks will make decisions around prioritisation of antiviral medications for prophylaxis in NSW based on national recommendations. Access to antiviral medication for young children pre-prepared as a suspension (i.e. in liquid form) is likely to be limited. If required, hospital pharmacies and some community pharmacies in NSW will be able to compound oral antiviral medication suspension. MoH would work with the peak pharmacy bodies and LHDs/SHNs to ensure access and timely distribution of this medication during a pandemic.

Recommendations for the use of antivirals in NSW will depend on the epidemiological and virological characteristics of the virus (e.g. severity, transmissibility, antiviral resistance, and antiviral efficacy), pre-existing immunity in the community, vaccine availability and logistical constraints. MoH will provide LHDs, community pharmacies and primary health care providers with clear and timely guidance on antiviral medication use (e.g. agreed target groups, indications for use, dosage, precautions, storage, transport and disposal) as early as possible during the pandemic response. Clinicians can search the [NSW Health website](https://www.nsw.gov.au) for more information on these medications if needed.

The State-wide Standing Order for Supply or Administration of Medication for Public Health Response policy ([PD2013_035](https://www.nsw.gov.au)) outlines the arrangements for NSW Health registered nurses to administer and/or supply antiviral medication to cases and contacts for the purpose of treatment or prophylaxis in the community, such as at PACs, residential aged care facilities, or schools.

**14 VACCINATION**

Vaccination against a novel pandemic virus is a key response activity outlined in the AHMPPI. As soon as a pandemic virus is identified, work begins to produce a customised pandemic vaccine. Due to the lead-time required to manufacture a new vaccine, it may take many months after the emergence of a pandemic before there is enough vaccine for the Australian population.

In addition to customised pandemic vaccines, candidate pandemic vaccines may be available from DoH. Candidate vaccine seed strains have been developed for the avian-origin and swine-origin influenza virus sub-types. The effectiveness of these vaccines will depend upon the match between the seed strain and influenza strain causing the pandemic.

The use of candidate vaccines will depend on many factors, including early virological data, timing and spread of infection in Australia, availability of vaccine and predicted impact of the pandemic. It might be decided these vaccines would be prioritised for at-risk groups and/or healthcare workers during the initial action response stage of the pandemic.

The principles of vaccine prioritisation for the states and territory jurisdictions will be discussed collaboratively through the AHPPC. DoH will coordinate distribution of pandemic vaccines to states and territories. MoH will coordinate the distribution of vaccine to nominated vaccine dispensers (e.g. LHDs/SHNs, GPs) in NSW.

The national pandemic vaccine distribution strategy will be influenced by the amount of vaccine available and the stage of the pandemic when it becomes available. If the vaccine only becomes available after the first wave of pandemic has passed then there will be a preference for using existing vaccine delivery systems, particularly involving general practice.

If an initial supply of a pandemic vaccine becomes available during a pandemic and is recommended to be distributed as part of the outbreak response then this likely to be most effectively delivered through LHDs and SHNs.

LHDs /SHNs are responsible for developing strategies to provide pandemic vaccination to the public within their district in the outbreak setting, in addition to their usual staff vaccination programmes.
Provision of both candidate and pandemic-specific vaccines can be via several models coordinated by LHDs/SHNs depending on the severity of the pandemic virus and vaccine supply. MoH maintains guidelines for LHDs/SHNs regarding the establishment and operation of vaccination clinics during a pandemic.

LHDs/SHNs will be asked to plan for two vaccination scenarios according to MoH guidelines: (i) vaccination of priority groups with a candidate or pandemic-specific vaccine, (ii) mass vaccination for the wider LHD population with a pandemic specific vaccine. It will also be important that LHDs/SHNs consider the needs of at-risk groups in their population when planning vaccination clinics according to these scenarios.

LHDs/SHNs should collaborate with local health service and community providers to plan for appropriate models of pandemic vaccine delivery that meet the needs of their population in accordance with MoH guidelines. This may include vaccination through general practice clinics, community centres (e.g. schools or sporting clubs) or through Aboriginal Community Controlled Health Services (ACCHS).

LHDs/SHNs will need to plan for appropriate vaccine clinic locations that allow for adequate crowd control, patient flow and space to facilitate patient assessment, vaccination and observation. LHDs/SHNs will also need to consider staffing arrangements to ensure adequate numbers of immunisers are available to participate in vaccination clinics.

Staff at general practices and community health centres – including GPs, practice nurses and nurse practitioners – represent a skilled workforce capable of supporting pandemic vaccine delivery and administration. LHDs/SHNs should work with primary health networks in their district to plan for inclusion of these staff in the delivery of vaccination clinics as appropriate. Community pharmacists registered in NSW to administer influenza vaccines may also be utilised.

A pandemic influenza vaccination campaign may overlap with the annual seasonal influenza campaign. MoH will provide any specific state-wide instructions about coordinating both vaccination campaigns simultaneously.

15 NATIONAL AND STATE MEDICAL STOCKPILES

Medical stockpiles are strategic reserves of medicine and equipment designed to allow rapid access to standardised items that may not be available in a timely manner through routine supply channels due to increased national or international demand.

The Australian Government is responsible for maintaining the National Medical Stockpile (NMS) and for developing related deployment plans for these items to states and territories. The Chief Health Officer is able to request deployments from the NMS. If national demand is significant, requests may need to be prioritised across the states and territory jurisdictions.

MoH maintains the State Medical Stockpile (SMS) of essential supplies, such as PPE and antiviral medications, for NSW and is responsible for developing deployment plans for these items to LHDs.

HealthShare NSW is responsible for routine procurement of goods and services for LHDs in NSW. During a pandemic, warehousing and distribution of health supplies and uptake of essential items will be monitored by HealthShare NSW. When essential items (e.g. PPE) are no longer available through routine procurement channels, MoH will provide advice to LHDs regarding requesting SMS items.

LHDs are responsible for planning local distribution of resources provided to LHD facilities. In some situations, MoH may ask LHDs to help distribute goods to other healthcare facilities within their area.
## APPENDIX 1: ACRONYMS AND ABBREVIATIONS

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
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<tbody>
<tr>
<td>ACI</td>
<td>Agency for Clinical Innovation</td>
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<tr>
<td>AH&amp;MRC</td>
<td>Aboriginal Health &amp; Medical Research Council</td>
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<td>AHMPPI</td>
<td>Australian Health Management Plan for Pandemic Influenza</td>
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<td>AHPPC</td>
<td>Australian Health Protection Principal Committee</td>
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<tr>
<td>CALD</td>
<td>Culturally and linguistically diverse</td>
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<td>CDNA</td>
<td>Communicable Diseases Network Australia</td>
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<tr>
<td>CE</td>
<td>Chief Executive</td>
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<tr>
<td>DoH</td>
<td>Department of Health (Commonwealth)</td>
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<td>EDs</td>
<td>Emergency departments</td>
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<td>EMPLAN</td>
<td>NSW State Emergency Management Plan</td>
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<td>GP</td>
<td>General practice</td>
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<td>HEMU</td>
<td>Health Emergency Management Unit</td>
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<td>HSFAC</td>
<td>Health Services Functional Area Coordinator</td>
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<td>HPNSW</td>
<td>Health Protection NSW</td>
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<tr>
<td>ICU</td>
<td>Intensive care unit</td>
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<td>ILI</td>
<td>Influenza-like illness</td>
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<td>JH&amp;FMH</td>
<td>Justice Health and Forensic Mental Health</td>
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<td>LHD</td>
<td>Local health district</td>
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<td>MoH</td>
<td>NSW Ministry of Health</td>
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<td>NAPHIP</td>
<td>National Action Plan for Human Influenza Pandemic</td>
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<td>NCIMS</td>
<td>Notifiable Conditions Incident Management System</td>
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<td>NHEMRN</td>
<td>National Health Emergency Media Response Network</td>
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<td>NMS</td>
<td>National Medical Stockpile</td>
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<td>PHLN</td>
<td>Public Health Laboratory Network</td>
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<td>PHREDSS</td>
<td>Public Health Real-time Emergency Department Surveillance System</td>
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<td>PHU</td>
<td>Public health unit</td>
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<td>PIFAC</td>
<td>Public Information Functional Area Coordinator</td>
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<td>PPE</td>
<td>Personal protective equipment</td>
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<td>SERM Act</td>
<td>State Emergency Rescue Management Act</td>
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<tr>
<td>SCHN</td>
<td>Sydney Children’s Hospitals Network</td>
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<td>SHN</td>
<td>Specialty health network</td>
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<tr>
<td>SMS</td>
<td>State Medical Stockpile</td>
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<tr>
<td>WHO</td>
<td>World Health Organization</td>
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<td>WHOCC</td>
<td>WHO Collaborating Centre for Reference and Research on Influenza</td>
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## APPENDIX 2: GLOSSARY

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
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<tr>
<td>AIIMS</td>
<td>Australasian Inter-Service Incident Management System provides an emergency management structure that enables seamless integration of activities and resources of amongst and between agencies when applied to an emergency.</td>
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<tr>
<td>Antiviral medications</td>
<td>Antiviral medications decrease the severity and duration of influenza infections, and reduce the risk of illness in exposed individuals.</td>
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<tr>
<td>Combat agency</td>
<td>The agency identified in EMPLAN as the agency primarily responsible for controlling the response to a particular emergency (source: SERM Act).</td>
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<tr>
<td>Candidate pandemic vaccine</td>
<td>A vaccine based on a strain of influenza virus considered to have pandemic potential. This vaccine may provide partial protection if it develops into a pandemic strain that is easily transmissible between humans (source: AHMPPI, 2014).</td>
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<tr>
<td>Customised pandemic vaccine</td>
<td>A customised pandemic vaccine is a vaccine tailored to a specific pandemic virus strain. It cannot be developed until the next pandemic virus emerges (source: AHMPPI 2014).</td>
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<td>Health services (NSW)</td>
<td>Health services refer to any medical, hospital, ambulance, paramedical, community health or environmental health service or any other service relating to the maintenance or improvement of the health, or restoration to health, of persons or the prevention of disease in or injury to persons in NSW(source: Health Administration Act, 1982 No 135, pg. 2). This definition specifically refers to the administration of NSW Health services (see</td>
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<tr>
<td><strong>11. INFECTIOUS DISEASES, IMMUNISATION AND RELATED MATTERS</strong></td>
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<tr>
<td><strong>First Few 100</strong> FF100 is a surveillance protocol developed by the Australian Government for collection of detailed epidemiological and clinical data on the first few hundred confirmed cases (&amp; their household contacts) of pandemic influenza (source: AHMPPI 2014).</td>
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<tr>
<td><strong>NCIMS</strong> Notifiable Conditions Incident Management System – routine database for recording and collecting epidemiological data on cases of notifiable diseases in NSW.</td>
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<td><strong>NSW Health</strong> The expression “NSW Health” may be used to describe the Ministry and any other body and organisation under the control and direction of the Minister or the Health Secretary. This includes local health districts, pillars, shared services and other affiliated health agencies, such as NSW Ambulance, HealthShare NSW, Health Infrastructure, NSW Health Pathology, eHealth and St Vincent’s Health network.</td>
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<tr>
<td><strong>NHEMRN</strong> National Health Emergency Media Response Network – national peak committee (including jurisdictional health department communications teams) responsible for coordinating the development and dissemination of national communications during a pandemic. (source: AHMPPI, 2014).</td>
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<tr>
<td><strong>Pandemic</strong> A pandemic is an epidemic on a global scale. Only Type A influenza viruses have been known to cause influenza pandemics (source: AHMPPI, 2014).</td>
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<td><strong>Pandemic assessment centres (PACs)</strong> PACs (formerly known as flu clinics) are specifically planned facilities that will be needed during a pandemic for medical assessment and management of people with suspected pandemic influenza (source: AHMPPI 2014).</td>
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<td><strong>Post-exposure prophylaxis</strong> A dose/s of a drug (usually antibiotic or antiviral) given immediately after exposure to disease and before onset of illness (source: AHMPPI, 2014).</td>
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<tr>
<td><strong>Pre-exposure prophylaxis</strong> A dose/s of a drug (usually antibiotic or antiviral) given before exposure to a disease, to protect the person from being infected (source: AHMPPI, 2014).</td>
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<td><strong>Quarantine</strong> The limitation of freedom of movement for a period of time of well persons who are likely to have been exposed to the virus to prevent their contact with people who have not been exposed (source: AHMPPI, 2014).</td>
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<td><strong>Sub plan</strong> A sub plan is an action plan for a specific hazard, critical task or special event. It is prepared when the management arrangements necessary to deal with the effects of the hazard, or critical task or special events differ from the general coordination arrangements set out in the main or supporting plan for the area (source: NSW EMPLAN).</td>
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<td><strong>Surge capacity</strong> Health service’s to expand beyond normal capacity to meet an increased demand for clinical care (source: UK DH, Managing Demand and Capacity guidance, 2009)</td>
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**APPENDIX 3: LEGAL FRAMEWORK**

There are several key pieces of legislation supporting the NSW response to a pandemic.

**Australian Government legislation**

*The Quarantine Act 1908*

This Act aims to prevent the introduction of specified diseases into Australia and prevent the spread of such diseases within Australia.

*The Biosecurity Act 2015*

The new Biosecurity Act will commence on 16 June 2016, replacing the Quarantine Act 1908. Just as with the Quarantine Act, the biosecurity legislation will be co-administered by the Ministers responsible for Agriculture and Health.

*National Health Security Act 2007*

This Act provides for the exchange of public health surveillance information between the Australian Government and the states and territories, and, where relevant, the WHO.

**NSW legislation**

*State Emergency Rescue and Management Act 1989 (as amended)*

This Act details the emergency management framework in NSW.
Public Health Act 2010 and Regulation 2012
This Act outlines public health management in NSW, including notifiable diseases and infectious disease emergencies.

Health Administration Act 1982
This Act establishes the Health Administration Corporation and outlines the functions of the NSW Minister of Health and Health Secretary.

Health Records and Information Privacy Act 2002 (as amended)
This Act governs the management of health information in the NSW public and private sectors.

Health Services Act 1997 (as amended)
This Act outlines the structure of the NSW public health system.

Local Government Act 1993 (as amended)
This Act governs the functions (including regulatory functions) of local councils in NSW.

Poisons and Therapeutic Goods Act 1966 (as amended)
This Act lists poisons and drugs of addiction and states that Australian Government therapeutic goods laws apply in NSW.

Poisons and Therapeutic Goods Regulation 2008 (as amended)
This Regulation supports the Poisons and Therapeutic Goods Act 1966 and authorises the Health Secretary with powers for emergency medication supply.

Protection of the Environment Operations Act 1997 (as amended)
This Act is the key piece of environment protection legislation administered by the Environment Protection Authority and allows the Government to set out explicit protection of the environment policies.

Work Health and Safety Act 2011 (as amended)
This Act aims to protect workers and other persons against harm to their health, safety and welfare through the elimination or minimisation of risks arising from workplace practices.

APPENDIX 4: ASSOCIATED POLICIES AND GUIDELINES

International plans

World Health Organization’s Global Influenza Programme

National plans

Australian Health Management Plan for Pandemic Influenza (AHMPPi)
Australian Immunisation Handbook
National Action Plan for Human Influenza Pandemic (NAPHIP)
National Pandemic Influenza Airport Border Operations Plan (FLUBORDERPLAN)

Sector-specific guidance

Australasian College of Emergency Medicine – Management of Severe Influenza, Pandemic Influenza and Emerging Respiratory Illnesses in Australasian Emergency Departments

Communicable Diseases Network Australia – Influenza infection: national guidelines for public health units

Communicable Diseases Network Australia – A practical guide to assist in the prevention and management of influenza outbreaks in residential care facilities

National Health and Medical Research Council (2010) Australian Guidelines for the Prevention and Control of Infection in Healthcare
Royal Australian College of General Practitioners – *Managing Pandemic Influenza in General Practice*

Royal Australian College of General Practitioners – *Pandemic flu kit – implementation guide*

Royal Australian College of General Practitioners – *Infection prevention and control standards*

**NSW whole of government guidelines and policies**

Memorandum of Understanding between NSW Government and Unions NSW in relation to an influenza pandemic

*New South Wales State Emergency Management Plan* (EMPLAN)

*NSW Human Influenza Pandemic Plan*

**NSW Health guidelines and policies**

(Check NSW Health website for most recent versions)

*Aboriginal health impact statement and guidelines (PD2007_082)*

*Child Wellbeing and Child Protection Policies and Procedures for NSW Health (PD2013_007)*

*Emergency Management Arrangements for NSW Health (PD2012_067)*

*Environmental cleaning policy (PD2012_061)*

*Infection control policy (PD2007_036) [or most current version]*

*Influenza – providing critical care (PD2010_028)*

*Influenza – Minimising transmission of influenza in healthcare facilities: 2010 influenza season (GL2010_006)*

*Leave matters for the NSW Health service (PD2014_029)*

*Notification of infectious diseases under the Public Health Act 2010 (IB2013_010)*

*NSW HEALTHPLAN (PD2014_012)*

*NSW Hospital in the Home (HITH) guideline (GL2013_006)*

*Occupational assessment, screening and vaccination against specified infectious diseases (PD2011_005)*

*Public Health Workforce Surge Guidelines (GL2014_003)*

*Public Health Emergency Response Preparedness Minimum Standards (PD2013_039)*

*Public Health Field Response Guidelines (GL2014_001)*

*State-wide Standing Orders for the Supply or Administration of Medication for Public Health Response (PD2013_035)*

281(7/1/16)
## APPENDIX 5: AUSTRALIAN PANDEMIC RESPONSE STAGES

<table>
<thead>
<tr>
<th>Stage</th>
<th>Sub-stage</th>
<th>Key national-level response strategies</th>
</tr>
</thead>
</table>
| **Preparedness*** | | • Establish pre-agreed arrangements by developing and maintaining plans;  
• Research pandemic specific influenza management strategies;  
• Ensure resources are available and ready for rapid response; and  
• Monitor the emergence of diseases with pandemic potential, and investigate outbreaks if they occur. |
| **Response** | **Standby**  
Sustained community person to person transmission overseas | • Prepare to commence enhanced arrangements;  
• Identify and characterise the nature of the disease (commenced in Preparedness); and  
• Communications measures to raise awareness and confirm governance arrangements. |
| **Action** | Cases detected in Australia  
Sporadic cases and/or outbreaks occurring in the community  
Widespread person to person transmission in community | Action is divided into two groups of activities:  
**Initial** (when information about the disease is scarce)  
• Prepare and support health system needs;  
• Manage initial cases;  
• Identify and characterise the nature of the disease within the Australian context;  
• Provide information to support best practice health care and to empower the community and responders to manage their own risk of exposure; and  
• Support effective governance.  
**Targeted** (when enough is known about the disease to tailor measures to specific needs.)  
• Support and maintain quality care;  
• Ensure a proportionate response;  
• Communications to engage, empower and build confidence in the community; and  
• Provide a coordinated and consistent approach. |
| **Stand down** | Virus no longer presents a major public health threat | • Support and maintain quality care;  
• Cease activities that are no longer needed, and transition activities to seasonal or interim arrangements;  
• Monitor for a second wave of the outbreak;  
• Monitor for the development of antiviral resistance;  
• Communications activities to support the return from pandemic to normal business services; and  
• Evaluate systems and revise plans and procedures. |

* The Prevention stage, although not detailed here, represents an ongoing stage of alertness and preparation for the next pandemic. This includes close collaboration between the human and animal health sectors to monitor viruses with pandemic potential and regular exercising of existing response arrangements.

**Source:** Australian Health Management Plan for Pandemic Influenza 2014
## APPENDIX 6: NSW RESPONSE ACTIVITIES BY PANDEMIC STAGE

### PREVENTION

- Monitor for emergence of potential pandemic pathogens
- Contribute to regional and global influenza surveillance
- Contribute to research on pandemic influenza mitigation strategies
- Monitor emerging evidence on influenza treatment and influenza outbreak control measures

### PREPAREDNESS

- Promote respiratory etiquette and hand hygiene practices to the general public, particularly in relation to annual influenza season messaging
- Promote infection prevention and control practices with healthcare workers, and maintain high levels of infection control for usual respiratory pathogens
- Develop, test, revise and exercise pandemic plans for the health sector and across government
- Ensure the State Medical Stockpile (SMS) is maintained
- Support the development and maintenance of a health workforce with skills necessary for rapid deployment during a pandemic
- Support NSW Health agencies to develop operational plans
- Engage with primary care providers (especially GPs), the community pharmacy sector and other stakeholders
- Optimise hospital performance during peak seasonal influenza activity

### RESPONSE

**Standby** - *Sustained community person-to-person transmission of a novel virus overseas*

- Initiate emergency management arrangements as required
- Check stockpiles, pre-deploy essential items and plan use of resources and medical stockpile items (e.g. PPE, antivirals and vaccines, and resources to support their administration)
- Enhance surveillance activities that enable early characterisation of disease
- Commence communications to mobilise health services, emergency responders and to inform the public about the pandemic and key response strategies
- Awareness campaigns developed to reflect the age and cultures of at-risk groups
- Consider appropriate telephony surge options for the NSW Health service, including the identification and training of additional communications staff
- Review and consider appropriateness of social distancing measures
- Ensure laboratory capability/capacity, including specimen collection and transport are ready
- Review support arrangements for home isolation of cases and home quarantine of contacts
- Prepare primary and secondary care services for anticipated surge in patients (e.g. use of triage protocols, plans for cohorting and using infection control protocols and resources)

**Initial action** - *initial cases detected in Australia. Intelligence about the disease is scarce*

- Provide clinical management and public health guidelines to support health system response
- Provide information through the PIC and SEMC to support the whole-of-government response
- Contribute to border control measures as appropriate
- Support the implementation of the enhanced surveillance arrangements in LHDs for early characterisation of the pandemic virus (e.g. First Few 100 surveillance studies)
- Provide antiviral medication for cases (treatment) and/or contacts (prophylaxis) as appropriate
- Monitor workforce surge requirements and consider deployments of staff across LHDs and seek inter-jurisdictional support where necessary
11. INFECTIOUS DISEASES, IMMUNISATION AND RELATED MATTERS

- Communicate with the public and healthcare workers to inform them of early response and actions that can help mitigate risk of exposure
- Develop targeted messaging and education for sectors directly affected by pandemic response measures (e.g. schools, public transport)
- Support effective governance arrangements with NSW Health agencies and other sectors/networks
- Support the implementation of candidate vaccine programs in LHDs if appropriate
- Consider implementation of a range of social distancing measures
- Implement appropriate NSW Health telephony surge options
- Isolate early cases and contacts in healthcare settings or in the community
- Implement strategies that support the health of at-risk groups in the community
- Prepare and/or deploy alternative models of care in the LHDs
- Focus laboratory testing resources on early and accurate diagnosis of cases

**RESPONSE**

**Targeted action** – widespread activity in the community. Response measures tailored to specific needs based on available intelligence.

- Support and maintain quality of care across health services (e.g. implement triaging protocols for EDs and ICUs, re-enforcing infection control measures)
- Provide antiviral medication for cases (treatment) as appropriate
- Support the implementation and management of whole of hospital initiatives, including alternative models of care, where appropriate and feasible
- Support the implementation of vaccination clinics in LHDs as appropriate for pandemic vaccines
- Focus surveillance activity on collecting core data from routine established systems, including health system performance data
- Communicate with the public and healthcare workers to help them understand changes in the pandemic response and actions that will help mitigate risk of exposure
- Implement strategies that continue to support the health of at-risk groups in the community
- Monitor and support health workforce surge requirements to maintain healthcare services
- Continue to promote infection control measures for healthcare workers and public
- Prioritise influenza diagnostic testing for patients where results will affect clinical management.

**RESPONSE**

**Stand down** – manage the withdrawal of response strategies and transition to inter-pandemic arrangements

- Consider additional support for maintenance of services in areas disproportionately affected
- Determine whether to cease enhanced activities and health response measures
- Continue to ensure that core data is collected from routine surveillance systems - including monitoring for second wave and/or antiviral resistance
- Ensure communication activities support return to normal business
- Plan evaluation and/or pandemic review exercises where relevant

**RECOVERY**

Support the return to ‘normal business’ and recovery activity in the community

- Contribute to community recovery (via State Emergency Recovery Controller if activated)
- Ensure surge and support staff recruited to work during the pandemic response are briefed and supported to return to their normal duties across NSW Health and partner agencies
- Conduct debrief and evaluation activity to inform future plans and policies
- Consider preparations for a subsequent pandemic wave
### APPENDIX 7: PANDEMIC ROLES AND RESPONSIBILITIES

<table>
<thead>
<tr>
<th>Agency or organisation</th>
<th>Responsible for coordinating aspects of pandemic planning and response at the state level, including but not limited to:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ministry of Health</td>
<td>• Coordinating surveillance and monitoring activity, including early enhanced case finding and contact tracing in the <em>Initial action</em> stage</td>
</tr>
<tr>
<td></td>
<td>• Developing and implementing isolation and quarantine guidelines</td>
</tr>
<tr>
<td></td>
<td>• Developing public health communication resources in collaboration with the Strategic Relations and Communications Branch (SR&amp;CB)</td>
</tr>
<tr>
<td></td>
<td>• Health service planning for at-risk groups and Aboriginal peoples</td>
</tr>
<tr>
<td></td>
<td>• Implementing international border measures in consultation with the State Pandemic Management Team and relevant LHDs</td>
</tr>
<tr>
<td></td>
<td>• Deploying and assisting in the delivery of pandemic vaccine programs</td>
</tr>
<tr>
<td></td>
<td>• Providing guidance and support to laboratories</td>
</tr>
<tr>
<td></td>
<td>• Managing stockpile strategy</td>
</tr>
<tr>
<td></td>
<td>• Managing antiviral and vaccine distribution</td>
</tr>
<tr>
<td></td>
<td>• Developing policies to support operational management</td>
</tr>
<tr>
<td></td>
<td>• Developing and running exercises with relevant stakeholders to test and improve operational plans for the pandemic response</td>
</tr>
<tr>
<td></td>
<td>• Ensuring state-wide coordination of the public health response through the Public Health Controller</td>
</tr>
<tr>
<td>Population and Public Health Division and Health Protection NSW</td>
<td>• Monitoring and reporting on the impact of the pandemic on health system performance</td>
</tr>
<tr>
<td></td>
<td>• Coordinating with LHDs on the management of emergency departments and other pandemic-related services</td>
</tr>
<tr>
<td></td>
<td>• Coordinating the sharing of key learnings between LHDs and troubleshooting resource sharing and optimal resource allocation</td>
</tr>
<tr>
<td></td>
<td>• Monitoring the impact of the pandemic on elective surgery</td>
</tr>
<tr>
<td></td>
<td>• Providing expert advice on patient flow and emergency departments for public hospitals across NSW in conjunction with the ACI</td>
</tr>
<tr>
<td>System Purchasing and Performance Division</td>
<td>• Supporting communications with the private healthcare sector (e.g. private hospitals) in collaboration with LHDs and MoH</td>
</tr>
<tr>
<td></td>
<td>• Providing advice on the supply and administration of pharmaceuticals, and supporting links and communications with the NSW Pharmacy Guild, NSW Therapeutic Advisory Committee and hospital pharmacies</td>
</tr>
<tr>
<td></td>
<td>• Providing legal advice regarding emergency legislation and the healthcare response</td>
</tr>
<tr>
<td></td>
<td>• Developing pandemic-related workforce planning strategies and initiatives, including occupational health and safety policies for NSW Health agencies</td>
</tr>
<tr>
<td></td>
<td>• Liaison with unions and other workforce groups</td>
</tr>
<tr>
<td></td>
<td>• Managing Ministerial/Parliamentary requirements</td>
</tr>
<tr>
<td></td>
<td>• Implementing communication strategies and resources to help keep healthcare workers informed about the pandemic</td>
</tr>
<tr>
<td></td>
<td>• Developing and distributing state-wide health communication resources in collaboration with Population and Public Health Division</td>
</tr>
<tr>
<td></td>
<td>• Supporting development of public awareness/notice campaigns and resources during the pandemic in collaboration with the Public Affairs Unit</td>
</tr>
</tbody>
</table>
| Strategy and Resources Division | • Providing support, where required, for negotiating inter-government or cross-jurisdictional assistance  
• Assisting in the identification of and supporting liaison with primary health networks and groups  
• Supporting the following technical areas including preparing guidance, monitoring and communicating with networks and providing spokespeople: paediatrics, family and maternal health, aged care, disability, mental health & drug and alcohol  
• Supporting close liaison between the Chief Paediatrician/Paediatric Controller, the LHDs and MoH Population and Public Health Division  
• Supporting the Mental Health Controller |
| --- | --- |
| Public Affairs Unit | • Liaising with the Public Information Functional Area Coordinator  
• Managing the response to all press enquiries  
• Preparing press releases  
• Preparing spokespeople for media appearances  
• Acting as the focal point for liaison with National Health Emergency Media Response Network |
| NSW Health agencies |  |
| Clinical Excellence Commission | • Providing infection control and patient safety advice and expertise to MoH  
• Developing state-wide strategies and resources (including training modules to rapidly up-skill staff) to maintain high levels of compliance with infection control and patient safety recommendations  
• Monitoring and communicating with relevant networks  
• Monitoring and responding to potential quality and safety issues |
| Agency for Clinical Innovation | • Maintaining links with key clinical networks and providing clinical expertise on patient care  
• Developing targeted communication for specific medical specialities  
• Serving as primary point of contact with and providing secretariat support to clinical networks, including identifying emerging issues with networks  
• Maintaining close liaison with the Medical Controller |
| Health Education and Training Institute | • Coordinating the development of state-wide education and training packages in agreement with LHDs and MoH  
• Providing advice on the suitability of current online training resources (e.g. infection control) and the options for “just-in-time” training for surge staff prior to the pandemic |
| Bureau of Health Information | • Redeploying surge staff during a pandemic (e.g. biostatistical and research staff) where possible  
• Considering additional targeted research studies in NSW |
| HealthShare NSW | • Ensuring the supply and delivery of food, hotel, linen and cleaning services are maintained during a pandemic for LHDs, including the public hospital system and PACs  
• Coordinating state-wide procurement of clinical supplies including pharmaceuticals, consumables and equipment  
• Monitoring and reporting on system usage of items in short supply  
• Identifying and providing medical and disability equipment support to people in the community during a pandemic (e.g. home oxygen)  
• Considering appropriate use of the Greater Metropolitan Non-Emergency Patient Transport services to support the pandemic  
• Supporting the HealthShare NSW Controller |
### 11. INFECTIOUS DISEASES, IMMUNISATION AND RELATED MATTERS

<table>
<thead>
<tr>
<th>E-Health</th>
<th>• Maintaining strategies and procedures that both minimise state-wide information communication technology (ICT) service failure and allow for effective support for increases in clinical demand for ICT services during a pandemic</th>
</tr>
</thead>
</table>
| Local health districts (LHDs) / specialty health networks (SHNs) | • Preparing and maintaining arrangements for surge staff capacity across all NSW Health employment categories  
• Operating and/or deploying surveillance systems for pandemic data collection and reporting as appropriate (e.g. FF100 surveillance studies)  
• Implementing models of care that allow for delivery of antivirals and vaccines  
• Supporting and maintaining quality of care across health services and implementing infection control measures as appropriate  
• Ensuring cleaning and waste management services are appropriate for pandemic influenza  
• Preparing and implementing arrangements with the Aboriginal Community Controlled Health Services and other key partners that provide health support for at-risk groups in the population  
• Undertaking engagement and seeking agreement with local government councils on possible support roles during a pandemic (e.g. recruitment of staff to support surge strategies and assist with delivering pandemic vaccination clinics)  
• Coordinating targeted local communication and supporting communication of state-wide messages  
• Coordinating consistent content of local health facility pandemic plans |
| NSW Health Pathology | • Communicating with public and private laboratories across the state regarding pandemic response arrangements, including testing capability/capacity, specimen collection and transport, supplies of reagents and consumables and timely reporting of results to clients  
• Supporting public reference laboratories with resources for surge response  
• Ensuring reference centres provide support to other laboratories for acquisition of pandemic-specific testing capacity  
• Considering, in conjunction with Health partners, prioritisation/suspension of non-emergency testing and outsourcing to an alternative provider based on clinical advice and technical and workforce constraints  
• Liaising with interstate laboratories for local testing close to state borders  
• Supporting the Pathology Controller and close liaison with the Public Health Controller |
| NSW Ambulance | • Ensuring pandemic readiness for all ambulance services across NSW (e.g. business continuity and surge staff planning)  
• Supporting the Ambulance Controller and close liaison between the Public Health and Medical Controllers during a pandemic response  
• Coordinating aeromedical services during the pandemic  
• Responsible through the Ambulance Controller for coordination of patient transport as defined in *NSW HEALTHPLAN* |

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1 For the purposes of this document when referring to LHDs we also include SHNs (i.e. Justice Health and Forensic Mental Health Network and the Sydney Children’s Hospitals Network). However, there is recognition that the implementation of some emergency response activities may differ between LHDs and these two health entities due to a focus on providing healthcare for target at-risk groups within specific correctional or hospital settings respectively and with a lack of field deployment.
## APPENDIX 8: CHECKLIST FOR LHD/SHN PANDEMIC PLAN

<table>
<thead>
<tr>
<th>Requirement of the plan</th>
<th>Details</th>
<th>Completed</th>
<th>In Progress</th>
<th>Not Started</th>
</tr>
</thead>
<tbody>
<tr>
<td>Currency - plan last revised (specify date)</td>
<td>.../.../.....</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hierarchy - notes how the plan inter-relates to other relevant facility and LHD plans</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consistency – note how the plan relates to the LHD, state and national pandemic plans</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Management by objectives – notes the objectives of the response at the district level</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Roles and responsibilities – notes responsibilities of all stakeholders at the district level</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stages – outlines response activities at each stage of the pandemic response (i.e. prevention, preparedness, response, recovery)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Testing or exercises – outlines how and when (frequency) the plan and key response activities would be exercised</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| Communication | Details networks for local dissemination of MoH information | | | |
| Details how LHDs will communicate with private healthcare providers and other health partners in their district | | | | |

| Surveillance and monitoring | Details arrangements for collection of enhanced data & follow up of first few cases and contacts of pandemic | | | |
| Details arrangements for collection of key epidemiological and clinical data throughout the pandemic as agreed at the national and state level | | | | |

| Laboratory arrangements | Identifies the process for the urgent transfer of clinical specimens to a reference laboratory | | | |

| Medical stockpiles | Describes arrangements to order, store and distribute national and/or state medical stockpile items locally within the district | | | |

| Mitigation of transmission | Includes reference to relevant national or state infection control guidelines, and/or gives specific instructions on how to implement these guidelines locally within the district | | | |
| Details how local support will be provided to people in home isolation and quarantine (particularly early in the pandemic) | | | | |

| Antiviral medications | Identifies how antiviral agents will be distributed and administered to patients according to MoH policy | | | |

| Vaccination | Details how vaccination clinics would be set up and operated with appropriate resources and staff | | | |

<p>| Clinical management | Includes reference to guidelines or protocols for management of pandemic patients in health care facilities | | | |</p>
<table>
<thead>
<tr>
<th>Clinical Management (ctd)</th>
<th>Includes reference to guidelines for the isolation / cohorting of large number of pandemic patients</th>
<th>☐</th>
<th>☐</th>
<th>☐</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Describes strategies to manage additional demand for clinical services at both the facility and LHD level</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Healthcare delivery-facilities</td>
<td>Includes plans for the screening and triage of pandemic patients through emergency departments</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td></td>
<td>Includes reference to guidelines for the management of patients in critical care units (adults and children)</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td></td>
<td>Includes detail on how pandemic and non-pandemic patients would be managed in facilities</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td></td>
<td>Includes detail on the establishment, staffing, and resources required to operate a PAC</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td></td>
<td>Considers alternative models of care for rural and remote healthcare providers</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Healthcare delivery-community</td>
<td>Plan specifically details the role of GPs, community pharmacies and primary health care networks</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td></td>
<td>Plan considers how support might be provided to immigration detention facilities or other residential institutions for controlling outbreaks</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td></td>
<td>Plan considers how support might be provided to local schools or early childhood centres for controlling outbreaks</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td></td>
<td>Plan considers the role of community health providers in the maintenance of core mental health services</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Aboriginal people</td>
<td>Identifies way to engage and partner with Aboriginal Community Controlled Health Services in pandemic planning and response</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td></td>
<td>Identifies way to provide appropriate models of care for Aboriginal peoples during a pandemic</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>At-risk groups</td>
<td>Identifies ways to support the health needs of at-risk groups, such as people with chronic diseases and CALD groups during a pandemic.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Workforce issues</td>
<td>Detail included on how on to manage staff shortages, particularly surge strategies for clinical and non-clinical staff</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td></td>
<td>Identifies alternative workforce staff to assist critical areas during a pandemic response</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td></td>
<td>Consideration of staff training needs and exercises</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Role of local government</td>
<td>Plan specifically details the support roles that local government councils will provide during a pandemic</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Recovery arrangements</td>
<td>Describes arrangements to return the health facility back to where it was prior to the emergency</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td></td>
<td>Details arrangements to support staff welfare during the return to ‘business as usual’</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td></td>
<td>Details arrangements for conducting evaluation or lessons learnt exercises</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>
INFECTION PREVENTION AND CONTROL POLICY (PD2017_013)


PURPOSE

The primary purpose of the NSW Health Infection Prevention and Control Policy is to provide leadership to NSW Health Organisations (including Affiliated Health Organisations) on how to effectively prevent, manage and control healthcare associated infections (HAIs), in order to minimise the adverse health impacts on patients treated within health care and reduce the burden of HAIs.

MANDATORY REQUIREMENTS

Local infection prevention and control documents are to align with the principles outlined in this Policy Directive and are consistent with the principles and practices outlined within the NSW Infection Prevention and Control Practice Handbook, (this will be referred to as ‘Handbook’)

IMPLEMENTATION

NSW Public Health Organisations (PHOs) provide the mandatory requirements and the governance structure for the implementation of this Policy Directive to reduce the risk of healthcare associated infections (HAIs).

Clinical Excellence Commission
- Provides tools to support the implementation, monitoring and evaluation of this policy

Health Education and Training Institute
- Provides educational resources to support the implementation and compliance with this policy.

Chief Executive of Local Health District and Specialty Health Network
- Assigns leadership responsibility, personnel and resources to implement and comply with this policy.

Directors of Clinical Governance
- Ensure that this policy is communicated to all managers and health workers
- Ensure local infection prevention and control programs and systems are in place
- Monitor and provide regular reports on the progress and outcomes of the infection prevention and control program
- Monitor, evaluate and address issues with compliance with this policy.

Clinical leaders and senior managers
- Implement and evaluate local infection prevention and control systems.

Infection prevention and control professionals
- Provide leadership in infection prevention and control surveillance and reporting
- Provide advice on infection prevention and control within their health organisation
- Provide leadership in the management of HAIs or other transmission risks and in the communication of these risks to health workers, patients, volunteers, carers and visitors.

Health Workers
- Comply with the requirements of this policy.
11. INFECTIOUS DISEASES, IMMUNISATION AND RELATED MATTERS

11.1 ABOUT THIS DOCUMENT

This Policy Directive outlines the mandatory infection prevention and control requirements for NSW Public Health Organisations. This policy must be read in conjunction with the NSW Infection and Prevention Control Practice Handbook. [1]

1.2 SCOPE

This Policy Directive must be implemented within NSW Health Organisations.

The scope of this policy includes:

- Requirements for the infection prevention and control program
- Strategies for the prevention and management of HAI including those caused by multi drug resistant organisms (MROs) and communicable diseases
- Reprocessing of reusable medical devices
- Direction on governance and quality monitoring (surveillance)
- Infection prevention and control incidents and risk
- Standard and transmission based precautions
- Outbreaks of transmissible infections and communicable diseases
- Handling of animals as patients.

The handling and management of body substances and cytotoxic waste i.e. body substances and any discarded materials containing unmetabolised or residual cytotoxic medication is outside the scope of this policy. Guidance on this is provided in NSW Health *Waste Management Guidelines for Health Care Facilities PD2005_132* and *High Risk Medicines Management Policy PD2015_029.1*

1.3 KEY DEFINITIONS

<table>
<thead>
<tr>
<th>Definition</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Airborne precaution</strong></td>
<td>A transmission-based precaution used to interrupt transmission from patients known or suspected to be infected with agents transmitted person-to-person by the airborne route [2].</td>
</tr>
<tr>
<td><strong>Alcohol based handrub (ABHR)</strong></td>
<td>An alcohol-containing preparation (gel, foam or liquid) designed for reducing the number of viable microorganisms on dry, unsoiled hands.</td>
</tr>
<tr>
<td><strong>Alert/De-Alert</strong></td>
<td>Enabling of an electronic communication warning ‘flag’ that indicates MRO colonisation or infection in a patient’s clinical records. De-Alert is the inactivation of the electronic infection control Alert (flag).</td>
</tr>
<tr>
<td><strong>Antimicrobial</strong></td>
<td>A chemical substance , usually a medicine, that inhibits or destroys bacteria, viruses fungi or protozoa [1] [3]</td>
</tr>
<tr>
<td><strong>Antimicrobial stewardship</strong></td>
<td>An ongoing program within a health organisation for judicious antimicrobial use in order to improve patient outcomes, ensure cost-effective therapy and reduce adverse sequelae of antimicrobial use, including antimicrobial resistance [4].</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aseptic technique</td>
<td>Aseptic technique consists of a set of practices aimed at minimising contamination and is particularly used to protect the patient from infection during clinical procedures. The five essential principles of aseptic technique are sequencing, environmental control, hand hygiene, maintenance of aseptic fields and personal protective equipment (PPE). While the principles of aseptic technique remain constant for all procedures, the level of practice will change depending upon a standard risk assessment [2].</td>
</tr>
<tr>
<td>Body substance</td>
<td>Body substance is used rather than body fluid to emphasise the need for precautions to prevent contact with solid tissue and faeces as well as blood (including dried blood) and body fluids. This does not include intact skin, hair and sweat.</td>
</tr>
<tr>
<td>Cleaning</td>
<td>The removal of visible soil (e.g. inorganic and organic material) from objects and surfaces and is normally accomplished manually or mechanically using water with detergents or enzymatic products [5].</td>
</tr>
<tr>
<td>Clinical governance</td>
<td>A clearly defined framework of accountability at all levels in an organisation for continuously improving the quality of their service and safeguarding high standards of patient care [6].</td>
</tr>
<tr>
<td>Colonisation</td>
<td>A person has a specific pathogenic organism, usually a multi-resistant organisation (MRO) on or in the body without the production of an immune response or disease. [2]</td>
</tr>
<tr>
<td>Contact</td>
<td>The touching of any patient or their immediate surroundings or performing any procedure on a patient. [2]</td>
</tr>
<tr>
<td>Contact precaution</td>
<td>A transmission-based precaution used to interrupt the transmission of infectious agents that are spread by direct or indirect contact with the patient or the patient’s environment [2].</td>
</tr>
<tr>
<td>Critical items</td>
<td>A medical device that comes into contact with blood or normally sterile tissue and that must be sterile at the time of use. Note: a critical medical device confers a high risk of infection if it is contaminated with microorganisms. [7]</td>
</tr>
<tr>
<td>Droplet precaution</td>
<td>A transmission-based precaution used to interrupt droplet transmission occurring from patients known or suspected to be infected with agents transmitted person-to-person by respiratory droplets [2].</td>
</tr>
<tr>
<td>Fit check</td>
<td>A check to ensure that the P2 / N95 mask is fitting each time it is put on [2].</td>
</tr>
<tr>
<td>Functional area</td>
<td>A discrete location in a PHO that is designated for the delivery of patient services e.g. Intensive Care Unit, Emergency Department, Cancer Centre, Outpatient Clinic, Pharmacy, Physiotherapy Department, Dialysis Unit.</td>
</tr>
<tr>
<td>Hand hygiene</td>
<td>A general term applying to processes aiming to reduce the number of microorganisms on hands. This includes application of a waterless antimicrobial agent (e.g. ABHR) to the surface of dry unsoiled hands; or use of soap / solution (plain or antimicrobial) and running water (if hands are visibly soiled), followed by patting dry with single-use towels [2].</td>
</tr>
<tr>
<td>Health Worker HW(s)</td>
<td>Refers to all staff delivering or supporting healthcare services in a public health organisation. Any person employed or contracted by a NSW Health agency either on a permanent, temporary, casual, volunteer or agency basis.</td>
</tr>
<tr>
<td>Healthcare associated infection (HAI)</td>
<td>Refers to infections acquired in healthcare facilities and infections that occur as a result of healthcare interventions and which may manifest after people leave the healthcare facility [2].</td>
</tr>
<tr>
<td>Key part</td>
<td>Key parts are those parts of equipment / instruments / consumables that if contaminated by infectious material increases the risk of infection. Contamination may occur by direct or indirect contact with the key site(s), other key-parts, or liquid infusions. [2]</td>
</tr>
</tbody>
</table>
| Key site                    | Is the area on the patient that must be protected from pathogenic microorganisms. Key
### Monitor

To check, supervise, observe critically, or record the progress of an activity, action or system on a regular basis in order to identify change.

### Negative pressure room

A single-occupancy patient-care room used to isolate persons with a suspected or confirmed transmissible airborne communicable disease. Environmental factors are controlled in negative pressure rooms to minimise the transmission of infectious agents that are usually transmitted from person to person by droplet nuclei associated with coughing or aerosolisation of contaminated fluids [2].

The air handling system provides negative pressure by air flow into the room and direct exhaust of air from the room to the outside of the building or recirculation of air through a HEPA filter before returning to circulation. [2]

### Non-critical items

A medical device that only comes into contact with intact skin. [7]

### Outbreak

A state characterised by an increased incidence of an infection greater than what is typically expected in a particular healthcare setting. The clustering of cases by microorganism, time, person and place may signal the possibility of an outbreak.

### Personal protective equipment (PPE)

Refers to a variety of protective barriers used alone, or in combination, to protect mucous membranes, skin, and clothing from contact with recognised and unrecognised sources of infectious agents in healthcare settings.

### Point of care

The time and location where an interaction between a patient and clinician occurs for the purpose of delivering care[8]

### Public Health Organisation (PHO)

This term refers to Local Health Districts, statutory health corporations or an affiliated health organisation in respect of its recognised establishments and recognised services, as defined in the Health Services Act 1997.

### Reprocessing

All of the activities required to ensure that a used reusable medical device is safe for its intended purpose. This is a multi-step process that includes cleaning, inspection and assembly, functional testing (if applicable), disinfection (if applicable), packaging and labelling, and sterilisation (if applicable) [9].

### Satellite reprocessing unit

Units in any location outside a central reprocessing unit which perform high level disinfection of semi-critical re-usable medical devices and / or sterilising of critical re-usable medical devices e.g. endoscopy units, Medical Imaging

### Semi-critical items

Equipment or devices that come into contact with mucosal membranes or non-intact skin. Such items include but are not limited to respiratory therapy and anaesthesia equipment, gastrointestinal endoscopes, bronchoscopes, laryngoscopes, oesophageal manometry probes, ano-rectal manometry catheters, endovacavitory probes, prostate biopsy probes, infrared coagulation devices, transvaginal probes and diaphragm fitting rings [7].

### Sharp(s)

Any object capable of inflicting a penetrating injury, which may or may not be contaminated with blood and / or body substances. This includes needles, scalpel blades, wires, trocars, auto lancets, stitch cutters and any other sharp objects, including broken glass or medical instruments designed to perform penetrating procedures.

### Standard precautions

Standard Precautions represent the minimum infection prevention measures that apply to all patient care, regardless of suspected or confirmed infection status of the patient, in any setting where healthcare is delivered. These evidence-based practices are designed to both protect and prevent spread of infection among patients and healthcare personnel [10].

### Transmission based precautions

Additional clinical practices in situations where standard precautions alone may be insufficient to prevent transmission of infection [2]. For example contact, droplet and airborne precautions or a combination of these precautions.

### Volunteer

A person who works for a NSW PHO without being paid.
This Policy Directive must be read and interpreted alongside the following legislation.

- *Health Practitioner Regulation National Law Act (NSW) No 86a*
- *Public Health Act (NSW) 2010*
- *Food Act (NSW) 2003*
- *Privacy Act (Commonwealth) 1988*
- *Health Records and Information Privacy Act (NSW) 2002*
- *Therapeutic Goods Act (Commonwealth) 1989*
- *Schedule 3 - Code of Conduct of the Public Health Regulation (NSW) 2012*
- *Work Health and Safety Act (NSW) 2011.*

The *Health Practitioner Regulation (New South Wales) Regulation 2016* provides infection control standards for medical practitioners, nurses, midwives, pharmacists, physiotherapists, and podiatrists. The *Dental Board of Australia* provides the infection control code for dentists, dental therapists, dental hygienists, dental prosthetists and oral health therapists. Under these standards a healthcare professional must not, without “reasonable excuse”, fail to comply with the infection control standards.

NSW Health Organisations and health workers are obliged to comply with relevant Australian Standards with which this policy is consistent.

2 **THE RISK OF HEALTHCARE ASSOCIATED INFECTIONS**

Potentially, any microorganism may cause a healthcare associated infection (HAI). Patients, visitors, volunteers, carers and health workers (HWs) are all at risk of acquiring a HAI. HAIs are the most common complication affecting patients in hospital. However, patients who are receiving healthcare in the community or home-based settings are also at risk. A HAI often results in greater morbidity and increased risk of mortality for patients and greater burden for patients’ families and carers. Patients with a HAI are more likely to have a longer hospital stay, require second-line or broader-spectrum and more expensive antimicrobials and place greater demands on the health system [8]. The application of appropriate infection prevention and control strategies by the HW, patient(s) and visitors will reduce the risk of HAIs, as most HAIs are preventable.

3 **CLINICAL GOVERNANCE REQUIREMENTS**

Each PHO must ensure that an executive, appointed at the highest level within the organisation, is responsible for the leadership of the infection prevention and control program across the PHO. The progress and outcomes of the program must be reported to the highest management level of the organisation.1

Clinical leaders and senior managers of a PHO are responsible for implementing and evaluating systems to prevent and manage HAIs, with the Board of the PHO having oversight of this process. Additional advice and expertise must be sought from individuals skilled in this area and / or an infection prevention and control committee where required.

The PHO’s Infection Prevention and Control Program should have a current operational / risk plan that is in keeping with this policy. The plan must specify the necessary steps to address improvements and measurement tools for HAI prevention and risk management.

Patients and visitors are to be provided the necessary information and education to prevent the transmission of multi-resistant organisms and communicable diseases.

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1 Section 2, Handbook
Consistent with Standard 3 of the National Safety and Quality Health Service (NSQHS) Standards [8], each PHO must plan for and implement appropriate clinical governance systems and infection prevention and control strategies to prevent and manage HAIs.

3.2 Infection prevention and control committees

Each PHO must have representative membership on a committee that is responsible for the delivery and evaluation of infection prevention and control programs and strategies. This committee must have Executive membership and must report to the highest management level within the organisation.¹

4 RISK MANAGEMENT

Each PHO must use a risk management framework when considering the implementation of infection prevention and control initiatives. This framework must be used to determine individual and collective risk(s) in specific situations, procedures or programs and inform management options and priorities to reduce the risk of HAIs.² ³

The aim of determining a patient’s specific risk(s) is to ensure that appropriate controls are implemented to protect all patients, visitors, and HWs without compromising clinical care and psychological support. Guidance on the framework is provided in NSW Health Risk Management Enterprise-Wide Risk Management Policy and Framework PD2015_043. An operational / risk plan that includes infection risk must be reviewed and endorsed by the PHO’s infection prevention and control committee and incorporated into the PHO’s plan(s).

4.1 Incident management

To determine whether an infection prevention and control risk or breach constitutes a reportable incident, PHOs are to refer to NSW Health Incident Management Policy PD2014_004 which describes a state-wide system for managing clinical and corporate incidents.⁴

4.2 Provision of education

Each PHO must ensure that all HWs are provided with education, in line with their duties, on preventing and controlling the risk of transmitting microorganisms at minimum during induction and on an ongoing basis.⁵

Online mandatory training is described in the NSW Health Education and Training Institute (HETI) Mandatory Training Matrix and is underpinned by the NSW Health Mandatory Training - Criteria for Approval as a NSW Health Requirement PD2016_048 for all HWs. Completion of this training is required to meet patient safety programs and Standard 3 of the NSQHS Standards. The PHO is responsible for ensuring such training is completed by all HWs.

Each PHO must promote, educate and facilitate the participation of patients and visitors in infection prevention and control to minimise the risk of the transmission of pathogenic microorganisms and communicable diseases.

In addition the PHO must ensure that all HWs working in clinical areas have completed training in the correct use of PPE. At a minimum, this should include how to remove PPE without self-contamination and cleaning of shared reusable PPE.

¹ Section 2, Handbook
² AS/NZS ISO 31000 2009 Risk Management – Principles and Guidelines
³ Section 3, Handbook
⁴ Section 10, Handbook
⁵ Section 2, Handbook
5 RISK IDENTIFICATION REQUIREMENTS

5.1 Risk assessment of the patient

Assessing a patient’s individual infection risk rating is to determine whether the patient is a potential source of infection to other patients, visitors and HWs or whether the patient is more susceptible to infection. The higher the risk rating, the greater the priority for infection prevention and control interventions and precautions.¹

5.2 Risk rating of the clinical area (functional area)

All patients, visitors or HWs in a PHO are susceptible to acquiring an infection, transmission of a microorganism or communicable diseases. However, there are certain functional areas, such as intensive care units, neonatal units, transplant units, burns units and haematology units, where patients are at a greater risk of acquiring an infection.

Patients in these areas can be immunosuppressed, acutely unwell or have undergone major surgery or trauma. These patients have an increased propensity to infection due to:

- The nature of their condition
- Frequent contact with HWs
- Number and types of indwelling devices
- High usage of antimicrobial agents
- The duration of hospitalisation.

Each PHO must assign a risk rating to each of its functional areas and then reassess the risk if the purpose or patient risk category within the functional area changes.²

The functional areas should be risk rated as one of the following:

- Extreme risk
- High risk
- Medium risk
- Low risk.

In the event of an outbreak, the PHO may adjust the risk rating of a functional area if there is an increased transmission risk of infection to patients, visitors and / or the HW.

6 RISK MITIGATION REQUIREMENTS

6.1 Standard precautions

Standard precautions are the minimum infection prevention measures that apply to all patient care settings, regardless of suspected or confirmed infection status of the patient [10]. A summary of standard precautions is included in Attachment 2.3

Standard precautions must always be applied when caring for all patients and when handling all body substances, secretions and excretions (excluding hair and sweat); non-intact skin; and mucosal membranes, including eyes.

¹ Section 3, Handbook
² Sections 3 and 11, Handbook
³ Section 4, Handbook
Standard precautions involve adherence to all of the following work practices [2, 11]:

- Performing hand hygiene
- Appropriate and correct use of personal protective equipment (PPE)
- Use of aseptic technique
- Safe use and disposal of sharps
- Performing routine environmental cleaning
- Cleaning and reprocessing of shared patient equipment
- Respiratory hygiene and cough etiquette
- Safe handling and disposal of waste and used linen

The use of standard precautions must be monitored for compliance and practice improvement within each unit and at the PHO level.

### 6.2 Hand hygiene

For most hand hygiene activities, alcohol based hand rub (ABHR) should be used whereas visibly soiled hands must be washed with liquid soap and running water [12]. PHOs must ensure that ABHR dispensers are as close to the point of care as possible. Placement of ABHR outside the point of care environment is up to the discretion of the PHO. Consideration must be given to workplace and patient safety risks when placing ABHR dispensers. Hand basins must comply with the requirements of the Australasian Health Facility Guidelines.

For guidelines on performing hand hygiene please refer to the NSW Infection and Prevention Control Practice Handbook.1

All ABHR, antiseptic handwash, surgical hand scrub, plain liquid soap and moisturiser containers / packs / pump segments and cartridges (as opposed to product dispenser housing) are single use and must not be topped up, refilled or re-used.

All HWs have a responsibility to remind other HWs of the need to perform hand hygiene if they observe a HW who fails, or is about to fail, to perform hand hygiene. Such reminders are to be delivered in a courteous and encouraging manner to support all HWs to achieve a high standard of patient safety.

Ongoing non-compliance with hand hygiene by a HW is to be managed within local Performance Management Policies and the frameworks within the following NSW Health Policies:

- NSW Health Complaint or Concern about a Clinician-Principles for Action PD2006_007
- NSW Health Code of Conduct PD2015_049
- NSW Health Managing Misconduct PD2014_042
- NSW Health Managing for Performance PD2016_040.

Managing non-compliance may involve:

1. Targeted education for ongoing non-compliance which will include one-on-one instruction on appropriate hand hygiene practices. This requires escalation to the HWs Manager.
2. Front line management response with counselling and requirements to undertake a hand hygiene education program for repeated non-compliance.

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1 Section 4, Handbook
3. Participation in an intensive remedial hand hygiene education program for further non-compliance and warning that any further non-compliance in hand hygiene will result in disciplinary action and may result in dismissal. This requires escalation to the Director Clinical Governance / Director Workforce.

PHOs must ensure an ongoing hand hygiene awareness program is established for all HWs that is consistent with the National Hand Hygiene Initiative, CEC Hand Hygiene and Patient Safety Programs.

PHOs will conduct hand hygiene compliance audits; report on the results to the appropriate committee and evaluate audit data locally to identify opportunities for compliance improvement.

For services where the hand hygiene compliance audit is not applicable, a localised version must be developed that is consistent with local practices.

6.2.1 Patient and visitor hand hygiene

Hand hygiene is to be performed by everyone. HWs should encourage patients to perform hand hygiene and provide education on the correct hand hygiene technique. Patients should be provided with the means to perform hand hygiene after going to the toilet or using a bedpan or urinal, before eating, after sneezing, blowing their nose or coughing into hands, and after touching / handling animals.1

Visitors and volunteers must be provided with the means to perform hand hygiene and be encouraged to perform hand hygiene before and after contact with patients and their surroundings.

6.3 Personal protective equipment

Selection of personal protective equipment (PPE) must be based on an assessment of the risk of transmission of infectious agents to the patient or carer and the risk of contamination of clothing or skin of HWs by a patients’ body substances [2].2

The Infection Prevention and Control Practice Handbook provides advice on choosing the correct PPE and the sequencing of putting on and removing PPE.

6.3.1 Gloves

Gloves must be used in situations where the HW is potentially exposed to body substances.3 4 5

When gloves are determined to be necessary, they must be worn on both hands.

Gloves must be used for procedures that involve direct or perceived contact with non-intact skin, mucous membranes and body substances.

Sterile gloves must be worn when it is necessary or unavoidable to touch key sites and key parts directly. The wearing of sterile gloves for any specific aseptic technique procedure may be at the discretion or mandate of the PHO.

Gloves must be changed and discarded

- As soon as they are torn or punctured or when the integrity has been altered
- Immediately after contact with a patient is complete and before care is provided to another patient

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1 Section 4, Handbook
2 Section 4, Handbook
3 AS/NZS 4011.1:2014 Single use examination gloves
5 Section 4, Handbook
• When performing separate procedures on the same patient
• After handling blood and body fluid
• Before handling or opening sterile consumables
• Before writing in the healthcare record, answering telephone / pagers, using the computer and other social environmental actions.

Disposable gloves must not be cleaned or reused. ABHR is not to be used on gloves.

Hand hygiene must always be immediately performed before and after use of gloves

6.3.2 Masks
A single use mask must be worn while performing any procedure where there is a likelihood of splashing or spraying of body substances or mucous membrane exposure to microbial droplets.1,2,3

Choosing a fluid-resistant single use mask, with the level of barrier protection required must be based on the risk of exposure at the time the procedure is performed or the likelihood of mucous membrane exposure to microbial droplets.[13]

Single-use face masks are categorised to provide different levels of standard, droplet and airborne protection. The manufacturer’s Instructions for Use provide the detail on the barrier level and their applications for use. A P2 / N95 mask must be worn when treating patients under airborne precautions or if aerosol generating procedures are anticipated. HW must perform a fit check every time they put on a P2 / N95 mask. PHOs must ensure the HW is informed on how to perform a fit check.

A P2 / N95 mask is not to be worn by a patient. A fluid resistant surgical mask should be worn by a patient who is actively coughing or has an airborne transmission disease while they are outside their isolation / cohort room or in public areas of the PHO.

A single use mask must:
• Be used for a single episode of patient care
• Be worn and fitted in accordance with the manufacturer’s instructions
• Not be touched by hands while worn except for fitting e.g. around the nose and sides prior to exposure
• Cover both the mouth and nose while worn
• Not be worn loosely (both ties secured) or folded down around the neck.

A mask must be discarded once it has been worn, or becomes visibly soiled or moist, and must not be used again. A mask must be removed by touching the strings / ties or loops only.

6.3.3 Eyewear and Facial Protection
Protective eyewear or a face visor / shield must be worn while:
• Performing any procedure or task where there is a risk of splashing or splattering of body substances
• During aerosol generating procedures
• In direct patient contact where there is a risk of an occupational exposure to body substances.
11. INFECTIOUS DISEASES, IMMUNISATION AND RELATED MATTERS

Protective eyewear must meet Australian Standards, 1-2 and be worn and fitted in accordance with the manufacturer’s instructions for use.3

General prescription glasses do not comply as eyewear protection and, therefore protective eyewear must be worn in addition to prescription glasses.

Reusable protective eyewear and face visors / shields must be cleaned in accordance with the manufacturer’s instructions after use and stored clean and dry. Protective eyewear labelled single use must not be reused.

6.3.4 Gowns and Aprons

A fluid-resistant gown or apron, made of impervious material must be worn:

- During any procedure or task where there is a likelihood of splashes or contamination with body substances
- On entering an isolation room during transmission based precautions, if contact with the patient or the patient’s environment is likely, and removed before or immediately on exiting the room
- As a protective layer under a sterile gown that is not made of impervious material.

Washable fabric gowns provide no protection from body substances and are not considered part of PPE for infection prevention and control.

6.3.5 Aseptic technique

Aseptic technique is a set of practices to minimise contamination and is used to protect the patient from the risk of acquiring an infection during clinical procedures. PHOs are to base their practice on the five principles of aseptic technique as outlined in the NSW Infection Prevention and Control Practice Handbook.4

Each PHO is to undertake a local risk assessment to identify medium and high risk procedures that require the use of aseptic technique according to the ACSQHC aseptic technique risk matrix.

Each PHO is to provide its clinical workforce with, or access to, aseptic technique education and maintain records of education, training, assessment and competence.

6.3.6 Safe handling of used linen

There is a potential risk of microorganism transmission via exposure to contaminated linen. HWs should handle, dispose and process used linen or linen soiled with body substances in a manner that prevents exposure to skin and mucous membranes, contamination of clothing and transfer of microorganisms to other persons and the environment.5

6.3.7 Respiratory hygiene and cough etiquette

To minimise the risk of transmission of infection to others, everyone entering, visiting or working within a PHO presenting with the signs and symptoms of an acute respiratory infection are to have access to hand hygiene products and single use masks to enable them to practise respiratory hygiene and cough etiquette.6

301(07/06/17)

1 AS/NZS 1336:1997 Recommended practices for occupational eye protection
2 AS/NZS 1337:1992 Eye protectors for industrial applications
3 Sections 4 and 5, Handbook
4 Sections 4, 9 and 10, Handbook
5 Section 4, Handbook
6 Section 7, Handbook
6.3.8 Safe use and disposal of sharps
The potential for exposure to bloodborne viruses is greatest when medical devices such as needles, scalpels, or other sharp instruments are used and contaminated with body substances. Therefore, the use of sharps should be minimised wherever possible and when used be disposed of immediately after use, at the point of care. Each PHO must have procedures in place for the safe handling, transportation and disposal of sharps. A PHO must provide training to HWs on sharps handling and disposal.2

6.3.9 Environmental cleaning
Each PHO must have an environmental cleaning program in place that is managed by suitably qualified personnel and overseen by an appropriate committee or directorate. Environmental cleaning must be performed in accordance with NSW Health Environmental Cleaning Policy PD2012_061. This includes cleaning of patient areas during and after a patient’s stay (i.e. between patients).3

A risk assessment must be done for each functional area to determine the level of cleaning required. The performance of cleaning in all functional areas must be regularly audited as per the auditing schedule described in NSW Health Environmental Cleaning Policy PD2012_061. There is no single method for environmental cleaning and disinfection and it is important to consider the efficacy and suitability of the different methods available.

7 REPROCESSING OF RE-USABLE MEDICAL DEVICES (RMDS)

Each PHO must ensure that there is a governance structure in place for both central and satellite reprocessing units. Each PHO must maintain a risk management approach to reprocessing. It is recommended that a central reprocessing unit provides advice and expertise to local satellite units or a PHO may choose to employ an alternative strategy to ensure that satellite units are adequately supported and compliant with relevant Standards.4,5,6,7,8

Both central and satellite reprocessing units must be regularly audited against AS/NZS 4187:2014 and develop a documented, detailed implementation plan using quality improvement principles specifying timeframes, milestones and deliverables to enable full implementation.[21]

Reprocessing of critical and semi-critical RMDs and maintenance of the reprocessing environment should be delegated to appropriately trained HWs. HWs should also be delegated to reprocess non-critical, semi-critical and critical items as well as clean and maintain non-critical item washer / disinfectors.

RMDs must be reprocessed in accordance with relevant Australian and international standards and manufacturer’s instructions. For endoscopy units, additional resources are available from Gastroenterological Nurses College of Australia [14]. AS/NZS 4187:2014 is applicable wherever the reprocessing of RMDs occurs within a PHO. All departments physically located within a hospital service must comply with AS/NZS 4187:2014.

1 NSW Health Policy: HIV, Hepatitis B or Hepatitis C - Health Care Workers Potentially Exposed PD2017_009
2 Sections 4 and 9, Handbook
3 Sections 4, 6, 7 and 9, Handbook
4 Sections 8 and 10, Handbook
5 AS/NZS 4187:2014 Reprocessing of reusable medical devices in health service organizations
6 AS/NZS 4815:2006 Office-based health care facilities - Reprocessing of reusable medical and surgical instruments and equipment, and maintenance of the associated environment.
7 Legislation NSW Health Practitioner Regulation (NSW) Regulation 2010. Schedule 1, Infection control standards
8 Australian Health Facility Guidelines Part B: Health Facility Briefing and Planning
Office-based health care facilities include private consulting rooms, dental clinics and health clinics located outside of routine hospital in-patient and operating room settings. AS/NZS 4815:2006 applies to these office-based health care facilities that reprocess reusable medical devices with either moist heat or dry heat sterilisation. If an office-based health care facility reprocesses with any other forms of sterilisation, they must comply with AS/NZS 4187:2014.

8 SINGLE USE AND SINGLE PATIENT USE DEVICES

Where the PHO is responsible for providing ‘single use’ devices and equipment, the PHO must ensure that the device or equipment is used once.1,2 Single use items may be labelled as:

- Single use
- Disposable
- ★ symbol.

*Therapeutic Goods (Medical Devices) 2007 Regulations* require a PHO that reprocesses single use devices to be licensed as a manufacturer under Section 41BG(2) of the *Therapeutic Good Act 1989*. As the PHO is considered to be a manufacturer by the TGA it is subject to audit conformance.

Where the PHO is responsible for providing ‘single patient use’ devices and equipment, the PHO must ensure that the device or equipment is used for only one patient. ‘Single patient use’ devices and equipment can be used multiple times on the same patient following manufacturer’s instructions for cleaning between uses.

9 SHARED PATIENT CARE EQUIPMENT

Shared patient use of devices and equipment has been implicated in the transmission of infection between individuals [15]. HWs are to pay special attention to the cleaning of shared reusable clinical devices and equipment between patients. They must be cleaned according to manufacturer’s Instructions for Use and local procedures.

10 PROCUREMENT OF NEW DEVICES OR EQUIPMENT

As part of the process for purchasing new patient care devices, consumables or equipment, the PHO (solely or in conjunction with HealthShare NSW) must seek local infection prevention and control advice prior to purchase. Where new devices or equipment will require later reprocessing, the PHO must also consult with management of local reprocessing units prior to trial or purchase to ensure compliance with relevant policies, procedures and Australian Standards.3,4

A PHO’s asset management program must include infection prevention and control consultation when undertaking a review of the risks associated with patient and non-patient care equipment, furnishing, fixtures and clinical information technology systems.5,6 The local infection prevention and control service must be consulted when the PHO is considering the replacement of old equipment or reviewing the need to adopt newer technologies (as per *NSW Health Framework for New Technologies and Specialised Services GL2017_004*).

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1 Therapeutic Goods Act 1989
2 Section 4, Handbook
3 Therapeutic Goods Act 1989
4 AS/NZS4187:2014 Reprocessing of reusable medical devices in health service organizations
5 Australian Health Facility Guidelines (Part D Infection Prevention and Control)
6 Section 2, Handbook
11 SAFE INJECTION AND MULTI-DOSE VIALS

Breaches in safe injection, infusion and medication vial handling practices has resulted in transmission of HIV and viral hepatitis and in some cases caused outbreaks of disease. Standard precautions, particularly aseptic technique form the basis of safe injection practices. Flip-top pharmaceutical vials are a dust cover and therefore all vials must be cleaned prior to access to maintain aseptic technique [16].

1 If a multi-dose vial must be used it should be used for a single patient whenever possible and discarded immediately after use.

Injectable products packaged in multi-dose vials or ampoules (or other similar containers) must not be used except where the product is intended solely for the exclusive use of a single patient or there is no other alternative available on the Australian pharmaceutical market. Where there is no other alternative, precautions must be taken to ensure that the injection of contaminated material or fluid into a multi-dose vial or ampoule (or other similar container) does not happen.

Injectable medication or solution must be taken from a vial or ampoule (or other similar container) using a sterile needle and syringe to withdraw the contents. Before each entry into the multi-dose vial the top must be cleaned and injected with a new unused sterile needle and syringe, even if the vial is dedicated to a single patient.

Open multi-dose lotion or cream pots or containers must not be used unless they are for an individual patient use. A collapsible squeeze tube or bottle, pump pack or valve should be used to dispense lotion or cream from a multi-dose container. Once the product is empty both the container and pump pack should be disposed of.

Multi-dose vials may only be used between multiple patients where there is no other alternative product available on the Australian market. Refer to Medication Handling in NSW Public Health Facilities Policy PD2013_043.

12 SAFE HANDLING AND TRANSPORT OF PATIENT SPECIMENS

When transporting and handling pathology specimens, the HW should ensure that the specimens are packaged and transported in such a way to ensure the safety of all involved and that the specimen is maintained under suitable conditions. [17]

13 TRANSMISSION BASED PRECAUTIONS

Transmission-based precautions must be used in addition to standard precautions when standard precautions alone are insufficient to interrupt the transmission of a known or suspected pathogen. There are three main types of transmission based precautions (these can be combined for specific transmissible infections or communicable diseases):

3 Contact precautions are used to interrupt contact transmission. Contact transmission occurs via direct or indirect contact with a colonised or infected individual or via a contaminated fomite (e.g. contaminated environmental surface). See Attachment 3 for a summary of contact precautions.

Droplet precautions are used to interrupt droplet transmission. Droplet transmission occurs via large expelled droplets, ≥5 micrometres (µm) that travel short distances in the air before settling to environmental surfaces [18]. Droplet transmission requires close proximity between the infectious host and other susceptible people. See Attachment 4 for a summary of droplet precautions.

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1 Section 4, Handbook
3 Section 5, Handbook
Airborne precautions are used to interrupt the airborne transmission route. Airborne transmission occurs by the dissemination of small expelled aerosols (<5µm) that can remain suspended in the air for long periods of time. See Attachment 5 for a summary of airborne precautions.

Some microorganisms can be transmitted simultaneously via multiple transmission routes. To mitigate the transmission of these microorganisms, more than one type of transmission based precautions must be employed in addition to standard precautions.

Each PHO must develop a procedure that outlines how they will minimise the risk of contact, droplet and airborne transmission as well as implement transmission-based precautions and address visitor restrictions. To support the requirements of each of the transmission-based precautions, a PHO must provide the required PPE, appropriate patient accommodation and patient care equipment.

14 BED MANAGEMENT AND PATIENT FLOW

Placement of a patient must be based on a risk assessment that considers the risk ratings of all patients’ involved, functional area and room availability to meet the patient’s isolation requirements.1

When considering patient movement or transfer, the receiving department, transport service, or PHO must be notified of a patient’s infection or colonisation status before transfer. The admission and / or transfer of a patient must not be delayed or compromised by a patient’s suspected or known infection or colonisation status. Patient placement decisions must be made in conjunction with local patient flow team and infection prevention and control unit to ensure timely patient transfers and admissions.

15 ANTIMICROBIAL STEWARDSHIP

Where a PHO is responsible for the antimicrobial therapy received by patients in its care, the PHO must ensure that safe and appropriate antimicrobial prescribing is a goal within its clinical governance system.

The use of antimicrobial agents to prevent and treat infections must be considered judiciously, using the five essential strategies for effective antimicrobial stewardship [3]:

1. Implement clinical guidelines consistent with current endorsed Australian antimicrobial prescribing guidelines approved by the local drug and therapeutics committee and which also takes into account local microbiology and antimicrobial susceptibility patterns
2. Establish formulary restrictions and approval systems that include restricting broad-spectrum and later generation antimicrobials to patients in whom their use is clinically justified
3. Review of antimicrobial prescribing with intervention and direct feedback to the prescriber
4. Monitor performance of antimicrobial prescribing by collecting and reporting unit or ward-specific data, auditing antimicrobial use, and using quality use of medicines indicators
5. Ensure the clinical microbiology laboratory uses selective reporting of susceptibility testing results that is consistent with current endorsed therapeutic guidelines on antibiotic usage.
11. INFECTIOUS DISEASES, IMMUNISATION AND RELATED MATTERS

16 MANAGEMENT OF HEALTH WORKERS WITH SYMPTOMATIC ILLNESS

HWs who are presenting with a symptomatic illness (e.g. boils, acute respiratory illness or gastroenteritis) or conditions that promote the shedding and transmission of microorganisms, such as exfoliative skin conditions or skin lesions, are associated with the spread of infection to vulnerable patients.

Therefore, each PHO must develop a procedure that outlines how the PHO will address:

1. HW communication of their suspected or known communicable disease or MRO
2. The mitigation of transmission risks of communicable diseases and MROs
3. Human resource issues such as redeployment, sick leave and return to work management
4. HWs non-participation in certain clinical procedures (e.g. exposure prone procedures) that is mandated by policy or legislation.

16.1 Occupational assessment, screening and vaccination

Each PHO must develop, implement and monitor a risk-based workforce immunisation program for HWs, other clinical personnel and healthcare students, in accordance with the current NSW Health policy directives and Australian immunisation guidelines [19].

A PHO must maintain a central register of the evidence of protection of HWs, including medical contraindications to vaccination, vaccination refusals and an appropriate risk management strategy to address vaccination refusals.

17 ADDITIONAL CONTROLS

17.1 Animals

Animals may be present within PHOs for medical research, patient therapy and companionship and in rare circumstances for clinical treatment.

Potentially, animals can serve as a vector for infections and, in particular multi-resistant organisms [20].

To minimise the risk to human patients, visitors and HWs of acquiring an infection from an animal a PHO must ensure that infection prevention and control requirements described in this policy are applied when handling and treating animals within the PHO. There are certain instances in which veterinarians may negotiate with a PHO for access to specialised diagnostic equipment. Animals may only be treated in a PHO if there is no access to a veterinary facility that is able to perform the service required.

Where a PHO agrees to provide this service, a risk assessment with the application of local policies and protocols must be developed to address approved diagnostic procedures and infection prevention and control requirements.

Animals must not be treated in clinical areas where invasive procedures on humans are undertaken such as operating rooms, cardiac catheterisation laboratories, interventional radiology or invasive nuclear medicine areas. Where animal treatment requires the use of reusable medical equipment, the PHO must implement specific measures to ensure the equipment is appropriately cleaned and disinfected.

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1 NSW Health HIV, Hepatitis B and Hepatitis C - Management of Health Care Workers PD2005_162
2 NSW Health Leave Matters for the NSW Health Service PD2014_029
3 Section 7, Handbook
4 NSW Health HIV, Hepatitis B or Hepatitis C – Management of Health Care Workers Potentially Exposed PD2017_010
6 NSW Health Guideline: Animal visits and interventions in public and private health services in NSW GL2012 007
such equipment must be dedicated for animal care only. Even if adequately reprocessed, equipment which has been dedicated for animal care must not be used for human patient care.

Animals treated in PHOs should be under the direct care and supervision of a licensed veterinarian; they also should be free of known infectious diseases, ectoparasites, and other external contaminants (e.g., soil, urine, and faeces). Measures should be taken to avoid treating animals with a known or suspected zoonotic disease in the PHO.

17.2 Construction, renovation and refurbishment

PHOs are to ensure that all construction, renovation, installation and maintenance activities on their sites are undertaken in a safe and appropriate manner to reduce the risk of infection to patients, visitors, carers, volunteers and HWs.1 2 3

Factors that contribute to healthcare associated invasive infections such as aspergillosis, and other environmental pathogens for at-risk patient groups must be risk assessed prior to any construction, renovation, installation and maintenance activities. Infection prevention and control units must be key project members from planning to completion to ensure that infection control needs have been planned for, anticipated and met.

18 COMMUNICATION REQUIREMENTS

18.1 Clinical documentation and communication

A patient’s communicable disease, transmissible infection or MRO colonisation status must be treated as confidential information at all times.4 5 6 7

Communication and clinical handover of a patient’s communicable disease, transmissible infection or MRO colonisation status is required as part of medical treatment, patient placement and decisions on transmission based precautions.8 9

Appropriate signage must be placed at the entrance to the patient room or zone to communicate the type of transmission based precautions required. Each PHO must have a process to:

- Assign responsibility for adding infection prevention and control Alerts
- Enable an electronic communication warning ‘Alert’ to indicate MRO colonisation or infection in a patient’s clinical records
- De-alert: removal of the MRO Alert and documentation of the reason and required information e.g. MRO screening, met MRO clearance criteria, MRO clearance date.

18.2 Communication with patients, family and carers

Clinicians must provide information to patients, family and carers affected by a communicable disease, transmissible infection or MRO colonisation to establish an understanding of:
11. INFECTIOUS DISEASES, IMMUNISATION AND RELATED MATTERS

- The communicable disease, transmissible infection or MRO colonisation
- The transmission based precautions required to prevent further transmission
- Their role in preventing transmission e.g. hand hygiene, keeping door closed in Airborne Precautions, when and how to wear a single use mask.

All patient education and communication must be documented in the patients’ healthcare record. Patient infection prevention and control information must be evaluated to determine if it meets the needs of the target audience.

19  SURVEILLANCE REQUIREMENTS

Each PHO must conduct an HAI surveillance program as directed by the NSW HAI Clinical Indicator Manual. This manual outlines the minimum HAI surveillance activities that PHOs must undertake and report on.1 2

All HAI surveillance data should be reviewed within the PHO and reported to the highest executive level on a regular basis.

Surveillance data must be reported back to the clinicians of the PHO to enable practice and quality improvement.

A PHO must have in place methods for monitoring, review and assessment of the effectiveness of infection prevention and control strategies.

20  OUTBREAK MANAGEMENT REQUIREMENTS

Each PHO must have written procedures that address the outbreak management requirements for common communicable diseases and MROs (e.g. gastroenteritis, influenza, carbapenemase-producing Enterobacteriaceae) and identify delegations of responsibility during the outbreak.3 4 5 6

It must also include notification of diseases listed in Schedule 2 NSW Public Health Act 2010 to the local Public Health Unit.

21  LOOKBACK

Lookback is a process that is triggered when a notification of a clinical incident or concern from any source leads to the need for the notification, investigation and the management of a group of commonly affected patients. The clinical incident may arise from complications or errors relating to diagnostics, treatment, medical devices or products that patients have received.7

Where there is a significant failure of infection control, an assessment should be made as to whether patients may be at risk of cross infection, and if so, whether those patients should be notified of the incident and actions to take. This process is sometimes called a lookback.

An initial investigation should be done to inform a risk assessment and response to the incident. Notification exercises can cause undue anxiety, result in unnecessary testing and often expend considerable resources and opportunity costs.

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1 NSW HAI Clinical Indicator Manual
2 Section 10, Handbook
3 NSW Health Guideline: Gastroenteritis in an Institution
4 NSW Health Influenza Pandemic Plan PD2016_016
5 Notifiable Disease Notification information
6 Sections 7 and 11, Handbook
7 NSW Health Lookback Policy Directive PD2007_075
In general, patient notification exercises in regard to infection control breaches are not warranted where patient tissue or mucosal surfaces were not exposed to contaminated instruments or blood.

A PHO must undertake a risk assessment to assess the need for a patient notification in the event of one of the following HAI significant incidents:

- One or more patients who have had an exposure prone procedure performed by a HW who is infectious with a bloodborne virus (*NSW Health HIV, Hepatitis B or Hepatitis C - Health Care Workers Infected PD2005_162*)
- Contamination of breast milk or administration to the wrong infants (*NSW Health Maternity - Breast Milk: Safe Management PD2010_019*)
- Circumstances where there is a possibility that patients’ were exposed to pathogenic microorganisms.

Other HAI incidents or an equipment safety alert may require the PHO to undertake a risk assessment to determine the need for a lookback.

Assessment is needed on a case by case basis. Where a patient notification exercise is thought necessary, a risk-based approach should be considered i.e. those persons who are at highest risk of infection should be assessed first. Where there is no evidence of transmission in that group, further lookback may be unnecessary.

Advice regarding the need for, and extent of a patient notification should be sought from the Clinical Excellence Commission (CEC). The CEC may consult further with Health Protection NSW (HPNSW), who may convene the NSW Blood Borne Viruses Advisory Panel.

Specifically, a lookback involves:

- Forming a local committee including infectious disease, public health, infection prevention and control, sterilising services, clinical governance, clinical risk manager and other participants as indicated, to investigate the incident and prepare a risk assessment
- Reporting the risk assessment and incident to the CEC
- Based on advice from the CEC, identifying, tracing, communicating and providing appropriate ongoing advice to, and / or management of, the group of patients affected
- Development of a communication strategy, including notification to the wider public, if applicable
- Evaluation or review of the lookback process.

The PHO Chief Executive is responsible for governance of the lookback process. Timely and appropriate investigation and management of the infection control breach should begin within 24 hours of the breach being notified. The initial investigation informs the risk assessment, which is used to make decisions on the need for, nature and extent of patient notification. If patient notification and additional testing is done, this may provide further evidence that informs the investigation. An effective lookback procedure requires communication at all levels.

Where it is decided that patient notification is to occur, initial communication should be direct, either face-to-face or via telephone, where the patient must be given the opportunity to ask questions. All information should be given in accordance with the *Open Disclosure Policy PD2014_028*; *Privacy Management Plan PD2015_036* and *Privacy Manual for Health Information – NSW Health*.
RELEVANT NSW HEALTH POLICIES, GUIDELINES AND MANUALS

The policies and guidelines are available at:

- Australian Health Facility Guidelines Part D Infection Control
- NSW Health Clinical Handover – Standard Key Principles PD2009_060
- NSW Health Code of Conduct for HCACs, HPTs and AHACs PD2008_023
- NSW Health Complaint or Concern about a Clinician – Management Guidelines GL2006_002
- NSW Health Engineering Services Guideline PD2016_020
- NSW Health Environmental Cleaning Policy PD2012_061
- NSW Health Health Care Records - Documentation and Management PD2012_069
- NSW Health HIV, Hepatitis B or Hepatitis C – Health Care Workers Infected PD2005_162
- NSW Health HIV, Hepatitis B or Hepatitis C – Management of Health Care Workers Potentially Exposed PD2017_010
- NSW Health Incident Management Policy PD2014_004
- NSW Health Influenza Pandemic Plan PD2016_016
- NSW Health Lookback Policy PD2007_075
- NSW Health Managing Misconduct PD2014_042
- NSW Health Managing for Performance PD2016_040
- NSW Health Mandatory Training - Criteria for Approval as a NSW Health Requirement PD2016_048
- NSW Health Maternity – Breast Milk – Safe Management PD2010_019
- NSW Health Medication Handling in NSW Public Health Facilities PD2013_043
- NSW Health Privacy Management Plan PD2015_036
- NSW Health Privacy Manual for Health information, March 2015
- NSW Health Waste Management Guidelines for Health Care Facilities PD2005_132
REFERENCES


11. CEC/ACSQHC standard precautions and transmission based precautions signage.


23 LIST OF ATTACHMENTS

Attachment 1 – Implementation checklist
Attachment 2 – Summary of Standard Precautions
Attachment 3 – Summary of Contact Precautions
Attachment 4 – Summary of Droplet Precautions
Attachment 5 – Summary of Airborne Precautions
### ATTACHMENT 1 – POLICY IMPLEMENTATION CHECKLIST

<table>
<thead>
<tr>
<th>Public Health Organisation</th>
<th>Assessment date</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Facility / Unit</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Assessed by</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

#### Clinical governance requirements

- A reporting line to the highest level of management has been established to report on infection prevention and control.
- An executive has been assigned responsibility for the organisation’s infection prevention and control program.
- A committee is appointed with responsibility for infection prevention and control.
- Responsibility and personnel to implement and evaluate infection prevention and control systems has been assigned.
- Infection risk has been included in the organisation’s risk management and operational plan.
- Ongoing education is provided to HWs on preventing and controlling infection risk.
- Patients and visitors are provided with infection prevention and control education.

#### Risk identification requirements

- Patients are risk rated for infection risk.
- All functional areas are risk rated for infection risk.

#### Risk mitigation requirements

- A risk assessment is used to inform patient placement decisions.
- Standard precautions are used by HWs during patient care.
- Procedure and resources are in place to support the implementation of transmission-based precautions.
- The five strategies for antimicrobial stewardship have been implemented.
- An occupational screening and vaccination program is in place.
- An environmental cleaning program is in place.
- An environmental cleaning risk assessment has been undertaken in all areas and audits are undertaken where required.
- A central reprocessing unit has governance and oversight of satellite reprocessing units.
- A central reprocessing unit regularly audits satellite reprocessing units.
- Reprocessing delegations of responsibility have been established.
- Infection prevention and control and reprocessing units are consulted prior to the purchase of new reusable patient care equipment, including new...
### Public Health Organisation

<table>
<thead>
<tr>
<th>Facility / Unit</th>
<th>Assessment date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td>Yes</td>
</tr>
</tbody>
</table>

#### Technologies

- Procedure addresses approved diagnostic procedures and infection prevention and control requirements for the clinical treatment of animals in the PHO.

- Reusable medical equipment has been dedicated for animal care.

#### Communication requirements

- Signage for transmission-based precautions is used when required.

- A central record of all known MRO colonised or infected patients are maintained eg eMR.

- Clinicians communicate and educate patients, family and carers about necessary infection prevention and control precautions.

- Patient information is evaluated to determine if it meets the needs of the target audience.

#### Surveillance requirements

- Surveillance systems are in place to monitor the prevalence of HAIs.

- Hand hygiene surveillance monitoring is undertaken.

- Surveillance data is validated and reported at the clinician and executive level.

#### Outbreak management requirements

- Procedure addresses outbreak management requirements and key delegations of responsibility during an outbreak.
### Attachment 2 – Summary of Standard Precautions

<table>
<thead>
<tr>
<th>Requirements</th>
<th>Standard Precautions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Room</strong></td>
<td>Single room not required</td>
</tr>
<tr>
<td><strong>Bathroom</strong></td>
<td>Dedicated bathroom facilities not required</td>
</tr>
<tr>
<td><strong>Negative pressure room</strong></td>
<td>No</td>
</tr>
<tr>
<td><strong>Hand hygiene</strong></td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Gloves</strong></td>
<td>Protect hands if anticipated contact with body substances and / or contaminated environment.</td>
</tr>
<tr>
<td><strong>Gown / apron</strong></td>
<td>Protect clothing where soiling and splashing is likely</td>
</tr>
<tr>
<td><strong>Mask</strong></td>
<td>Protect nose and mouth using a surgical mask if splash or droplets is likely</td>
</tr>
<tr>
<td><strong>Protective eyewear</strong></td>
<td>Protect eyes if splash or spray is likely or where aerosol may be generated</td>
</tr>
<tr>
<td><strong>Patient equipment</strong></td>
<td>Reprocess all reusable patient equipment between individual patients.</td>
</tr>
<tr>
<td><strong>Transport of patients</strong></td>
<td>Promote patient and transport HWs hand hygiene before and after transport.</td>
</tr>
<tr>
<td><strong>Respiratory hygiene and cough etiquette</strong></td>
<td>Promote respiratory hygiene and cough etiquette among all patients. Offer surgical masks to patient actively coughing in public areas.</td>
</tr>
<tr>
<td><strong>Cleaning</strong></td>
<td>Standard cleaning protocol</td>
</tr>
<tr>
<td><strong>Note</strong></td>
<td>Exposure to body substance - immediately wash site, promptly notify supervisor and seek management of exposure.</td>
</tr>
<tr>
<td></td>
<td>Handle needles, syringes and sharps with care. Use approved rigid sharps containers for disposal.</td>
</tr>
<tr>
<td></td>
<td>DO NOT recap, break or bend needles.</td>
</tr>
<tr>
<td><strong>Visitors</strong></td>
<td>Visitors who are unwell should avoid visiting the hospital. Refer to local procedures on visitor restrictions and management.</td>
</tr>
</tbody>
</table>
### Contact Precautions

To be used in addition to Standard Precautions

<table>
<thead>
<tr>
<th>Requirements</th>
<th>Contact Precautions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Room</strong></td>
<td><strong>1st preference</strong> Single room</td>
</tr>
<tr>
<td></td>
<td><strong>2nd preference</strong> Cohort with same pathogen (communication with Infection</td>
</tr>
<tr>
<td></td>
<td>Prevention and Control)</td>
</tr>
<tr>
<td></td>
<td><strong>3rd preference</strong> Refer to local bed management and risk assessment protocols</td>
</tr>
<tr>
<td><strong>Bathroom</strong></td>
<td><strong>1st preference</strong> Ensuite with single room</td>
</tr>
<tr>
<td></td>
<td><strong>2nd preference</strong> Designated bathroom or commode</td>
</tr>
<tr>
<td><strong>Negative pressure</strong></td>
<td><strong>room</strong> No</td>
</tr>
<tr>
<td><strong>Hand hygiene</strong></td>
<td><strong>Yes</strong></td>
</tr>
<tr>
<td><strong>Gloves</strong></td>
<td><strong>Yes</strong></td>
</tr>
<tr>
<td><strong>Gown / apron</strong></td>
<td><strong>Yes, on entering the patient’s room / area</strong></td>
</tr>
<tr>
<td><strong>Mask</strong></td>
<td>Standard precautions</td>
</tr>
<tr>
<td><strong>Protective eyewear</strong></td>
<td>Standard precautions</td>
</tr>
<tr>
<td><strong>Patient equipment</strong></td>
<td>Clean all reusable patient equipment between individual patients.</td>
</tr>
<tr>
<td><strong>Transport of patients</strong></td>
<td>Notify the area receiving the patient.</td>
</tr>
<tr>
<td>(Internal and external)</td>
<td>Advise transport HWs of the type of precautions to be maintained.</td>
</tr>
<tr>
<td></td>
<td><strong>1st preference</strong> Transfer / transport patient on their own</td>
</tr>
<tr>
<td></td>
<td><strong>2nd preference</strong> Cohort with same pathogen</td>
</tr>
<tr>
<td></td>
<td><strong>3rd preference</strong> Transfer with other patients, ensuring that physical separation of</td>
</tr>
<tr>
<td></td>
<td>patients can be achieved in the transport vehicle. Physical separation is ensured</td>
</tr>
<tr>
<td></td>
<td>when patients cannot touch each other or common environmental surfaces.</td>
</tr>
<tr>
<td></td>
<td>Consult with infection prevention and control professional for guidance on cleaning</td>
</tr>
<tr>
<td></td>
<td>of transport vehicle.</td>
</tr>
<tr>
<td><strong>Respiratory hygiene</strong></td>
<td>Standard precautions</td>
</tr>
<tr>
<td>and cough etiquette</td>
<td></td>
</tr>
<tr>
<td><strong>Patient Education</strong></td>
<td>Patient hand hygiene, respiratory hygiene, if they are able to leave the room</td>
</tr>
<tr>
<td><strong>Cleaning</strong></td>
<td>Standard cleaning protocol. May require disinfection with a disinfectant agent or a</td>
</tr>
<tr>
<td></td>
<td>dual purpose detergent / disinfectant depending on organism.</td>
</tr>
<tr>
<td></td>
<td>Consult with infection prevention and control professional.</td>
</tr>
<tr>
<td><strong>Visitors</strong></td>
<td>Visitors who are unwell should avoid visiting the hospital.</td>
</tr>
<tr>
<td></td>
<td>Visits by children should be avoided, particularly in high and extreme risk units</td>
</tr>
<tr>
<td></td>
<td>Consult with infection prevention and control professional.</td>
</tr>
<tr>
<td></td>
<td>Patient healthcare records and electronic record devices (e.g. computers) should</td>
</tr>
<tr>
<td></td>
<td>not be taken into the room.</td>
</tr>
<tr>
<td></td>
<td>Contact Precautions signage required.</td>
</tr>
</tbody>
</table>
### Attachments

#### Requirements

**Droplet Precautions**  
To be used in addition to Standard Precautions

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Instructions</th>
</tr>
</thead>
</table>
| **Room** | 1<sup>st</sup> preference Single room.  
2<sup>nd</sup> preference Cohort with same pathogen.  
3<sup>rd</sup> preference Refer to local bed management and risk assessment protocols. |
| **Bathroom** | 1<sup>st</sup> preference Ensuite with single room.  
2<sup>nd</sup> preference Designated bathroom or commode. |
| **Negative pressure room** | No |
| **Hand hygiene** | Yes |
| **Gloves** | Standard precautions |
| **Gown / apron** | Standard precautions |
| **Mask** | Yes - Surgical mask must be worn by the HW and are recommended for visitors. Remove mask upon leaving patient's room following door closure. |
| **Protective eyewear** | Yes |
| **Patient equipment** | Reprocess all reusable patient equipment between individual patients. |
| **Transport of patients** (Internal and external) | Notify the area receiving the patient.  
Advise transport HWs of type of precautions to be maintained.  
If medical condition allows, patients on oxygen therapy should be changed to nasal prongs and have a surgical mask over the top of the nasal prongs for transport.  
Transport patient on their own or with patients with same pathogen.  
Consult with infection prevention and control professional for guidance on cleaning of transport vehicle.  
Patient hand hygiene |
| **Respiratory hygiene and cough etiquette** | If clinically able to, patient should wear a surgical mask when outside their room / clinical area. |
| **Patient Education** | Patient hand hygiene, respiratory hygiene, if they are able to leave the room, use of a surgical mask |
| **Cleaning** | Standard cleaning protocol. May require disinfection with a disinfectant agent or a dual purpose detergent / disinfectant depending on organism.  
Consult with infection prevention and control professional. |
| **Visitors** | If unable to maintain one metre distance from the patient, visitors must wear a fluid resistant surgical mask and protective eyewear and perform hand hygiene.  
Visitors who are unwell should avoid visiting the hospital.  
Visits by children should be avoided, particularly in high and extreme risk units.  
Consult with infection prevention and control professional. |
| **Alert** | If cohorting patients, a minimum of one metre must separate each patient.  
Patient healthcare records and electronic record devices (e.g. computers) should not be taken into the room.  
Droplet Precautions signage required. |
<table>
<thead>
<tr>
<th>Requirements</th>
<th>Airborne Precautions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Room</td>
<td>Single room with door closed.</td>
</tr>
<tr>
<td><strong>Bathroom</strong></td>
<td>1&lt;sup&gt;st&lt;/sup&gt; preference Ensuite with single room.</td>
</tr>
<tr>
<td></td>
<td>2&lt;sup&gt;nd&lt;/sup&gt; preference Designated bathroom or commode.</td>
</tr>
<tr>
<td><strong>Negative pressure room</strong></td>
<td>1&lt;sup&gt;st&lt;/sup&gt; preference Single room with negative pressure or 100% exhaust.</td>
</tr>
<tr>
<td></td>
<td>2&lt;sup&gt;nd&lt;/sup&gt; preference Single room with door closed and window open if possible</td>
</tr>
<tr>
<td>Hand hygiene</td>
<td>Yes</td>
</tr>
<tr>
<td>Gloves</td>
<td>Standard precautions</td>
</tr>
<tr>
<td>Gown / apron</td>
<td>Standard precautions</td>
</tr>
<tr>
<td>Mask</td>
<td>Yes - P2 (N95) for the HW and recommended for visitors. Perform fit check prior to entering the room. Remove mask by touching strings / ties only, immediately after leaving the patient's room.</td>
</tr>
<tr>
<td>Protective eyewear</td>
<td>Standard precautions</td>
</tr>
<tr>
<td>Patient equipment</td>
<td>Reprocess any reusable patient equipment between individual patients.</td>
</tr>
<tr>
<td>Transport of patients (Internal and external)</td>
<td>Notify the area receiving the patient. Advise transport HWs of level of precautions to be maintained. If clinically able, patient should wear a surgical mask. Patients on oxygen therapy should be changed to nasal prongs if tolerated and have a surgical mask over the top of the nasal prongs for transport. Transport patient on their own or with patients with the same pathogen. Consult with infection prevention and control professional for guidance on cleaning of transport vehicle. Patient hand hygiene</td>
</tr>
<tr>
<td>Respiratory hygiene and cough etiquette</td>
<td>Instruct patients to follow strict respiratory hygiene and cough etiquette.</td>
</tr>
<tr>
<td>Cleaning</td>
<td>Standard cleaning protocol. May require disinfection with a disinfectant agent or a dual purpose detergent / disinfectant depending on organism. Consult with infection prevention and control professional.</td>
</tr>
<tr>
<td>Patient Education</td>
<td>Patient hand hygiene, respiratory hygiene, if they are able to leave the room, use of a surgical mask</td>
</tr>
<tr>
<td>Visitors</td>
<td>Visitors who are unwell should avoid visiting the hospital. Visits by children and persons vulnerable to infection should be avoided, particularly in high and extreme risk units. Visitors must wear a fit checked a P2 / N95 mask and perform hand hygiene. Consult with infection prevention and control professional.</td>
</tr>
<tr>
<td>Alert</td>
<td>Patient healthcare records and electronic record devices (e.g. tablets) should not be taken into the room. Airborne Precautions signage required.</td>
</tr>
</tbody>
</table>

301(07/06/17)
11. INFECTIOUS DISEASES, IMMUNISATION AND RELATED MATTERS

COMMUNITY SHARPS DISPOSAL BY AREA HEALTH SERVICES (PD2008_004)

PD2008_004 rescinds PD2005_262.

The Policy Directive should be read in conjunction with:
- PD2007_036, Infection Control Policy
- GL2017_024, Needle and Syringe Program

INTRODUCTION

The purpose of the Policy Directive is to clarify services to be provided at public hospitals for the disposal of used needles, syringes, and other community sharps resulting from the self-management of medical conditions by members of the public. The Policy Directive applies specifically to public hospitals controlled by an Area Health Service. Similar services must be provided at Area Health Service facilities authorised as outlets of the NSW Needle and Syringe Program regardless of whether the person requesting the disposal service is a client of the Needle and Syringe Program.

“Community sharps” are sharps that have been generated by non-clinical activities. This category includes any instruments or medical devices that have sharp points or edges capable of cutting, piercing or penetrating the skin (for example needles, syringes with needles or lancets), that are designed for such a purpose, and that have the potential to cause injury or infection. In practice the items for which disposal is most commonly requested are syringes, insulin pen needles and lancets used by people in the self-management of diabetes and other medical conditions. However, other items of a similar nature are within the scope of the Policy Directive, including syringes used by injecting drug users.

Ambulatory care in a community setting has become increasingly accepted as a preferred management approach for people with chronic disorders. As a consequence, the disposal of sharps generated in the self-management of these conditions has moved from the healthcare facility clinical waste stream into local communities where domestic waste and recycling services are not designed to accept them.

The inappropriate disposal of community sharps can have a significant impact on workplace health and safety in many non-clinical occupations, particularly in local government and the waste and recycling industries. In many areas of NSW the options available for the disposal of community sharps by people with diabetes and other medical conditions requiring self-injection do not meet current principles and practices for infection control.

While the peer reviewed literature indicates that the potential for transmission of a blood borne virus from an injury involving a community sharp is extremely low, sharps injuries also expose the recipient to the emotional trauma associated with the possibility of disease transmission. Media reporting of these incidents can encourage the perception that harm minimisation initiatives like the Needle and Syringe Program are responsible for all adverse events involving community sharps.

NSW Health works with a range of partner organisations to improve the management of community sharps. Initiatives include publication of Community Sharps Management Guidelines for NSW Councils, and development of an information and resource website at http://www.communitysharps.org.au. A copy of the Guidelines can be downloaded from the website. The Guidelines promote the concept of “shared responsibility” for the safe management and disposal of community sharps by major stakeholders involved in the life cycle of this equipment, including Area Health Services.

ROLE OF AREA HEALTH SERVICES

It has been NSW Health policy since 1 October 2002 that a community sharps disposal service must be provided at all public hospitals and authorised outlets of the Needle and Syringe Program, with the cost to be met from existing Area Health Service budgets. A shared responsibility approach to community sharps management requires that all Area Health Services provide appropriate services to manage the
environmental impact of community sharps, including their ultimate disposal. Many public hospitals have well-established procedures in place to accept community sharps from the public for disposal at no charge. Such a service may represent the only disposal option consistent with current infection control principles and practices available in those locations where the local council has not yet implemented community sharps disposal arrangements.

Area Health Services have discretion to determine the most appropriate and cost-effective service in each case. To minimise the risk of occupational exposure of hospital staff to community sharps during disposal, one preferred model is to provide a secure disposal bin capable of accepting the most commonly used sizes of sharps containers in a readily accessible part of the hospital grounds. This model removes the necessity for hospital staff to handle sharps containers, allows direct and confidential disposal by community members, and enables 24-hour access. It also avoids any inconvenience to members of the public if a designated staff member is not available to assist them with disposal. While there is no regulation or standard in NSW that applies to the design and construction of community sharps bins, Community Sharps Management Guidelines for NSW Councils (page 40) provides design criteria for large public place disposal bins to address duty of care and occupational health and safety considerations.

There is no legislative or other requirement in NSW that individuals use a sharps container that conforms to an Australian Standard for the storage, transport or disposal of community sharps. To stipulate the use of such containers for community sharps disposal at public hospitals may act as a significant disincentive to community members to follow safe disposal practice and potentially places other members of the community at risk of injury from inappropriate disposal. A well-designed public hospital disposal service for community sharps that does not require staff involvement in the disposal process will address occupational health and safety risks potentially associated with this practice and will avoid the need to stipulate that only sharps containers that conform to an Australian Standard will be accepted for disposal.

It should be noted that there is no requirement to provide a replacement sharps container to members of the public who choose to use the disposal service.

**MINIMUM SERVICE REQUIREMENTS**

The minimum requirements for a community sharps disposal service at a public hospital or authorised outlet of the Needle and Syringe Program are as follows:

1. There must be no charge to access the disposal service.
2. There must be reasonable access at public hospitals in regard to the location of the disposal service and times when the service is available. Consideration should be given to ensuring that short-term parking is provided in close proximity to the disposal point at hospitals where traffic is heavy and/or parking facilities are limited.
3. Persons requesting a disposal service must not be required to provide information or documentation of a personal or medical nature.
4. The service must adequately address the occupational health and safety of staff and contractors, and public safety considerations.
5. Persons who are not clients of the Needle and Syringe Program may choose to attend a needle and syringe service, drug and alcohol service or similarly identified facility in order to obtain a disposal service but must not be required to do so.

An Area Health Service is not required to provide a disposal service for commercial generators of clinical waste/sharps waste, or local government authorities, but at its discretion the Area Health Service may agree to do so under such conditions as it considers appropriate.

Once community sharps have been accepted or aggregated at a public hospital or authorised outlet of the Needle and Syringe Program the needles, syringes, lancets and similar equipment are classified as clinical waste and must be managed in accordance with Policy Directive PD2005_132, Waste Management Guidelines for Health Care Facilities.
PROMOTION OF SAFE DISPOSAL

To encourage safe disposal behaviour, patients who generate community sharps should be provided with accurate and consistent information on the importance of appropriate disposal and the location of community sharps disposal facilities provided by the Area Health Service. Staff in contact with patients who generate community sharps should ensure that this information is provided at the commencement of treatment or service access, and is reinforced during subsequent contacts. Referral of patients to their local council for information on the location of other community sharps disposal facilities in their area is also appropriate.

To facilitate this process it is recommended that each Area Health Service establish a coordinating committee or working group consisting of representatives from services or programs that have contact with patients or clients who generate community sharps, or have responsibility for workplace safety or public health issues. Stakeholders with an involvement in community sharps management include diabetes educators, renal unit staff, community health nurses, infection control staff, Public Health Units, and the Needle and Syringe Program.

A useful model for this approach is the Safe Disposal Committee established by the HIV and Related Programs Unit at South Eastern Sydney Illawarra Area Health Service. This multi-disciplinary Committee has operated for a number of years and has collaborated with hospital administrators to facilitate the installation of public access community sharps bins at public hospitals. The Committee includes representatives from local councils and stakeholders such as Diabetes Australia-NSW as well as Area Health Service representatives and has been active in promoting the safe disposal of community sharps to Area Health Service staff and local communities.

Further advice on current service models and minimum standards of service provision can be obtained by contacting the Senior Project Officer, Community Sharps, Mr David Baker, by email at david.baker@hnehealth.nsw.gov.au

COMMUNITY SHARPS MANAGEMENT (GL2017_023)

PURPOSE

The Community Sharps Management Guidelines have been developed to help NSW councils assess and manage risks and minimise harm associated with unsafe or inappropriate disposal of community sharps. Councils, Local Health Districts, government and some non-government organisations all have a role in providing an effective disposal infrastructure and in encouraging safe disposal.

These guidelines replace the Community Sharps Management Guidelines for NSW Councils (2004).

KEY PRINCIPLES

Sharps which are generated by community members through self-administered healthcare or recreation are called community sharps. This includes needles, syringes, lancets and prickers resulting from self-injection at private residences and self-injection in public places that are not placed in a designated sharps container provided by a business, commercial or community service activity.

Although no single strategy will be appropriate for all local government areas, the following general principles apply to all community sharps disposal services and infrastructure.

**Public health** - A focus on improving public health for the whole community.

**Harm reduction** - A focus on management activities that promote better health, social and economic outcomes for both the individual and the community.

**Collaboration** - Consultation with partners including all levels of government, local health and social services, business groups, waste management contractors, residents and other stakeholders.
11. INFECTION DISEASES, IMMUNISATION AND RELATED MATTERS

Capacity building - Providing appropriate resources and encouraging the community and other stakeholders to maintain sustainable local community sharps management activities.

USE OF THE GUIDELINE

These guidelines promote a shared responsibility model that encourages engagement by NSW councils of a range of stakeholders to coordinate and deliver a local community sharps management program. Potential partners include state government agencies, medical equipment manufacturers, waste and recycling contractors, local businesses, non-government organisations, and local/regional healthcare services.


NSW NEEDLE AND SYRINGE PROGRAM (GL2017_024)
GL2017_024 rescinds GL2013_007.

PURPOSE

The NSW Needle and Syringe Program Guideline 2017 (the Guideline) provides guidance for the delivery of the Needle and Syringe Program (NSP) in NSW. The Guideline sets out the key principles as well as the roles and responsibilities of health services in order to meet the aim and objective of the NSP in NSW.

The Guideline provides Local Health Districts (LHDs) and agencies involved in the delivery of NSP services with the framework within which detailed operational guidelines appropriate to their own setting can be established.

KEY PRINCIPLES

- NSW Health recognises the important public health contribution made by the NSP in the prevention of HIV, hepatitis B and hepatitis C transmission through the sharing of injecting equipment.
- Local Health Districts are required to implement the NSW Needle and Syringe Program.
- Agencies involved in delivering NSP services must develop, implement and evaluate local operational procedures that are consistent with the aim of the Guideline.
- Health services are expected to have local policies and detailed operational guidelines and/or procedures appropriate to their own settings.
- NSP services are also expected to regularly evaluate the effectiveness of their programs against specific accountability measures and key performance indicators as set out by the NSW Ministry of Health.
- Local Health Districts are responsible for establishing and maintaining local arrangements for the implementation of this policy, which includes the provision of the NSP through Non-Government Organisations.

USE OF THE GUIDELINE

Agencies operating or planning to operate an NSP Outlet should refer to the attached NSW Needle and Syringe Program Guideline for guidance. Sections of particular relevance include:
- Operating an NSP (Section 4)
- Approval & Authorisation (Section 5)
- Protection and Wellbeing of Children and Young People (Section 6)
- Health and Safety (Section 7).

The mix of NSP outlet types and service delivery models provided locally must take into account a number of factors in the area, including:
- the level of injecting drug use
- if there are concentrated areas where people are injecting drugs.
• the demographic profile of people who inject drugs
• service provision for priority populations
• the level of pharmacy participation.

LHDs should prioritise access for people who inject drugs who are most marginalised including those who are:
• street based sex workers
• HIV positive
• young at risk injectors
• Aboriginal people
• people from Culturally and Linguistically Diverse communities.

NSP primary outlets must:
• develop databases of key local services
• establish referral protocols to enable effective referrals
• make databases available to secondary and pharmacy outlets
• make a range of resource information available including resources written in community languages relevant to local need.

In order to maximise the use of sterile injecting equipment for every injection and promote safe disposal practices, the following must apply:
• access to sterile injecting equipment must be made available through the widest range of hours possible
• with the exception of automatic dispensing machines (ADMs) and pharmacy sales, injecting equipment must be provided free of charge
• services must accommodate the needs of people from different social and cultural backgrounds
• services must be provided on a confidential basis and in a professional manner
• service provision must avoid imposing unwanted educational or referral interventions which may discourage future access
• participation in counselling, research and evaluation surveys must be on the basis of the client’s informed and voluntary consent
• provision of a disposal bin, and information on how and where to safely dispose of used injecting equipment must be made available
• clients must not be required to return used needles and syringes as a condition of obtaining sterile injecting equipment.

LHDs must ensure that they have comprehensive procedures to ensure the safety of staff. It is recommended that the following be incorporated into agency procedures:
• protocols and procedures prior to the implementation of outreach services, including processes for assessing risks to staff prior to working in a community setting
• critical incident procedures outlining processes and responsibilities for managing incidents, arrangements for access to appropriate communications and procedures in case of emergency, with a particular emphasis on how immediate assistance will be provided to workers in the event of a violent incident.

All staff undertaking NSP duties must have the specialist skills and knowledge to provide NSP services confidently and effectively. These skills are acquired and maintained through an ongoing process that entails:
• agency orientation
• NSP induction training within three months of commencement
• structured workplace learning and development
• on-going professional development.

11. INFECTIOUS DISEASES, IMMUNISATION AND RELATED MATTERS

HIV - MANAGEMENT OF PEOPLE WITH HIV INFECTION WHO RISK INFECTING OTHERS
(PD2009_023)

PD2009_023 rescinds PD2005_258.

1. INTRODUCTION

This Policy Directive provides a framework for the management of people with HIV infection who risk infecting others. The management framework established by this Policy Directive is based on the following principles and assumptions:

- except in special circumstances, testing for HIV should be conducted on a voluntary basis;
- people with HIV should not be quarantined, or excluded from social or sexual activities;
- every individual has a responsibility to prevent themselves and others from becoming infected and preventing further transmission of the virus;
- most people with HIV are motivated to avoid infecting others;
- the risk of transmission by most people with HIV is reduced by counselling, education, access to resources for the prevention of transmission, and HIV support services;
- counselling and support services, including post-diagnosis counselling, should be provided to facilitate behaviour change in people living with HIV to minimise the risk of infecting others; and
- for people with HIV who risk infecting others, a variety of increasingly interventionist strategies may be needed, with preference being given to strategies that are least restrictive as these will generally be the most sustainable and effective in the long term.

This Policy Directive explains the framework and process through which the health system may decide to infringe the liberty of an individual to protect the health of the public.

The management of people with HIV who risk infecting others may require intensive, individualised case management, a variety of responses to other health and social service needs and an escalating series of behavioural management techniques including counselling, behavioural supervision, formal warnings and public health orders, including – if necessary – detention or referral to law enforcement authorities.

HIV is a lifetime infection. There is, as yet, no cure. HIV treatments may reduce infectivity but may not prevent infection. HIV transmission does not occur via casual contact. Specific behaviours are linked to infection. Managing individuals with HIV who risk infecting others, therefore, requires techniques that will be effective over a life course at modifying behaviours. Escalation to more directive strategies will generally not be preferred because these will be the most difficult to sustain and will decrease outcomes achieved through more sustainable strategies.

In general, pre-emptive escalation to the more interventionist of these strategies will not be considered until less restrictive alternatives have been tried and have not been successful. However, there are cases where a step by step escalation through the full list of possible techniques will be considered too slow to respond to the behaviour of a particular individual. The best mix and order of strategies will be determined on a case by case basis.
2. LEGISLATIVE PROVISIONS

**Public Health Act 1991**

Section 13 of the *Public Health Act 1991* makes it an offence for a person who knows that he or she suffers from a sexually transmissible medical condition to have sexual intercourse with another person unless, before sexual intercourse takes place, the other person:

- has been informed of the risk; and
- has voluntarily agreed to accept the risk.

The *Public Health Act 1991* contains a mechanism to restrict an infected person’s behaviour in certain circumstances using a public health order. A public health order may involve detention, but only in limited circumstances, and only as a last resort.

Under section 23(3A)(b) of the *Public Health Act 1991*, an authorised medical practitioner making a public health order must take into account the principle that any restriction of the liberty of the person to whom the order applies should be imposed only if such restriction is the only effective way to ensure that the health of the public is not endangered or likely to be endangered. The Chief Health Officer, their delegate, or a medical practitioner authorised by the Director-General of the NSW Department of Health may issue a public health order if satisfied on reasonable grounds that:

- a person has HIV; and
- is behaving in a way that is endangering, or is likely to endanger, the health of the public.

3. CONFIDENTIALITY

Information about a person’s HIV or AIDS status, testing or treatment is ‘health information’ and is regulated by the *Health Records and Information Privacy Act 2002*. Additionally, under section 17(3) of the *Public Health Act 1991* information relating to a person’s HIV status may only be disclosed in strictly limited circumstances:

- with the consent of the client;
- where it is necessary to do so in connection with the administration of the *Public Health Act 1991* or another Act;
- by order of a court or a person authorised by law to examine witnesses;
- to a person who is involved in the provision of care to, or treatment or counselling of, the other person if the information is required in connection with providing such care, treatment or counselling; and
- in the prescribed circumstances as set out in clause 10(2) of the *Public Health (General) Regulation 2002*. These prescribed circumstances allow that information may be disclosed to the Director-General when a person has reasonable grounds to believe that failure to provide that information could place the health of the public at risk.

For further discussion of this issue, the Privacy Manual for Health Information (March 2015) should be consulted.

Consideration should be given to any unique privacy issues of particular clients, including those detained under a custodial sentence, to the extent that all reasonable attempts are made to protect the privacy of the client. This must be balanced against the need to protect the health of the public.
4. THE MANAGEMENT FRAMEWORK

The management framework for people with HIV infection who risk infecting others includes the following levels:

<table>
<thead>
<tr>
<th>Management level</th>
<th>Summary of case management</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local management</td>
<td>The client is managed by the treating clinician(s) who are able to obtain advice from the Chair of the Assessment Panel as required.</td>
</tr>
<tr>
<td>1. Supported management</td>
<td>The client is managed by the treating clinician(s) with support from the Assessment Panel.</td>
</tr>
<tr>
<td>2. Public health order</td>
<td>The client is managed by the treating clinician(s) with support from the Assessment Panel. A public health order is in place which places conditions on the client in relation to their behaviour, treatment, health care and/or supervision.</td>
</tr>
<tr>
<td>3. Detention order</td>
<td>The client is managed by the treating clinician(s) with support from the Assessment Panel. The client's movements are restricted by a public health order which includes an order for detention.</td>
</tr>
</tbody>
</table>

Each level is discussed in detail below.

4.1 Local management

Initial steps: counselling, education and support

The first steps in the management of a person infected with HIV who is behaving in a way that is endangering, or likely to endanger the health of the public are counselling, education and support. Usually this will be best undertaken by the local clinician who is also responsible for supporting maintenance of compliance with HIV treatment. Counselling with an experienced sexual health/HIV counsellor may also need to be regular and even intensive and other service providers may also need to be involved.

Wherever possible and appropriate, a community organisation with peer group involvement should be involved to support appropriate behaviour by the person with HIV. A supportive environment should be created where health promoting messages are clearly and frequently reiterated and the consequences of behaviour which places others at risk are spelt out. The means of prevention (including for instance, condoms, sterile needles and syringes and information) should be readily and easily accessible, along with access to regular health checks, testing and treatment.

Case conferencing

A case conference of local services engaged in the care of the person with HIV is often useful in developing a comprehensive care plan for that person. In the case of people with HIV and complex needs often associated with cognitive/behavioural and/or mental health problems, the AIDS Dementia & HIV Psychiatry Team (ADAHPT) – a statewide tertiary service for people with HIV and complex needs – should be involved in assessment and management of the client.

Contact tracing

Contact tracing in accordance with appropriate ethical and legal standards should also be undertaken, where appropriate.
Seeking advice from the Chair of the Assessment Panel

At any stage, the Chair of the Assessment Panel (see below) can be contacted for advice. It is important that service providers and local clinicians contact the Chair for advice if they feel that they are not able to manage the individual client’s behaviour or if they feel that the matter should otherwise be brought to the Chair’s attention.

Contacting the Chair of the Assessment Panel will not automatically lead to the client being managed with support from the Assessment Panel or being subject to a public health order. It may lead to the Chair providing advice or contacts with other professionals able to provide support. The Chair may, however, judge it advisable to involve the Assessment Panel, deciding that the local management of the client would benefit from additional support or a public health order.

Key decisions and record of decisions

**Decision:**
To provide advice to a local clinician/local service provider, rather than to accept the client for supported management.

**Decision maker:** Chair of Assessment Panel.

**Decision framework:**
In determining whether to accept the client for local management with support from the Assessment Panel, the Chair will consider a range of matters including:

- nature of the information provided, including in relation to the imminence of risk to the public;
- credibility of the information provided and the source of the information, including the basis on which conclusions have been drawn regarding the client having HIV infection and placing others at risk or being likely to place others at risk;
- the outcome of any inquiry into the information which may be undertaken by the Chair or their nominee;
- an assessment that the risk is or may be ongoing;
- an assessment of the bearing that a client’s capacity or competence (or lack thereof) or co-morbid presentations (such as problematic drug or alcohol use or mental health presentations) may have in relation to management of the client’s behaviours;
- the range of, and sufficiency of, steps taken by the local clinician/local service provider to manage the client’s behaviours, and the prior involvement of appropriate services, including ADAHPT; and
- an assessment of the likelihood that local actions may succeed if allowed to continue to progress.

The above matters provide a framework only. Acceptance of clients for supported management will be determined by the Chair on a case by case basis. Convenience to local clinicians/service providers will not be a factor in making the decision and in all instances local clinicians/service providers will be expected to remain active in the management of the client. However, consideration can be given to whether a local clinician has the capacity and resources to effectively manage a client who may be at risk of infecting others and alternative arrangements made where required.

**Written record:**
File note of the discussion and the advice provided. It is not necessary that the identity of the individual with HIV or any contacts be recorded, although the identity of the person making the approach to the Chair of the Assessment Panel and the date must be recorded.

The Chair of the Assessment Panel will make a report of such advice provided to the Assessment Panel on at least a four monthly basis.
4.2 Level 1: Supported management

In circumstances where counselling and support measures have failed (or are judged likely to fail) to mitigate concerns that a client presents an imminent public health risk, more assertive management should be initiated. A review of the case will be required to determine what level of the management framework is required to mitigate the risk to public health.

Each case needs to be considered on its individual merits. Use of a range of illicit and prescribed drugs, personality disorders, developmental disability, mental illness, homelessness and social isolation are some of the factors which singly, or in combination with HIV infection, can contribute to behavioural problems of the sort that might lead to escalation.

The Chair of the Assessment Panel will determine whether the client should be managed with support from the Assessment Panel. When this decision is taken, the local clinician, with other service providers involved in the care of the client, remains the central point of client management, but now with support from the Assessment Panel. If necessary, additional resources will be provided from the local Public Health Unit and other agencies/providers.

In the case of longer term interventions, it is desirable for responsibility for public health and clinical care/case management functions to be clearly designated at Area Health Service level.

The Assessment Panel

The Department has established the Assessment Panel to assist local clinicians and service providers in circumstances where all appropriate approaches to management by primary care providers have failed. It also advises the Department of cases where consideration should be given to invoking the Public Health Act 1991. The Chair of the Assessment Panel is nominated by the NSW Department of Health. The Chair’s contact details are available at Appendix 1.

Permanent members of the Assessment Panel include:
- Chair, an individual with experience in the clinical management of sexually transmissible infections;
- Team Leader, ADAHPT (see below);
- Chief Executive Officer, AIDS Council of NSW (ACON);
- a nominee of Directors of Public Health Units, NSW Health; and
- a professional ethicist nominated by the NSW Department of Health.

In addition to the permanent members of the Assessment Panel the Chair may give consideration to involving others who may inform the Assessment Panel’s deliberations and who may be able to assist in the implementation of Assessment Panel recommendations. In particular, consideration should be given to inviting the individual’s local clinician, the Director of the local Area Public Health Unit, and/or a representative of the relevant community group (for example, sex workers, injecting drug users, gay or other homosexually active men). Where a case is referred to the Assessment Panel for consideration, the Director of the local Area Public Health Unit will be informed prior to the initial case presentation.

The Associate Director, AIDS/Infectious Diseases Branch, NSW Department of Health, or their nominee will observe Assessment Panel meetings. The secretary of the Assessment Panel will be an officer nominated by the Associate Director, AIDS/Infectious Diseases Branch, and that secretary will be responsible for maintaining Minutes for the Assessment Panel. Minutes of Assessment Panel meetings will be reviewed and approved by the Chair.
The Assessment Panel will meet as needed or at least every four months, where it will at a minimum receive a report from the Chair of the Assessment Panel on activities, queries received by the Chair and advice provided and progress of clients being managed with support from the Panel.

The Chair and all participants in Panel meetings are indemnified by the NSW Treasury Managed Fund in relation to advice provided in the course of the work of the Assessment Panel.

Should a person to whom operation of the Policy Directive might properly apply come to the notice of local clinicians or other service providers, contact should be made with the Chair of the Assessment Panel to determine a suitable course of action. As noted the Chair may decide either to support the local clinician and service providers with advice alone or to accept that the client should be managed with the Panel’s support, in which case the Chair will inform the AIDS/Infectious Diseases Branch and convene a meeting of the Assessment Panel.

Decision to undertake supported management

When the Chair of the Assessment Panel decides that an individual should be managed with support from the Panel, the Chair must convene a meeting of the Assessment Panel and present the case for review. The Assessment Panel should then decide on a course of follow up, which may be short or longer term.

In determining a course of follow up, the Assessment Panel will specify the individual(s) who are to be responsible for implementation of the recommendation and the timeframe for implementation. The secretary to the Assessment Panel will communicate all recommendations to responsible individual(s). The secretary will seek reports from responsible individuals for consideration by the Chair and/or to the Assessment Panel.

The Assessment Panel should fully review all aspects of the case in question. The Assessment Panel may be able to provide further guidance to local health care professionals regarding client management. A multi-disciplinary case conference should be convened to facilitate identification of the causes of the person’s failure to take responsibility for his or her actions as the basis for the development of a case management plan. A full medical examination, including a psychosocial assessment, may be necessary at this stage. If the individual fails to attend such an examination voluntarily, the Director-General may, under section 22 of the Public Health Act 1991, order the person to undergo a medical examination.

Letter of warning

At the recommendation of the Assessment Panel, it may be appropriate to send a letter of warning to the client from the Chief Health Officer or their delegate. This letter will usually indicate that the client’s behaviours have been officially brought to the attention of the Department, specify the responsibilities of the client with respect to their HIV infection, and identify expected behaviours of the client. In some cases, the letter of warning may be sufficient to prompt behaviour change.

A public health order under the Public Health Act 1991 should still only be considered when such as order is judged to be the only effective way to protect public health.
11. INFECTIOUS DISEASES, IMMUNISATION AND RELATED MATTERS

11.15 7

Discharge from supported management

If the intervention decided is short term, the report back on the implementation of the recommendation will be considered at the next meeting of the Assessment Panel. If the intervention is successful, the Chair may discharge the individual from supported management in the interim and report this to the next meeting of the Panel. If the intervention is not successful and the Chair judges it warranted he or she may call another meeting of the Assessment Panel in the interim.

If the intervention decided is longer term, the Chair will provide a report back to the Assessment Panel at its next meeting and the Assessment Panel will decide either to discharge the client from supported management at that meeting or to continue with supported management.

The Chair can decide to discharge a client between meetings of the Assessment Panel but must report this to the Assessment Panel at the Assessment Panel’s next meeting. The Chair may also judge that the Assessment Panel would wish to be involved in the discharge decision, in which case he or she should wait to make a discharge decision until a meeting of the Assessment Panel.

In determining whether a client is to be discharged, the Chair and Assessment Panel will have regard to:

- whether actions recommended by the Assessment Panel have been implemented;
- the effectiveness of the implementation of the recommendations;
- continued information or evidence that the client is endangering others; and
- an assessment of the likelihood of the client endangering others.

In making this determination, the Chair and Assessment Panel should consider supported management to lapse in the absence of an ongoing assessment that the client is endangering or likely to endanger others. Discharge from management with support from the Assessment Panel constitutes an end to the Assessment Panel’s involvement in the management of the client. Management will, of course, continue to occur via the local clinician/service provider.

Key decisions and record of decisions

Decisions: To accept the client for management with support from the Assessment Panel; and

After reviewing progress in the management of the client, either:

- discharging from supported management;
- extending supported management; or
- escalating to consider a public health order under the Public Health Act 1991.

To initiate a letter of warning, to be sent by the Chief Health Officer or their delegate.

Decision maker: Chair of Assessment Panel, with the Assessment Panel, as appropriate.

Written record: The Chair of the Assessment Panel will record each of these decisions when made, with details of the decision made, ongoing case management responsibility and responsibility for actions to be taken to support local clinicians and service providers. Such records may be made by the secretary to the Assessment Panel in the form of Minutes, which shall be reviewed and approved by the Chair. Minutes of the Assessment Panel will be made available to the Chief Health Officer. Copies of these records will be filed on Assessment Panel files and clinical notes and will be confidential to those directly involved in client management or Assessment Panel deliberations.

Reports on the follow up of clients managed with support from the Assessment Panel will be considered by the Assessment Panel at each of its regular meetings.

72(8/09)
Given the potential for any case referred to the Chair or the Assessment Panel to be escalated to a public health order (as discussed in 4.3 and 4.4, below), due regard should be given to the level of evidence used for decision making and appropriate record keeping. This evidence will be required in the event of escalation as all public health orders are subject to immediate judicial review through the Administrative Decisions Tribunal. Officers of the NSW Department of Health’s Legal and Legislative Services Branch can provide advice on these issues. Approaches to Legal and Legislative Services Branch should be made via AIDS/Infectious Diseases Branch.

4.3  Level 2: Public health order

In the event that a public health order under the Public Health Act 1991 is considered the appropriate course of action by the Assessment Panel, the Assessment Panel should make recommendations to the Chief Health Officer accordingly. The recommendations are made through the Minutes of the Assessment Panel meeting and should advise of the provisions which should be invoked. The Minutes of the Assessment Panel should provide justification for the recommendations. Urgent attention will be given to such recommendations. The recommendations made by the Assessment Panel will be communicated to the Chief Health Officer by officers of the AIDS/Infectious Diseases Branch in consultation with Legal and Legislative Services Branch.

A public health order may require the person to whom it applies to do any one or more of the following:

- refrain from specified conduct;
- undergo specified treatment;
- undergo counselling by a specified person or person(s) of a specified class;
- submit to the supervision of a specified person or person(s) of a specified class;
- undergo specified treatment and be detained at a specified place while undergoing the treatment; and/or
- be detained at a specified place while the order is in force.

A recommendation from the Assessment Panel that the public health order can be modified will be made when the Assessment Panel is satisfied this can be achieved without harm to the community. A recommendation from the Assessment Panel for modification will be considered by the medical officer who issued the public health order.

Making the public health order

The procedures associated with making a public health order are that:

- an authorised medical practitioner may make a written public health order in respect of a person if satisfied on reasonable grounds that the person has HIV, and on the advice of the Assessment Panel is behaving in a way that is endangering, or is likely to endanger, the health of the public;
- in making a public health order, the authorised medical practitioner must take into account:
  - guidelines relating to public health orders approved by the Director-General; and
  - that any requirement restricting the liberty of the person to whom the order applies should be imposed only if it is the only effective way to ensure that the health of the public is not endangered or likely to be endangered;
- within three business days after service on the person of the order, the person is also served with a copy of an application made to the Administrative Decisions Tribunal for confirmation of the order under section 25 of the Public Health Act 1991; and
- the person to whom the public health order applies should be informed of the proposal to make the order and the implications of the order, including the penalties for breaching the order, and arrangements should be made to ensure that the person has appropriate legal representation in the Tribunal hearing.
Authorised medical officers under section 23 of the Public Health Act 1991 are the Chief Health Officer, their delegate, or a medical practitioner authorised by the Director-General of the NSW Department of Health.

Advice will be provided to the Minister for Health that a public health order has been issued at the time of issuance.

**Duration of the public health order**

A public health order must state that it expires a specified number of days (not exceeding 28 days) after its service on the person unless the order is earlier varied as to its duration or is earlier revoked.

A public health order ceases to have effect if:

- A copy of the application made to the Administrative Decisions Tribunal for confirmation of the order under section 25 of the Public Health Act 1991 is not served upon the client within three days of service of the order;
- the Tribunal revokes the order; or
- the order expires before it is confirmed or revoked by the Tribunal or before or after an application to continue the order is made to the Tribunal.

**Continuation of orders**

Following confirmation of the order, an authorised medical practitioner may apply to the Tribunal for continuation of the order for up to six months if the applicant is satisfied on reasonable grounds that the person to whom the order relates continues to endanger the health of the public.

**Key decisions and record of decisions**

- **Decision:** To recommend that the authorised medical practitioner make a public health order, not including detention, in respect of the client; and After a set period, to review this decision, either seeking or not seeking an extension to the public health order.
- **Decision maker:** Assessment Panel and Chief Health Officer or their delegate.
- **Written record:** The Chair of the Assessment Panel will record each of the Assessment Panel’s decisions when made, with details of the decision made, the timeframe for review, ongoing case management responsibility and responsibility for actions to be taken to support local clinicians. Such record may be made by the secretary to the Assessment Panel in the form of Minutes, which shall be reviewed and approved by the Chair. Minutes of the Assessment Panel will be made available to the Chief Health Officer.

In addition, the Associate Director, AIDS/Infectious Diseases Branch will hold a set of written records of the Chief Health Officer or their delegate’s decisions and deliberations on recommendations from the Assessment Panel. Copies of these records will be filed on Assessment Panel and Departmental files and clinical notes and will be confidential to those directly involved in client management or the deliberations of the Assessment Panel or Chief Health Officer or their delegate.

Reports of follow up of clients managed with support from the Assessment Panel will be considered by the Assessment Panel at each of its regular meetings.
4.4 Level 3: Detention order

It must be emphasised that detention is expected to be a rare occurrence, as the Public Health Act 1991 and Policy Directive provide for a flexible range of responses, and detention is a strategy of last resort.

All Area Health Services should identify appropriate facilities and staff who are able to implement an order for secure detention under the Public Health Act 1991.

Where the client to whom the public health order applies is already detained under a custodial sentence, consideration should be given to the unique circumstances of implementing the public health order, including:
- that client confidentiality, legal and safety issues be considered; and
- that segregation measures may require negotiation with Justice Health, the Department of Corrective Services and/or the Department of Juvenile Justice.

Advice will be provided to the Minister that a public health order has been issued at the time of issuance.

**Key decisions and record of decisions**

**Decision:**
To recommend that the authorised medical practitioner make a public health order, including detention, in respect of the client; and

After a set period, to review this decision, either seeking an extension to the public health order or not.

**Decision maker:**
Assessment Panel and Chief Health Officer or their delegate.

**Written record:**
The Chair of the Assessment Panel will record each of the Assessment Panel’s decisions when made, with details of the decision made, the timeframe for review, ongoing case management responsibility and responsibility for actions to be taken to support local clinicians and providers of the secure detention service. Such record may be made by the secretary to the Assessment Panel in the form of Minutes, which shall be reviewed and approved by the Chair. Minutes of the Assessment Panel will be made available to the Chief Health Officer.

In addition the Associate Director, AIDS/Infectious Diseases Branch will hold a set of written records of the Chief Health Officer or their delegate’s decisions and deliberations on recommendations from the Assessment Panel. Copies of these records will be filed on Assessment Panel and Departmental files and clinical notes and will be confidential to those directly involved in client management or the deliberations of the Assessment Panel or Chief Health Officer or their delegate.

Reports of follow up of clients managed with support from the Assessment Panel will be considered by the Assessment Panel at each of its regular meetings. This will require liaison with the providers of secure detention services as appropriate.

5. **USEFUL CONTACTS**

5.1 AIDS/Infectious Diseases Branch, NSW Department of Health

The AIDS/Infectious Diseases Branch serves as the secretariat of the Assessment Panel. The Branch can be contacted on (02) 9391 9234 or via email at AIDSID@doh.health.nsw.gov.au

The Branch can provide assistance on the interpretation of this Policy Directive.
5.2 Sexual health clinics

NSW Health funds a range of sexual health clinics across NSW to provide free and confidential services including testing and treatment of sexually transmissible infections (STIs). For more information about sexual health clinics call the Sexual Health Information Line on (02) 9382 7440 or Free-call 1800 451 624 (outside Sydney) or visit the NSW Health Sexual Health website at http://www.health.nsw.gov.au/sexualhealth/.

Sexual health clinics can also assist with contact tracing of people at risk of STIs or blood-borne viruses.

5.3 Community support services with peer focus

The Department funds a range of HIV/AIDS peer education and support services for gay and other homosexually active men, sex workers, injecting drug users, heterosexual people, Aboriginal people, people from culturally and linguistically diverse backgrounds and people living with HIV/AIDS. These services can provide significant assistance in the counselling, management and support of people with HIV who are behaving in a manner which may expose others to risk.

Relevant contacts are:
- ACON (AIDS Council of NSW), (02) 9206 2000
- ACON Sex Workers Outreach Project, (02) 9319 4866
- NSW Users and AIDS Association, (02) 8354 7300
- PozHets – HIV Positive Heterosexuals, (02) 9395 0444
- Aboriginal Health & Medical Research Council, (02) 9212 4777
- Multicultural HIV/AIDS and Hepatitis C Service, (02) 9515 5030
- Positive Life NSW, (02) 9361 6011

Area Health Service HIV and Related Programs Managers, specialist sexual health clinics and Area Health Service Public Health Units are also able to assist and/or provide referral to relevant services.

5.4 Management of people with HIV and complex behavioural and/or clinical needs

It is essential that cases involving people with HIV and complex needs be dealt with in a similar manner to others presenting with such management problems. A case management approach, involving a multi-disciplinary team, is appropriate for the management of such persons. ADAHPT – a statewide tertiary service for people with HIV and complex needs – has a statewide role in the assessment and development of case management plans for these clients; and education and support for health care workers and carers. The involvement of this team should be initiated as early as possible wherever behaviour problems are identified in a person with HIV. Early intervention by ADAHPT may prevent a situation where public health action becomes necessary. ADAHPT may be contacted on (02) 8382 1810.

6. REFERRAL OF POTENTIAL OFFENCES UNDER THE CRIMES ACT 1900 TO NSW POLICE

Intentionally or recklessly causing a person to contract HIV is a serious criminal offence under the Crimes Act 1900.
Contact with the Department should be initiated:
• immediately where there are clear grounds for a charge involving intentionally causing serious bodily harm; or
• after further examination and/or intervention, of unwillingness to alter behaviour that may recklessly or negligently endanger or cause serious harm.

Any concerns or evidence of this type of behaviour or of breaches of a public health order should be referred to the Department for consideration and appropriate action, including possible referral to the NSW Police Force. The Department may obtain advice from the Assessment Panel or the Chair of the Assessment Panel to assess concerns prior to determining appropriate action. If the matter is referred to the Police, this will be done by the Department.

7. THE MEDIA

Officers of the NSW Department of Health must comply with the requirements of the Media and Communications Liaison Protocols for NSW Department of Health officers. Staff of Area Health Services must comply with Area Health Service policy regarding contact with the media.

APPENDIX 1

CHAIR OF THE ASSESSMENT PANEL

The Chair of the Assessment Panel is Dr Anna McNulty, Director, Sydney Sexual Health Centre. In the event of absence of the Chair, contact Dr Chris Bourne, Director, Sexually Transmissible Infections Programs Unit (STIPU), Sydney Sexual Health Centre.

The Sydney Sexual Health Centre can be contacted on (02) 9382 7440.
HIV, HEPATITIS B AND HEPATITIS C – MANAGEMENT OF HEALTH CARE WORKERS POTENTIALLY EXPOSED (PD2017_010)

PD2017_010 rescinds PD2017_009, PD2005_311

PURPOSE

Human immunodeficiency virus (HIV), hepatitis B and hepatitis C may be transmitted by significant percutaneous or mucosal exposure to infective blood or other infective body substances. Occupational exposure is defined as an incident that occurs during the course of a person’s employment and involves direct contact with blood or other body substances. Such exposures may put the person at risk of acquiring a blood borne virus infection. The purpose of this Policy Directive is to assist Health Services to appropriately assess and manage a health care worker following an occupational exposure in order to prevent disease transmission.

MANDATORY REQUIREMENTS

All health facilities within the NSW public health system are required to implement this Policy Directive. It is also recommended that licensed private health care facilities have regard to this Policy Directive.

Facilities must ensure that:

- An efficient local system is established for reporting and managing potential exposures of HCWs (including non-LHD, non-hospital based health staff or volunteers) to blood borne viruses
- HCWs (including non-LHD, non-hospital based health staff or volunteers) and source patients have access to blood borne virus testing, as appropriate, following an occupational exposure
- Confidentiality is maintained for all testing and reporting relating to occupational exposures
- All staff are aware of whom to contact for advice regarding occupational exposures
- Expert advice is available to all HCWs (including non-LHD, non-hospital based health staff or volunteers) 24 hours a day following a potential BBV occupational exposure to enable rapid assessment and, if needed, timely administration of prophylaxis
- All occupational exposures are reported to SafeWork NSW as required under the Work Health and Safety Act (s35 and 36) and Work Health and Safety Regulation (cl699) (Refer to SafeWork NSW Factsheet http://www.safework.nsw.gov.au/media/publications/health-and-safety/when-to-notify-blood,-body-fluid-and-needlestick-exposure-incidents
- HCWs are able to obtain the support to which they are entitled, including access to an Employee Assistance Program or workers compensation if appropriate as documented in NSW Policy Directive Employee Assistance Program (PD2016_045)
- The local Public Health Unit is notified in the rare event that hepatitis B or hepatitis C is transmitted from a patient to a health care worker.
Health care workers must ensure that:

- All exposures to blood and body substances are reported as per local protocols.

IMPLEMENTATION

Sections 2 to 5 describe the procedures to be followed by health care workers and health facilities in the event that a health care worker is potentially exposed to a blood borne virus following an occupational exposure.

1. BACKGROUND

1.1 About this document

Human immunodeficiency virus (HIV), hepatitis B and hepatitis C may be transmitted by significant percutaneous or mucosal exposure to infective blood or other infective body substances. Occupational exposure is defined as an incident that occurs during the course of a person’s employment and involves direct contact with blood or other body substances. Such exposures may put the person at risk of acquiring a blood borne virus infection.

Adherence to infection prevention and control practices as outlined in the current version of the NSW Infection Control Policy remains the first line of protection for health care workers (HCWs) against occupational exposure to HIV, hepatitis B and hepatitis C. The policy and guidelines for the NSW Health Service on prevention of sharps injuries are documented in the NSW Policy Directive Sharps Injuries – Prevention in the NSW Public Health System (PD2007_052). The current version of the NSW Policy Directive Occupational Assessment, Screening and Vaccination Against Specified Infectious Diseases mandates that health staff directly involved in patient care and/or the handling of human tissue, blood or body fluids complete the full course of hepatitis B vaccination and provide their post vaccination serology result.

This policy directive outlines the procedures that should be followed in the event of an occupational exposure including:

- The immediate care to be taken by the exposed HCW
- An assessment of the risk of blood borne virus transmission
- Management of the exposed HCW including blood borne virus testing and post exposure prophylaxis.

1.2 Key abbreviations and definitions

**Appropriately skilled officer** – means a medical practitioner or nurse with expertise in the assessment of the risk of blood borne virus transmission and the management of the exposed HCW following an occupational exposure

**anti-HBs** – antibody to hepatitis B surface antigen

**BBV** – blood borne virus. Refers to HIV, hepatitis B and hepatitis C viruses.

**HBV** – hepatitis B virus

**HBIG** – hepatitis B immunoglobulin

**HBsAg** – hepatitis B surface antigen
**11. INFECTIOUS DISEASES, IMMUNISATION AND RELATED MATTERS**

**HCW** – health care worker. Refers to all persons working in healthcare settings who have the potential for exposure to infectious/potentially infectious body fluids. This also includes non-LHD, non-hospital based health staff and volunteers.

**HCV** – hepatitis C virus

**HIV** – human immunodeficiency virus

**PCR** – polymerase chain reaction

**PEP** – post exposure prophylaxis

**Source** - person from whom blood or body fluids originated

**Window period** – refers to the time after a person has been exposed and is the maximum time it takes for a test to give an accurate result

**Legal and legislative framework**

Health Services have obligations under the *Work Health and Safety Act* 2011 (NSW) and the *Public Health Act* 2010 (NSW) and their associated regulations.

**2 IMMEDIATE CARE OF THE EXPOSED HEALTH CARE WORKER**

After exposure to blood or other body substances the exposed HCW should as soon as possible do the following:

- Wash the exposure site with soap and water
- Undertake appropriate care of any wound(s)
- If eyes are contaminated then rinse them, while they are open, gently but thoroughly with water or normal saline
- If blood or other body substances get in the mouth, spit them out and rinse the mouth with water several times
- If clothing is contaminated remove clothing and shower if necessary
- Inform their line manager so they can immediately be relieved from duty and notify the appropriately skilled officer who is designated to conduct an urgent risk assessment on potentially exposed staff (as per local reporting procedures) to ensure that necessary further action is undertaken.

Sections 2 to 5 outline the procedures to be followed by health care workers and health facilities following an occupational exposure. Refer to Appendix A for a summary of these procedures and Appendix B for a summary of recommended laboratory testing.

**3 RISK ASSESSMENT OF THE EXPOSURE**

In the event of an occupational exposure, appropriately skilled officer/s should conduct a risk assessment immediately. The first step in the risk assessment is to establish the type of injury (see Table 1). Following this, consideration should be given to the body fluid involved (see Table 2).
### Table 1: Risk of transmission of blood borne viruses from an infectious bodily fluid, by injury type (based on UK guidelines)

<table>
<thead>
<tr>
<th>Level of risk</th>
<th>Injury type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Higher risk injury</td>
<td>- Deep percutaneous injury</td>
</tr>
<tr>
<td></td>
<td>- Visible blood on sharps</td>
</tr>
<tr>
<td></td>
<td>- Needle used on source’s blood vessels</td>
</tr>
<tr>
<td>Lower risk injury</td>
<td>- Superficial injury, exposure through broken skin, mucosal exposure (usually splashes to eye or mouth)</td>
</tr>
<tr>
<td></td>
<td>- Old discarded sharps</td>
</tr>
<tr>
<td></td>
<td>- No visible blood on sharps</td>
</tr>
<tr>
<td></td>
<td>- Needle not used on blood vessels e.g. suturing, subcutaneous injection needles</td>
</tr>
<tr>
<td>Injury with no risk</td>
<td>- Skin not breached</td>
</tr>
<tr>
<td></td>
<td>- Contact of body fluid with intact skin</td>
</tr>
<tr>
<td></td>
<td>- Needle (or other sharp object) not used on a patient before injury</td>
</tr>
</tbody>
</table>

### Table 2: Body fluids and risk for blood borne virus transmission (based on UK guidelines)

<table>
<thead>
<tr>
<th>Level of risk</th>
<th>Body fluid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infectious (good evidence of BBV transmission following occupational exposure)</td>
<td>- Blood</td>
</tr>
<tr>
<td></td>
<td>- Visibly bloody body fluids</td>
</tr>
<tr>
<td>Potentially infectious (risk of BBV transmission following occupational exposure unknown)</td>
<td>(In alphabetical order):</td>
</tr>
<tr>
<td></td>
<td>- Amniotic fluid</td>
</tr>
<tr>
<td></td>
<td>- Cerebrospinal fluid</td>
</tr>
<tr>
<td></td>
<td>- Human breast milk</td>
</tr>
<tr>
<td></td>
<td>- Pericardial fluid</td>
</tr>
<tr>
<td></td>
<td>- Peritoneal fluid</td>
</tr>
<tr>
<td></td>
<td>- Pleural fluid</td>
</tr>
<tr>
<td></td>
<td>- Saliva in association with dentistry (likely to be contaminated with blood even when not visibly so)</td>
</tr>
<tr>
<td></td>
<td>- Semen</td>
</tr>
<tr>
<td></td>
<td>- Synovial fluid</td>
</tr>
<tr>
<td></td>
<td>- Tissue fluid from burns or skin lesions</td>
</tr>
<tr>
<td></td>
<td>- Vaginal secretions</td>
</tr>
<tr>
<td>Not infectious (unless visibly blood stained)</td>
<td>- Nasal secretions</td>
</tr>
<tr>
<td></td>
<td>- Saliva (non-dentistry associated)</td>
</tr>
<tr>
<td></td>
<td>- Sputum</td>
</tr>
<tr>
<td></td>
<td>- Stool</td>
</tr>
<tr>
<td></td>
<td>- Sweat</td>
</tr>
<tr>
<td></td>
<td>- Tears</td>
</tr>
<tr>
<td></td>
<td>- Urine</td>
</tr>
<tr>
<td></td>
<td>- Vomit</td>
</tr>
</tbody>
</table>
11. INFECTIOUS DISEASES, IMMUNISATION AND RELATED MATTERS

Where the exposed HCW is uncertain about actions to be taken, the Blood and Body Fluid Exposure Phoneline (formerly the NSW Needlestick Hotline) may assist. The Blood and Body Fluid Exposure Phoneline is an information, support and referral service for NSW based health care workers who sustain needlestick injuries and other blood/body fluid exposures during the course of their work. The line is answered by an on-call nurse 7 days a week from 7am to 11pm and can be contacted on free call 1800 804 823 within NSW. The Exposure Phoneline is not a reporting or surveillance service.

4 MANAGEMENT OF EXPOSURES WITH NO RISK OF BLOOD BORNE VIRUS TRANSMISSION

Occupational exposures are not considered to have the potential for blood borne virus transmission if either the injury is classified as no risk (Table 1) or the body fluid is not infectious (Table 2). For such exposures, no further action with respect to the health worker is required other than an opportunistic assessment of his/her protection against hepatitis B in accordance with the current NSW Policy Directive Occupational assessment, screening and vaccination against specified infectious diseases. Post exposure prophylaxis (PEP) is not indicated and testing of the source patient is not required. Such workers should be advised that the potential side effects and toxicity of taking HIV PEP outweigh the negligible risk of transmission posed by this exposure regardless of the HIV status of the source patient. No HCV or HIV testing of the exposed HCW is required.

A risk assessment of the incident should be conducted and local documentation procedures should be followed after each potential exposure.

5 MANAGEMENT OF EXPOSURES WITH POTENTIAL FOR BLOOD BORNE VIRUS TRANSMISSION

An occupational exposure has the potential for blood borne virus (BBV) transmission if the injury carries a risk (see table 1) and the body fluid is infectious/potentially infectious (see table 2). Following all such exposures a risk assessment of the incident should be conducted.

5.1 Post exposure prophylaxis

Post exposure prophylaxis (PEP) is available following exposure to HIV and hepatitis B. It is recommended for all higher risk injuries involving an infectious/potentially infectious body fluid. It should be considered for lower risk injuries involving an infectious/potentially infectious body fluid (see Tables 1 and 2).

Greater efficacy is achieved the earlier prophylaxis is administered (ideally within 1-2 hours of exposure). The initiation of PEP should not be delayed while awaiting laboratory testing of either the source patient or the health care worker. The continuation of PEP should be reconsidered once laboratory results become available. Further information on PEP is found in section 5.2.3 (for HIV) and 5.2.4 (for HBV). Prophylaxis can be commenced up to 72 hours post exposure.

5.2 Risk assessment of the source patient

Following occupational exposures that carry a risk of BBV transmission, officer/s conducting the risk assessment should seek information on the BBV status of the source patient as soon as is practicable.
If the blood borne virus status of the source patient at the time of the incident is unknown, the staff conducting the risk assessment should arrange for the source patient to be tested as soon as practicable for HIV, HBV and HCV infection (refer to Table 3). Results of source testing will better inform the exposed HCW about the risk of transmission and where PEP has been initiated, inform the need for continuation. Informed consent for testing must be obtained from the source patient. The exposed HCW should not approach the source patient for consent. If the patient does not provide consent, testing cannot occur. Consent should also be sought for the results of testing to be provided to the exposed HCW.

Occupational exposures occurring during autopsies should be managed as set out in section 5.2.2.

Note that testing of the source patient for HBV infection is not required if the exposed HCW has previous documented evidence of immunity to hepatitis B (anti-HBs level ≥10 mIU/mL at any time or HbcAb positive). Viral load should be measured for source patients who are known, or discovered, to be infected with HIV, HCV or HBV. The source should be offered immediate referral to a specialist service if a previously undiagnosed blood borne virus is detected.

Table 3: Recommended testing of source patient *

- Combined HIV antigen and antibody immunoassay (fourth generation HIV test)
- Hepatitis B surface antigen (not required if HCW has hepatitis B immunity)
- Hepatitis C antibody

* Viral load should be measured for source patients who are known, or discovered, to be infected with HIV, HCV or HBV

*Consider qualitative hepatitis C RNA testing if individual is at risk of hepatitis C infection as may be antibody negative in acute infection and remain negative for up to 12 months if immunocompromised.

Source potentially in the window period

If the source patient tests negative for BBV infection but reports a recent (within previous three months for HIV or six months for HBV and HCV) risk behaviour that places them at high risk for infection, he/she should be advised to seek medical attention if they develop signs and/or symptoms of primary infection. For their own health benefit, they should also be advised to undergo testing for that BBV six weeks and 12 weeks after the exposure. If the source is at risk of a recent hepatitis B or C infection final tests should be done at 24 weeks after exposure.

Follow up and documentation of source testing is not required by staff managing the occupational exposure as it will not influence the care of the exposed HCW (due to timing of results). Until such time as infection can be excluded in the source, the exposed HCW should be managed as for exposure to a positive source.
The risk assessment of the source patient is outlined in Table 4.

Table 4: Risk assessment of source patient (based on UK guidelines)

<table>
<thead>
<tr>
<th>Level of risk</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Higher risk source</td>
<td>- Known to be infected with one or more blood borne viruses (viral</td>
</tr>
<tr>
<td></td>
<td>load and treatment status unknown)</td>
</tr>
<tr>
<td></td>
<td>- Known to have a detectable viral load for one or more blood viruses</td>
</tr>
<tr>
<td></td>
<td>- Unknown viral load but known to have advanced or untreated blood</td>
</tr>
<tr>
<td></td>
<td>borne infection</td>
</tr>
<tr>
<td></td>
<td>- Blood borne virus status unknown and known risk factors*</td>
</tr>
<tr>
<td>Lower risk source</td>
<td>- Infected with a blood borne virus but known to have a fully</td>
</tr>
<tr>
<td></td>
<td>suppressed viral load</td>
</tr>
<tr>
<td></td>
<td>- Unknown viral load but receiving long term antiviral treatment for</td>
</tr>
<tr>
<td></td>
<td>blood borne virus with good adherence and known to be stable</td>
</tr>
<tr>
<td></td>
<td>- Blood tests at/near to the time of the incident were negative for all</td>
</tr>
<tr>
<td></td>
<td>three blood borne viruses but source reports ongoing risk factors</td>
</tr>
<tr>
<td></td>
<td>for blood borne viruses</td>
</tr>
<tr>
<td></td>
<td>- Blood borne virus status unknown but had no known risk factors for</td>
</tr>
<tr>
<td></td>
<td>such viruses</td>
</tr>
<tr>
<td>Source with minimal or no</td>
<td>- Recent blood test that was negative for all three blood borne viruses</td>
</tr>
<tr>
<td>risk</td>
<td>and no recent risk behaviours reported</td>
</tr>
</tbody>
</table>

* Example of risk factor may include intravenous drug use, men who have sex with men, origin or unprotected sexual intercourse with a sexual partner from high prevalence area for either HIV infection, or hepatitis B or hepatitis C.

5.2.1 Source negative for HIV, HBV and HCV

In the event that the source undergoes testing and is found to be negative for HIV, HBV and HCV and does not report recent behaviour that may place them at risk of a blood borne virus then no further action is required. PEP, if commenced, should be discontinued. If there is reason to suspect the self-reported risk history of the source may unreliable or incomplete, the exposed HCW should be managed as per exposure to a positive source (refer to sections 5.2.3 to 5.2.5).

5.2.2 Source with unknown infectious status and source unable to be tested

If the status of the source is not known then the risk of the source being positive for HIV, HBV and HCV must be assessed from the available information relating to risk factors known to be associated with BBVs (e.g. intravenous drug use, male homosexual sex and origin or sexual partner from a high prevalence area). If there is a risk of the source being infected with HIV, HBV or HCV then the exposed HCW should be managed as per exposure to a positive source (refer to sections 5.2.3 to 5.2.5).

89 Countries with population prevalence over 1% are considered to have a high prevalence of HIV. High prevalence areas include the Caribbean, Sub-Saharan Africa, South East Asia and Papua New Guinea. For the HIV seroprevalence for individual countries go to http://aidsinfo.unaids.org/. Areas reporting high hepatitis C prevalence are sub-saharan Africa, North Africa and the Middle East, central, south and east Asia and Eastern Europe. Areas of high hepatitis B endemicity include most of East and Southeast Asia (except Japan), Pacific island groups, parts of central Asia and the Middle East, the Amazon Basin, and sub-Saharan Africa. Refer to the Travelers’ Health section of the Centers of Disease Control and Prevention website for further detail.
5.2.3 Source positive or potentially positive for HIV

Risk of HIV transmission from positive source patient

The overall risk of acquiring HIV infection following occupational exposure to HIV is low. The average risk of HIV transmission (without prophylaxis) after a percutaneous exposure to HIV infected blood has been estimated to be 0.3% (95% confidence interval (CI): 0.2-0.5%). The risk of seroconversion following mucous membrane exposure is estimated to be 0.09% (95% CI: 0.006%-0.5%) and the risk following non-intact skin exposure is estimated to be even lower. 2

A case control study conducted by the US Centers for Disease Control and Prevention showed that significant risk factors for HIV infection were deep injury (odds ratio (OR) = 15, 95% CI: 6.0-41), injury with a device that was visibly contaminated with the source patient's blood (OR= 6.2, 95% CI: 2.2-21), a procedure involving a needle placed in the source patient's artery or vein (OR =4.3, 95% CI 1.7-12), and exposure to a source patient who died of the acquired immunodeficiency syndrome within two months afterward (OR=5.6; 95 %CI: 2.0-16)³.

There have been no confirmed cases of HIV infection in a HCW following an occupational exposure in NSW since 1994 and nationally since 2002. Only one confirmed case of occupational HIV acquisition (involving a laboratory technician working with a live HIV culture) has been reported in the US since 1999⁴. There has only been one other case report of occupational HIV transmission in the developed world published since 2005. In this instance, a nurse acquired HIV following a needle stick injury from a patient (not previously known to have HIV) with a high viral load⁵. Due to delayed reporting of the incident, PEP was not given. Table 5 shows a summary of the occupational exposure registry reviews published in the international literature since 2005.

Table 5: Evidence of HIV transmission following occupational exposure

<table>
<thead>
<tr>
<th>Country</th>
<th>Time period</th>
<th>No. of HCW exposures to HIV</th>
<th>No. HIV seroconversions (rate)</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia⁶</td>
<td>2000-2003</td>
<td>13</td>
<td>0 (0%)</td>
<td>Includes percutaneous and mucous membrane exposures. All given PEP</td>
</tr>
<tr>
<td>Brazil⁷</td>
<td>1997-2009</td>
<td>80</td>
<td>0 (0%)</td>
<td>Includes only percutaneous injuries. No information provided on PEP</td>
</tr>
<tr>
<td>Denmark⁸</td>
<td>1999–2012</td>
<td>276</td>
<td>0 (0%)</td>
<td>Includes percutaneous and mucous membrane exposures. All given PEP</td>
</tr>
<tr>
<td>Germany⁹</td>
<td>2010-2012</td>
<td>51</td>
<td>0 (0%)</td>
<td>Includes only percutaneous injuries. PEP (3 drugs, mean time to start 75 mins &gt; exposure) given to 35/51 and for other 16 cases the source patient was known to have a viral load &lt;20 copies/mL at time of incident.</td>
</tr>
<tr>
<td>Netherlands¹⁰</td>
<td>2003-2010</td>
<td>60</td>
<td>0 (0%)</td>
<td>Includes only percutaneous injuries. No information provided on PEP</td>
</tr>
<tr>
<td>Thailand¹¹</td>
<td>1996–2014</td>
<td>84</td>
<td>0 (0%)</td>
<td>Includes percutaneous, mucous membrane and non-intact skin exposures. All offered PEP, completed in 62/84 instances.</td>
</tr>
<tr>
<td>United Kingdom¹²</td>
<td>2004-2013</td>
<td>1478</td>
<td>0 (0%)</td>
<td>Includes percutaneous, mucous membrane and non-intact skin exposures. 1135 (77%) given PEP.</td>
</tr>
</tbody>
</table>

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Post exposure prophylaxis (PEP)

Based on evidence from animal models and what is known about primary HIV infection, there is a window of opportunity following exposure to HIV, during which antiviral medication may prevent infection. However, the evidence for efficacy of PEP in preventing HIV acquisition is limited. A small US case-control study of HIV seroconversion in HCWs after percutaneous exposure published in 1997 provided the first evidence in humans that PEP seemed to be protective against infection. This study found that zidovudine PEP was associated with an 81% reduction in the odds of infection after adjustment for relevant exposure risk factors. There have been 24 reports of PEP failure following occupational needle stick exposures in the literature. In over three quarters of these instances, zidovudine only was used; only six instances of PEP failure in the context of occupational needle stick injury have been reported with multi-drug regimens with three of these occurring after 1999. Factors that may have contributed to the failure of the combination drug PEP include drug resistance (in 3 cases the HCW was found to be infected with a strain resistant to the PEP regimen), exposure to a high HIV viral load and delayed initiation of PEP.

Multi-drug regimens are now prescribed to prevent HIV infection following exposure. However, there is no definitive evidence to support a two versus a three-drug regimen. Instead, the additional benefit of a third drug must be weighed against the cost and potential harms.

While newer HIV antiretrovirals are less toxic and better tolerated than the older HIV drugs, adverse effects still occur. In addition, serious drug interactions can occur when antiretroviral agents are used with certain other drugs. More commonly reported side effects include nausea, vomiting, diarrhoea and fatigue. Rare, but important side effects of tenofovir include acute renal failure and proximal renal tubulopathy (Fanconi’s syndrome). There is a small risk of rhabdomyolysis with raltegravir.

The need for HIV PEP depends on an assessment of the risk of transmission and consideration of the potential adverse effects. Where possible, information concerning the source’s stage of HIV infection, viral load, resistance testing and history of therapy and medication adherence should be ascertained so that the most appropriate therapy and counselling can be offered. While the evidence supports a significantly lower risk of HIV transmission following sexual exposure to a source with an undetectable viral load, such evidence does not exist for occupational exposures. While it is assumed there is also an extremely low risk of HIV transmission, it is still reasonable for a healthcare worker who has had a higher risk exposure to a source who is HIV positive but with an undetectable viral load to complete the course of PEP. The recommended PEP regimen is outlined in Table 6. Refer to Appendix C for the antiretroviral drug regimens recommend by the Australasian Society of HIV Medicine.

Table 6: PEP recommendations following occupational exposure to HIV positive source

<table>
<thead>
<tr>
<th>Injury type</th>
<th>Source viral load known to be undetectable</th>
<th>Source not on treatment or on treatment with detectable or unknown viral load</th>
</tr>
</thead>
<tbody>
<tr>
<td>Needlestick injury or other sharps exposure</td>
<td>Consider 2 drugs</td>
<td>3 drugs</td>
</tr>
<tr>
<td>Mucous membrane or non-intact skin exposure</td>
<td>Consider 2 drugs</td>
<td>Consider 3 drugs</td>
</tr>
</tbody>
</table>

Any medical officer can prescribe a PEP starter pack (lasting 3 to 7 days). The recommended course of PEP is 28 days. A prescription for the remainder of the PEP course must be obtained from a clinician experienced in the administration of drugs for the treatment of HIV.
Where there is a risk that a woman may be pregnant, undertake a serum beta HCG urgently. If possible, contact an HIV experienced Infectious Disease or Sexual Health Physician before starting HIV prophylaxis for a woman who is pregnant or at risk of pregnancy. Where it is not immediately possible and the risk of contracting HIV appears to outweigh any potential risk for the pregnancy commence prophylaxis and advise making an appointment with an HIV experienced physician for the next working day. Truvada® and Combivir® are category B3 drugs which means that there is limited data relating to safety in pregnancy but no human evidence of harm.

**Exposed HCW testing recommendations**

It is recommended that 4th generation HIV antibody/antigen testing be conducted at 6 weeks. A negative test at 6 weeks is likely to exclude infection but the exposed HCW should be retested at 12 weeks to definitively exclude infection. HIV viral load tests have the capacity to detect early HIV infection before antibody development and should be considered following higher risk exposures to a higher risk source. Longer follow up with additional testing may also be indicated in complex cases (e.g. possibility of coinfection) as directed by an expert clinician.

**Advice for the exposed HCW during follow up period**

During the follow up period the exposed HCW should be advised:

- Not to donate plasma, blood, body tissue, breast milk or sperm
- To protect sexual partners by adopting safe sexual practices (use of condoms)
- To seek expert medical advice regarding pregnancy and/or breastfeeding
- To seek medical attention about any acute illness (i.e. fever, rash, myalgia, fatigue, malaise, lymphadenopathy, anorexia).

Modification to work practices (including avoidance of exposure prone procedures) is not required on the basis of an occupational HIV exposure.

5.2.4 **Source positive or potentially positive for HBV**

**Susceptibility of the exposed HCW to HBV infection**

In accordance with the current NSW Policy Directive *Occupational Assessment, Screening and Vaccination Against Specified Infectious Diseases* all staff who have direct contact with patients, deceased persons, blood, body substances or infectious material or surfaces/equipment that might contain these must complete a full course of hepatitis B vaccination and/or provide serological evidence of protection.

If the exposed HCW has a documented protective response (anti-HBs level ≥10 mIU/mL) at any time following completion of the vaccination course, then he/she is considered immune to hepatitis B and no further action (i.e. testing of the source patient or post exposure prophylaxis) is required regardless of the exposure. If the response to previous vaccination is unknown, the anti-HBs level of the exposed HCW should be determined as quickly as possible. If immunity status cannot be determined quickly then the HCW should be managed as a susceptible person until such time that evidence of immunity is available.

The following provisions relate only to those who are presumed susceptible to HBV infection (those with anti-HBs level <10 mIU/mL and who are hepatitis core antibody negative).
Risk of HBV transmission from positive source patient

The probability of infection following exposure to a susceptible person depends on a number of factors including the volume and infectiousness of the body fluids and the route of the exposure. Occupational HBV transmission primarily occurs via percutaneous and mucosal exposure to blood. Of viral parameters, the risk of infection best correlates with viral load (HBV DNA) rather than hepatitis B serology. The presence of hepatitis B e antigen (HBeAg) is a surrogate marker for high viral load.

In studies of hepatitis B susceptible HCWs who sustained injuries from needles contaminated with blood containing HBV, the risk for developing clinical hepatitis if the blood was both HBsAg-positive and HBeAg-positive was 22%–31%, and the risk for developing serologic evidence of HBV infection was 37%–62%. By comparison, the risk for developing clinical hepatitis from a needle contaminated with HBsAg-positive, HBeAg-negative blood was 1%–6%, and the risk for developing serologic evidence of HBV infection was 23%-37%.17

Post exposure prophylaxis (PEP)

Where indicated (see Section 5.1) HBV post exposure prophylaxis with hepatitis B immunoglobulin and vaccine should be offered to non-immune and non-infected individuals in accordance with the recommendations in the current edition of the Australian Immunisation Handbook (refer to Appendix D). Requests for hepatitis B immunoglobulin should be directed to the local hospital blood bank.

Source testing recommendations

If a source is known or found to be HBsAg positive, then HBeAg and quantitative HBV DNA testing of the source patient should be performed, with the consent of the source, so that the exposed HCW can be counselled appropriately about the risk of transmission.

Exposed HCW testing recommendations

The exposed susceptible HCW should undergo HBsAg testing at 6 weeks, 12 weeks and 24 weeks. In the rare event that an exposed HCW is newly diagnosed with HBV infection, the local Public Health Unit should be notified. Post-vaccination serological testing is recommended 4 to 8 weeks after completion of the vaccination course.

Advice for the exposed HCW during follow up period

During the follow up period the exposed HCW should be advised:

- Not to donate plasma, blood, body tissue, breast milk or sperm
- To seek medical attention if they develop signs and/or symptoms of acute hepatitis (i.e. anorexia, vague abdominal discomfort, nausea and vomiting, fatigue and/or jaundice)

The exposed HCW is not required to modify sexual practices provided that HBV PEP has been administered on time. Ideally the HCW should refrain from becoming pregnant until completion of the vaccination course. There are no restrictions regarding breastfeeding. Modifications to work practices (including avoidance of exposure prone procedures) are not required on the basis of an occupational HBV exposure.
5.2.5 Source positive or potentially positive for HCV

Risk of HCV transmission from positive source patient

Overall, the risk of HCV transmission following an occupational exposure is low. The probability of infection following exposure depends on a number of factors including the volume and infectiousness of the body fluids and the route of the exposure. The average incidence of anti-HCV seroconversion after accidental percutaneous exposure from a HCV-positive source is estimated at 1.8% (range 0-7%)\textsuperscript{20}. The risk of transmission increases significantly if the source has a high viral load. A review of the recent published evidence of HCV transmission following occupational exposures is summarised in Table 7.

A case control study on the risk factors for HCV transmission in HCW based on UK data collected from 1997 to 2007, found that all HCV seroconversions followed percutaneous injuries\textsuperscript{21}. As had been previously shown\textsuperscript{22}, the depth of injury was significantly associated with seroconversion and the majority of exposures involved hollow bore needles from a vein or artery contaminated with blood or blood stained fluid. Transmission rarely occurs from mucous membrane exposures to infective blood and there are only two published reports to date of HCV transmission to a HCW via non-intact skin exposure\textsuperscript{23,24}.

Post exposure prophylaxis (PEP)

Currently, there is no vaccination or post exposure prophylaxis that is effective in the prevention of hepatitis C transmission. However, treatment of acute hepatitis C infection is now highly effective. Early identification of infection is necessary to enable prompt referral and treatment.

Table 7: Evidence of HCV transmission following occupational exposures

<table>
<thead>
<tr>
<th>Country</th>
<th>Time period</th>
<th>Number of exposures involving HCW and HCV positive source</th>
<th>Number of HCV seroconversions</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia\textsuperscript{6}</td>
<td>2000-2003</td>
<td>64\textsuperscript{4}</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Austria\textsuperscript{21}</td>
<td>1995-2009</td>
<td>150\textsuperscript{9}</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Brazil\textsuperscript{7}</td>
<td>1997-2009</td>
<td>38\textsuperscript{8}</td>
<td>2</td>
<td>5%</td>
</tr>
<tr>
<td>Denmark\textsuperscript{22}</td>
<td>2003-2012</td>
<td>62</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Germany\textsuperscript{8}</td>
<td>2010-2012</td>
<td>44\textsuperscript{*}</td>
<td>1</td>
<td>2.3%</td>
</tr>
<tr>
<td>Italy\textsuperscript{23}</td>
<td>2004-2006</td>
<td>26</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Korea\textsuperscript{24}</td>
<td>2004-2008</td>
<td>327</td>
<td>3</td>
<td>0.9%</td>
</tr>
<tr>
<td>Netherlands\textsuperscript{10}</td>
<td>2003-2010</td>
<td>53</td>
<td>1</td>
<td>1.9%</td>
</tr>
<tr>
<td>United Kingdom\textsuperscript{12}</td>
<td>2004-2013</td>
<td>2566</td>
<td>9</td>
<td>0.4%</td>
</tr>
</tbody>
</table>

\textsuperscript{4}All percutaneous injuries with source known to be HCV PCR positive
\textsuperscript{9}All percutaneous injuries involving large bore catheter needles

Source testing recommendations

If the source is known or found to be HCV antibody positive, then quantitative hepatitis C RNA testing of the source patient should be performed with the consent of the source, so that the exposed HCW can be counselled appropriately about the risk of transmission.
Exposed HCW testing recommendations

The exposed HCW should undergo qualitative HCV PCR testing at 6 weeks and HCV antibody testing at 6 weeks and 12 weeks. If results are negative at that time the HCW can be advised that the risk of transmission is negligible but an antibody test at 24 weeks post exposure should still be undertaken to confirm that transmission has not occurred. Given its low specificity, liver function testing is not recommended. In the rare event that an exposed HCW is newly diagnosed with HCV infection, the local PHU should be notified.

Advice for the exposed HCW during follow up period

During the follow up period the exposed HCW should be advised:

- not to donate plasma, blood, body tissue or sperm
- to seek medical attention if they develop signs and/or symptoms of acute hepatitis (i.e. anorexia, vague abdominal discomfort, nausea and vomiting, fatigue and/or jaundice)

The exposed HCW is not required to modify sexual practices. In most circumstances the HCW should refrain from becoming pregnant until HCV infection is excluded. There are no restrictions regarding breastfeeding. Modifications to work practices (including avoidance of exposure prone procedures) are not required on the basis of an occupational HCV exposure.

5.3 Testing of the exposed HCW

The exposed HCW should have baseline testing for HIV, HBV and HCV infections as detailed in Table 8. If the exposed HCW is known to be infected with one or more of these BBVs, then baseline testing for those BBVs is not required. Note that a HCW with previous HCV infection who has been successfully treated or who has cleared the virus spontaneously remains susceptible to HCV re-infection.

Informed consent must be obtained before testing can proceed. The exposed HCW needs to be informed that baseline testing:

- Determines whether they were infected before the exposure and can be done up to a few days after the exposure (there is no need for after-hours testing)
- Does not have to be done at the workplace. The HCW can seek testing at their GP or other offsite service but the reason for the test (i.e. following occupational exposure) should be documented.
- Although not urgent, is important in case of a worker’s compensation claim in the rare event of seroconversion

If the HCW is not immune and not previously vaccinated against HBV, or not currently infected with HBV, then he/she should be vaccinated as outlined in The Australian Immunisation Handbook and in accordance with the current NSW Policy Directive Occupational assessment, screening and vaccination against specified infectious diseases.

The HCW should be offered immediate referral to a specialist service if a previously undiagnosed blood borne virus is detected. Refer to current version of the NSW Policy Directive HIV, Hepatitis B or Hepatitis C – Health Care Workers Infected. Immediate consultation with a HIV specialist is required in the event that the exposed HCW who had commenced HIV PEP is found to be HIV positive on baseline testing.
All occupational exposure incidents should be documented according to local procedures.

### Table 8: Baseline testing of the HCW

<table>
<thead>
<tr>
<th>HCW hepatitis B status unknown</th>
<th>HCW previously shown to be hepatitis B immune</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Hepatitis B surface antigen, hepatitis B surface antibody, hepatitis B core antibody</td>
<td>• Combined HIV antigen and antibody immunoassay (fourth generation HIV test)</td>
</tr>
<tr>
<td>• Combined HIV antigen and antibody immunoassay (fourth generation HIV test)</td>
<td>• Hepatitis C antibody</td>
</tr>
<tr>
<td>• Hepatitis C antibody</td>
<td></td>
</tr>
</tbody>
</table>

#### 5.4 Special situation: when a patient is exposed to the blood or body fluids of a HCW

In some instances, when a HCW is exposed to potentially infectious fluids from a patient, there is also exposure of the patient to the HCW’s blood. For example, this might occur if the HCW experiences a used sharps injury and blood from the sharps injury comes into contact with the patient’s open wound or mucous membrane. In this situation, in addition to the risk of BBV transmission to the HCW, there is also a potential risk of BBV transmission from the HCW to the patient. In such circumstances, the HCW should be managed as per Sections 2 to 5 as a potential source for the patient. The patient and their treating medical team must be informed of the incident as soon as possible after the exposure. Injuries to patients must be reported in the Incident Information Management System.

The Australian National Guidelines for the Management of Health Care Workers Known to be infected with Blood Borne Viruses minimize the risk that a patient will be exposed to the blood of an infected health care worker. In the event of an occupational exposure incident involving a HCW known to be infected with a BBV, refer to the NSW Policy Directive, *HIV, Hepatitis B or Hepatitis C – Health Care Workers Infected*. 

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11. REFERENCES


20 Updated U.S. Public Health Service Guidelines for the Management of Occupational Exposures to HBV, HCV, and HIV and Recommendations for Postexposure Prophylaxis MMWR June 29, 2001/50(RR11);1-42


### APPENDIX A: MANAGEMENT OF THE EXPOSED HCW FOLLOWING AN OCCUPATIONAL EXPOSURE

#### Initially assessment of the risk of BBV transmission

- **Immediately after incident**
  - **OCCUPATIONAL EXPOSURE**
    - **Administer first aid**
    - **Assess the risk of the injury (Table 1)**
      - Higher risk
      - Lower risk
      - No risk
      - **Assess the risk of the body fluid(s) (Table 2)**
        - Infectious/Potentially infectious
        - Not infectious

#### Decision to offer PEP for HIV (antivirals) and HBV (HBIG + vaccine)

- **Ideally 1-2 hours (not > 72 hours) after incident**
  - **Ascertain HBV immune status***
    - If not possible quickly assume susceptible
    - **Recommend PEP for higher risk injuries**
      - Consider PEP for lower risk injuries
      - HBV PEP not required if evidence of immunity
    - **PEP initiated**
    - **PEP not initiated**
    - **PEP not required**

#### Further assessment of the risk of BBV transmission

- **As soon as practicable**
  - **Ascertain BBV status of source***
    - If unknown conduct BBV testing (with consent) (Table 3)
    - If positive conduct viral load testing
    - **Assess the risk of the source based on available information on BBV status, viral load, stage of infection, treatment history and risk factors for BBVs *** (Table 4)**
      - Higher risk source
      - Lower risk source
      - Minimal or no risk source
      - **Reassess the risk of BBV transmission based on the risk of injury, fluid(s) and source. Counsel HCW on risk.**

#### Follow up of exposed HCW

- **If initiated, decision to continue PEP**
  - **Continue PEP**
  - **Discontinue PEP**
  - **Discontinue PEP**

- **Follow up testing depending on BBV status of the source**
  - HIV antigen/antibody testing at 6 and 12 weeks
  - HBV surface antigen testing at 6, 12 and 24 weeks
  - HCV : PCR testing at 6 weeks, antibody testing at 6, 12 and 24 weeks

---

* HBV immunity defined as anti-HBs level ≥10 mIU/mL at any time or HBsAg positive
* * If BBV status of the source patient remains unknown and there is the risk of being infected then manage as per exposure to positive source
* ** Specialist refers to a clinician with experience in the administration of drugs for HIV
* # HBV testing not required if HCW has documented evidence of immunity
APPENDIX B: RECOMMENDED LABORATORY TESTING FOR THE EXPOSED HCW

<table>
<thead>
<tr>
<th>BBV status of the source patient</th>
<th>Time (in weeks) following BBV exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>6 weeks</td>
</tr>
<tr>
<td>HIV positive</td>
<td>Combined HIV antigen and antibody (fourth generation HIV immunoassay)</td>
</tr>
<tr>
<td>HBV positive*</td>
<td>Hepatitis B surface antigen</td>
</tr>
<tr>
<td>HCV positive</td>
<td>Hepatitis C antibody, qualitative HCV PCR</td>
</tr>
</tbody>
</table>

*If BBV testing of the source patient at the time of the incident is negative but there is the possibility of being in the window period or BBV status of the source is unknown and there is a risk of being infected then follow up as per positive source.

* If the HCW is immune (i.e. anti-HBs level ≥10 mIU/mL or HBcAb positive) no further HBV testing is required regardless of the exposure or status of the source patient.
APPENDIX C: HIV PEP RECOMMENDATIONS
HIV PEP starter packs may vary between facilities. The Australasian Society for HIV Medicine (ASHM) recommendations are provided here.

Recommendations for PEP following occupational exposure to HIV

<table>
<thead>
<tr>
<th>2-drug regimens*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tenofovir 300mg with lamivudine 300mg (daily) *(TGA approved generic lamivudine may be used to reduce cost)</td>
</tr>
<tr>
<td>OR</td>
</tr>
<tr>
<td>Tenofovir disoproxil fumarate/emtricitabine 300mg/200mg (daily)</td>
</tr>
</tbody>
</table>

* Zidovudine, in combination with lamivudine, can be used in two-drug PEP combinations. The benefits of cheaper zidovudine cost are offset by the need for a twice-daily treatment regimen, higher incidences of gastrointestinal side effects, myalgia and headaches in comparison to the recommended regimens.

<table>
<thead>
<tr>
<th>3-drug regimens</th>
</tr>
</thead>
<tbody>
<tr>
<td>The preferred 2 drug-regimen PLUS</td>
</tr>
<tr>
<td>dolutegravir 50mg (daily)</td>
</tr>
<tr>
<td>OR</td>
</tr>
<tr>
<td>raltegravir 400mg (bd)</td>
</tr>
<tr>
<td>OR</td>
</tr>
<tr>
<td>rilpivirine 25mg (daily with food)</td>
</tr>
</tbody>
</table>

Note: Refer to Post Exposure Prophylaxis after Non-Occupational and Occupational Exposures: Australian National Guidelines 2nd Edition for cautions in relation to specific antiretroviral medications

APPENDIX D HEPATITIS B PEP RECOMMENDATIONS
Management of non-immune HCWs following occupational exposure to a positive/likely positive HBsAg source

<table>
<thead>
<tr>
<th>Type of exposure</th>
<th>Hepatitis B Immunoglobulin</th>
<th>Vaccine</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percutaneous, ocular or mucous membrane</td>
<td>Single dose of 400IU by IM injection within 72 hours of exposure</td>
<td>1ml recombinant antigen by IM injection within 7 days* of exposure, repeated at 1 month and again 6 months post first dose</td>
</tr>
</tbody>
</table>

*The 1st dose can be given at the same time as HBIG, but should be administered at a separate site. Administration as soon as possible after exposure is preferred.

301(04/05/17)

1 Taken from the Post Exposure Prophylaxis after Non-Occupational and Occupational Exposures: Australian National Guidelines 2nd Edition
2 Taken from the Australian Immunisation Handbook, 10th Edition
HEALTH CARE WORKERS INFECTED WITH HIV, HEPATITIS B OR HEPATITIS C
(PD2005_162)

This policy document is to be read in conjunction with PD2007_036 Infection Control Policy, PD2005 311 Management of Health Care Workers Exposed to HIV, Hepatitis B or Hepatitis C; and PD2011 005 Occupational Assessment, Screening and Vaccination Against Specified Infectious Diseases.

This Circular extends policy on health care workers infected with blood borne viruses to include hepatitis C. All health care workers in New South Wales who perform exposure prone procedures, as defined in this Circular, are required to know their blood borne virus status. A HCW who is either HCV PCR positive or HIV positive or HBeAg positive or HBV DNA positive must not perform exposure prone procedures.

Private health care facilities are advised to adopt this policy unless they already have in place equivalent policy on this issue.

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GLOSSARY

EPPs Exposure prone procedures. EPPs are a subset of invasive procedures (see below). EPPs are those procedures where there is potential for contact between the skin (usually finger or thumb) of the HCW and sharp surgical instruments, needles or sharp tissues (splinters/pieces of bone/tooth) in body cavities or in poorly visualised or confined body sites including the mouth. Procedures which lack these characteristics are unlikely to pose a risk of transmission of blood borne viruses from infected HCW to patient.
Provided they are not conducted in poorly visualised or confined body sites, the following procedures are not considered to be exposure prone - oral, vaginal or rectal examinations that do not involve sharp instruments; phlebotomy; administering intramuscular, intradermal or subcutaneous injections; needle biopsies; needle aspirations; lumbar punctures; venous cutdown and angiographic procedures; excision of epidermal or dermal lesions; suturing of superficial skin lacerations; endoscopy; placing and maintaining peripheral and central intravascular lines, nasogastric tubes, rectal tubes and urinary catheters; acupuncture; other procedures that do not involve sharps; or procedures where the use of sharps is superficial, well visualised, and administered to compliant or anaesthetised patients where it is very unlikely that a HCW skin injury would result in exposure of a patient to the HCW’s blood or body substances.

HBeAg  Hepatitis B e antigen - marker of high level of infectiousness  
HBsAg  Hepatitis B surface antigen - indicates current infection with HBV with some potential to infect others  
HBV  Hepatitis B virus  
HBV DNA  Hepatitis B virus genetic material - marker of high level of infectiousness  
HCV  Hepatitis C virus  
HCV RNA  Hepatitis C genetic material - marker of high level of infectiousness  
HCW  Health care worker. Persons, including students and trainees, whose activities involve direct contact with patients or with blood or body fluids from patients  
Health care facility  All publicly funded public hospitals, community health services, dental clinics, day procedure centres etc.  
HIV  Human immunodeficiency virus  
Invasive procedure  Any procedure that pierces the skin or mucous membrane or enters a body cavity or organ. This includes surgical entry into tissues, cavities or organs or repair of traumatic injuries. Exposure prone procedures form subset of invasive procedures.  
PCR  polymerase chain reaction  
VMO  Visiting Medical Officer

1 INTRODUCTION

NSW Health is committed to providing an environment which is as safe as possible for patients and HCWs. The blood borne viruses HIV, HBV and HCV are of concern because of their potential for transmission during provision of health care.

This Circular contains policy for use in relation to HCWs infected with HIV, HBV or HCV. It has been developed in accordance with the following principles:

- HCWs and employers have a legal obligation to care for the safety of others in the workplace (this includes other workers, patients and visitors) under the *Occupational Health and Safety Act 1983*; and
- individual HCWs and health care facilities owe a common law duty of care to their patients.

This Circular provides Area Health Services with the basis for development of detailed policy relevant to their particular setting. It is recommended that professional organisations and private hospitals also use this Circular as a basis for policy development.

It is **not** recommended that employers require evidence of the HIV, HBV or HCV status of HCWs. It should be the goal of all employers and health care facilities to achieve voluntary compliance and self-disclosure, where appropriate, by the establishment and maintenance of an environment in which HCWs know their confidentiality will be protected and they will not suffer unlawful discrimination.
It is the responsibility of Area Health Services to ensure that this Circular is complied with in all facilities under their control and that this Circular is brought to the attention of relevant new and existing HCWs who perform EPPs - including employed staff, VMOs and other independent contractors (including agency staff).

2 RATIONALE

There is a very low, but real, risk of transmission of blood borne viruses from an infected HCW to a patient in Australian health care setting. There is evidence that blood borne viruses can be transmitted from HCWs to patients during EPPs (see below). This evidence is the rationale for the exclusion of infectious HCWs from the performance of EPPs.

2.1 HIV

No known cases of HCW to patient HIV transmission have occurred in Australia. In the international literature the only documented instances of transmission of HIV from an infected HCW to patients involve the cluster of six patients of a Florida dentist and one patient of a French orthopaedic surgeon. Despite this apparently low risk, it is considered that further study is required to more accurately quantify the risk to patients and that all HIV positive HCWs should be considered infectious. At the time of writing there is no evidence in the scientific literature regarding markers of infectious status for HIV, although there have been suggestions that viral load may be such a marker.

2.2 HBV

HBV is the most readily transmitted of the blood borne viruses, and since the early 1970s when testing for HBV commenced, there have been many published reports of clusters of patients infected with HBV by HBV infected HCWs. In one series of reported incidents, all HCWs whose HBeAg status was known and who infected patients, were HBeAg positive. This series, in 5 of 11 HCWs who resumed practice of EPPs after modification of procedures, further transmission to patients occurred.

A 1997 report several cases of probable surgeon to patient transmission of HBV involving four surgeons who did not have detectable serum HBeAg; the surgeons were however shown to be HBV DNA positive, and DNA sequencing showed the HBV DNA carried by the surgeons to be indistinguishable from that found in each surgeon’s infected patients. It follows that HBV DNA testing is currently the most sensitive marker of the potential to transmit HBV infection in HCWs who are HBsAg positive and HBeAg negative.

2.3 HCV

Testing for HCV only became available in 1990, so the extent of occupational and nosocomial transmissions of HCV prior to 1990 is unknown. There are recent reports of HCV transmission from 2 cardiothoracic surgeons to patients. A 1997 review of the role of PCR testing in defining infectiousness among people infected with HCV indicates extremely low probability of transmission if the person is HCV PCR negative. On this basis, HCV PCR positive HCWs are regarded as infectious.

3 STRATEGIES FOR PREVENTION OF TRANSMISSION OF BLOOD BORNE VIRUSES IN THE HEALTH CARE SETTING

3.1 Infection Control

Employers and HCWs should have access to and comply with PD2007_036 Infection Control Policy.
Compliance with standard infection control precautions and adoption of recommended procedures for sterilisation and disinfection of equipment, as outlined in the Policy, minimises the risk of transmission of blood borne viruses in the health care setting.

Registered HCWs (medical practitioners, nurses, physiotherapists, dentists, podiatrists and dental prosthetists) have an individual legal responsibility to comply with the standards (infection control) set out in regulations of their professional registration acts.

Health care facilities must ensure:
- that HCWs (including those with HIV, HBV or HCV infection) are fully informed about the infection risks involved in undertaking procedures;
- that HCWs are fully informed about and comply with recommended infection control procedures; and
- that HCWs comply with current guidelines for disinfection and sterilisation of reusable devices.

3.2 Immunisation of HCWs against HBV

HBV is currently the only blood borne virus for which a vaccine is available. Successful HBV vaccination prevents a person from acquiring HBV, thus eliminating the possibility that they may become infected and transmit the infection to others. It is strongly recommended that all non-immune HCWs who may be exposed to HBV in the course of their work be immunised against HBV for their own protection.

3.3 Exclusion of infectious HCWs from practising EPPs

HCWs who perform EPPs must know their HIV, HBV and HCV status. Medical practitioners should note that NSW Medical Board policy requires medical practitioners who perform, or who could reasonably be anticipated to perform, EPPs to know their infectious status. RCWs (ie those who are either HCV PCR positive or HBV DNA positive or HBeAg positive or HIV positive) must not perform EPPs.

Where there is uncertainty about whether certain procedures are exposure prone, the matter may be referred to the NSW Health Blood Borne Viruses Advisory Panel (hereafter the Advisory Panel) - see Appendices 1, 2 and 3. Professional associations have a role in assisting the Advisory Panel, by representation from a member of the relevant profession, in determining what is exposure prone on a case by case basis.

4 SEROLOGICAL TESTING FOR HIV, HBV AND HCV

It is in the interests of all HCWs to know their HIV, HBV and HCV status so that they may take steps to seek appropriate treatment, modify lifestyle if relevant, and avoid occupationally acquired infections that might exacerbate any existing infection.

4.1 Employer responsibility

Employers must ensure that options are available for employees who perform EPPs to obtain confidential testing and counselling HIV, HBV and HCV. Testing may be provided by employers via the staff health service, or HCWs may choose to seek testing from their general practitioner, or another appropriate health facility. Arrangements should be in place to allow for infected HCWs to obtain the results of testing for markers of their infectious status as soon as possible after a positive test result for HBV or HCV.
11. INFECTIOUS DISEASES, IMMUNISATION AND RELATED MATTERS

4.2 HCWs who do not perform EPPs

For HCWs who do not perform EPPs regular testing for blood borne viruses is not justified due to the very low risk of occupational transmission if standard infection control precautions are applied. Policy for testing following potential occupational exposure to blood borne viruses is set out in PD2005_311 Management of Health Care Workers Exposed to HIV, Hepatitis B or Hepatitis C. These HCWs may however consider seeking testing if other risk factors are present.

4.3 HCWs who perform EPPs

HCWs who perform EPPs must be aware of their HIV, HBV and HCV status by seeking serologic testing:
- if untested and currently performing EPPs;
- if about to commence performing EPPs;
- if it is 12 months or longer since their last tests;
- following any significant occupational exposure (refer to PD2005_311 Management of Health Care Workers Exposed to HIV, Hepatitis B or Hepatitis C); and
- immediately on recognition of a non-occupational exposure, including needle sharing with a person infected with or at increased risk of HIV, HBV, or HCV; and unprotected sexual intercourse with a person infected with or at increased risk of HIV or HBV. The risk of sexual transmission of HCV is at present believed to be low. Risk will be increased where sexual activity involves blood to blood contact.

5 CONFIDENTIALITY

Confidentiality of testing arrangements for HCWs infected with HIV, HBV and HCV not only safeguards personal rights, but also is in the public interest. Maintenance of confidentiality will encourage HCWs to seek appropriate testing, counselling and treatment and to disclose their serologic status to their employers.

Privacy Manual for Health Information (March 2015) sets out clear guidelines on the legislative and policy framework for the management of personal information in health settings.

6 INFECTED HCWs

6.1 Informing patients of HCW status

Patients, like HCWs, are best protected from exposure to HIV, HBV and HCV by adoption of appropriate infection control practices. In the absence of any significant exposure to blood or other body substances, patients are at an extremely low risk of acquiring blood borne infections. It is not recommended that HCWs be required to disclose their HIV, HBV or HCV status to patients. The reasons for this are that:
- infectious HCWs shall no longer undertake EPPs;
- there is no onus of confidentiality on the part of patients once they have been informed of a HCW’s infection status; and
- a policy of providing a right for a patient to be informed of the HCWs HIV, HBV and HCV status would send an erroneous message to the public concerning the risk of transmission between HCW and patient.
6.2 Informing employers of HIV/HBV/HCV status

It is desirable that HCWs practising EPPs inform their employer of infectious status regarding HIV, HBV and HCV, if they are positive, so that:
- their welfare and safety in the workplace can be maximised; and
- they fulfil their common law duty of care and take all reasonable steps to safeguard patients/clients.

HCWs have a responsibility to advise either their employer, professional organisation or the Advisory Panel if they are either HIV antibody positive or HBeAg positive or HBV DNA positive or HCV PCR positive and are or have been performing EPPs. If it is likely that patients have been exposed to risk of infection during EPPs, HCWs have a responsibility to inform their employer. Advice should be sought from the Advisory Panel either by the employer or the HCW so that a confidential investigation of patients can be arranged.

Where a HCW does disclose his or her HIV, RBV or HCV status to an employer, the disclosure must be treated with due regard to the HCW’s right to confidentiality.

6.3 Management of infected HCWs

All HCWs who are HIV antibody positive, HBeAg positive or HBV DNA positive or HCV PCR positive should seek:
- expert medical advice; and
- expert occupational health and safety advice.

Areas should ensure that appropriate expert advice is available for employees.

HCWs who are HCV antibody positive and HCV PCR negative and HCWs who are HBsAg positive are to be provided with access to ongoing expert clinical advice regarding their potential infectiousness and the appropriateness of their continued performance of FPPs.

In the light of a recent study which demonstrated increased likelihood of fulminant hepatitis and death as a result of co-infection with HCV and hepatitis A, consideration should be given to offering hepatitis A vaccination to HCWs who are HCV positive.11

6.3.1 Medical care

In the interest of their own health, HCWs infected with HIV, HBV or HCV should be followed up by a medical practitioner who is expert and experienced in the management of these conditions. This medical expert will also have a role in advising the infected HCW about continued involvement in direct patient care.

6.3.2 Occupational health and safety

Infected HCWs should seek confidential advice on infection control procedures, continued involvement in patient care, matters of confidentiality and other issues from an expert medical practitioner, with knowledge of the relevant NSW Health policies and policies of the NSW Medical Board. The medical practitioner may be the person who provides medical care as recommended in 6.3.1, however additional advice may also be sought from an occupational physician, a clinical microbiologist or a medical practitioner with relevant expertise (eg hepatologist, immunologist, infectious diseases physician). Further confidential advice may be sought from the relevant professional body or the Blood Borne Viruses Advisory Panel (see Appendix 3).
6.3.3 Exclusion of HCWs from performance of exposure prone procedures

The categories of infected HCWs excluded from the performance of EPPs are:
1. HIV antibody positive, irrespective of levels of viremia.
2. HCV antibody positive and HCV RNA is positive by PCR or in whom HCV RNA PCR status is yet to be determined.
3. HBsAg positive in whom HBeAg or HBV DNA is positive or in whom HBeAg or HBV DNA status is yet to be determined.

Under these guidelines HCWs who are:
1. HCV antibody positive, but HCV RNA negative; and/or
2. HBsAg positive but HBeAg negative and HBV DNA negative

may continue to perform EPPs provided they remain negative for the infectious genetic material of the virus. Such HCWs are obliged to have regular virological monitoring to ensure that their practice reflects their virological status.

HCWs who are HIV positive, HBV positive and HCV positive should double glove for all invasive procedures, including those which are not considered to be exposure prone.

7 MODIFICATION OR TRANSFER FROM DUTIES

All HCWs - including those infected with HIV, HBV or HCV - should be assessed to determine that they are capable of performing their tasks adequately to the accepted professional standard, that they practise recommended techniques, that they comply with standard infection control precautions and that they adhere to approved guidelines for sterilisation and disinfection.

Consistent with this circular (see section 3.3), the work practices of HIV, HBV or HCV infected HCWs who perform EPPs may need to be modified. Any modification should provide infected employees with opportunities to continue their chosen work, where practical, or to obtain alternative career training. Modification of or transfer from duties and retraining should be organised by the relevant supervisor or head of the relevant clinical division in consultation with the employee.

Supervisors or heads of relevant clinical divisions may wish to seek support for their decision from another authority within the Area where the infected HCW is employed. Alternatively the matter may be referred to the Advisory Panel.

Modifications to work practices should be determined according to the following criteria:
- fitness for work, mental and physical capabilities;
- training and expertise of the infected employee;
- ability to perform routine duties;
- competence and compliance with established guidelines and procedures; and
- risk of contracting/transmitting other infections.

The transfer of HIV, HBV or HCV infected HCWs from their roles in health care settings is not supported except where consistent with this Circular.

Where there is uncertainty as to whether to exclude a HCW from performing EPPs on the part of the HCW, their treating medical practitioner or their employer, the matter is to be referred to the Advisory Panel.
Area Health Services and health care facilities are required to have occupational rehabilitation programs in place, consistent with Departmental policy, the Work Place Injury and Workers Compensation Act 1998, to manage employees with work-related functional impairment including infectious diseases. This includes the requirement that those affected are to be provided with suitable alternate duties or employment where practical, including redeployment.

 Modifications to work practices or duties should be in accordance with PD2013_006 Injury Management and Return to Work.

 Where practical, infected HCWs should be given the opportunity to participate in clinical trials of drugs which may render them non-infectious. Where natural resolution or treatment renders a HCW non-viremic (ie HBV DNA test negative or HCV PCR test negative), resumption of the performance of EPPs can be considered, conditional on continued monitoring of infectious status.

 While neither Area Health Services nor the Department of Health are obliged to offer assistance with rehabilitation to impaired independent contractors, the important contribution of VMOs to the health system is acknowledged. Therefore Area Health Services are to consider strategies to utilise the skills and experience of impaired VMOs in other suitable positions where this is practicable and appropriate.

 Area Health Services will nominate a person or persons as contacts for discussion of redeployment and retraining opportunities for employees; and options for VMOs. Appropriate nominees may be the Area or hospital Human Resources Manager, Personnel Officer, Occupational Health or Rehabilitation Coordinator. Other appropriate sources of advice should also be identified.

 Infected HCWs are also encouraged to discuss retraining options with relevant educational institutions and professional associations (including medical specialist colleges if appropriate).

 Where there is a dispute over the ability of an HIV antibody positive, HBeAg positive, HBV DNA positive or HCV PCR positive HCW to continue with all or part of his/her employment responsibilities, the matter should be referred to the Advisory Panel. The HCW should discontinue performance of the duties in question pending resolution of the dispute.

 In those rare cases where an HIV, HBV or HCV infected HCW refuses to accept the advice of the Advisory Panel, and the HCW’s medical adviser and/or the health care facility believes that the infected HCW’s continued practice constitutes a risk to public health, the doctor or health care facility should notify the Director-General of the Department of Health. There are specific provisions within the Public Health Act 1991 for management of situations where a HIV positive person may be behaving in a way which places the health of the public at risk (see PD2009_023 Management of people with HIV infection who risk infecting others).

 WorkCover NSW is the appropriate authority to address compensation issues for employees who acquire an illness or injury in the course of their work. For current information about workers compensation and rehabilitation matters, employees are advised to contact their local occupational health and safety risk management staff and/or occupational rehabilitation coordinator.
NSW HEALTH BLOOD BORNE VIRUSES ADVISORY PANEL MEMBERSHIP

Membership in relation to infected health care workers

Membership will be by invitation of the Chief Health Officer and may include:

- Infectious Diseases physician*
- Medical Epidemiologist, NSW Health*
- Virologist*
- A member of the professional group, relevant to the health care eg Royal Australasian College of Surgeons*
- Occupational Health Physician
- Infection Control Practitioner
- Legal Officer*
- A health care worker advocate
- A dentist, hepatologist, immunologist or other appropriate medical expert
- NSW Health nominee/s of the Chief Health Officer*

Executive support to be provided by the AIDS/Infectious Diseases Unit (ex officio)

*These members shall from part of any Panel constituted to provide advice on modification of work practices of an infected health care worker.
NSW HEALTH BLOOD BORNE VIRUSES ADVISORY PANEL

Terms of Reference in relation to infected health care workers

1. To provide on a case by case basis advice on modifying work practices of infected health care workers.

2. To provide supplementary specialist occupational advice to physicians of health care workers infected with blood borne viruses, occupational physicians and professional bodies.

3. To advise individual health care workers, or their advocates, how to obtain guidance on work practices.

4. To advise on look back exercises in respect of patients treated by HIV positive, HBeAg positive, HBV DNA positive and HCV PCR positive health care workers.

5. To keep under review the literature on occupational transmission of blood borne viruses and refer any changes relevant to current policy to the NSW Health Department.

6. To report to the Director-General of Health.
Protocol for accessing Advisory Panel in relation to infected health care workers

Who may consult Panel?

The following parties may require specific advice:
- the infected health care worker;
- the supervisor, or employer, of the infected health care worker;
- the treating doctor of the infected health care worker;
- occupational health staff; and
- infection control staff.

Confidentiality

It is recommended that the name of the infected health care worker be disclosed only to the Chair when consulting the Advisory Panel. In situations where the referral is made by the treating doctor of an infected HCW, it is not necessary to disclose the identity of the HCW to the Chair as it is expected that the treating doctor will monitor the extent to which the HCW complies with the advice of the Advisory Panel.

In what circumstances

Advice may be sought on the following issues:
- exposure prone procedures, where there is some uncertainty about the definition in any given circumstance;
- disclosure of the HCW’s status, to whom and when;
- management of the infected HCW;
- infection control procedures;
- modification or transfer from duties;
- management of patient exposure to the blood of an infected health care worker;
- situations where an infected health care worker has been involved in the performance of exposure prone procedures; and
- follow up of an HIV, HBV or HCV infected patient where there is a possibility that the infection was acquired nosocomially.

In situations where there is a dispute regarding the management of an infected HCW the matter should be referred to the Advisory Panel for resolution.

How to access the Advisory Panel

Matters to be referred to the Advisory Panel should be directed to the Medical Epidemiologist, NSW Health on telephone (02) 9391 9192 or the Advisory Panel Chairperson. The current Chair is Professor Tania Sorrell, Director, Centre for Infectious Diseases and Microbiology, Westmead Hospital, telephone (02) 9845 6012.

For further information in regard to policy on infected health care workers please call the AIDS/Infectious Diseases Unit of NSW Health on (02) 9391 9195.

Advisory Panel Advice

Where the Advisory Panel advises that a health care worker should modify or restrict his/her practices or be transferred to other duties in accordance with this Circular and it is informed that the he/she does not follow this advice, the matter will be referred to the Director-General.
References

6. The Incident Investigation Teams and others. Transmission of hepatitis B to patients from four infected surgeons without hepatitis B e antigen. NEJM. 1997;336(3):178-84.
OCCUPATIONAL ASSESSMENT, SCREENING AND VACCINATION AGAINST SPECIFIED INFECTIOUS DISEASES (PD2018_009)

PD2018_009 rescinds PD2011_005

PURPOSE

The purpose of this policy is to provide a framework for the assessment, screening and vaccination of health care workers, other clinical personnel and students to minimise the incidence of vaccine preventable diseases. Under work, health and safety legislation, NSW Health has a duty of care and a responsibility to control and minimise risks related to the transmission of specified infectious diseases.

MANDATORY REQUIREMENTS

LHDs must:

- Ensure that all the requirements of this policy are met;
- Report on compliance with the policy as specified in Section 14 Monitoring and Reporting;
- Support the progression and implementation of a state-wide HRIS as required.

NSW Health will:

- Provide support and advice to Local Health Districts (LHDs) and education providers regarding the implementation of this policy;
- Facilitate the implementation of a state-wide human resources information system (HRIS) in all LHDs;
- Monitor LHD compliance with the policy and provide support as required, and;
- Continue to supply free vaccines for workers employed in existing positions.

IMPLEMENTATION

Compliance with implementation of this policy is mandatory in all LHDs. Specific recommendations are provided for workers with a medical contraindication to vaccination. Advice is also included regarding the termination of workers who refuse to comply with the policy requirements. Priority must be given to the assessment, screening and vaccination of workers employed in existing Category A High Risk positions as specified in Section 14 Monitoring and Reporting and must be completed within six months from the release of this policy directive.
11. INFECTIOUS DISEASES, IMMUNISATION AND RELATED MATTERS

11.19

1  BACKGROUND

1.1  About this document

Transmission of vaccine preventable diseases (VPDs) and tuberculosis (TB) in healthcare settings has the potential to cause serious illness and avoidable deaths in workers, patients and other users of NSW Health agencies as well as others in the community. Under s17 of the Work Health and Safety Act 2011, a duty is imposed which requires risks to be eliminated and if it is not reasonable to do so, risks should be minimised through controls. NSW Health therefore has a duty of care and a responsibility under work health and safety legislation to control and minimise risks. This policy directive provides a framework for the assessment, screening and vaccination of health care workers, other clinical personnel and students to minimise the risk of transmission of these diseases.

The key changes in this updated policy include:

- The introduction of a Category A High Risk position;
- A mandatory annual influenza vaccination of workers employed in Category A High Risk positions, including a requirement for all unprotected workers to wear a surgical/procedural mask during the influenza season;
- Recommendations on the termination of workers who refuse to comply with the policy requirements;
- A Hepatitis B statutory declaration, and;
- Monitoring and performance indicators.

Each Local Health District (LHD) must determine the governance arrangements relating to implementation of this policy directive.

1.2  Key definitions

Agency – see Locum.

Assessment – the evaluation of a person’s prior exposure/level of protection against the infectious diseases covered by the policy directive by appropriately trained clinical personnel.

Appropriately trained assessors – a doctor, paramedic, registered nurse (RN) or enrolled nurse (EN) who has training on this policy directive in the interpretation of immunological test results, vaccination schedules, TB assessment and/or TB screening. ENs and RNs who have been assessed as having the required experience and knowledge in immunisation may perform assessments and refer difficult/uncertain results/assessments to an Authorised Nurse Immuniser (ANI) or doctor for advice. ENs must work under the supervision (direct or indirect) of an RN/Authorised Nurse Immuniser who has agreed to supervise the EN. The level of supervision will depend on the EN’s level of competence to perform the required tasks and as determined by the employer.
Australian Immunisation Register (AIR) – a system that records the information about vaccinations given to persons of all ages. The AIR was previously known as the Australian Childhood Immunisation Register (ACIR) which was established in 1996 and held the information about vaccinations given to children from birth up to seven years of age. The ACIR transitioned to the AIR in September 2016 and records information about vaccinations given at any age.

Authorised Nurse Immuniser (ANI) – a registered nurse/midwife who has completed the specified specialist post-graduate training to provide immunisation services without direct medical authorisation.

Category – the classification given to a position depending on the requirements of the role and as specified in Attachment 1 Risk Categorisation Guidelines.

The following categories are to be applied:

- **Category A** – direct physical contact with patients/clients, deceased persons, blood, body substances or infectious material or surfaces/equipment that might contain these or contact that would allow acquisition and/or transmission of a specified infectious disease by respiratory means.

- **Category A High-risk** – Category A workers who are employed in high risk clinical areas as defined in Attachment 1 Risk Categorisation Guidelines.

- **Category B** – no direct physical contact with patients/clients, deceased persons, blood, body substances or infectious material or surfaces/equipment that might contain these and no greater risk of acquisition and/or transmission of a specified infectious disease than for the general community. Category B positions are not required to undergo assessment, screening and vaccination.

Certificate of Compliance – a certificate and card issued by a health service, certifying that a person has been assessed as fully compliant with the requirements of this policy directive. Refer to Section 15 Transitional Assessment Requirements.

ClinConnect – a web-based resource designed to manage clinical placements for health care students who will undertake clinical placements in NSW Health facilities.

Clinical Observership – clinical placements for international medical students (the placements are also known as ‘electives’) and for international medical graduates who are becoming familiar with medical practice in Australia and/or preparing for examinations in Australia.

Contact – direct close interaction with patients/clients on an ongoing or short term basis.
Compliant – the status applied to those people who demonstrate that they are protected against the specified infectious diseases and have had TB exposure assessed, as required by this policy. It also includes workers who have completed the requirements of this policy, however they remain unprotected against hepatitis B (refer to hepatitis B non-responder). Compliance must be recorded in the human resources information system (HRIS) or ClinConnect database (students only). Refer to Section 13 Record Management. Non-compliant workers are unprotected and classed as susceptible to infection, and/or pose a risk of transmitting one or more of the specified infectious diseases.

dTpa – diphtheria-tetanus-acellular pertussis vaccine formulated for adolescents and adults.

Employer – a person or organisation that employs people and is authorised to exercise the functions of employer of persons employed in NSW Health organisations or facilities.

Evidence of protection – includes:

- a record of vaccination, and/or;
- serological confirmation of protection, and/or;
- other evidence

All evidence of protection must be provided as specified in Attachment 4 Checklist: Evidence required from Category A Applicants and Section 3 TB Assessment and Screening.

All evidence of protection must be documented, sighted, dated and stamped by a doctor/Authorised Nurse Immuniser on a NSW Health Vaccination Record Card for Health Care Workers and Students, Attachment 6 Undertaking/Declaration Form and Attachment 7 Tuberculosis (TB) Assessment Tool.

Existing position – a NSW Health agency position in which a person is currently permanently, temporarily or casually employed and includes volunteers.

Exposure prone procedure (EPP) – clinical practices where there is a risk of injury to the HCW resulting in exposure of the patient’s open tissues to the blood of the HCW. These procedures include those where the HCW’s hands (whether gloved or not) may be in contact with sharp instruments, needle tips or sharp tissues (spicules of bone or teeth) inside a patient’s open body cavity, wound or confined anatomical space where the hands or fingertips may not be completely visible at all times.

Facilitator – a clinician who mentors and visits students during their clinical placement. Facilitators are classified as other clinical personnel.

Facility – a defined service location such as a hospital, community health centre or other location where health care services are provided.

Human Resources Information System (HRIS) – a state-wide database that facilitates the assessment, screening, vaccination and record requirements of this policy directive.
Hepatitis B

- **Anti-HBc** (or HBcAb) – an antibody to the hepatitis B core antigen, produced during and after an acute hepatitis B virus (HBV) infection. It can be found in people with chronic hepatitis B infection as well as those who have cleared the virus, and usually persists for life.

- **Anti-HBs** (or HBsAb) – an antibody to the surface antigen of the hepatitis B virus. It is indicative of immunity to the hepatitis B virus as a result of either prior infection or having received vaccination against the hepatitis B virus.

- **HBsAg** – A protein on the surface of hepatitis B virus is the hepatitis B surface antigen (HBsAg). HBsAg can be detected in high levels in serum during acute or chronic hepatitis B virus infection. The presence of HBsAg indicates that a person has an ongoing infection.

- **Hepatitis B surface antigen positive (HBsAg+)** – the detection of HBsAg in a serology result indicates that a person has current hepatitis B infection.

- **Non-responder** – people who do not develop hepatitis B antibodies following hepatitis B vaccination as specified in the current edition of *The Australian Immunisation Handbook* and do not have markers of infection (i.e. HBcAb or HBsAg).

- **Hepatitis B vaccine** – hepatitis B vaccine protects against hepatitis B disease and is given at birth, 6 weeks, 4 months and 6 months of age. Refer to the current edition of *The Australian Immunisation Handbook* for detailed information.

**Influenza vaccine** – a vaccine containing influenza virus strains to protect against influenza virus as recommended annually by the National Health and Medical Research Council.

**Influenza season** – From 1 June to 30 September, inclusive, unless another period is determined by the Chief Health Officer based on seasonal influenza epidemiology or the appearance of a novel influenza strain.

**Locums/agency workers** – persons performing work in Category A positions are considered as **other clinical personnel** (see below).

**Measles, mumps and rubella (MMR) vaccine** – a combined live virus vaccine containing measles, mumps and rubella viruses.

**Medical contraindication to vaccination** – a condition that precludes a person from receiving a vaccine as it may increase the chance of a serious adverse event. A medical contraindication may be permanent, for example, anaphylaxis to vaccine component(s) or time-limited/temporary, for example, pregnancy.
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**Must** – indicates a mandatory action.

**National Health and Medical Research Council (NHMRC)** – Australia’s leading expert body promoting the development and maintenance of public and individual health standards, including immunisation requirements.

**New recruit** – a person who is applying for a position in a NSW Health agency on a permanent, temporary or casual basis. New recruits must demonstrate their compliance with this policy directive before commencing their employment. This also includes persons that have been employed in an existing position within a NSW Health agency and are applying for a new position within the same NSW Health agency. Visiting Medical Officers on an existing contract are classified as new recruits when their contracts are renewed.

**Non-compliant worker** – worker who has failed to provide the required evidence of protection as specified in Attachment 4 Checklist: Evidence required from Category A Applicants.

**Other clinical personnel** – persons who are not permanently, temporarily or casually employed by NSW Health agencies (see ‘New recruits’ and ‘Position’) but are contracted to work in NSW Health agencies. Includes Honorary/Visiting Medical or Dental Officers, agency workers, locums and student facilitators.

**Position** – a NSW Health agency role in which a person is currently permanently, temporarily or casually employed (existing position) and includes volunteers. Persons provided by an employment/locum agency on a casual basis are considered “other clinical personnel” (see definition above).

**NSW Health Agencies** – are constituted by:
- Local Health Districts
- Statutory health corporations
- St Vincent’s Hospital and other affiliated health organisations
- Ambulance
- HealthShare
- NSW Health Pathology
- Sydney Children’s Hospital Network
- Justice Health and Forensic Mental Health Network

**Risk categorisation** – the process of classifying a position according to the risk of transmission of the specified infectious diseases to the clients. Positions are categorised as either Category A, Category A High Risk or Category B. Refer to Attachment 1 Risk Categorisation Guidelines for detailed information.

**Screening** – see tuberculosis.

**Should** – indicates a recommended action to be followed unless there are sound reasons for taking a different course of action.
Specialist assessment – a clinical assessment and review of the person or their medical record by a specialist medical practitioner to substantiate a claim of medical contraindication to vaccination and/or to develop an individual management plan.

Specified infectious diseases – comprises:

- Diphtheria
- Measles
- Hepatitis B
- Pertussis
- Mumps
- Varicella
- Tetanus
- Rubella
- Tuberculosis
- Influenza (Category A High Risk positions only, refer to Attachment 1 Risk Categorisation Guidelines)

Student – a person enrolled at a university, TAFE, secondary school or other education provider. All students who undertake clinical placements within NSW Health facilities are considered Category A and must be compliant with the requirements of this policy directive prior to their first clinical placement.

Tuberculosis (TB) – infection or illness primarily caused by *Mycobacterium tuberculosis*.

- **TB disease** – illness caused by tuberculosis infection.

- Countries with a high incidence of TB – countries with an incidence equal to or greater than 40 cases per 100,000 population (note this was previously defined as greater than 60 cases per 100,000). A list of high incidence countries is located on the NSW Health website at: [http://www.health.nsw.gov.au/Infectious/tuberculosis/Documents/countries-incidence.pdf](http://www.health.nsw.gov.au/Infectious/tuberculosis/Documents/countries-incidence.pdf)

- **Interferon Gamma Release Immunoassay (IGRA)** – an in-vitro tuberculosis screening technique that uses whole blood to identify people infected with *Mycobacterium tuberculosis* infection. It is not a test for immunity.

- **TB infection** – is the presence of *Mycobacterium tuberculosis* infection without disease. Also referred to as latent TB infection (LTBI).

- **TB Assessment** – for the purposes of this policy directive, is the assessment of a person’s need for TB screening and or TB clinical review, based on the information provided by the worker or student in the *Tuberculosis Assessment Tool*.

- **TB Screening** – for the purposes of this policy directive, is the administration and interpretation of a test used to detect TB infection. Tests used for the detection of infection include the tuberculin skin test (TST) and the interferon gamma release immunoassay (IGRA).

- **TB Clinical Review** – is a review by a TB Service (Chest Clinic) clinician to exclude TB disease in a person who has a positive TB screening test or symptoms of TB disease.

- **TB Compliance** – is granted when the student or worker has completed the TB Assessment and if required, completed TB Screening and/or TB clinical review. Where TB screening and/or clinical review is required, TB compliance is determined by the TB Service (Chest Clinic).
TB Service Clinician – is a specialised registered nurse, nurse practitioner or medical officer who has expertise in the management of TB and works within a designated NSW TB Service.

- Tuberculin skin test (TST) – (also known as Mantoux test) is a diagnostic tool used to identify people infected with TB. TST is not a test for immunity but rather a measure of cell mediated immune responsiveness and possible infection with *Mycobacterium tuberculosis*.

Unprotected – the person is not compliant with the requirements of this policy directive and is classed as susceptible to infection, and/or poses a risk of transmitting one or more of the specified infectious diseases. This also includes workers who are medically contraindicated or hepatitis B non-responders. Refer to Attachment 4 Checklists: Evidence Required from Category A Applicants.

Vaccine – a substance used to stimulate the production of antibodies and provide immunity against one or several diseases, prepared from the causative agent of a disease, its products, or a synthetic substitute, treated to act as an antigen without inducing the disease.

Vaccination Record Card – a card ordered from the Better Health Centre (refer to Section 7 Vaccination Record Card for Health Care Workers and Students) to be given to a doctor or nurse immuniser to record vaccination and serology results. Should a worker present a vaccination record in a foreign language, it may be translated using the vaccine translation website at http://www.immunize.org/vis/vis_english.asp or using a local translation service.

Vaccine non-responder – a person who has been fully vaccinated according to Attachment 4 Checklist: Evidence Required from Category A Applicants but who has evidence of inadequate immunity.

Varicella Zoster Virus (VZV) – VZV is a virus within the herpes virus family. Primary infection with VZV causes varicella (chickenpox). Following primary infection, VZV establishes latency in the dorsal root ganglia. Reactivation of the latent virus manifests as herpes zoster (shingles).

Volunteer – a person who works for a NSW Health agency without being paid.

Worker – any person employed by a NSW Health agency either on a permanent, temporary, voluntary, casual or contract basis.

1.3 Legal and Legislative Framework

NSW Health agencies have a duty of care to their patients and obligations under the Work Health and Safety Act 2011 (NSW), the Public Health Act 2010 (NSW) and their associated regulations.
2 RESPONSIBILITIES UNDER THIS POLICY DIRECTIVE

Assessment, screening and vaccination requirements and responsibilities under this policy directive are provided in detail. NSW Health agencies must establish systems to ensure that workers employed in Category A existing positions, new recruits, students, volunteers and other clinical personnel are assessed, screened and vaccinated against the infectious diseases specified in this policy directive according to the category of their position as specified in Attachment 1 Risk Categorisation Guidelines (Category B position specifications are also detailed in Attachment 1).

The following requirements must be undertaken:

2.1 NSW Health Agencies

NSW Health agencies must assess the risk category of all positions according to their risk of acquisition and/or transmission of the specified infectious diseases (refer to the Risk Categorisation Guidelines in Attachment 1) as either:

1. Category A
2. Category A High Risk
3. Category B

- All job advertisements must advise potential applicants of the requirements of the policy directive and all position descriptions must include the designated risk category of the position.
- Each NSW Health agency must ensure that appropriately trained assessors are identified and their details made available to the relevant personnel so that all workers, other clinical personnel, volunteers and students are assessed, screened and vaccinated as required before they attend a NSW Health agency.
- Resources must be provided by NSW Health agencies to support and facilitate the assessment, screening and vaccination of existing workers.
- Individual consent to the assessment and, where appropriate, screening and vaccination processes must be obtained which may be written or verbal and a record of the type of consent provided must be retained (refer to Section 13 Record Management).
- All new recruits, other clinical personnel, volunteers and students must be assessed as compliant (or temporary compliant as specified in Sections 2.3-2.5 below) before they commence employment/attend clinical placements (refer to Attachment 4 Checklist: Evidence required for Category A Applicants).
- Workers employed in existing positions must be informed of the requirements of the policy directive and assessment, screening and vaccination must be provided as required at no cost to the worker.
- Priority must be given to the assessment, screening and vaccination of workers employed in existing Category A High Risk positions as specified in Section 14 Monitoring and Reporting and must be completed within six months from the release of this policy directive (or six months from the date of return to duty of workers who are on leave when the policy is released).
- Compliance assessments must only be performed by appropriately trained assessors.
• Compliant existing workers who apply for a new position of the same category do not require assessment or screening.

• Workers employed in existing Category A positions that transfer to/apply for a new Category A High Risk position (as specified in Attachment 1 Risk Categorisation Guidelines) must be made aware of the mandatory annual influenza vaccination program.

• Non-compliant workers employed in existing positions who are applying for a Category A position must be reassessed by the relevant LHD prior to appointment (refer to Section 2.3 New Recruits and Other Clinical Personnel). The cost of any additional vaccinations must be met by the LHD.

• All workers that are due for their 10-yearly dTpa booster and any other recommended vaccinations must be reassessed. Those who refuse to receive a 10-yearly dTpa booster and any other recommended vaccinations must be risk managed as specified in Section 9 Risk Management.

• Persons in rotational positions such as junior medical officers and other clinical trainees must be assessed by the initial employing NSW Health agency. The outcome of the assessment, screening and vaccination must be forwarded along with any documentation to the next facility prior to commencement of the rotation.

• Students who have been assessed as compliant with the requirements of the policy directive must have their record in ClinConnect updated (with the exception of students that have been granted temporary compliance due to extenuating circumstances). First year students who have commenced but not yet completed their hepatitis B vaccinations or TB screening or clinical review before the first clinical placement, must meet the hepatitis B requirements and be assessed as fully compliant with the policy within six months from their initial compliance assessment date. Refer to Section 2.5 Students for detailed information.

• New recruits and other clinical personnel who have commenced but not yet completed their hepatitis B vaccinations or TB screening or clinical review, must meet the hepatitis B requirements and be assessed as fully compliant with the policy within six months from their commencement date of employment.

• Each worker’s compliance status must be entered onto the HRIS (when available) or ClinConnect (students) as appropriate.

• Non-compliant workers employed in existing Category A positions who decline to participate in the assessment, screening and vaccination process must be risk-managed (refer to Section 9 Risk Management) and/or terminated (as appropriate).

• An annual influenza vaccination program must be implemented and made available for all workers and all Category A High Risk workers must receive the annual influenza vaccine as specified in Section 4 Annual Influenza Vaccination Program.

2.2 Existing workers

• Must comply with the requirements of this policy, or;
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- Submit Attachment 3 Non-participation Form (refer also to Section 11 Non-participating workers and vaccine refusers) stating that:
  - they do not consent to the assessment, screening and vaccination requirements of this policy directive, and;
  - they are aware of the potential risks to themselves and/or others, and;
  - they are aware that their employer will be required to manage them as unprotected or unscreened as described in Section 9.1 Reassignment of Unprotected/Unscreened Existing Workers, and;
  - they are aware that their employment may be terminated or they may be risk managed if reassignment is not feasible (as specified in Section 12 Termination of Employment).

- Existing workers with a medical contraindication to vaccination must be assessed on a case by case basis as to the severity and longevity of their medical contraindication. They are to be risk-managed as per Section 9 Risk Management as required.

2.3 New Recruits and Other Clinical Personnel

New recruits and other clinical personnel who do not consent to participate in assessment, screening and vaccination must not be employed in any Category A position. New recruits and other clinical personnel must:

- Provide evidence of protection against the infectious diseases specified in this policy directive and comply with the requirements of this policy directive at their own cost, prior to appointment, and;

- Complete and submit to the health facility Attachment 6 Undertaking/Declaration Form and Attachment 7 Tuberculosis (TB) Assessment Tool which are essential components of compliance with this policy directive.

- Attend their local doctor or immunisation provider for assessment of their compliance with this policy (based on Attachment 4). The doctor/nurse immuniser is responsible for completing the vaccination record card (not the new recruit/other clinical personnel). The doctor/nurse must sign and apply the practice stamp to the vaccination record card. Batch numbers should be recorded where available.

- Submit a completed Vaccination Record Card for Health Care Workers and Students (refer to Section 7 Vaccination Record Card for Health Care Workers and Students) and any updated documentation to the health service for further assessment as requested and as outlined in this policy directive.

New recruits, medical graduates attending a ‘Clinical Observership’ and other clinical personnel may be granted temporary compliance and commence employment provided they have:

- provided documentary evidence that they have received at least the first dose of hepatitis B vaccine, and;
- completed all other vaccination requirements, and;
- submitted a written undertaking to complete the hepatitis B vaccination course and provide a post-vaccination serology result within 6 months as appropriate (refer to the Undertaking/Declaration Form Attachment 6). Those who fail to provide the required evidence within 6 months will be terminated (unless there are extenuating circumstances to be considered by the LHD) as specified Section 12 Termination of Employment, and;
submitted the Tuberculosis (TB) Assessment Tool form (Attachment 7) and have been assessed by the NSW Health agency as not requiring TB screening or if screening is required, they may only commence work if they have booked an appointment for TB screening and have no symptoms suggestive of TB disease.

New recruits applying for a Category A position who have a medical contraindication which means they cannot demonstrate dTpa, MMR or varicella vaccination requirements must not be employed in a high risk clinical area as specified in Attachment 1 Risk Categorisation Guidelines.

Workers with a medical contraindication to hepatitis B vaccine may be employed in high risk areas and/or have contact with high risk patients, however they must be provided with information regarding the risk and the consequences of hepatitis B infection and management in the event of body substance exposure, provide a signed declaration as specified in part 4 of Attachment 6 Undertaking/Declaration Form, follow PD2017_010 HIV, Hepatitis B and Hepatitis C – Management of Health Care Workers Potentially Exposed in the event of a potential exposure, and adhere to the testing requirements of PD2005_162 HIV, Hepatitis B or Hepatitis C - Health Care Workers Infected if undertaking exposure prone procedures.

2.4 Volunteers

- Must provide evidence of protection against the infectious diseases specified in this policy directive and comply with the requirements of this policy directive (at the cost to the agency), prior to appointment, and;
- Must complete and submit to the health facility Attachment 6 Undertaking/Declaration Form and Attachment 7 Tuberculosis (TB) Assessment Tool which are essential components of compliance with this policy directive.
- Submit updated documentation to the health service for further assessment as requested and as outlined in this policy directive.
- Volunteers may be granted temporary compliance and commence duties provided they have:
  - provided documentary evidence that they have received at least the first dose of hepatitis B vaccine, and;
  - completed all other vaccination requirements, and;
  - submitted a written undertaking to complete the hepatitis B vaccination course and provided a post-vaccination serology result within 6 months as appropriate (refer to the Undertaking/Declaration Form Attachment 6). Those who fail to provide the required evidence within 6 months must not continue to volunteer (unless there are extenuating circumstances to be considered by the LHD) with the health agency, and;
  - submitted the Tuberculosis (TB) Assessment Tool form (Attachment 7) and have been assessed by the NSW Health agency as not requiring TB screening, or if screening is required, they may only commence duties if they have booked an appointment for TB screening and have no symptoms suggestive of TB disease.

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Volunteers who do not consent to participate in assessment, screening and vaccination must not commence duties in a NSW Health facility.

2.5 Students

- All students who undertake clinical placements within NSW Health facilities are considered to be Category A and must be made aware by the education provider of the requirements of this policy directive prior to enrolment in their university, TAFE or other education provider.
- It is each student’s responsibility to complete all compliance requirements and provide evidence of compliance as part of the ClinConnect verification process before commencing a clinical placement in a NSW Health Facility.
- A doctor or nurse immuniser is responsible for completing the Vaccination Record Card for Health Care Workers and Students. The doctor/nurse must sign and apply the practice stamp to the vaccination record card. Batch numbers should be recorded where available.
- Students must only attend a clinical placement if they have ClinConnect verification.
- Students who attend their first clinical placement in the later years of their course (i.e. not during their first year) must be assessed (except for the TB assessment) in their first year. This is to identify compliance issues early in a student’s candidature as those who are non-compliant will not be able to attend their placement which may impact on their course completion.
- TB assessments (assessor’s review of Attachment 7 Tuberculosis (TB) Assessment Tool) must be completed no more than four months before a student’s first clinical placement to ensure a recent assessment has been undertaken.
- All students must:
  - comply with the requirements of this policy directive at their own cost;
  - attend their local doctor or immunisation provider prior to or during their first year of study for assessment of their compliance with this policy (based on Attachment 4).
  - Make available their completed Vaccination Record Card for Health Care Workers and Students (refer to Section 7 Vaccination Record Card for Health Care Workers and Students) and the Undertaking/Declaration Form (Attachment 6) for assessment by the LHD on enrolment or during their first year of study.
  - complete and make available the Tuberculosis (TB) Assessment Tool (Attachment 7) for assessment by the LHD no more than four months before attending their first clinical placement;
  - submit updated documentation to the health service for further assessment as requested and as outlined in this policy directive.
- Secondary school students, including those undertaking TAFE-delivered vocational education and training (TVET) for schools, must be compliant with the requirements of this policy directive. Students who are under 16 years of age must have their documentation co-signed by their parent/guardian.
• Only students in their first enrolment year of their course (who have a clinical placement early in their first year) are permitted to be granted temporary compliance (from the date of their initial assessment) and commence the clinical placement, provided they have:

   a) provided documentary evidence that they have received at least the first dose of hepatitis B vaccine, and;

   b) completed all other vaccination requirements, and;

   c) submitted a written undertaking to complete the hepatitis B vaccination course and provide a post-vaccination serology result within 6 months (as appropriate). Those who do not provide evidence of compliance within 6 months must not attend any NSW Health facility until they are compliant. Refer to the Undertaking/Declaration Form (Attachment 6), and;

   d) submitted the Tuberculosis (TB) Assessment Tool (Attachment 7) and have been assessed by the NSW Health agency as not requiring TB screening or if screening is required, they may only commence their placement if they have booked an appointment for TB screening and have no symptoms suggestive of TB disease.

• First year students may only be granted temporary compliance (as specified above) once unless there are extenuating circumstances (as determined by the assessor) that warrant a one-off further extension.

• Annual influenza vaccine is strongly recommended for all students (at their own cost).

• Overseas students attending a clinical placement must demonstrate compliance with this policy directive. In certain circumstances they may not be able to complete the hepatitis B requirements of this policy directive prior to their placement. They may only commence their clinical placement if they have:

   a) provided documentary evidence that they have received at least the first dose of hepatitis B vaccine, and;

   b) completed all other vaccination requirements, and;

   c) submitted a written undertaking to complete the hepatitis B vaccination course and provide a post-vaccination serology result within 6 months (as appropriate). Those who do not provide evidence of compliance within 6 months must not attend any NSW Health facility until they are compliant. Refer to Undertaking/Declaration Form (Attachment 6), and;

   d) submitted the Tuberculosis (TB) Assessment Tool (Attachment 7) and have been assessed by the NSW Health agency as not requiring TB screening or if screening is required, they may only commence their placement if they have booked an appointment for TB screening and have no symptoms suggestive of TB disease.

Students/overseas students/medical graduates who perform or assist with exposure prone procedures must be screened for evidence of hepatitis B disease and managed according to NSW Health Policy Directive PD2005_162 HIV, Hepatitis B or Hepatitis C – health care workers infected as appropriate.
Students that provide a hepatitis B serology result (following completion of an age-appropriate vaccination course) indicating inadequate protection (Anti-HBs <10mIU/mL) must be managed as specified in the current edition of The Australian Immunisation Handbook. They should be granted temporary compliance from the date of their initial compliance check (following their first vaccination course and subsequent serology) and extended until they undergo further vaccine doses and serology. Persistent hepatitis B non-responders should be informed that they are considered unprotected against hepatitis B and should minimise exposures and be advised about the need for hepatitis B immunoglobulin within 72 hours of parenteral or mucosal exposure to HBV. These students should be considered compliant with the policy.

2.6 Laboratory and post mortem personnel

- In addition to the requirements specified above, workers employed in laboratory positions who must comply with this policy directive, may also have additional vaccination requirements as determined by the scope of their laboratory practice.
- Laboratories must have a policy and procedure in place to assess the risks and provide appropriate vaccination programs to at risk personnel as additional vaccines may be required as specified in the current online edition of The Australian Immunisation Handbook.
- Workers involved in post-mortem examinations and workers employed in laboratories who routinely handle cultures of Mycobacterium tuberculosis from clinical samples must undergo TST screening at induction of employment (advice should be sought from the TB Service in the case of a worker who has a contraindication to TST). Also see Section 3.4 Routine Recurrent TB Screening.

2.7 Education Providers (EPs)

- EPs must ensure that all students and student facilitators are informed of the requirements of the policy directive prior to and at enrolment/commencement of employment.
- Students must be informed of the process to have their documentation assessed as compliant with this policy directive, for example, where they are required to forward their documentation and contact details for queries must be provided.
- EPs must ensure that all students have completed and returned all of the required documentation as specified in this policy directive including the Undertaking/Declaration Form (Attachment 6) at enrolment or during their first year of study and the Tuberculosis (TB) Assessment Tool (Attachment 7) no more than four months prior to their first clinical placement.
- Ensure that only students who hold a current ClinConnect verification are referred to a health facility for a clinical placement.
- All students must be assessed as temporary or fully compliant no later than 7 days prior to commencement of their clinical placement.
- Students enrolled in a combined degree should be assessed prior to or during the first year of the relevant degree. For example, students undertaking a Master of Arts/Master of Nursing degree and who commence the Master of Nursing in year four of their candidature should be assessed at the end of year three or in year four as this is the first year of the relevant degree that requires clinical placements.
2.8 Recruitment Agencies

Recruitment agencies must:

- Inform all workers of the requirements of the policy directive
- Ensure that all workers have completed the *Undertaking/Declaration Form* (Attachment 6) and *Tuberculosis (TB) Assessment Tool* (Attachment 7) and have evidence of protection against the specified diseases.
- Refer only workers that comply with the requirements of this policy directive to a NSW Health agency for assessment.

3 TB ASSESSMENT AND SCREENING

Refer to Attachment 8 *Algorithm for TB Assessment, Screening and Review.*

3.1 TB Assessment

All new recruits, other clinical personnel, volunteers and students must undergo a TB assessment, by completing and submitting the *Tuberculosis (TB) Assessment Tool* (Attachment 7). This is then reviewed by the health service to identify those persons and students who require TB screening and/or TB clinical review before TB compliance can be granted.

The rationale for TB Assessment is to:

i. identify and treat TB disease in health care workers to prevent transmission to others, and;

ii. identify students and health care workers with risk factors for TB infection to facilitate their referral for TB Screening.

All employed persons and students are responsible for informing their employer/educational provider and submitting a new *Tuberculosis Assessment Tool* (Attachment 7) if they have travelled for a cumulative time of 3 months or longer in a country with a high incidence of TB since their last TB assessment. Workers who develop symptoms of TB disease must be referred immediately for medical assessment.

3.2 TB Screening

The rationale for TB Screening selected persons and students is to:

i. establish a baseline TB infection status to assist with assessment should the person be exposed to TB in the future, and;

ii. identify TB infection in health care workers to facilitate preventive treatment and/or monitoring.

TB screening is required if the person:

a) is a new recruit, other clinical personnel, volunteer or student who was born in a country with a high incidence of TB.

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b) is a new recruit, other clinical personnel, volunteer or student who has resided or travelled for a cumulative time of 3 months or longer in a country or countries with a high incidence of TB.

c) is an existing worker, volunteer or student, who may have been previously assessed as compliant for TB, but who has travelled for a cumulative time of 3 months or longer in a country or countries with a high incidence of TB since their last TB assessment.

d) is an existing worker who has no documented evidence of TB Screening if they were born in or have travelled for a cumulative time of 3 months or longer in a country or countries with a high incidence of TB.

e) is a worker employed in an existing position, new recruit, other clinical personnel, volunteer or student who has had contact (of a nature that could result in transmission of infection) with a person known to have infectious TB disease since their last TB assessment.

The rationale for screening only selected workers and students is due to the low likelihood of TB infection in persons who were not born in or travelled to high-TB-incidence countries. For the purposes of this policy directive it is assumed that such workers have not been infected.

Conversely, screening of those who were born in or travelled to a high-TB-incidence country for a cumulative time of three months or longer is more likely to detect TB infection. This will assist in the interpretation of future TB screening and provide an opportunity for preventive treatment to be offered.

3.3 Routine Recurrent TB Screening

Routine recurrent TB screening is not recommended for all health care workers. However, recurrent screening, generally undertaken on an annual basis, may be considered for workers with negative pre-employment TB screening, working in certain settings where there may be increased risk of exposure to TB. Settings where there may be increased risk of exposure to TB include: mycobacterial laboratories, chest clinics, mortuaries, and bronchoscopy suites. Any decision to implement routine recurrent screening of persons within a specific setting should be based on a risk assessment by the health service with guidance from the local TB Advisory Committee and/or LHD TB service.

A TB clinical review, including chest x-ray, is indicated in workers that develop a positive TST test.

3.4 TB Clinical Review

The rationale for TB clinical review is to:

i. confirm or exclude TB disease in persons with compatible symptoms, and/or;

ii. review positive TB Screening results and initiate treatment or monitoring of TB infection as appropriate.

TB clinical review is to be undertaken only within designated TB Services (Chest Clinics) by clinicians experienced in the management of TB.
TB clinical review is required if the person:

a) answered yes to any question within part A of the Tuberculosis Assessment Tool, or;

b) has undertaken TB Screening and has a positive test for TB infection.

3.5 Tests for TB Infection

- TB screening includes a test for TB infection.
- Workers and students who require a test for TB infection can have a tuberculin skin test (TST) or interferon gamma release immunoassay (IGRA).
- In NSW, the administration and interpretation of TSTs is restricted to specially accredited nurses or clinicians practicing in collaboration with a designated NSW TB Service.
- Recurrent TB screening should use the same test for TB infection used at baseline screening. TST is the preferred test in the context of routine recurrent screening, due to the high proportion of conversions and reversions seen with serial IGRA testing.

3.6 TB Assessment, Screening and Clinical Review Outcomes

Workers employed in existing positions, new recruits, other clinical personnel, volunteers and students:

- Will be granted TB compliance where the TB assessment indicates that TB screening or clinical review is not required.
- Will be referred immediately to the local TB Service for TB clinical review where the Tuberculosis Assessment Tool form indicates symptoms which may be consistent with TB disease.
- Who have been assessed by the NSW Health agency as requiring TB screening may only commence work or the first clinical placement if they have booked an appointment for TB screening and have no symptoms suggestive of TB disease.
- Who have been found to have no evidence of TB infection, will be granted TB compliance.
- Who have evidence of TB infection, should be referred to the local TB Service for TB clinical review to exclude TB disease and/or for consideration of preventive treatment. TB clinical review includes an assessment by a TB Service clinician which must consider TB symptoms, medical history, risk factors for TB exposure, past TB screening and chest x-ray results. Where the TB Service clinician determines that a current chest x-ray is required, the chest x-ray must be no more than three months prior to TB screening. If no evidence of TB disease is found, the TB Service will provide counselling regarding: TB infection; risks and benefits of preventive treatment; the signs and symptoms of TB disease; and, importance of seeking prompt medical review if symptoms of TB disease develop. Once TB disease has been excluded and TB infection counselling provided, TB compliance should be granted. TB compliance may be revoked in the event of non-adherence to the recommendations of the TB Service regarding chest x-ray and clinical surveillance.
4 ANNUAL INFLUENZA VACCINATION PROGRAM

- In addition to complying with the requirements for Category A positions, all workers in a Category A High Risk position (as defined in Attachment 1 Risk Categorisation Guidelines) must also provide evidence of annual influenza vaccination by 1 June each year.

- Annual influenza vaccination is provided free for all workers employed in Category A, Category A High Risk and Category B positions. While highly recommended for all health care workers, under this policy it is mandatory for those in Category A High Risk positions.

- Each NSW Health agency/facility must ensure that the vaccination program is widely publicised and available.

- NSW Health agencies/facilities must provide detailed information on the influenza vaccine (including side effects) and make arrangements to conduct the vaccination clinics for workers employed in existing positions (includes current ‘other clinical personnel’ and volunteers). The vaccine must be made available for workers on a rotating roster and administered during work hours, for example, during a range of shifts of the week.

- Workers employed in Category A - High Risk positions that are unable to receive influenza vaccine due to a medical contraindication must provide evidence from their doctor or treating specialist. During the influenza season (as defined in Key Definitions), these workers must wear a surgical/procedural mask while providing patient care in high risk clinical areas (as specified in Attachment 1) or be deployed to a non-high risk clinical area (see Section 9 Risk Management).

- Workers employed in Category A - High Risk positions who refuse annual influenza vaccination (other than those with a recognised medical contraindication to influenza vaccine) must, during the influenza season (as defined in Key Definitions), wear a surgical/procedural mask while providing patient care in high risk clinical areas (as specified in Attachment 1 Risk Categorisation Guidelines), or be deployed to a non-high risk clinical area (see Section 9 Risk Management).

5 MEDICAL CONTRAINDICATIONS AND VACCINE NON-RESPONDERS

- Workers, volunteers and other clinical personnel who are unable to be vaccinated due to a temporary or permanent medical condition such as anaphylaxis or other long term medical condition, are required to provide evidence of their circumstances (determined by the LHD assessor) and their compliance (for example, a letter from their doctor).

- Should the LHD require further specialist advice for workers employed in existing positions and/or volunteers, they should be referred to a specialist at the cost to the LHD and risk managed as appropriate (refer to Section 9 Risk Management).

- Should the LHD require a further medical assessment for new recruits and other clinical personnel, they must be risk managed (as specified in Section 9 Risk Management until they have undergone the medical assessment (at their own cost).
New recruits applying for a Category A position who have a medical contraindication to vaccination must not be employed in a high risk clinical area and/or manage high risk clients as specified in Attachment 1 Risk Categorisation Guidelines except for workers with a medical contraindication to hepatitis B vaccine who may be employed in high risk areas and/or have contact with high risk patients.

All information and documentation concerning the medical contraindication will be treated confidentially.

Workers already employed in an existing Category A position who have a medical contraindication to vaccination, should be risk managed in accordance with the Risk Management Framework (RMF) as specified in Section 9 Risk Management.

Workers with temporary medical contraindications employed in an existing Category A position in a non-high risk clinical area must be reviewed after the conclusion of the contraindication or another appropriate period of time, to determine appropriate management strategies.

All workers who are fully vaccinated according to the appropriate schedule, but who have no evidence of adequate hepatitis B immunity as indicated by their serology (vaccine non-responders) are required to provide documented evidence of their circumstances. A verbal history or statutory declaration must not be accepted.

Hepatitis B vaccine non-responders must be managed in accordance with the recommendations concerning “Non-responders to primary vaccination” in the current edition of The Australian Immunisation Handbook. They should be granted temporary compliance from the date of their initial compliance check (following primary course completion and subsequent serology) until they undergo further vaccine doses and serology as appropriate.

Persistent hepatitis B non-responders must include in their evidence of protection documentation that they:

- are unprotected for hepatitis B;
- will minimise exposure to blood and body fluids;
- understand the management in the event of exposure includes hepatitis B immunoglobulin with 72 hours of parenteral or mucosal exposure to HBV, and;
- will comply with the hepatitis B risk management requirements in Attachment 2 Risk Management Framework (RMF) under CE Discretionary Power.

Persistent hepatitis B non-responders (as specified in the current edition of The Australian Immunisation Handbook) should be considered compliant with the policy.

The NSW Health agency must ensure that detailed information is provided regarding the risk of infection from the infectious disease(s) against which the worker is not protected, the consequences of infection, and management in the event of exposure. This information should be recorded on the worker’s personal health record or in the HRIS (when available).
• The worker must provide a declaration as detailed in the Undertaking/Declaration Form (Attachment 6), as appropriate, stating that he/she understands and accepts this information and agrees to comply with the protective risk measures that the NSW Health agency requires.

• Refer also to Section 10 Costs.

6 AGE APPROPRIATE HEPATITIS B VACCINATION SCHEDULE

Evidence of a ‘history’ of hepatitis B vaccination may be a record of vaccination or a verbal history. Where a record of vaccination is not available and cannot be reasonably obtained, a verbal history of hepatitis B vaccination must be accompanied by a Hepatitis B Statutory Declaration (Attachment 9) and the appropriately trained assessor must be satisfied that an ‘age appropriate’ complete vaccination history has been provided. The statutory declaration should include details on where and when the vaccination course was administered, the vaccination schedule and why a vaccination record cannot be provided. The assessor must use their clinical judgement to determine whether the hepatitis B vaccination history and serology demonstrate compliance and long term protection. The National Health and Medical Research Council recommend the following ‘age appropriate’ hepatitis B vaccination schedules:

Adult hepatitis B vaccination schedule

A full adult (≥20 years of age) course of hepatitis B vaccine consists of 3 doses as follows:

- a minimum interval of 1 month between the 1st and 2nd dose, and;
- a minimum interval of 2 months between the 2nd and 3rd dose, and
- a minimum interval of 4 months (or 16 weeks) between the 1st and 3rd dose

That is, either a 0, 1 and 4 month or a 0, 2 and 4 month interval schedule is an acceptable 3-dose schedule for adults.

A hepatitis B vaccination record of doses administered before July 2013 at 0, 1 and 3 months should also be accepted as the recommended vaccination schedule at this time.

Note that while the minimum intervals are stated, longer intervals between vaccine doses are acceptable.

An accelerated hepatitis B vaccination schedule must not be accepted.

Adolescent hepatitis B vaccination schedule

The NH&MRC recommends that an adolescent age-appropriate (11-15 years) hepatitis B vaccination course consists of two doses of adult hepatitis B vaccine administered 4 to 6 months apart and is acceptable evidence of an age-appropriate vaccination history.

Childhood hepatitis B vaccination schedule

A childhood hepatitis B vaccination schedule (using paediatric vaccine) for persons vaccinated <20 years of age consists of:
11. INFECTIOUS DISEASES, IMMUNISATION AND RELATED MATTERS

- a **minimum interval** of 1 month between the 1\textsuperscript{st} and 2\textsuperscript{nd} dose, and;
- a **minimum interval** of 2 months between the 2\textsuperscript{nd} and 3\textsuperscript{rd} dose, and
- a **minimum interval** of 4 months (or 16 weeks) between the 1\textsuperscript{st} and 3\textsuperscript{rd} dose

A 3-dose schedule provided at minimum intervals at either 0, 1, 4 months or 0, 2, 4 months is acceptable. For example, those who have received a 3-dose schedule of hepatitis B vaccine (often given overseas) at birth, 1–2 months of age and ≥6 months of age are considered fully vaccinated. Refer to the current edition of *The Australian Immunisation Handbook* for assessment of completion of a primary course of hepatitis B vaccine given in infancy.

7 VACCINATION RECORD CARD FOR HEALTH CARE WORKERS AND STUDENTS

- A *NSW Health Vaccination Record Card for Health Care Workers/Students* has been designed for doctors/nurse immunisers to record vaccinations and other requirements under this policy directive and is available from the NSW Health Better Health Centre Publications Warehouse on:
  - Telephone: (02) 9887 5450
  - Email: BHC bhc@nsccahs.health.nsw.gov.au
  - Fax: (02) 9887 5452

**Note:** A photocopy or facsimile of the vaccination record card must not be provided as it will not be accepted.

8 SEROLOGICAL TESTING

Serological testing is *only* required as follows:

- Evidence of hepatitis B immunity (anti-HBs) following vaccination at least 4-8 weeks following completion of the vaccination course and provided as a numerical value. Workers with hepatitis B markers of infection (i.e. HBcAb or HBsAg) are regarded as compliant with the policy requirements for hepatitis B.
- Pre-vaccination serology should be performed where there is an uncertain history of completion of an MMR vaccination course or disease for those born during or after 1966.
- Where there is a negative/uncertain history of completion of prior VZV vaccination course, pre-vaccination serology should be performed. Testing to check for seroconversion after varicella vaccination is not recommended. Commercially available laboratory tests are not usually sufficiently sensitive to detect antibody levels following vaccination, which may be up to 10-fold lower than levels induced by natural infection. Protection (commensurate with the number of vaccine doses received) should be assumed if a worker has documented evidence of receipt of age-appropriate dose(s) of a varicella-containing vaccine. If serological tests to investigate existing immunity to varicella are performed, interpretation of the results may be enhanced by discussion with the laboratory that performed the test, ensuring the relevant clinical information is provided.
11. INFECTIOUS DISEASES, IMMUNISATION AND RELATED MATTERS

- Serology MUST NOT be performed to detect pertussis immunity.
- Serology is NOT REQUIRED following completion of a documented MMR or VZV vaccination course.
- Should a worker present an age-appropriate MMR vaccination record and serological result(s) indicating immunity to all three diseases, the vaccination record should be accepted as compliance with the policy requirements.
- Should a worker present with a vaccination record of complete vaccination against MMR and a serology result post-vaccination indicating negative/equivocal/borderline immunity to one or more of the diseases, they must be advised to receive a booster MMR vaccine and no further serology is required.
- Should a worker present with no history of MMR vaccination along with a serology result indicating negative/equivocal/borderline immunity to one or more of the diseases, they must receive two doses of MMR vaccine at least four weeks apart and no further serology is required.

9. RISK MANAGEMENT

- All positions must be assessed according to the level of risk, work location and client group.
- Highest priority for assessment, screening and vaccination must be assigned to workers employed in Category A High Risk positions (refer to Attachment 1 Risk Categorisation Guidelines).
- Where there is a perceived risk to service delivery in the health service, unprotected workers employed in Category A positions may be managed under Chief Executive (CE) discretionary power as detailed in Attachment 2 Risk Management Framework (RMF).

9.1 Reassignment of Unprotected/Unscreened Existing Workers

- NSW Health agencies must ensure that existing workers (at the time this policy is issued) employed in all Category A positions who are not fully protected against the specified infectious diseases in this policy directive, or who have not been screened for TB (where indicated), do not work in high risk areas as specified in Attachment 1 where they may be at risk or pose a risk of infection to at-risk groups. Such workers must be reassigned to areas of non-high risk. Reassignment of these workers should be undertaken within appropriate personnel/industrial relations framework(s).
- Risk management for persons who are unprotected for hepatitis B is dependent on their role and whether they perform invasive procedures (i.e. not the clinical area where they are employed or client group they have contact with).
- Where reassignment to a non-high risk clinical area is not feasible, refer to Section 9.2 Chief Executive Discretion and Attachment 2 Risk Management Framework (RMF) under CE Discretion.

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1 Appropriate areas of non-high risk may depend on the disease(s) against which the worker is not protected. Refer to Attachment 1.
• Where reassignment is not feasible and all other alternatives have been exhausted for existing workers who refuse to comply with the requirements of this policy directive, refer to Section 11 Non-participating workers and vaccine refusers and Section 12 Termination of Employment.

• The Health Service must ensure that the worker:
  − understands the requirements of this policy directive and the risks to patients, self and others arising from his/her unprotected/unscreened status
  − has an opportunity to clarify any outstanding issues
  − has an opportunity to reconsider any decision he/she may have made regarding assessment, screening and vaccination
  − has an opportunity to be engaged actively in the process of determining his/her future work options, including short term and longer term options, including termination.

9.2 Chief Executive Discretion

The Chief Executive (CE) has the discretionary power to vary the requirements of this policy directive, on a case-by-case basis such as a genuine and serious risk to service delivery that could result from the reassignment of an unprotected/unscreened worker or failure to appoint an unprotected/unscreened worker to a frontline clinical position. The CE will manage a worker with medical contraindications under a risk management plan (as described in Attachment 2 Risk Management Framework (RMF) under CE discretionary Power).

The following situations are limited to workers who refuse vaccination (who cannot be reassigned to a non-high risk area)
  − the worker is highly specialised, a sole practitioner (e.g. in some rural/remote areas), or there is a current workforce shortage in the person’s clinical area, and/or;
  − failure to retain or appoint the worker would pose a genuine and serious risk to service delivery, and/or;
  − it would be difficult to replace the worker, and/or would result in a significant period of time without the service.

Any variation to these circumstances must only be undertaken in exceptional circumstances, and must only proceed with the written approval of the CE and within an individual risk management plan, as described in Attachment 2 Risk Management Framework (RMF) under CE Discretionary Power to protect the employed worker and clients.

Workers working under CE discretion who are unprotected against a disease must be excluded from working in the affected clinical areas where there has been a confirmed case of that disease (refer to Attachment 2 Risk Management Framework (RMF) under CE Discretionary Power). For example, a rubella case on a ward would result in exclusion of any worker from that ward who is unprotected against rubella. The local public health unit will provide advice on a case by case basis regarding the exclusion of staff in such instances.
10 COSTS

- Consistent with the previous policy directive, NSW Health agencies are responsible for meeting the full cost of assessment, screening and vaccination for workers (including volunteers) employed in existing positions (at the time this policy is issued).

- New recruits (except those employed in an existing position who are successfully appointed to a new position within the LHD), other clinical personnel and students (excluding volunteers) must undertake any necessary serological testing, vaccinations and TB screening at their own cost, prior to appointment or prior to the student commencing their first clinical placement in a NSW Health facility.

- New recruits (except those employed in an existing position who are successfully appointed to a new position within the LHD), other clinical personnel and students must pay the costs associated with additional medical assessments (for example, vaccine non-responders or medical contraindications to vaccination), except for persons referred to TB services for investigation or management of TB infection or disease.

- New recruits (except those employed in an existing position who are successfully appointed to a new position within the LHD), other clinical personnel and students who have been granted temporary compliance must pay for the costs of screening and vaccinations that are required to complete their compliance after they have commenced employment/clinical placement.

- The LHD is responsible for meeting the costs of 10-yearly dTpa boosters for workers.

11 NON-PARTICIPATING WORKERS AND VACCINE REFUSERS

- New recruits, other clinical personnel, volunteers and students who do not consent to participate in assessment, screening and vaccination must not be employed/commence duties in a Category A or Category A High Risk position or attend clinical placements in a NSW Health facility.

- An undertaking to participate (Attachment 6) is an essential part of compliance with the policy directive.

- Existing workers in Category A positions that do not comply with the requirements of this policy directive must submit Attachment 3 Non-Participation Form stating that they:
  - do not consent to the assessment, screening and vaccination requirements of this policy directive;
  - are aware of the potential risks to themselves and/or others, and;
  - are aware that their employer will:
    - offer them counselling regarding the risk of remaining unprotected against the specified infectious diseases and disease transmission to and from clients;
11. INFECTIOUS DISEASES, IMMUNISATION AND RELATED MATTERS

- reassign them to an area of low risk under a risk management plan unless they are considered appropriate to be managed under CE discretion;
- consider managing them under CE discretion as unprotected or unscreened as described in Section 9.1 Reassignment of Unprotected/Unscreened Existing Workers; or
- terminate their employment if risk management or reassignment is not feasible as specified in Section 12 Termination of Employment.

Existing compliant workers who are due for a dTpa booster must be vaccinated within one month of the due date of this booster.

12. TERMINATION OF EMPLOYMENT OF VACCINE REFUSERS

Where all other alternatives for re-deployment have been exhausted and the risk of transmission cannot be acceptably managed, the NSW Health agency reserves the right to terminate workers employed in any existing Category A and Category A High Risk positions who refuse to comply with the policy’s assessment, screening and vaccination requirements.

Workers with a medical contraindication to vaccination should not be terminated on the basis of their medical contraindication. They should be risk managed as specified in Attachment 2 Risk Management Framework (RMF) under CE Discretion.

13. RECORD MANAGEMENT

- All vaccinations (including annual influenza vaccinations) administered to workers employed in existing positions and volunteers should be reported to the Australian Immunisation Register (AIR). Each worker’s Medicare number will be required to report to the AIR.

- The NSW Health agency should identify key personnel to be responsible for recording the assessment, screening and vaccination results of each worker in the AIR, HRIS or ClinConnect (record compliance status only for students) as appropriate. Workers should be provided with an option to not have their screening/diagnostic results entered in their personnel file and/or the AIR and HRIS.

- Records should be entered from when the HRIS is available in the LHD. There is no requirement for LHDs to retrospectively enter records that have been received prior to the introduction of the HRIS.

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1 An application form to register as a vaccination provider and report vaccinations to the AIR is available from the Australian Government Department of Human Services website. Completed application forms must be forwarded for approval to the Manager, Immunisation Unit, Health Protection NSW, at vaccreports@doh.health.nsw.gov.au
11. INFECTIOUS DISEASES, IMMUNISATION AND RELATED MATTERS

- Should a compliant worker transfer to a position in another NSW Health agency, the HRIS record must be transferred to the relevant NSW Health agency. This will reduce the need for reassessment at the new location unless it is required as specified in Section 2.1 NSW Health Agencies.

- Vaccination records (for example the NSW Health Vaccination Record Card for Health Care Workers/Students) and/or other documentation such as serology results must be retained by workers for inspection if requested.

13.1 Documentation and Privacy Considerations

- NSW Health agencies have a responsibility to maintain appropriate documentation (e.g. a summary of evidence sighted) that a worker has provided as evidence of their compliance with occupational assessment screening and vaccination against infectious diseases and must retain a secure, confidential personnel record relating to compliance assessment, screening, vaccination and risk management under this policy directive. Only the designated assessment and screening staff should have access to this information.

- Sensitive medical information provided by the worker must be treated as a confidential personal health record.

- Compliance assessments, screening and vaccination documentation in Health Care Records can be managed in accordance with the appropriate retention and disposal authorities for non-admitted patient services.

- Compliance assessments, vaccination, screening and risk management documentation in personal records should be managed in accordance with the appropriate retention and disposal authorities for personnel records.

- Under this policy directive, an education provider may collect information (including documents) on a student’s compliance with the requirements of the policy directive and may pass that information on to a health facility where the student intends to undertake clinical placement. Collection, storage, use and transfer of such information will be undertaken in a confidential manner in accordance with that education provider’s policies on records and privacy.

- Each LHD is responsible for ensuring that all workers who attend a NSW Health facility, including agency, pool and contractual workers are assessed in advance and a record of that assessment retained. Agency/contractual positions in high risk clinical areas must be assessed as Category A High Risk.

- Health services are responsible for maintaining copies of all compliance documentation for seven years (including supporting information) for students they have assessed.

14 MONITORING AND REPORTING

- Following the commencement of the HRIS in each NSW Health agency, aggregate data must be reported by the Chief Executive to the Secretary, NSW Ministry of Health, by 31 July each year for the previous 12 months from 1 July to 30 June. The report is to include:
11. INFECTIOUS DISEASES, IMMUNISATION AND RELATED MATTERS

- number of Category A and Category A High Risk workers in existing positions in the NSW Health agency
- percentage of Category A and Category A High Risk workers in existing positions who have been assessed against the requirements of the policy
- percentage of persons in existing Category A positions who are compliant with the policy
- percentage of persons in existing Category A positions being risk managed at the discretion of the CE under a risk management framework.

- Priority must be given to assessment of workers employed in existing Category A High Risk positions (refer to Attachment 1 Risk Categorisation Guidelines). They must be compliant with the requirements of this policy within six months of its release.

15 TRANSITIONAL ASSESSMENT REQUIREMENTS

From the release of this policy and until the HRIS is implemented in each LHD, the following transitional assessment requirements must be implemented:

- A Certificate of Compliance must be completed and provided to each new recruit, volunteer and other clinical personnel. Details regarding the date of the last dTpa vaccination and hepatitis B vaccination and anti-HBs level must be recorded on the certificate. The certificate of compliance card should be made available for inspection, if requested by the health service.

- A Certificate of Compliance that has previously been completed by an LHD must be accepted for workers who are employed across a number of LHDs or who transfer to a new position in another LHD. However, information must be requested from the worker regarding the date of their last dTpa vaccination and hepatitis B vaccination history and serology and recorded on the Certificate of Compliance (if it has not previously been recorded). The need to submit a new Tuberculosis (TB) Assessment Tool (Attachment 7) should also be reviewed (if the employee has spent more than 3 months in a high burden country since their last TB assessment).

- A record must be maintained on the details of workers who have a medical contraindication and those who are vaccine non-responders (as specified in Section 5 Medical Contraindications and Vaccine Non-responders).

Compliance reporting to the Secretary, NSW Health as detailed in Section 14 Monitoring and Reporting may be delayed until the HRIS has been established.

16 RELATED POLICIES AND LEGISLATION

Policy Directives

PD2005_162 HIV, Hepatitis B or Hepatitis C - Health Care Workers Infected
PD2005_406 Consent to Medical Treatment - Patient Information
PD2007_075 Lookback Policy
PD2009_005 Tuberculin Skin Testing
PD2013_022 Locum Medical officers- Employment and Management
PD2013_050 Workplace Health and Safety: Better Practice Procedures
PD2015_011 Immunisation Services – Authority for Registered Nurses and Midwives
PD2015_026 Recruitment and Selection of Staff to the NSW Health Service
PD2015_036 Privacy Management Plan

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PD2015_034 Medical Officers – Employment Arrangements in the NSW Health Service
PD2016_057 Clinical Placements in NSW Health Policy
PD2017_010 HIV, Hepatitis B and Hepatitis C - Management of Health Care Workers Potentially Exposed
PD2017_013 Infection Prevention and Control Policy

Guidelines

GL2005_020 Work Experience Programs in NSW Public Health System (Guidelines for Provision of)
GL2013_011 Work Health and Safety – Other Workers Engagement
GL2016_028 Guidelines for Clinical Placements in NSW Health

Australian National Guidelines for the Management of Health Care Workers known to be Infected with Blood-Borne Viruses


Legislation

Public Health Act 2010 (NSW)
Work Health and Safety Act 2011 (NSW)
Work Health and Safety Regulation 2011 (NSW)
Workplace Injury Management and Workers Compensation Act 1998 (NSW)

Other Resources

Infection Control Standards contained in the Australian Health Practitioner Regulation Agency (AHPRA) - detailed for each regulatory board

National Health and Medical Research Council (NHMRC) The Australian Immunisation Handbook (current edition)

NSW Health Standards and conditions for the provision of locum medical officers to Public Health Organisations in the NSW public health system May 2012

17 LIST OF ATTACHMENTS

1. Risk Categorisation Guidelines
2. Risk Management Framework (RMF) under CE Discretionary Power
3. Non-participation Form
4. Checklist: Evidence required for all Category A applicants
5. Specified Infectious Diseases- Risks Consequences of Exposure and Protective Measures
6. Undertaking/Declaration Form
7. Tuberculosis (TB) Assessment Tool
8. Algorithm for TB Assessment, Screening and Review
9. Hepatitis B Statutory Declaration
### CATEGORY A

All positions must be categorised as Category A that involve either:

1. Direct physical contact with:
   - a) patients/clients
   - b) deceased persons, body parts
   - c) blood, body substances, infectious material or surfaces or equipment that might contain these (e.g. soiled linen, surgical equipment, syringes)

   OR

2. Contact that would allow the acquisition or transmission of diseases that are spread by respiratory means:
   - a) Workers with frequent/prolonged face-to-face contact with patients or clients e.g. interviewing or counselling individual clients or small groups; performing reception duties in an emergency/outpatients department;
   - b) normal work location is in a clinical area such as a ward, emergency department, outpatient clinic (including, for example, ward clerks and patient transport officers); or who frequently throughout their working week are required to attend clinical areas, e.g. persons employed in food services who deliver meals and maintenance workers.

### CATEGORY A - HIGH RISK

In addition to the requirements for workers employed in in Category A positions, workers employed in positions in the following high risk clinical areas must also receive annual influenza vaccine (refer to Section 4 *Annual Influenza Vaccination Program*).

**High risk clinical areas**

1. Antenatal, perinatal and post-natal areas including labour wards and recovery rooms and antenatal outreach programs
2. Neonatal intensive care units; special care units; any home visiting health service provided to neonates
3. Paediatric intensive care units
4. Transplant and oncology wards
5. Intensive care units

### CATEGORY B

1. Does not work with the high risk client groups or in the high risk clinical areas listed above.
2. No direct physical contact with patients/clients, deceased persons, blood, body substances or infectious material or surfaces/equipment that might contain these.
3. Normal work location is not in a clinical area, e.g. persons employed in administrative positions not working in a ward environment, food services personnel in kitchens.
4. Only attends clinical areas infrequently and for short periods of time e.g. visits a ward occasionally on administrative duties; is a maintenance contractor undertaking work in a clinical area.
5. Incidental contact with patients no different to other visitors to a facility (e.g. in elevators, cafeteria, etc).
### MEASLES
- An unprotected worker must be excluded from working in the high risk clinical area (as specified in Attachment 1) for 14 days after he/she has returned from overseas.
- The unprotected worker must also be excluded from all clinical duties until assessed by a medical practitioner to be non-infectious if he/she, develops a fever, new unexplained rash or coughing illness.
- Public health unit advice must be sought if the unprotected worker has been in contact with a measles case.
- Following contact with a measles case, an unprotected worker must be offered MMR vaccine within 72 hours of exposure or normal human immunoglobulin (NHIG) within 144 hours (6 days). Those who refuse/are unable to be vaccinated must be excluded from clinical duties for 18 days after the last exposure to the infectious case.

### MUMPS
- A worker who develops mumps must be excluded from all clinical duties for 9 days following the onset of swelling or until fully recovered, whichever is sooner.

### RUBELLA
- An unprotected worker must be excluded from all clinical duties for 21 days following exposure to a rubella case, or at least 4 days after the onset of a rash if illness develops.

### VARICELLA
- Following contact with a varicella/shingles case, an unprotected worker must be offered varicella vaccine as soon as possible and within 5 days of exposure or varicella-zoster immunoglobulin (VZIG) within 96 hours (4 days).
- Those who refuse/are unable to be vaccinated must be excluded from clinical duties for 21 days after the last exposure to the infectious case.

### HEPATITIS B
- Workers performing exposure prone procedures (EPPs) must first comply with the requirements of NSW Health Policy Directive PD2005_162 HIV, Hepatitis B or Hepatitis C – health care workers infected.
- Subject to complying with these requirements, an unprotected worker working under the written approval of the Chief Executive may only perform EPPs if he/she:
  - is provided with information regarding the risk and the consequences of hepatitis B infection and management in the event of body substance exposure;
  - provides a signed declaration Undertaking/Declaration Form (Attachment 6), as appropriate, indicating:
    - receipt and understanding of the above information; and

### PERTUSSIS
- Following exposure to a pertussis case, an unprotected worker must be excluded from all clinical duties until they have completed a 5 day course of an appropriate antibiotic.
- In situations during an outbreak at a facility where asymptomatic unprotected workers have been recommended and refused antibiotics, they must be excluded from clinical duties for 14 days following exposure to a pertussis case.

### INFLUENZA
- An unprotected worker employed in a Category A High Risk position must wear a surgical/procedural mask while providing patient care in high risk clinical areas (as specified in Attachment 1 Risk Categorisation Guidelines) during the influenza season (see Key Definitions. Usually from 1 June to 30 September), or be deployed to a non-high risk clinical area.

### TUBERCULOSIS
- An individual risk assessment needs to be undertaken to determine the appropriate risk management framework.

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Attachment 3 Non-Participation Form
This form is to be used for workers employed in an existing Category A position at the release of this revised policy. Workers employed in existing positions must be assessed as compliant against the policy or acknowledge in writing that they decline to participate in assessment, screening and vaccination in accordance with this policy directive.

Non-Participation in Assessment, Screening and Vaccination

1. I have read and understood the policy directive regarding assessment, screening and vaccination and the infectious diseases covered by the policy directive.
2. I decline to participate in: (tick box for specific disease(s)/vaccination as applicable)
   - Assessment and/or vaccination for diphtheria / tetanus / pertussis (dTpa)
   - Assessment and/or vaccination for hepatitis B
   - Assessment and/or vaccination for measles/ mumps/ rubella (MMR)
   - Assessment and/or vaccination for varicella (chicken pox)
   - Vaccination for influenza (Category A-High Risk only)
   - Assessment and/or screening for tuberculosis
3. I am aware of the potential risks to myself and/or others that my non-participation in assessment, screening and/or vaccination may pose.
4. I am aware that non-participation will require my employer to either manage me as unprotected or unscreened, as described in Section 9.1 Reassignment of Unprotected/Unscreened Workers or terminate my employment if reassignment to a non-high risk position is not feasible as specified in Section 12 Termination of Employment.

Refusal to submit documentation / attend appointment
This worker has failed to attend an appointment for assessment, screening and vaccination despite multiple requests and will be referred to the CE for possible termination.

Refusal to sign
In circumstances where the worker refuses to sign this form, it should be noted on the form and the worker should be advised that their employment will be terminated.

<table>
<thead>
<tr>
<th>Name:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phone or Email:</td>
</tr>
<tr>
<td>Date of Birth:</td>
</tr>
<tr>
<td>Health Service/Facility:</td>
</tr>
<tr>
<td>Signature:</td>
</tr>
</tbody>
</table>

OFFICE USE ONLY

I have discussed with this worker the potential risks that non-participation may pose and the management of unprotected/unscreened workers in accordance with this policy.

Assessor's Name:
Assessor's Position:
Contact details: Phone: Email:
Health Agency/Facility:
Signature:

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## Attachment 4 Checklist: Evidence required from Category A Applicants

Workers, new recruits, other clinical personnel and students should take this checklist (and relevant sections of this policy directive referred to in this checklist) to their immunisation provider and discuss their screening and vaccination requirements.

<table>
<thead>
<tr>
<th>Diseases</th>
<th>Vaccination Evidence</th>
<th>Serology Evidence</th>
<th>Other acceptable evidence</th>
<th>COMMENTS</th>
</tr>
</thead>
</table>
| Diphtheria, Tetanus & Pertussis | One adult dose of dTpa vaccine within the last 10 years | N/A | Serology will not be accepted | • dTpa booster is required 10-yearly  
• DO NOT use ADT vaccine |
| Hepatitis B | History of age-appropriate hepatitis B vaccination course | AND Anti-HBs ≥ 10mIU/mL | OR Documented evidence of anti-HBc, indicating past hepatitis B infection, or HBsAg+ | • A verbal history and a completed Hepatitis B Statutory Declaration (Attachment 9) are acceptable if all attempts fail to obtain the vaccination record. The assessor must be satisfied that a reliable history has been provided and the risks of providing a false declaration or providing a verbal vaccination history based on recall must be explained.  
• Positive HBcAb and/or HBsAg result indicate compliance with this policy  
• A further specialist assessment is required for HBsAg+ workers who perform Exposure Prone Procedures |
| Measles, Mumps & Rubella (MMR) | 2 doses of MMR vaccine at least one month apart | OR Positive IgG for measles, mumps and rubella | OR Birth date before 1966 | • Two doses of MMR vaccine, given at least 4 weeks apart, should be accepted as compliance with this policy.  
• Do not compare the numeric levels reported from different laboratories. The interpretation of the result given in the laboratory’s report must be followed i.e. the report may include additional clinical advice e.g. consideration of a booster vaccination for low levels of rubella IgG detected.  
• DO NOT use MMRV vaccine (not licensed for use in persons ≥ 14 years). If a dose of MMRV vaccine is inadvertently given to an older person, this dose does not need to be repeated. |
| Varicella | 2 doses of varicella vaccine at least one month apart. | OR Positive IgG for varicella | N/A | • Evidence of one dose of varicella vaccine is sufficient in persons vaccinated before 14 years of age  
• DO NOT use MMRV vaccine (not licensed for use in persons ≥ 14 years) |
| Influenza | One dose of current seasonal influenza vaccine by June 1 each year | N/A | Serology will not be accepted | • Influenza vaccination is strongly recommended for all workers, other clinical personnel in Category A positions and for all students.  
• Influenza vaccination is required annually for workers in Category A High Risk positions, as specified in Attachment 1 Risk Categorisation Guidelines (see Section 4) |
| Tuberculosis | N/A | Refer to Section 3.8 | Refer to Section 3.8 | • Refer to Section 1.2 Key Definitions  
• Refer to Section 3 TB Assessment and Screening |
<table>
<thead>
<tr>
<th>Disease</th>
<th>Description</th>
<th>At Risk</th>
<th>For more information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hepatitis B Virus (HBV)</td>
<td>Blood-borne viral disease. Infection can lead to chronic hepatitis B infection, cirrhosis and liver cancer. Anyone not immune through vaccination or previous infection is at risk of infection via blood or other body fluids entering through broken skin, mucous membrane, injection/needle-stick, or unprotected sex. Specific at risk groups include: health care workers, sex partners of infected people, injecting drug users, haemodialysis patients.</td>
<td>Health care workers, sex partners of infected people, injecting drug users, haemodialysis patients.</td>
<td><a href="http://www.health.nsw.gov.au/Infectious/factsheets/Pages/hepatitis_b.aspx">http://www.health.nsw.gov.au/Infectious/factsheets/Pages/hepatitis_b.aspx</a></td>
</tr>
<tr>
<td>Diphtheria</td>
<td>Contagious, potentially life-threatening bacterial infection, now rare in Australia because of immunisation. Spread via respiratory droplets and discharges from the nose, mouth or skin. Infection for up to 4 weeks from onset of symptoms. Anyone not immune through vaccination or previous infection is at risk. Diphtheria toxin (produced by the bacteria) can cause inflammation of the heart muscle, leading to death.</td>
<td>Anyone not immune through vaccination or previous infection is at risk.</td>
<td><a href="http://www.health.nsw.gov.au/Infectious/factsheets/Pages/diphtheria.aspx">http://www.health.nsw.gov.au/Infectious/factsheets/Pages/diphtheria.aspx</a></td>
</tr>
<tr>
<td>Tetanus</td>
<td>Infection from a bacterium usually found in soil, dust and animal faeces, generally occurs through injury. Toxin from the bacterium can attack the nervous system. Although the disease is now fairly uncommon, it can be fatal and is seen mostly in older adults who were never adequately immunised. Not spread from person to person. Neonatal tetanus can occur babies of inadequately immunised mothers.</td>
<td>Anyone not immune through vaccination or previous infection is at risk.</td>
<td><a href="http://www.health.nsw.gov.au/Infectious/factsheets/Pages/tetanus.aspx">http://www.health.nsw.gov.au/Infectious/factsheets/Pages/tetanus.aspx</a></td>
</tr>
<tr>
<td>Pertussis (Whooping cough)</td>
<td>Highly infectious bacterial infection, spread by respiratory droplets through coughing or sneezing. Cough that persists for more than 3 weeks and may be accompanied by paroxysms, resulting in a “whoop” sound or vomiting. Can be fatal, especially in babies under 12 months of age. Neither infection nor vaccination provide long-lasting immunity, however vaccinated people have less severe disease.</td>
<td>Anyone not immune through vaccination or previous infection is at risk.</td>
<td><a href="http://www.health.nsw.gov.au/Infectious/factsheets/Pages/pertussis.aspx">http://www.health.nsw.gov.au/Infectious/factsheets/Pages/pertussis.aspx</a></td>
</tr>
<tr>
<td>Measles</td>
<td>Highly infectious viral disease, spread by respiratory droplets. Infectious before symptoms appear and for several days afterwards. Serious complications such as ear infection, pneumonia, or encephalitis can occur in up to 1/3 of cases. At risk are persons born during or after 1966 who haven’t had 2 doses of MMR vaccine, babies under 12 months of age, before they have had a first dose and children over 18 months of age who have not had a second dose.</td>
<td>Anyone not immune through vaccination or previous infection is at risk.</td>
<td><a href="http://www.health.nsw.gov.au/Infectious/factsheets/Pages/measles_factsheet.aspx">http://www.health.nsw.gov.au/Infectious/factsheets/Pages/measles_factsheet.aspx</a></td>
</tr>
<tr>
<td>Mumps</td>
<td>Viral disease, spread by respiratory droplets. Now relatively uncommon in Australia because of immunisation. Anyone not immune through vaccination or previous infection is at risk. Persons who have the infection after puberty can have complications, e.g. swelling of testes or ovaries; encephalitis or meningitis may occur rarely.</td>
<td>Anyone not immune through vaccination or previous infection is at risk.</td>
<td><a href="http://www.health.nsw.gov.au/Infectious/factsheets/Pages/mumps.aspx">http://www.health.nsw.gov.au/Infectious/factsheets/Pages/mumps.aspx</a></td>
</tr>
<tr>
<td>Rubella</td>
<td>Viral disease, spread by respiratory droplets and direct contact. Infectious before symptoms appear and for several days afterwards. Anyone not immune through vaccination or previous infection is at risk. Infection in pregnancy can cause birth defects or miscarriage.</td>
<td>Anyone not immune through vaccination or previous infection is at risk.</td>
<td><a href="http://www.health.nsw.gov.au/Infectious/factsheets/Pages/rubella-german-measles.aspx">http://www.health.nsw.gov.au/Infectious/factsheets/Pages/rubella-german-measles.aspx</a></td>
</tr>
<tr>
<td>Varicella (chickenpox)</td>
<td>Viral disease, usually mild, but can be severe, especially in immunosuppressed persons. Complications include pneumonia and encephalitis. In pregnancy, can cause fetal malformations. Early in the infection, varicella can be spread through coughing and respiratory droplets; later in the infection, it is spread through contact with fluid in the blisters. Anyone not immune through vaccination or previous infection is at risk.</td>
<td>Anyone not immune through vaccination or previous infection is at risk.</td>
<td><a href="http://www.health.nsw.gov.au/Infectious/factsheets/Pages/chickenpox.aspx">http://www.health.nsw.gov.au/Infectious/factsheets/Pages/chickenpox.aspx</a></td>
</tr>
<tr>
<td>Influenza (flu)</td>
<td>Viral infection, caused by A or B strains. Mainly affects the lungs, but can affect the heart or other body systems, particularly in people with other health problems, leading to pneumonia and/or heart failure. Spread via respiratory droplets when an infected person sneezes or coughs, or through touch, eg handshake. Spreads most easily in confined and crowded spaces. Annual vaccination reduces the risk of infection, however this is less effective in the elderly. Small children are at high risk of infection unless vaccinated.</td>
<td>Anyone not immune through vaccination or previous infection is at risk.</td>
<td><a href="http://www.health.nsw.gov.au/Infectious/factsheets/Pages/influenza_factsheet.aspx">http://www.health.nsw.gov.au/Infectious/factsheets/Pages/influenza_factsheet.aspx</a></td>
</tr>
<tr>
<td>Tuberculosis (TB)</td>
<td>A bacterial infection that can attack any part of the body, but the lungs are the most common site. Spread via respiratory droplets when an infected person sneezes, coughs or speaks. At risk are those who spend time with a person with TB infection of the lung or respiratory tract or anyone who was born in, or has lived or travelled for more than 3 months in, a high TB incidence country.</td>
<td>Anyone not immune through vaccination or previous infection is at risk.</td>
<td><a href="http://www.health.nsw.gov.au/Infectious/factsheets/Pages/tuberculosis.aspx">http://www.health.nsw.gov.au/Infectious/factsheets/Pages/tuberculosis.aspx</a></td>
</tr>
</tbody>
</table>
Attachment 6 Undertaking/Declaration Form

All new recruits/other clinical personnel/ students /volunteers / facilitators must complete each part of this document and Attachment 7 Tuberculosis (TB) Assessment Tool and provide a NSW Health Vaccination Record Card for Health Care Workers and Students and serological evidence of protection as specified in Attachment 4 Checklist: Evidence required from Category A Applicants and return these forms to the health facility as soon as possible after acceptance of position/enrolment or before attending their first clinical placement. (Parent/guardian to sign if student is under 18 years of age).

New recruits/other clinical personnel/ students /volunteers / facilitators will only be permitted to commence employment/attend clinical placements if they have submitted this form, have evidence of protection as specified in Attachment 4 Checklist: Evidence required from Category A Applicants and submitted Attachment 7 Tuberculosis (TB) Assessment Tool. Failure to complete outstanding hepatitis B or TB requirements within the appropriate timeframe(s) will result in suspension from further clinical placements/duties and may jeopardise their course of study/duties.

The education provider/recruitment agency must ensure that all persons whom they refer to a NSW Health agency for employment/clinical placement have completed these forms, and forward the original or a copy of these forms to the NSW Health agency for assessment. The NSW Health agency must assess these forms along with evidence of protection against the infectious diseases specified in this policy directive.

<table>
<thead>
<tr>
<th>Part</th>
<th>Undertaking/Declaration</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>I have read and understand the requirements of the NSW Health Occupational Assessment, Screening and Vaccination against Specified Infectious Diseases Policy</td>
</tr>
</tbody>
</table>
| 2    | a. I consent to assessment and I undertake to participate in the assessment, screening and vaccination process and I am not aware of any personal circumstances that would prevent me from completing these requirements, OR  
   b. I consent to assessment and I undertake to participate in the assessment, screening and vaccination process; however I am aware of medical contraindications that may prevent me from fully completing these requirements and am able to provide documentation of these medical contraindications. I request consideration of my circumstances. |
| 3    | a. I have provided evidence of protection for hepatitis B as follows:  
   b. history of an age-appropriate vaccination course, and serology result Anti-HBs ≥10mIU/mL OR  
   c. history of an age-appropriate vaccination course and additional hepatitis B vaccine doses, however my serology result Anti-HBs is <10mIU/mL (non-responder to hepatitis B vaccination) OR  
   d. documented evidence of anti-HBc (indicating past hepatitis B infection) or HBsAg+ OR  
   e. I have received at least the first dose of hepatitis B vaccine (documentation provided) and undertake to complete the hepatitis B vaccine course (as recommended in the Australian Immunisation Handbook, current edition) and provide a post-vaccination serology result within six months of my initial verification process. |
| 4    | I have been informed of, and understand, the risks of infection, the consequences of infection and management in the event of exposure (refer Attachment 5 Specified Infectious Diseases: Risks and Consequences of Exposure) and agree to comply with the protective measures required by the health service and as defined by PD2007_036 Infection and Control Policy. |

Declaration: I ___________________________________ declare that the information provided is correct

| Full name: | Worker cost centre (if available): |
| D.O.B: | Worker/Student ID (if available): |
| Email: | NSW Health agency /Education provider: |
| Signature: | Date: |
Attachment 7 Tuberculosis (TB) Assessment Tool

All new recruits, other clinical personnel, volunteers and students are required to complete this Tuberculosis Assessment Tool along with a NSW Health Record of Vaccination for Health Care Workers and Students and Attachment 6 Undertaking/Declaration Form. They should advise the NSW Health agency if they prefer to provide this information in private consultation with a clinician. The NSW Health agency will assess this form and decide whether TB screening or clinical review is required.

New recruits, other clinical personnel and volunteers will only be permitted to commence duties if they have submitted this form to the employing NSW Health agency. Failure to complete outstanding TB requirements within the appropriate timeframe may affect their employment status.

The education provider must forward a copy of this form to the health service for assessment.

Existing Category A staff, clinical personnel, volunteers and students who spend more than 3 months in a country with high incidence of TB after their initial TB assessment must complete and submit this tool for reassessment on return to a NSW Health agency.

<table>
<thead>
<tr>
<th>Part A</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. <strong>Do you currently have a cough that has lasted longer than 2 weeks?</strong></td>
</tr>
<tr>
<td>2. <strong>If yes, have you had any episode of haemoptysis (coughing up blood)?</strong></td>
</tr>
<tr>
<td>3. <strong>Have you had unexplained fever, chills or night sweats in the past month?</strong></td>
</tr>
<tr>
<td>4. <strong>Have you had any unexplained weight loss in the past month?</strong></td>
</tr>
</tbody>
</table>

*If you answered yes to any of the above questions, please attach relevant details on a separate page, including all results of any investigations or medical assessment you may have had it to this form.*

<table>
<thead>
<tr>
<th>Part B</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. <strong>What is your country of birth?</strong></td>
</tr>
<tr>
<td>2. <strong>Have you ever in your lifetime (new personnel), or since your last occupational TB Assessment (existing personnel), lived or travelled overseas? If yes, provide details</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Country</th>
<th>Duration of stay</th>
<th>Approximate dates/ year</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*(attach a separate page if necessary)*

| 3. **Have you ever had contact with a person known to have TB?** | Yes □ | No □ |

If yes, detail the nature of the contact (attach separate page if necessary):

| 4. **Have you ever been tested for TB before?** | Yes □ | No □ |

*If you answered yes to any of the above questions, please attach further information on a separate page, including the date and results of any previous tests for TB (including TST, IGRA, sputum culture, chest x-ray) and attach it to this form*

Worker/Student Declaration: I declare that the information provided on this form is correct

<table>
<thead>
<tr>
<th><strong>Full name:</strong></th>
<th><strong>Worker cost centre (if applicable):</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Date of birth:</strong> / /</td>
<td><strong>Student ID (if applicable):</strong></td>
</tr>
<tr>
<td><strong>Phone:</strong></td>
<td><strong>NSW Health agency /Education provider:</strong></td>
</tr>
<tr>
<td><strong>Email:</strong></td>
<td><strong>Signature:</strong></td>
</tr>
<tr>
<td><strong>Date:</strong></td>
<td><strong>Signature:</strong></td>
</tr>
</tbody>
</table>

301(05/03/18)
Attachment 8 Algorithm for TB Assessment, Screening and Review

TB Assessment Tool (Attachment 7)

Does not meet criteria for TB Clinical Review or Screening
Answered no to all Part A questions, was not born in or travelled ≥3m to high TB incidence countries, and no contact with a TB case

Compliant

Meets criteria for TB Clinical Review
Answered yes to ≥1 question in Part A

Test for TB Infection (IGRA or TST)

Positive (IGRA or TST)

Negative (IGRA or TST)

Compliant

TB Clinical Review and chest x-ray

Compliant*

*TB compliance may be revoked in the event of non-adherence to the recommendations of the TB Service regarding preventive treatment and or chest x-ray surveillance.
Attachment 9 Hepatitis B Statutory Declaration
To be used where a hepatitis B vaccination record is not available

Statutory Declaration
Commonwealth Declaration Act 1959

I, _____________________________________________, do solemnly and sincerely declare that

☐ I have received an age-appropriate course of hepatitis B vaccine consisting of __________
(insert number) vaccine doses.

The approximate year I was vaccinated against hepatitis B
was..............................................

I do not have the record of vaccination because: .................................................................
...............................................................................................................................................
...............................................................................................................................................
and I understand the risks of making a false declaration.

I make this solemn declaration* conscientiously believing the same to be true, and by
virtue of the provisions of the Commonwealth Declaration Act 1959.

Declared at: ____________________________ on ____________________________

[place] [date]

[signature of declarant]

in the presence of an authorised witness, who states:

I, ____________________________, a ____________________________,

[print name of authorised witness] [qualification of authorised witness]

[signature of authorised witness**] [date]

certify the following matters concerning the making of this statutory declaration by the
person who made it: I have known the person for at least 12 months OR *I have confirmed the person’s identity using an identification document and the document I relied

on was

[describe identification document relied on]

[signature of authorised witness**] [date]

*This statutory declaration is made under the Commonwealth Declaration Act 1959
**An authorised witness must be an appropriately trained assessor
CREUTZFELD-JAKOB DISEASE RELATED INFORMATION SHARING (PD2014_041)

PURPOSE

To facilitate patient and public health management of suspect cases of Creutzfeld-Jakob Disease (CJD) in NSW residents, a Deed between the Health Administration Corporation (for NSW Health) and the Florey Institute of Neurosciences and Mental Health (for the Australian National Creutzfeld-Jakob Disease Registry) has been endorsed for mutual sharing of information about suspect CJD cases in NSW.

This Policy Directive describes the information to be disclosed, and the disclosure procedure, for information to be provided from NSW Health to the Australian National Creutzfeld-Jakob Disease Registry.

MANDATORY REQUIREMENTS

NSW Health must notify suspected CJD cases and other variants of prion diseases, including variant CJD (vCJD), to the Australian National Creutzfeldt-Jakob Disease Registry (ANCJDR) for the purposes of national surveillance, exposure investigation, classification of the case, and to inform public health response.

IMPLEMENTATION

As required by the Public Health Act 2010 (NSW), doctors, hospitals and laboratories must notify suspected CJD cases and other variants of prion diseases, including variant CJD (vCJD), to the local public health unit, who will then inform the ANCJDR.

If the ANCJDR then requires additional information from a doctor, hospital or laboratory for a suspect CJD case in NSW, this must be provided.

The information to be disclosed, and the disclosure procedures for information to be provided by NSW Health and the Australian National Creutzfeld-Jakob Disease Registry (ANCJDR) are described in the following CJD Related Information Sharing:Procedures, Section 2.

1. BACKGROUND

1.1 About this document

Identification of suspect cases of Creutzfeld-Jakob Disease (CJD) is needed by public health to determine risks of transmission and to minimise these risks for public safety through infection control.

To facilitate patient and public health management of suspect cases of CJD in NSW residents, a Deed between NSW Health and the Australian National Creutzfeldt-Jakob Disease Registry (ANCJDR) at the Florey Institute of Neurosciences and Mental Health (FNI) has been endorsed for mutual sharing of information about suspect CJD cases in NSW.

Under the NSW Public Health Act 2010, doctors, hospitals and laboratories must notify suspected CJD cases and other variants of prion diseases, including variant CJD (vCJD), to Health Protection NSW, who will then inform the ANCJDR for the purposes of national surveillance, exposure investigation, classification of the case, and to inform public health response.
Additional information may be requested by the ANCJDR from a doctor, hospital or laboratory for a suspect CJD case in NSW.

The information to be disclosed, and the disclosure procedures for information to be provided by NSW Health and the Australian National Creutzfeld-Jakob Disease Registry (ANCJDR) are described in Section 2.

### 1.2 Key definitions

<table>
<thead>
<tr>
<th><strong>Australian National Creutzfeld-Jakob Disease Registry (ANCJDR)</strong></th>
<th>The ANCJDR was established in October 1993 in response to the recognition of four probable Australian human pituitary hormone related CJD deaths. The FNI is responsible for the ANCJDR under the auspices of a contract with the Commonwealth to determine all suspect cases of TSE in Australia.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Creutzfeld-Jakob Disease (CJD)</strong></td>
<td>CJD is a fatal neurological disorder thought to be caused by the accumulation of abnormal proteins known as prions. Prions are transmissible under certain rare circumstances. CJD is part of a group of diseases known as Transmissible Spongiform Encephalopathies (TSEs), and has two main forms - classical (which includes sporadic, familial and iatrogenic cases) and variant CJD.</td>
</tr>
<tr>
<td><strong>Authorised clinician</strong></td>
<td>A NSW clinician who is an employee under the Health Services Act 1997 (NSW).</td>
</tr>
<tr>
<td><strong>CJD Related Information Sharing Deed</strong></td>
<td>The Deed provides the legal framework for sharing information about suspect cases of CJD between NSW Health and the ANCJDR.</td>
</tr>
</tbody>
</table>

### 1.3 Legal and legislative framework

#### 1.3.1 CJD Related Information Sharing Deed 2014

A Deed describing the responsibilities of the Health Administration Corporation (for NSW Health) and the Florey Institute of Neurosciences and Mental Health (FNI) (for the Australian National Creutzfeld-Jakob Disease Registry) for disclosure of information between NSW Health and the ANCJDR, including the confidentiality obligations, return of information and other general aspects of the agreement. The disclosure information and disclosure procedure are described in an attached Schedule.

#### 1.3.2 Public Health Act 2010 (NSW)

CJD, including vCJD, is a notifiable disease under the Act.

#### 1.3.3 Health Records and Information Privacy Act 2002 (NSW)

In accordance with the Health Privacy Principles in the Act, NSW Health will, when reasonable, disclose confidential information to the ANCJDR.

#### 1.3.4 Health Services Act 1997 (NSW)

A NSW Health authorised clinician defined as an employee under the Act may directly notify a possible case of CJD to the ANCJDR.
2. DISCLOSURE INFORMATION AND DISCLOSURE PROCEDURE

2.1 Responsibilities

2.1.1 NSW Health

Under the NSW Public Health Act 2010, doctors, hospitals and laboratories must notify suspected CJD cases and other variants of prion diseases, including variant CJD (vCJD), to Health Protection NSW, who will then inform the ANCJDR for the purposes of national surveillance, exposure investigation, classification of the case, and to inform public health response.

2.1.2 Florey Institute of Neuroscience and Mental Health (FNI)

The ANCJDR will:
- Undertake exposure investigation and final classification of suspected cases of CJD in order to determine the likely diagnosis, the cause of the disease in each case and if there are any implications for public health. For this purpose, ANCJDR will collect information from patients, with consent if possible, referred to the FNI by NSW Health, from treating clinicians and/or from the ‘authorised representative’, as necessary. The FNI will collect information about cases or possible cases in accordance with the Privacy Laws.
- Conduct public health surveillance for CJD in NSW residents to monitor trends in the incidence, risk factors and clinical outcomes of CJD and its various forms.
- Notify NSW Health of cases and publish annual summary data about NSW cases.
- Provide advice to individual clinicians about suspect, possible, probable or confirmed cases, recommending investigations or other follow up, including infection control measures, as required.
- Provide advice to NSW clinicians, NSW Health and NSW public health units about public health risks (specifically the risks of transmission of CJD to others) of any individuals referred to the ANCJDR, as required.
- Provide advice to NSW Health in relation to the incidence of CJD on an ongoing basis.

The FNI will not share any information with international bodies for the purpose of research or otherwise without the written permission of NSW Health. Any such information must be appropriately de-identified.

2.2 Disclosure Information

The information to be exchanged between NSW Health and the ANCJDR, including the following personal information, to the extent that this information is available:

General cases
1. Patient name
2. NSW Health unique identifier number eg Medical Record Number
3. Date of birth
4. Residential address at time of notification
5. Hospital at the time of notification
6. Treating doctor name and contact telephone number
7. Issues of concern/relevant public health issues
11. INFECTIOUS DISEASES, IMMUNISATION AND RELATED MATTERS

8. FNI outcome classification
9. Date and cause of death if applicable
10. Officer notifying outcome
11. Details of the patient’s relevant medical condition(s), including investigations and relevant medical treatments.

Classical cases
12. History of relevant surgery, particularly neurosurgery or ophthalmic surgery or invasive neurological testing (including stereotactic EEG).
15. History of receiving or donating blood, other blood products or organs.
16. History of dental or surgical care, renal dialysis, or other medical procedures, tattoos or piercings, or acupuncture.
17. Family history of similar illness.

Variant CJD
18. Screening for variant CJD risk factors including travel history and consumption of foods suspected containing beef or bovine products for any case of suspected or confirmed variant CJD.

2.3 Disclosure Procedure

2.3.1 Information from NSW Health to the ANCJDR

- A NSW Public Health Unit (PHU) will notify the ANCJDR of possible, probable or confirmed cases of CJD and its variant (vCJD) where the PHU is aware that no previous report has been made by the treating clinician.
- A NSW authorised clinician (to the extent that they are an employee under the Health Services Act 1997 (NSW)) may directly notify a possible case to the ANCJDR.
- Where additional clinical information is required by the ANCJDR to classify a case or undertake the exposure investigation, the clinician or healthcare facility will be directly contacted by the ANCJDR.
- Information included under the Deed can be provided by the treating clinician or healthcare facility under the following circumstances:
  - With patient consent
  - With consent from the patient’s ‘authorised representative’ in circumstances where the patient lacks capacity.

The Health Records and Information Privacy Act 2002 sets out a list of people who can be an authorised representative on behalf of a patient who lacks capacity. This is set out in the Privacy Manual for Health Information (March 2015) as amended from time to time. It includes someone who has an ‘enduring power of attorney’ for the individual or is a guardian.
- With consent from the patient’s authorised representative or a close relative in circumstances where the patient is deceased. Once a patient has died, the authorised representative will be an executor or administrator of the deceased’s estate which endures indefinitely. Powers of attorney and guardianship orders cease on death.
In circumstances where consent cannot be obtained from the person, or their authorised representative (or is unreasonably delayed), exemptions set out in the *Health Records and Information Privacy Act 2002* (and the Privacy Manual for Health Information (March 2015), as amended from time to time) may be applicable in allowing the release of information under the Deed.

- If the ANCJDR encounters problems in obtaining information for a particular case, they may contact Health Protection NSW to request assistance under the auspices of the Deed.

### 2.3.2 Information from the ANCJDR to NSW Health

- The ANCJDR will report all notifications of possible NSW cases reported directly to the ANCJDR eg from clinicians, family members, or the CJD support group, or other individuals.
- The ANCJDR will report the final classification of NSW cases to NSW Health.
11. INFECTIOUS DISEASES, IMMUNISATION AND RELATED MATTERS

NSW FRAMEWORK AND STANDARD OPERATING PROCEDURE FOR HIV POINT OF CARE TESTING (GL2015_018)

GL2015_018 rescinds GL2015_003, GL2015_015

PURPOSE

This Framework has been developed to guide the delivery of high quality, safe, sustainable and appropriate Point of Care Testing (PoCT) for HIV within NSW Health supported non-laboratory settings in NSW in order to increase uptake of HIV testing among high risk groups, increase the proportion of people who receive their test result, and reduce the number of people with undiagnosed HIV infection.

KEY PRINCIPLES

Point of Care Testing (PoCT) is one pathway to increase testing for HIV, particularly among high risk groups who can experience barriers to testing, including the need to attend a health service to access a test, time taken for test results to be available, poor access to health care providers, stigma and the risk of discrimination. PoCT addresses these barriers through increasing access, supporting autonomy, and providing convenience. PoCT should be offered where possible in conjunction with STI screening and/or conventional HIV testing.

Based on the epidemiology of HIV infection, PoCT for HIV is appropriate for gay men and other men who have sex with men (MSM). PoCT for HIV is generally not appropriate in populations with a low prevalence of undiagnosed HIV infection because of the lower positive predictive value of PoCT in these populations.

Only PoCT devices approved by the Therapeutic Goods Administration (TGA) can be used for HIV testing in Australia. Testing must be conducted in accordance with any product specific conditions placed on the test by the TGA. Information on approved tests and product specific conditions is available from the TGA website www.tga.gov.au.

For a PoCT site to be eligible to operate under the NSW Framework and participate in the NSW Health Quality Assurance and Safety package from the St Vincent’s NSW State Reference Laboratory for HIV, it is required to use the NSW Health recommended HIV PoCT device.

A PoCT site that elects to operate outside the NSW Health Framework and the NSW Health Quality Assurance and Safety package would require a strong justification for using an alternative HIV PoCT device to that NSW Health recommended device. In these circumstances, each site should be assessed on a case by case basis and would be required to make a submission to NSW Health outlining the relative benefits of the alternative test with regards to service efficiency, client throughput and test performance for the particular site submitting the application.

USE OF THE GUIDELINE

This Framework is for NSW Health, other NSW Government departments, health professionals, others involved in the delivery of health services and non-government organisations involved in providing HIV related services.

To download the Guideline please go to NSW Framework and Standard Operating Procedure for HIV Point of Care Testing
HUMAN IMMUNODEFICIENCY VIRUS (HIV) – MANAGEMENT OF NON-OCCUPATIONAL EXPOSURE (PD2015_005)

PD2015_005 rescinds PD2006_005.

PURPOSE

This Policy Directive outlines the service obligations of Local Health Districts (LHDs) in the management of individuals who have been exposed or suspected to have been exposed to HIV in a non-occupational setting.

Evidence suggests that the timely provision of post-exposure prophylaxis (PEP) following a non-occupational exposure may prevent subsequent HIV infection. Prescribing of PEP must be based on a careful risk assessment of the risk of HIV infection in accordance with the national guidelines Post Exposure Prophylaxis after Non-Occupational and Occupational Exposure to HIV published in December 2013 (‘National PEP Guidelines’).

This Policy Directive should be read in conjunction with National PEP Guidelines, which provide comprehensive clinical guidance on PEP provision.

MANDATORY REQUIREMENTS

LHDs are responsible for the cost of drugs used in PEP, and for ensuring that prescribing is conducted in accordance with the National PEP Guidelines. LHDs must ensure that local PEP services address the time-critical nature of PEP assessment and commencement, and provide prompt referral and follow-up of all patients prescribed PEP.

Compliance with this Policy Directive is mandatory for all health care providers in receipt of funding from NSW Health, including Local Health Districts and Chief Executive Governed Statutory Health Corporations, and Affiliated Health Organisations (both declared and undeclared), and their staff.

IMPLEMENTATION

Chief Executives of LHDs, Statutory Health Corporations and Affiliated Health Organisations in receipt of funding from NSW Health are responsible for ensuring that:

- Local policies and procedures are in place to ensure provision of PEP in accordance with the National PEP Guidelines (Section 2).
- PEP drug provision is funded through the LHD.
- All staff are made aware of their obligations in relation to this Policy Directive; and
- All staff receive appropriate training to enable them to carry out their obligations in relation to this Policy Directive.

All staff must comply with this Policy Directive.

1. BACKGROUND

This Policy Directive specifies the service obligations of Local Health Districts (LHDs) in the provision of Post Exposure Prophylaxis (PEP) for non-occupational HIV exposure. It should be read in conjunction with the national guidelines Post-Exposure Prophylaxis after Non-Occupational and Occupational exposure to HIV published in December 2013¹ (‘the National PEP Guidelines’), which provide comprehensive clinical guidance.

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There is evidence in relation to HIV that PEP may prevent infection\(^1\), although there are currently no data from randomised controlled trials of PEP efficacy. The prescribing of PEP must be based on a careful assessment of the risk of HIV infection in accordance with the National PEP Guidelines. PEP should be prescribed as soon as possible after exposure and within 72 hours\(^2\).

Drugs used in PEP are not currently funded through the s100 program. LHDs are responsible for the cost of drugs used in PEP, and for ensuring drugs are prescribed in accordance with the National PEP Guidelines. Treatment prescribed at a patient’s first presentation, usually sufficient for one week, is a bridging step until the client is fully assessed by an authorised s100 prescriber or specialist affiliated with a designated HIV/AIDS Unit.

LHDs must ensure that PEP services address the time-critical nature of PEP assessment and commencement, and the need for prompt referral and follow-up of all patients who are prescribed PEP.

The occupational exposure of health care workers to the risk of HIV infection is dealt with in the NSW Health Policy Directive PD2005_311 *HIV, Hepatitis B, and Hepatitis C – Management of Health Care Workers Potentially Exposed*.

### 2. PROCEDURES FOR MANAGEMENT OF HIV NON-OCCUPATIONAL PEP

#### 2.1 General requirements for Local Health Districts (LHDs)

LHDs are required to have policies and procedures in place that ensure provision of PEP in accordance with the National PEP Guidelines, including:

- Emergency response and assessment of the patient to ensure timely administration of PEP where indicated, as soon as possible after exposure and within 72 hours.
- Access 24 hours-a-day to expert advice and guidance on clinical best practice treatment and management of recent HIV exposure.
- Ready access to drugs used for PEP.
- Information about PEP for the patient.
- Informed consent of the patient.
- Prescribing and dispensing of medication.
- Baseline and follow up testing for HIV.
- Assessment of risk of exposure to other infections, with immunisation, testing and treatment as indicated.
- Provision of, or referral for, follow-up assessment and ongoing monitoring by an authorised s100 prescriber, or specialist affiliated with a designated HIV/AIDS Unit, preferably in the patient’s local area.
- Referral to specialist counselling and peer support services where indicated.
- Referral to services that offer ongoing blood borne virus (BBV) and sexually transmissible infection (STI) testing and management, such as publicly funded sexual health services, as patients presenting for PEP are often at a high, ongoing risk for other BBVs and STIs.

#### 2.2 HIV status of the source individual

Attempts should be made to contact the source and ask them to have an urgent HIV test. Where possible obtain information about the source individual including HIV status, and if HIV positive, including viral load, whether on treatment, which treatment, any treatment failures or known resistance.

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\(^2\) National PEP Guidelines at p.8
Initiation of PEP should not be delayed while establishing the HIV status of the source.

2.3 HIV status of the exposed individual

All candidates for PEP require baseline HIV antibody testing. Where possible, the results should be followed up within 24 hours. Initiation of PEP should not be delayed while determining the HIV status of the exposed individual.

2.4 Management of possible exposure to other conditions

Hepatitis B
All patients presenting for PEP must be assessed for possible hepatitis B exposure, and tested and provided with immunisation including hepatitis B immunoglobulin where indicated1.

Other conditions for which testing may be indicated, depending on the nature of the exposure, are listed below: See the National PEP Guidelines for a recommended schedule of baseline and follow-up testing for these conditions in conjunction with PEP assessment2.

Sexually transmissible infections
Patients are to be tested for chlamydia, gonorrhoea, and syphilis, as indicated by the type of exposure.

Hepatitis C
Patients who are potentially at risk of hepatitis C infection after exposure require follow-up and specialist referral if seroconversion is detected.

Pregnancy
All women who have the potential to be pregnant on presentation for PEP should be offered pregnancy testing. Emergency contraception should be offered to women presenting for PEP who are at risk of pregnancy. Follow-up pregnancy testing should be offered at two weeks post-exposure where indicated. If the test is negative but pregnancy is still suspected, the test should be repeated in 1 week. Specialist advice must be sought urgently for women who require PEP and are pregnant or breastfeeding.

2.5 Recording information where a patient is assessed for PEP

Every assessment for PEP must be documented, regardless of whether PEP is commenced. The required information covers the time of the assessment and first dose (if prescribed), details, including date and time of the exposure, information about the exposed person (including any previous HIV test and result), information about the source, details of PEP discussion with the patient, referral, and follow-up arrangements. Further details are provided in the National PEP Guidelines3.

2.6 Patient confidentiality

The confidentiality of the patient and the source must be maintained in accordance with the requirements of the Public Health Act 2010 (NSW).

2.7 Quality assurance

LHDs must have a quality assurance process in place to monitor and review the effectiveness of arrangements for managing exposed individuals, including in relation to health outcomes for patients.

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1 National PEP Guidelines at p.15
2 At p.8
3 National PEP Guidelines at p.11
3. APPENDIX
3.1 Contacts and information for health care workers

List of NSW HIV s100 prescribers by suburb: http://www.ashm.org.au/hiv/prescriber-lists
Australasian Society for HIV Medicine
Tel: 02 8204 0700

NSW HIV Support Program
Tel: 02 9391 9195
Email: hivsupportprogram@doh.health.nsw.gov.au
Support for doctors and patients where the patient is newly diagnosed with HIV

Needlestick Hotline
Tel: 1800 804 823
Information and support for healthcare, paramedical, and emergency services workers, who sustain a needlestick injury and/or experience occupational exposure to blood and body fluids

NSW Sexual Health Infolink
Tel: 1800 451 624
TTY: 9221 6515

NSW Sexual Health Clinics
Phone the NSW Sexual Health Infoline for information about clinics and services in your area: 1800 451 624

NSW AIDS Dementia and HIV Psychiatry Service
Tel: 02 9382 8600

Needle Cleanup Hotline
Arranges clean-up of dumped needles and syringes in public places anywhere in NSW
Tel: 1800 633 353

Community services
ACON
Tel: 1800 063 060
www.acon.org.au
Provides health promotion services specialising in people living with with HIV and lesbian, gay, bisexual, transgender and intersex (LGBTI) health.

NSW PEP Hotline
Tel: 1800 737 669
Information, assessment, and referral of people who may require HIV PEP following a high risk exposure (not an information line for general questions about HIV).

Multicultural HIV and Hepatitis Service
Tel: 02 9515 1234
Free call (NSW country): 1800 108 098
www.mhahs.org.au
A statewide service providing information and assistance for culturally and linguistically diverse communities.
11. INFECTIOUS DISEASES, IMMUNISATION AND RELATED MATTERS

NSW Users and AIDS Association (NUAA)
Tel: 02 8354 7300
Tel (NSW Country): 1800 644 413
Provides information and support for users of illicit drugs, and their families and friends, as well as needle and syringe program services.

PozHet
Information Line: 1800 812 404
http://pozhet.org.au/
Provides support for heterosexual people with HIV.

Positive Life NSW
Tel: 02 9206 2177
Free call: 1800 245 677
Provides support for people living with HIV.

Sex Workers Outreach Project
Tel: 02 9206 2000
www.swop.org.au
Provides sexual health information and support to people who engage in sex work.

HIV Information Line
Tel: 1800 451 600
Information, support, and referral, about HIV.

17.1 Legislation, policies and resources
National Guidelines for Post-Exposure Prophylaxis after Non-Occupational and Occupational Exposure to HIV. Australasian Society for HIV Medicine, 2013


Public Health Act 2010 (NSW)

Public Health Regulation 2012 (NSW)
PURPOSE

This Policy Directive provides a framework for the management of people with tuberculosis (TB) who knowingly place others at risk of infection.

Where persons with TB knowingly risk infecting others, the health system is responsible for taking action to protect the health of the public.

In circumstances where support, counselling and behavioural change techniques fail, the health service may be required to implement restrictive measures under The Public Health Act 2010.

MANDATORY REQUIREMENTS

All staff involved in the care of clients with TB must adhere to these principles.

IMPLEMENTATION

Chief Executives must ensure that:
- The principles and requirements of this policy are applied, achieved and sustained.
- Relevant staff are made aware of their obligations in relation to the Policy Directive.
- Documented procedures are in place to support the Policy Directive.

Clinicians:
- Must comply with this Policy Directive.

1. BACKGROUND

1.1 About this document

This Policy Directive provides a framework for the management of people with tuberculosis (TB) who knowingly place others at risk of infection.

The management framework established by this Policy Directive is based on the following principles and assumptions:
- The general public have the right to appropriate protection against the risk of infection.
- A range of factors, including long duration of treatment, medication side effects, perception of stigma and restrictiveness of daily treatment can impact on a person’s willingness to accept and comply with TB treatment.
- Social and other health factors, including drug and alcohol dependence, mental health issues, housing concerns and work, family and other responsibilities can also impact on a person’s willingness to accept and comply with TB treatment.
- Lessening of the risk of transmitting TB can be brought about by changes in individual behaviour with the help of counselling and education.
- Each person with infectious TB must accept responsibility for preventing the further transmission of the infection.

This Policy Directive explains the framework and process, through which the health system may encourage, facilitate and potentially enforce adherence to TB treatment.
11. INFECTIOUS DISEASES, IMMUNISATION AND RELATED MATTERS

The management of people with TB who knowingly risk infecting others may require intensive, individualised case management, a variety of responses to broader health and social service needs and an escalating series of behavioural management techniques including counselling, behavioural supervision, formal warnings and Public Health Orders, including, if necessary, detention or referral to law enforcement authorities.

1.2 Key definitions

TB is caused by bacteria from the *Mycobacterium tuberculosis* complex. The disease most commonly occurs in the lungs (pulmonary TB), although it can affect any region of the body (extrapulmonary TB). The pulmonary form is most infectious.

1.3 Legal and legislative framework

TB is a Category 4 Scheduled medical condition under the *Public Health Act 2010*. As such it is an offence for a person who has been diagnosed with TB, and is in a public place, to fail to take reasonable precautions against spreading the condition.

The Act contains a mechanism to restrict the behaviour of a person who has TB in certain circumstances, using a Public Health Order.

Authorised medical officers under Section 62 of the *Public Health Act 2010* are the Chief Health Officer, or a registered medical practitioner authorised by the Secretary of the NSW Ministry of Health to exercise the functions of an authorised medical practitioner.

2. THE MANAGEMENT FRAMEWORK

The management framework for people with TB who risk infecting others includes the following levels:

<table>
<thead>
<tr>
<th>Management level</th>
<th>Summary of case management</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Local management</td>
<td>- The person is managed by the treating clinician and TB service. Expert advice is sought locally as required.</td>
</tr>
<tr>
<td>2. Supported management</td>
<td>- The person is managed by the treating clinician and TB service with support from the NSW TB Program Expert Panel.</td>
</tr>
<tr>
<td>3. Public Health Order</td>
<td>- The person is managed by the treating clinician and TB service with support from the NSW TB Program Expert Panel.</td>
</tr>
<tr>
<td></td>
<td>- A Public Health Order is in place which places conditions on the person in relation to their behaviour, treatment, healthcare and supervision.</td>
</tr>
<tr>
<td>4. Detention order</td>
<td>- The person is managed by the treating clinician and TB service with support from the NSW TB Program Expert Panel.</td>
</tr>
<tr>
<td></td>
<td>- The person’s movements are restricted by a Public Health Order which includes an order for detention.</td>
</tr>
</tbody>
</table>

Each level is discussed in detail below. Regardless of the level of management it is important that the person’s confidentiality is respected and that any communication regarding the person and their management is restricted to those service providers who are directly involved in management of the issues.
2.1 Level 1: Local Management

2.1.1 Initial counselling, education and support

Counselling, education and support is an integral part of the management of all persons with TB, and must be provided from the time of diagnosis. Persons with infectious TB must receive culturally and linguistically appropriate counselling and education to ensure that they understand the public health significance of their diagnosis and the importance of complying with treatment and isolation. A professional interpreter should be used whenever relevant.

The treating clinician and local TB service are responsible for ensuring counselling and education is provided to the person with TB. The treating clinician and TB service should work in partnership with the client, and provide a supportive environment in which there is a mutual trust between the client and the healthcare workers. The person with TB must be given opportunity to voice concerns and ask questions about their treatment.

In the event that a person with infectious TB is non-compliant with recommended anti-tuberculous treatment or isolation requirements in such a way that is endangering, or likely to endanger the health of the public, as a first step the person’s understanding of their public health responsibilities should be clarified, and the power of an authorised medical practitioner to make a Public Health Order explained. Intensive counselling and education to support behavioural change should be implemented. This is best undertaken by the treating clinicians and local TB service.

A suitable community organisation may be able to assist with supporting appropriate behaviour by the individual. Their involvement could include social support, and facilitating self-isolation until non-infectious.

Specific incentives and initiatives may include:

- Counselling.
- Provision of housing or supported accommodation.
- Independent living skills training (help with budgeting, life skills).
- Home care support (shopping, cooking, cleaning).
- Emotional support persons (such as a ‘buddy’ system or peer support group).
- A letter from the public health unit director to the effect that the attending doctor is concerned about compliance with treatment and emphasising the importance of following the doctor’s treatment recommendations.

2.1.2 Psychosocial assessment

A person’s ability and willingness to comply with TB treatment and isolation may be impacted by a range of factors, including:

- Homelessness, housing and financial concerns.
- Social isolation.
- Alcohol and illicit drug use.
- Mental illness.
- Psychiatric disturbances related to side effects of TB medications.
- Real or perceived stigma.
- Responsibilities and competing priorities, including work, childcare, education.
11. INFECTIOUS DISEASES, IMMUNISATION AND RELATED MATTERS

A full psychosocial assessment of the person is critical at this stage, if it has not already been undertaken. Expert support from a social worker, psychologist or psychiatrist may be required at this stage. The treating clinician and TB service should work with other healthcare teams involved in the person’s management, such as drug and alcohol and mental health services, in order to overcome barriers to the person’s non-compliance.

2.1.3 Case conference and consultation

A case conference between the treating clinician, local TB service, Public Health Unit, Aboriginal Health Unit or Multicultural Health Service (if applicable) and other local services involved in the care of the person with TB is often useful in addressing specific management issues, as well as developing a comprehensive care plan for that person.

The NSW TB Program Manager, Communicable Diseases Branch and Public Health Unit Director should also be consulted.

2.2 Level 2: Supported Management

In circumstances where counselling and support measures have failed to mitigate concerns that a person presents an imminent public health risk, more assertive management should be initiated. At this level, the NSW TB Program Manager should be consulted to consider the need to convene an expert panel, additional assessment should be undertaken, and other initiatives should be considered.

2.2.1 Seeking input from the NSW TB Program Expert Panel

Where the treating clinician and local TB service are concerned about the compliance of a person with infectious TB after local management has been attempted, they may seek advice from the NSW TB Program Manager regarding the potential to convene an Expert Panel to consider the case. The constitution of the Expert Panel is detailed in section 3 of this policy directive.

The Expert Panel is convened on a needs basis to review the management of challenging and complex cases. The Expert Panel will review the management of the case and provide advice on additional or alternative strategies.

In cases where the Expert Panel is consulted, care and management of the patient remains the responsibility of the treating clinicians and local TB service.

The TB service must provide a monthly report on treatment progress to the NSW TB Program until the person completes treatment or is transferred out of the TB service.

2.2.2 Letter of warning

A formal letter from the Local Health District Public Health Unit Director to the person should be considered at this stage. In some cases a formal letter of warning may be sufficient to improve behaviour.

This letter would act as an official warning to the person to discontinue any activity which may place other people at risk of infection with TB. The letter would include:

- The responsibilities of the client with respect to their diagnosis of TB.
- Expected behaviours of the client and the rationale for these.
- The services available to the person to support them to comply with their TB management.

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11. INFECTIOUS DISEASES, IMMUNISATION AND RELATED MATTERS

- The steps that should be taken by the person to satisfactorily comply with their TB management.
- The legal powers available to take action against persons contravening the public health legislation, including the power to make a Public Health Order.

2.3 Level 3: Public Health Order

In extenuating circumstances where other strategies within management levels 1 and 2 have failed, a Public Health Order may be considered.

In the event that a Public Health Order under the Public Health Act 2010 is considered the appropriate course of action by the Expert Panel, treating clinician, and local Public Health Unit Director, a recommendation is accordingly made to the Chief Health Officer by Health Protection NSW, in consultation with the NSW Ministry of Health Legal and Regulatory Services Branch.

A Public Health Order may require the person subject to the order to do any one or more of the following:
- To refrain from specified conduct.
- To undergo specified treatment.
- To undergo counselling by one or more specified persons or by one or more persons belonging to a specified class of persons.
- To submit to the supervision of one or more specified persons or of one or more persons belonging to a specified class of persons.
- To undergo specified treatment at a specified place.

2.3.1 Making the Public Health Order

The procedures associated with making a Public Health Order are:
- An authorised medical practitioner may make a written Public Health Order in respect of a person if satisfied on reasonable grounds that the person has TB and because of the way the person behaves, the person may, as a consequence of that condition, be a risk to public health. It would be expected that the authorised medical practitioner would be provided with advice from the Expert Panel to assist in this determination.
- In deciding whether to make a Public Health Order, the authorised medical practitioner must take into account:
  - The principle that any restriction on the liberty of a person should only be imposed if it is the most effective way to prevent any risk to public health.
  - Unless it is an emergency or it is otherwise not reasonably practicable to do so, in deciding whether to make a Public Health Order in respect to TB, the authorised medical practitioner must also take into account:
    - Whether reasonable attempts have been made to provide the person with information about the effects of the condition the person has and the risks to public health of that condition.
    - The options other than a public health order that are available to deal with the risk to public health posed by the person.
    - If the proposed public health order will require the person to undergo treatment - the availability and effectiveness of the proposed treatment and the likely side effects of the proposed treatment on the person.
    - If the proposed public health order will require the person to be detained - the likely social, economic, physical and psychological effects of the detention on the person.
    - These guidelines.

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Section 66 of the Act allows a person who is subject to a Public Health Order for a category 4 condition to appeal to the Administrative Decisions Tribunal. A person to whom an Order is issued should be informed of their right of appeal and arrangements should be made to ensure that the person has appropriate legal representation in the Tribunal hearing.

2.3.2 Duration of the Public Health Order

A Public Health Order must state that it expires a specified number of days (not exceeding 28 days) after its service on the person, unless the order is earlier varied as to its duration or is earlier revoked. A Public Health Order ceases to have effect if:

- A copy of the application made to the Administrative Decisions Tribunal for confirmation of the order under Section 64 of the Public Health Act 2010 is not served upon the client within three days of service of the order.
- The Tribunal revokes the order.
- The order expires before it is confirmed or revoked by the Tribunal or before or after an application to continue the order is made to the Tribunal.
- If the authorised medical practitioner considers that the person subject to the order is no longer a risk to public health, the authorised medical practitioner must revoke the order and immediately give notice in writing of the revocation to the person and the Civil and Administrative Tribunal.

2.3.3 Continuation of orders

Before the expiry of the Order, an authorised medical practitioner may apply to the Tribunal for continuation of the order for a period up to six months if the authorised medical practitioner is satisfied that the person subject to the order would continue to be a risk to public health as a consequence of having TB, if not subject to a Public Health Order.

The decision to seek continuation of a Public Health Order should be made in consultation with the NSW TB Program Expert Panel.

2.4 Level 4: Detention order

It must be emphasised that the use of public health detention is expected to be a rare occurrence, and should only ever be considered as a last resort.

All Local Health Districts should identify appropriate facilities and staff who are able to implement an order for secure detention under the Public Health Act 2010. See section 4.

Where the person to whom the Public Health Order applies is already detained under a custodial sentence, consideration should be given to the unique circumstances of implementing the Public Health Order, including:

- That client confidentiality, legal and safety issues be considered, and
- That isolation measures may require negotiation with Justice Health, Corrective Services NSW and Juvenile Justice.

3. NSW TB PROGRAM EXPERT PANEL

The role of the NSW TB Program Expert Panel is to provide expert advice to clinicians and to support local decision making in relation to complex and challenging cases of TB, including persons who knowingly risk infecting others. The Expert Panel is convened on an ad-hoc basis, at the request of the treating clinician or local TB Coordinator.
11. INFECTIOUS DISEASES, IMMUNISATION AND RELATED MATTERS

The treating clinician and local TB Coordinator are responsible for presenting the case to the Expert Panel. The Expert Panel reviews the clinical and public health management of the case and recommends additional or alternative management strategies.

The core constitution of the Expert Panel includes:
- Director, Health Protection NSW (Chairperson)
- Director, Communicable Diseases Branch
- Manager, NSW TB Program (Secretariat)
- At least one nominated expert TB physician
- Director, Public Health Unit (of the relevant local health district).

Additional Expert Panel members are selected based on specific needs of the case, and may include:
- Specialist TB nurses
- Additional expert TB physicians
- Aboriginal health worker
- Social worker
- Psychiatrist
- Representative of a refugee health service, or multicultural health worker
- Professional ethicist
- A member of the relevant community or key support group.

The Panel will advise the Chief Health Officer based on consideration of issues identified in section 2.3.1.

4. ACCOMMODATION

4.1 Hospital facilities

Persons with TB may require hospitalisation, either for the purposes of undertaking investigations, establishing a treatment regimen, or to ensure respiratory isolation. Local Health Districts should be prepared to effectively manage persons with TB who may be resistive to treatment and isolation orders.

Local Health Districts must:
- Develop a management plan addressing the needs of the case, other patients, staff and visitors.
- Provide adequate staff training.
- Assure the availability of appropriate secure facilities and processes, including the use of security personnel (‘secure’ in this context means the minimum additional security to ensure that the person does not injure themselves, or inconvenience staff or other patients).
- Identify a suitable location for accommodating a person with infectious TB who is detained under public health legislation.

People with TB may have concurrent mental illness, which can potentially be exacerbated by isolation and the effect of some TB medications. Local Health Districts should ensure that relevant expertise is available to safely and effectively manage such patients. The use of mental health legislation for detention of recalcitrant persons with TB will never be appropriate or lawful, except in circumstances where their mental health status is serious enough to warrant detention under the Mental Health Act 2007.

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4.2 Alternative accommodation

When accommodation is required for the primary purpose of respiratory isolation or public health detention in patients who are medically stable, a non-hospital setting may offer the most appropriate environment. Local Health Districts must consider how best to accommodate people with TB in such situations and ensure suitable security arrangements to maintain them in detention.


11. INFECTIOUS DISEASES, IMMUNISATION AND RELATED MATTERS

11.25

MASS VACCINATION CLINICS DURING AN INFLUENZA PANDEMIC
(GL2018_008)

PURPOSE
This Guideline is a supporting document to the NSW Health Influenza Pandemic Plan (PD2016_016). It provides Local Health Districts with the framework to develop operational level plans for the establishment of clinics to deliver mass vaccination to the public.

KEY PRINCIPLES
Immunisation with a vaccine specific for the pandemic influenza strain, when available, is likely to be the most effective measure to control the spread of influenza in the community. The implementation of a mass immunisation program is identified as a key strategy of the Australian and NSW Health influenza pandemic plans.

This Guideline:
• provides guidance to NSW Local Health Districts (LHDs) on how to plan for and operate mass vaccination clinics during an influenza pandemic
• is a supporting guideline and should be read in conjunction with the policy directive NSW Health Influenza Pandemic Plan (PD2016_016), and other supporting guidelines including the Pandemic Guideline – Aboriginal Communities
• recognises that the delivery of mass vaccination of the population with pandemic vaccines will require models different to those currently used for routine immunisation programs in NSW
• outlines the scenarios and strategies that LHDs would be expected to plan for in order to establish and operate mass vaccination clinics
• describes the roles and responsibilities of key national, state and regional level stakeholders assisting in the development or distribution of vaccine and operation of vaccination clinics
• provides guidance on the minimum staff and resource requirements for LHDs to be able to operate vaccination clinics in their district
• may be able to be adapted for other infectious disease emergencies where large-scale vaccination clinics are required.

USE OF THE GUIDELINE
LHDs should use the attached Guideline to develop local plans for the establishment and operation of vaccination clinics should these be required during an influenza pandemic. Sections of particular relevance include:
• Vaccine Storage and Dispatch (Section 4)
• Mass Vaccination Clinic Requirements (Section 5)
• Mass Vaccination Clinic Operations (Section 6)

In planning for the establishment of clinics, LHDs need to:
• consider how to identify and deliver vaccine to likely priority groups in their population;
• in rural areas, consider alternative models where necessary for delivery of vaccination to population groups within their district
• monitor vaccine distribution, uptake and adverse events following immunisation;
• ensure that all staff working under the auspices of the LHD have completed the necessary education and training appropriate to their role in a vaccination clinic;
• work with their local primary healthcare organisations to determine if general practice clinics or community health centres could be used to conduct local mass vaccination clinics during the pandemic; and
• work with Aboriginal Community Controlled Health Services (ACCHS) in their district to determine if mass vaccination clinics could be established and operated within the ACCHSs.


301(17/04/18)