## CHAPTER 6 – EMERGENCY CARE

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EMERGENCY DEPARTMENT PATIENTS AWAITING CARE (PD2010_075)

PD2010_075 rescinds PD2005_268.

PURPOSE

This policy directive for Emergency Departments (ED) outlines the procedures and guidelines required to address the needs of patients and their carers while in ED waiting areas.

NSW Health recognises Emergency Departments are busy clinical environments, and patients are seen according to clinical urgency. Therefore, following assessment by the Triage Nurse, patients and carers may experience periods of waiting prior to being seen treated and discharged.

In feedback from the NSW Health Patient Survey, ED patients often comment that they were not kept informed about their wait and that their pain and anxiety could have been better managed during the wait.

MANDATORY REQUIREMENTS

1. **Waiting Room Patients**

1.1. Signage that clearly directs patients and carers to triage area, reception and the waiting area must be displayed (GL2014_018 Wayfinding for Healthcare Facilities)

1.2. Patients/carers should be informed, at the time of triage, what to do if their condition changes or they become concerned while waiting for care, and how the triage system works to prioritise critical care. The ED Brochure: Welcome to the Emergency Department can assist in informing patients and carers of what to expect in EDs.

1.3. Patients/Carers may be informed of suitable alternatives to the Emergency Department such as co-located General Practitioner services, Urgent Care Centres, Aboriginal Medical Services or nearby Medical Centres.

1.4. Regular communication should be undertaken to keep patients/carers informed of changed waiting times*

1.5. All waiting patients should be regularly reassessed, particularly if they wait longer than the allotted triage category time*.

*Points 1.4 – 1.5 are incorporated in the role scope for the Clinical Initiatives Nurse in departments that have this position. However, effective communication and patient safety are accountabilities for all Emergency Department staff.

1.6. Nurse initiated care should be commenced according to ED protocols. Patients and carers must be informed that their care has been commenced. Information should also be given on when they will be updated, and what feedback the nurse requires regarding the effectiveness of care delivered (e.g. was their pain relieved following analgesia?).

1.7. Escalation of care should be undertaken in liaison with the ED Nursing and/or Medical team leaders as required. The responsibility of escalation of care rests with the person that identifies the increased care requirement. Steps taken to escalate care must be clearly documented in the patient’s medical record. This includes the date and time and with whom concerns were raised.

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1.8. Patients and Carers should have access to refreshments and toilets while they wait. Signage directing patients and carers to these facilities must be clearly visible. Any specific clinical requirements regarding these activities must be clearly explained to the patient, (e.g. nurse to explain if the patient is to be fasting or instructions given regarding using the toilet in patients with bleeding in early pregnancy).

1.9. Arrangements must be in place for patients that require assistance with feeding, toileting or other personal care to contact staff and receive assistance in a timely manner.

1.10. Where clinically appropriate, allocation of patients to alternate models of care such as Fast Track should be undertaken to reduce waiting times.

1.11. For aboriginal patients, ED staff should be aware if there is an Aboriginal Liaison Officer (ALO) in a facility position and, if so, the patient and carer should be asked if they would like to request an ALO visit.

2. Patients Arriving By Ambulance

2.1. The Emergency Department clinicians have responsibility for overall clinical management once the patient enters the ED; whether to the waiting room or via the ambulance entrance.

2.2. Local arrangements can be considered to guide the shared care responsibility of patients who may be held on ambulance trolleys and should reflect the actions outlined in NSW Ambulance Service SOP2009-066 Delayed Ambulance - Continuation of Care.

3. Patients Who Decide Not To Wait For Treatment

3.1. Signage which informs patients that they should notify the triage staff if they decide to leave while awaiting treatment must be placed prominently in the ED waiting area (Practical steps to improving Emergency Department signage guide).


3.2. Patients and carers should be advised verbally, at the time of triage, that they should notify the triage nurse if they decide to leave the ED while awaiting treatment.

3.3. If a patient decides to leave the ED without treatment the triage staff should consider the patient safety implications of this decision and discuss them with the patient, and escalate this to the clinician in charge of the department as required.

3.4. Documentation regarding patients that leave the ED without treatment should detail as much information as is available, including the following:

- information given to the patient or carer regarding the need to stay for treatment;
- advice given regarding alternative or ongoing care;
- the name and position of the clinician that concerns were escalated to;
- the patient’s condition on departure;
- the time that the patient left;
- any action that was taken subsequent to the patient leaving; and
- any other relevant information.

IMPLEMENTATION

Emergency Departments are to review current arrangements to ensure they align with the Policy Directive within 2 months of the issue date.
ASSOCIATED DOCUMENTS

Related Policies/guidelines

- PD2013_047 Triage of Patients in NSW Emergency Departments
- SOP2009-066 Delayed Ambulance - Continuation of Care
- GL2014_018 Wayfinding for Healthcare Facilities

IDENTIFICATION OF PERSONS RENDERING TREATMENT TO CASUALTY PATIENTS

The patients’ records in the Accident and Emergency Department of public hospitals should be documented with the printed name, signature and designation of the member of staff who is involved with giving treatment so that the responsible person can be readily identified.

It is essential that a record should be kept of the person who administers any anaesthetic or injection, or who performs any operation for a patient who is admitted for casualty treatment.

EMERGENCY DEPARTMENT - NOTIFICATION OF SPECIALIST OR VMO REGARDING PATIENTS ADMITTED THROUGH THE ED (GL2011_003)


PURPOSE

The purpose of these guidelines is to provide advice on the development of hospital mechanisms for the notification of Specialists or Visiting Medical Officers of patients admitted through the Emergency Department.

KEY PRINCIPLES

Mechanisms should be in place for the appropriate Visiting Medical Officer or Staff Specialist to be notified of each hospital admission through the emergency department. The notification should be made by the rostered medical officer attending to the patient in the emergency department, prior to the end of his or her shift. In hospitals with specialty registrars, this notification can be made to the appropriate registrar.

All relevant medical practitioners should be educated regarding the need for compliance with the above guideline.

USE OF THE GUIDELINE

Following the recommendation of the State Coroner, these guidelines should be incorporated into written hospital policy in relation to the notification of admitting Visiting Medical Officers or Staff Specialists regarding patients admitting through the emergency department.

TRIAGE IN NSW EMERGENCY DEPARTMENTS (PD2013_047)


PURPOSE

The purpose of this policy is to outline the key components of triage of patients presenting to Emergency Departments in NSW hospitals including the role, key responsibilities and the processes that support efficient and safe triage.

This policy does not seek to outline the clinical components of this process; clinical information related to triage is as indicated by the Australasian College for Emergency Medicine’s (ACEM) policy1 and guideline2 on triage and the College of Emergency Nursing Australasia (CENA) Position Statements on Triage.3,4

This policy should be read in conjunction with NSW Health Policy PD2010_075 Emergency Department Patients Awaiting Care

MANDATORY REQUIREMENTS

• Triage is an essential function of an Emergency Department (ED). Triage (or an alternative local ‘sorting’ process by a senior ED clinician) should be the first interaction a patient has in the ED.

• ED and hospital processes must support the ability of triage to be carried out within five minutes or less so as not to delay other patients awaiting triage. This includes limiting the responsibilities and additional tasks required of the Triage Nurse, where appropriate, so that focus can remain on timely triage of patients as they enter the ED.

• The triage process encompasses a brief clinical assessment of the patient on arrival to the ED to determine the priority for clinical care. Assignment of triage category reflects the clinical urgency of the patient’s condition.

• The patient’s level of urgency is indicated using the Australasian Triage Scale (ATS) and the Triage Nurse determines (in consultation with relevant ED and Ambulance staff if required) the most appropriate place for the patient to commence or wait for further treatment.

• It is recognised that triage is a dynamic process and may require that the patient be re-triaged if their condition changes or deteriorates prior to being seen by a treating clinician.

• The physical location and environment of triage must ensure the safety of staff and patients and accommodate privacy for the assessment of patients.

• The process of Triage involves the application of high-level patient assessment skills and knowledge to determine the patient’s degree of urgency to see a treating clinician – it is for this reason that triage in NSW EDs should be carried out by Registered Nurses. It is not appropriate for clerical/administrative staff to undertake triage. In Hospitals with ED role delineation level 1 & 2, there may be occasional circumstances where an Enrolled Nurse is the first point of contact for a patient arriving in the ED. Contingencies for this occurring are described in section 2.5 - Triage Education.

1 ACEM Policy on the Australasian Triage Scale http://www.acem.org.au/getattachment/693998d7-9d4e-4e0b-90c7-2d74ce9b733f/Policy-on-the-Australasian-Triage-Scale.aspx

2 ACEM Guidelines on the implementation of the Australasian Triage Scale in Emergency Departments https://www.acem.org.au/getattachment/d19d5ad3-e1f4-4e4f-bf83-7e09ace27d76/G24-Implementation-of-the-Australasian-Triage-Scale.aspx


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- Registered Nurses undertaking the triage role must demonstrate and maintain clinical expertise in emergency nursing and have appropriate training in the triage role; the requirements of which will be determined locally. Please see section 2.5 Triage Education for further information on ‘expertise in emergency nursing.

IMPLEMENTATION

Local Health District and Specialty Health Networks are responsible for:

i. Assigning responsibility, personnel and resources to implement this policy.

ii. Establishing mechanisms to ensure that the essential criteria are applied, achieved and sustained as usual processes for triage; this should include nomination of an executive sponsor.

iii. Ensuring that any local policy reflects the requirements of this policy and is written in consultation with responsible executive, Clinical Governance unit, ED senior management, and senior clinical staff.

iv. Providing opportunity for Registered Nurses to complete local triage education programs; ensure adequate supervision for Registered Nurses learning the triage role and demonstrate local processes for the ongoing evaluation of triage practice.

1. BACKGROUND

1.1 About this document

Triage is an essential function of an Emergency Department (ED) and must be the first interaction a patient has in the ED. This Procedure Document supports and further explains the mandatory requirements of the Triage in NSW Emergency Departments Policy through the following components:

- The purpose and role of Triage.
- Use of the Australasian Triage Scale.
- Re-triage of patients with deteriorating conditions.
- Triage location and safety requirements.
- Triage education.
- Triage of Ambulance patients.
- Telephone advice.
- Mass Casualty Disaster and Triage.

1.2 Key definitions

For the purpose of the Policy Statement and this Procedures Document, the following definitions apply:

Acuity:
Acuity is a synonym for urgency, and they can be used interchangeably. An acuity-based description should answer the question: “This patient should wait for assessment and treatment by a treating clinician no longer than....”.

Australasian Triage Scale (ATS):
The Australasian Triage Scale (ATS) is a 5-point scale that is designed for use in hospital-based emergency services throughout Australia and New Zealand. It is used to help sort patients by clinical urgency.
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Competency:
Competency refers to the consistent application of knowledge and skill to the standard of performance required in the workplace. It is also the ability to consistently perform work activities; applying skills and knowledge; to agreed standards over a range of contexts and conditions.\(^5\)

Complexity:
Complexity relates to the difficulty of the presenting problem and the resources involved in finding a solution to the problem. A low ATS category with a highly complex problem may consume more resources and workload than a high urgency but low complexity presentation.

Emergency Triage Education Kit (ETEK):
The Emergency Triage Education Kit (ETEK) is a teaching resource that aims to provide a consistent approach to the educational preparation of Australian emergency clinicians for the triage role. In particular the ETEK has been designed to promote the correct use of the ATS. The ETEK can be accessed via: http://www.health.gov.au/internet/main/publishing.nsf/Content/casemix-ED-Triage+Review+Fact+Sheet+Documents

Re-triage:
The process of re-triage involves an assessment of the waiting patient who has not been assessed by a clinician responsible for care within the time frame allocated by the initial triage category. The purpose of re-triage is to identify and escalate the care of a patient whose condition is deteriorating, reassign an appropriate triage category and prioritise clinical resources to manage the patient.

Streaming:
Streaming is a predetermined method of allocating patients to a particular treatment cohort during the triage process based on specific criteria. Such criteria may include urgency or complexity, age or presenting problem. Streaming may include allocation to a specific area within the ED, a specific set of resources (eg. medical and nursing teams) or to a patient service external to the ED (eg. specialty clinic). The practice of streaming patient presentations from the point of triage into appropriate care areas is shown to result in improvements in waiting times and ED length of stay.

Transfer of Care:
Transfer of Care in this policy refers to the NSW Health key performance indicator of the percentage of patients arriving by ambulance whose care is transferred from paramedics to ED staff within 30 minutes of arrival. Transfer of Care is defined as the transfer of accountability and responsibility for a patient from an ambulance paramedic to a hospital clinician.

Triage:
Triage is the process of assessment of a patient on arrival to the ED to determine the priority for medical care based on the clinical urgency of the patient’s presenting condition. Triage enables prioritisation of limited resources to obtain the maximum clinical utility for all patients presenting to the ED. The triage nurse applies an Australasian Triage Scale category in response to the question: “This patient should wait for assessment and treatment by a treating clinician no longer than….”

1.3 Legal and legislative framework

Duty of Care

By engaging with a patient as they present to the ED, the Triage Nurse enters into a health professional-patient relationship. The Triage Nurse shares the responsibility of the hospital to ensure that patients who present to the ED are offered an appropriate assessment of their urgency of treatment requirements.

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All nurses should have an understanding of basic legal principles, which include consent, the elements of negligence, definition and sources of the standards of care, and how policies and guidelines can influence practice to maximise patient safety. There is an expectation that the Nurse performing the role of triage will have adequate experience, training and supervision to perform the role. The employing institution also has a responsibility to ensure that triage staff are adequately prepared to perform the role.

Patients who ‘Did Not Wait’ for treatment following Triage

Patients may choose to leave the hospital without being seen by the treating clinician in the ED; if the patient is competent, the Triage Nurse cannot prevent them from leaving. However, the Triage Nurse has a responsibility to advise the patient of the consequences of such a decision, and appropriate documentation recording this event should be completed (see ‘Documentation’ section below). Issues must be escalated to the appropriate senior ED clinician in charge of the department as required.

Patients who have a cognitive impairment (e.g. from drug use, alcohol use, a head injury, mental illness, delirium or patients at risk of suicide or with self-harm ideation) are at risk from adverse events in such situations. The Triage Nurse must therefore consider their duty of care in such cases. The Triage Nurse must be aware of and fulfil his or her responsibilities with these patients and abide by any local policies or protocols. For the purposes of triage, a rapid re-triage and/or escalation to senior ED staff may be indicated.

Documentation

Medical records are a method of communication for health care team members and are a contemporaneous record of events. They must be accurate, clear and succinct. It is also expected that the records will be easily accessible and able to be understood6.

Minimum information that is required to be recorded for any triage episode include the following:

- Date and time of triage assessment.
- Name of the Triage Nurse.
- Presenting problem.
- Relevant clinical assessment findings and limited relevant history.
- Initial triage category allocated.
- Area the patient is allocated or streamed to within the ED.
- Diagnostic, first aid or treatment initiated at triage.
- Type of visit code.

Any change in the patient’s condition prior to being seen by the treating clinician must be documented clearly. If re-triage is required; documentation should include:

- The time of re-triage.
- Reason for the re-triage.
- Information about escalation of the patient’s change in condition to relevant senior ED staff.

Documentation regarding patients that choose to leave the ED without treatment should detail as much information as is available, including the following:

- Information given to the patient or carer regarding the need to stay for treatment.
- Advice given regarding alternative or ongoing care.

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- The name and position of the clinician that concerns were escalated to.
- The patient’s condition on departure.
- The time that the patient left.
- Any action that was taken subsequent to the patient leaving.
- Any other relevant information.

2. COMPONENTS OF THE TRIAGE PROCESS

2.1 The Purpose and role of Triage

Triage is a critical component in the delivery of emergency care, and is the first point of contact and assessment in the patient’s ED journey. The purpose and role of triage is to first identify patients with life-threatening or emergency conditions and initiate appropriate interventions (eg. emergency first aid as per local protocols), then second, allocate the patient to an appropriate area or stream within the ED.

ED and Hospital processes must support the ability of triage to be carried out within five minutes so as not to delay other patients awaiting triage. This includes limiting the responsibilities and additional tasks required of the Triage Nurse, where appropriate, so that focus can remain on timely triage of patients as they enter the ED.

Triage is used to determine the patient’s clinical urgency; it is not an indicator of complexity of the patient’s condition and should not be used as a substitute for this.

Triage involves rapid patient assessment, interpretation of the clinical history and physiological assessment, while objectively discriminating between the ATS categories of urgency. Triage decision-making is inherently complex, made under conditions of uncertainty and with limited or obscure information.

Assessment of clinical urgency is achieved by observation of general appearance, collection of a focused history to identify presenting problem and clinical risk and collections and interpretation of physiological data using a primary survey approach.

It is the responsibility of the Triage Nurse to escalate and engage further assistance from senior ED clinical staff where appropriate.

It is recognised that the triage process relates to managing the queue of patients who present for treatment. Currently this is done consistently by Triage Nurses, however EDs may choose to implement strategies to manage the queue according to local needs (for example, decision making clinicians seeing patients immediately on arrival to the ED).

It is important that the Triage Nurse is competent in identifying and promoting cultural safety for patients that are triaged including access to interpreter services, notification of Aboriginal Liaison Officers where appropriate and is able to access culturally appropriate information regarding triage and the waiting room for patients.

Use of the Australasian Triage Scale

In all NSW EDs, emergency nurses perform the triage role using the ATS. The ATS is a five-point scale used to prioritise patients. An ATS category from one to five is allocated according to the maximum time the Triage Nurse determines the patient can wait for emergency care.

The Triage Nurse applies an ATS category in response to the question “this patient should wait for assessment and treatment by a treating clinician no longer than...”.

<table>
<thead>
<tr>
<th>ATS Category</th>
<th>Treatment Acuity (maximum waiting time)</th>
<th>Performance Indicator Threshold*</th>
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<tr>
<td>ATS 1</td>
<td>Immediate</td>
<td>100%</td>
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<tr>
<td>ATS 2</td>
<td>10 minutes</td>
<td>80%</td>
</tr>
<tr>
<td>ATS 3</td>
<td>30 minutes</td>
<td>75%</td>
</tr>
<tr>
<td>ATS 4</td>
<td>60 minutes</td>
<td>70%</td>
</tr>
<tr>
<td>ATS 5</td>
<td>120 minutes</td>
<td>70%</td>
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*Performance Indicator Threshold represents the percentage of patients assigned ATS Category 1 through to 5 who commence clinical assessment and treatment within the relevant waiting time from their time of arrival.\(^8\)

### 2.3 Re-triage of patients with deteriorating conditions

It is recognised that triage is a dynamic process and may require that the patient be re-triaged if their condition changes, deteriorates or additional relevant information is received prior to being seen by a treating clinician.

Such relevant information may be received via a source such as: interpreters, Drs letter, family members, past medical records etc.

The process of re-triage involves an assessment of the waiting patient who has not been reviewed by a clinician responsible for care. The purpose of re-triage is to acknowledge any change in clinical condition of a patient and assign a relevant triage category. A patient may be assessed as requiring a higher acuity triage category (due to deterioration).

Documentation is to occur detailing the assessment, application of a new triage category, and necessary discussions or escalation of the patient’s condition to a senior ED clinician (Registered Nurse, Medical Officer, Team Leader).

Patients and/or carers should be informed at the time of triage what to do if their condition changes or they become concerned while waiting for care and how the triage system works to prioritise care.

All waiting patients should be regularly assessed by either the Triage Nurse or Clinical Initiatives Nurse (CIN) if available; particularly if the waiting time exceeds the allotted triage category maximum waiting time.

### 2.4 Triage location and safety requirements

The triage environment must provide safety for the public, the Triage Nurse, staff and patients of the ED. The triage environment must take into account the potential risk of aggressive behaviour of patients or their relatives.

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\(^8\) ACEM Policy on the Australasian Triage Scale [http://www.acem.org.au/getattachment/693998d7-94be-4ca7-a8e7-3d74ec9b733f/Policy-on-the-Australasian-Triage-Scale.aspx](http://www.acem.org.au/getattachment/693998d7-94be-4ca7-a8e7-3d74ec9b733f/Policy-on-the-Australasian-Triage-Scale.aspx)
The environment:
- Must be immediately visible and well sign posted.
- Must allow for clear visibility of the waiting room by the Triage Nurse.
- Must have access to an area for patient examination and provision of first aid.
- Must be designed to maximize the safety of the Triage Nurse, staff and patients (eg. duress alarms, egress routes for staff exiting the triage room and access to security personnel).
- Should enable and facilitate patient privacy (a private consultation room is recommended for patient examination).

2.5 Triage education

It is recognised that triage should be completed by specifically trained and experienced RNs as:

... clinical decisions made by triage nurses require complex cognitive process. The Triage Nurse must demonstrate the capacity for critical thinking in environments where available data is limited, incomplete or ambiguous.

The Registered Nurse must demonstrate clinical expertise in emergency nursing prior to commencing triage education and training.

The LHD will determine the baseline level of clinical expertise expected of a prospective Triage Nurse; however, new graduate (transitional) nurses should not be eligible to undertake a triage education program. The following is recommended as baseline clinical expertise:

- One-two years full time ED nursing experience (this does not include the New Graduate year).
- Successful completion of the NSW Health ‘Transition to Practice, Emergency Nursing Program’ or equivalent transitional program.
- Completion of the Clinical Excellence Commission (CEC)
  - Between the Flags program
  - D.E.T.E.C.T.
  - D.E.T.E.C.T. junior
- Advanced Life Support accreditation
- NSW Health Paediatric Clinical Practice Guidelines e-learning package.

Local decision making should be applied by ED Nursing Managers, Clinical Nurse Consultants and Nurse Educators on readiness of nurses to undertake the triage role where appropriate. Local systems should be in place for Recognition of Prior Learning to ascertain an equivalent level of the development of clinical expertise.

It is the responsibility of the LHD Executive, the Medical Director of the ED (or equivalent), the Nurse Manager of the ED (or equivalent) and LHD Nursing Education service to ensure an adequately resourced, locally relevant, comprehensive triage training and assessment program. It is recommended that the program should encompass the following elements:

- It should be based on the Emergency Triage Education Kit (ETEK).
- It should not teach ETEK in isolation, but use it as part of a training and competency based triage program.

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12 Clinical Excellence Commission (2013) Between the Flags
13 NSW Ministry of Health (2010) Paediatric Clinical Practice Guidelines e-learning package
14 Australian Department of Health and Aging (2009) Emergency Triage Education Training Kit
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- It should include information about local procedures, processes and nuances.
- It should provide supernumerary support during practical triage training.
- It should ensure that novice triage nurses have access to senior medical and nursing staff for support as they learn the triage role (either in person or via appropriate telecommunications).

At the completion of a triage training program, the Triage Nurse must be able to demonstrate knowledge and/or competence as follows:15
- Recall the science and practice of triage.
- Outline the Australian health care system.
- Describe the role of the Triage Nurse.
- Apply the ATS.
- Relate the legislative requirements and considerations.
- Discuss epidemiology and population health.
- Demonstrate effective communication skills including use of electronic medical record systems where appropriate.
- Application of the primary and secondary surveys.
- Apply and synthesize an assessment and triage decision making process by the following presentation types:
  - Trauma.
  - Medical and surgical emergencies.
  - Older persons emergencies and delirium identification.
  - Paediatric emergencies.
  - Obstetric and gynaecological emergencies.
  - Mental health emergencies and the Mental Health Act 2007.
  - Rural and isolated triage practice.
  - Environmental emergencies.
- Discuss quality and safety in health care and apply it to triage decision making.
- Discuss cultural safety issues and ensure cultural competence of triage staff.

It is recognised that in hospitals with ED role delineation level 1 & 2, there may be occasional circumstances when an Enrolled Nurse is the first point of contact for a patient arriving in the ED.

For these contingencies, hospitals must:
1. Have clear processes established in order to rapidly notify a registered nurse of the patient's arrival.
2. Note that Registered Nurses are responsible for formal triaging in all circumstances.
3. Establish training for those Enrolled Nurses likely to encounter these circumstances so that they are equipped to identify high acuity patients.

Ongoing evaluation of performance, updates of clinical practice and professional development must be in place to ensure currency of knowledge and practice for the role of Triage Nurse.

2.6 Triage of Ambulance patients

Patients arriving to the ED via ambulance will be assessed and triaged as per normal ED triage procedures.

Some LHDs may have local protocols in place for rapid triage/triage bypass of specific clinical groups (e.g. ST Elevation Myocardial Infarction, Trauma, Sepsis and Stroke). LHDs are required to ensure that all triage staff are aware of local protocol agreements relating to the triage of specific clinical groups within their ED.

15 Adapted from College of Emergency Nursing Australasia (2009) Position Statement Triage Nurse
Following triage assessment, the Triage Nurse will determine the most appropriate location within the ED to facilitate transfer of care of patients presenting by ambulance and release of paramedics from care of the patient. This will include allocation of patients to defined clinical areas within the ED or transfer to the waiting room where appropriate, particularly low acuity and low complexity patients for whom staying on the ambulance stretcher is not necessary.

To facilitate Transfer of Care, a clinical handover using a structured approach such as ‘IMIST AMBO’, must occur between the treating Paramedic and accepting ED clinician. Transfer of Care is deemed complete only when this clinical handover has occurred and the patient has been offloaded from the ambulance stretcher and/or the care of the ambulance paramedics is no longer required.

In the event, that the patient is unable to be offloaded from the ambulance stretcher to an appropriate location within the ED, joint care and monitoring of the patient by ED staff and paramedics will continue until the patient can be offloaded. Transfer of Care should occur as soon as possible.

2.7 Telephone advice

It is not the role or responsibility of the Triage Nurse to provide clinical telephone advice to the public, carers and non-health professionals who may telephone the ED in an attempt to seek emergency and other medical advice.

If the Triage Nurse identifies that a caller is requiring general medical advice they should direct the caller to phone the National Triage Telephone Advice Line (healthdirect Australia) on 1800 022 222. If the Triage Nurse identifies that the call may be of an emergency nature, the Triage Nurse should direct the caller to hang up and phone 000 for assistance. If the Triage Nurse identifies that a caller is ringing about a mental health problem, they should direct the caller to phone the NSW Mental Health Line on 1800 011 51.

2.8 Mass Casualty Disaster and Triage

This procedure document outlines the process for ED triage under ‘usual’ circumstances.

Mass casualty triage, while similar, is distinct from the triage process that has been described in this document. During mass casualty incidents, or ‘disasters’ the triage process may change. This decision will be made by a hospital disaster controller, or their delegate.16

LIST OF RELATED DOCUMENTS


DIRECT ADMISSION TO INPATIENT WARDS FROM EMERGENCY DEPARTMENT
(PD2009_055)

PURPOSE

Timely and efficient handover of clinical care of admitted patients from the Emergency Department medical staff to in-patient medical staff is essential for the safe and effective care of each patient and for maintaining the effective operation of the Emergency Department. An essential component of this transition of responsibility for the clinical care of the patient is timely confirmation of acceptance of the clinical handover by the relevant inpatient clinical team.

This policy directive seeks to avoid delays in the admission of patients from the Emergency Department through the application of a clear local protocol in each hospital. As smaller rural hospital Emergency Departments do not have full time separate Emergency Department medical staff and are supported by general practitioners who also care for admitted patients, this policy directive applies to public hospitals with Emergency Departments designated as level 3 or above.

The key benefit of the development and use of a local protocol is that it provides a prior written agreement developed locally by clinicians setting out which clinical unit/team accepts which patients.

Application of this policy directive will enable a timely and clinically appropriate direct admission of a patient from the Emergency Department where an inpatient clinical team has not confirmed acceptance of the admission of the patient under that team within two hours of the clinical decision that the patient requires admission to the hospital.

MANDATORY REQUIREMENTS

Each hospital must have in place by 31 October 2009 an agreed written local protocol that sets out a decision framework for the transfer of care of a patient requiring admission from the Emergency Department to an inpatient clinical team/unit.

The key components of the local protocol are set out in – Key Components Local Protocol – Admission Decision Framework. Where a hospital already has a local protocol, the protocol should be reviewed to ensure that it complies with this policy directive.

The local protocol should be reviewed on a six monthly basis and also updated when the clinical service mix of the hospital materially changes.

IMPLEMENTATION

Chief Executives are to ensure a written local protocol as described in this policy and its associated documents is in place for all hospitals designated level 3 or above with Emergency Departments.

Local protocols should be developed by a local hospital executive lead governance group with input from Emergency Department senior medical staff, clinical units/teams and the Medical Staff Council. This consultative process will ensure that gaps in the draft framework are identified and addressed and that the requisite clinical engagement and commitment occurs.

KEY COMPONENTS LOCAL PROTOCOL – ADMISSION DECISION FRAMEWORK

1. A comprehensive list of clinical conditions for which the hospital is able to provide inpatient care and the clinical team/unit that primarily provides inpatient care for each listed clinical condition. This list will be based on the clinical team/unit skill set.
2. The senior medical staff who are appointed and credentialed to accept admissions in each clinical team/unit listed.

3. If a hospital does not have the facilities or skills to admit certain patients, this should also be clearly stated and an appropriate networked hospital identified which will accept such patients.

4. A clearly set out admission process for patients presenting with co-morbidities, undifferentiated illness or conditions involving more than one clinical discipline (eg. the protocol may set out that a joint admission should occur).

5. An agreed mechanism for ongoing review, improvement and further development of the protocol as issues arise (e.g. a periodic standing agenda item for local clinical unit and medical staff council meetings)

6. A clearly defined dispute resolution process for dealing with unforeseen circumstances with these circumstances then informing the ongoing review and improvement process. The dispute resolution process must NOT delay the admission of a patient from the Emergency Department and transfer of care to an inpatient clinical team in accordance with the protocol.

7. A clear written outline of the agreed admission decision process for patients in the Emergency Department requiring admission to the hospital. The process should comply with the following principles.

**Emergency Department inpatient admission process principles**

8. Following assessment in the Emergency Department, a senior doctor in the Emergency Department will:
   a. decide if the patient requires admission;
   b. determine the condition(s) necessitating admission;
   c. apply the agreed local protocol to determine the clinical team under whose care the patient will be admitted;
   d. request the clinical team to accept the admission.

9. In situations where there is not agreed acceptance of the admission by the inpatient consultant or team, discussion should take place at the most senior clinical level possible, preferably consultant level, based on the agreed local protocol.

10. If the appropriate admitting team for the patient is unable to be determined by the above steps in the required time frame, then the most senior medical officer who has seen the patient will make the admission decision. In the emergency department the specialist emergency physician would be the most senior medical officer. If an emergency physician is not on duty, another senior medical officer (specialist, registrar or CMO) who has seen the patient will make the decision.

11. A reasonable time for conclusion of this decision-making process would be no more than 2 hours from the time of the clinical decision that the patient requires admission.

12. This process must result in a clear decision to admit the patient under a specific consultant or clinical team. The decision-maker must then notify the admitting team. The admitting team will accept the patient once this decision is made. An inpatient consultant who remains unwilling to accept the patient after all these steps have been followed may elect to see the patient and having done so, take personal responsibility for discussing with, and arranging admission under, another consultant.

13. Occasions requiring the most senior doctor to make a contested decision to admit the patient under a specific consultant or clinical team must be the subject of a subsequent review at the local hospital level to determine whether further refinement of the local protocol is required, as part of the ongoing review, improvement and further development of the local protocol.
14. Should the patient subsequently require transfer to another clinical unit after admission from the Emergency Department under the local protocol, the clinical team on call will arrange this. The local protocol should include prior agreement about processes to expedite the transfer of such patients between units where

This checklist can be used to review the implementation of this policy directive.

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<tr>
<th>Requirement</th>
<th>Assessment:</th>
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<td>IMPLEMENTATION REQUIREMENTS</td>
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<td>1. Comprehensive list of clinical conditions and inpatient teams primarily responsible for these conditions by October 31st 2009</td>
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<td>Comments:</td>
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<td>2. Written Emergency Department admission decision process in place</td>
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<td>3. Regular review process for the local protocol in place</td>
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RURAL ADULT EMERGENCY CLINICAL GUIDELINES 3RD EDITION VERSION 3.1 2012
(GL2012_003)

GL2012_003 rescinds GL2010_003.

PURPOSE

These guidelines are provided to assist early appropriate clinical management of acute and life threatening
conditions, and to relieve pain and discomfort, for patients at hospitals where medical officers are not
immediately available. The guidelines reflect best clinical practice and have been used extensively across
the state since 2004 to provide clinical support for rural emergency clinicians.

KEY PRINCIPLES

Underpinning these guidelines are the following principles:

- A ‘graduated’ clinical response is required depending on the:
  - severity of the presenting emergency condition e.g. the clinical response to patients with mild
to moderately severe asthma is different to that for patients with immediately life threatening
asthma;
  - level of training and expertise of the nursing staff who initiate the management of the patient
i.e. Registered Nurses with advanced clinical training will practice more advanced
interventions;
  - legal requirements for nurses who initiate treatment and administer medications based on
medication standing orders;
  - need for flexibility to respond to input from senior clinical staff and medical officers to
accommodate local circumstances;
- The guidelines reflect evidence based best clinical practice and expert consensus opinion;
- Standardisation of initial clinical management of specific adult conditions; and
Alignment with the principles outlined in the First Line Emergency Care Course (FLECC) for Registered
Nurses. Advanced Clinical Nurses have advanced knowledge and skills; and have been deemed competent
to carry out these advanced roles using contemporary assessment ongoing credentialing processes. Where
an Advanced Clinical Nurse utilises these guidelines:
  - the designated medical officer will be notified immediately;
  - standing medication standing orders contained in these guidelines will be reviewed and authorised by
the designated medical officer as soon as possible (within 24 hours); and
  - the medical officer will countersign the record of administration on the patients’ medication chart.

A number of appendices and a formulary have been included to complement these guidelines.

NSW Health Pharmaceutical Services Branch has reviewed these guidelines and has indicated that they are
satisfactory for the consideration of the Local Health Districts Drug Committees for approval and
implementation as medication standing orders, in terms of the criteria for standing orders as specified in

The Guidelines can be downloaded from
INTRODUCTION

This policy directive sets out the implementation of the Sexual Assault Nurse Examiner (SANE) program for NSW Health. It has been developed with particular reference to the following:

- PD2005_607 NSW Health Sexual Assault Policy and Procedures Manual (Adult), 1999 Revised
- PD2013_043 Medication Handling in NSW Public Health Facilities

The aims of this model are to:

- complement the service already provided by medical practitioners in NSW;
- expand the pool of practitioners able to respond to the needs of victims of sexual assault;
- respond in a timely manner to the needs of victims of sexual assault, particularly in rural NSW, and;
- reduce the need for victims to travel excessive distances for forensic examinations.

AUDIENCE

This policy directive is directed to all staff involved in the clinical management of adult victims of sexual assault. These include:

- Sexual Assault Service Co-ordinators and staff
- Medical Practitioners providing sexual assault medical services
- Emergency Department staff
- Directors of Nursing
- Directors of Medical Services
- Sexual Health Unit staff
- Pharmaceutical Services Branch

RATIONALE

Under interagency agreement, NSW Health has responsibility for the provision of forensic examinations for victims of sexual assault. To date these examinations have been provided solely by medical practitioners in association with the network of Sexual Assault Services.

In 2003, the NSW government made a commitment to introduce the Sexual Assault Nurse Examiner or SANE model in NSW for adult Sexual Assault Service examinations. This model has been established successfully in the United States and a number of other countries and enables nurses to perform forensic examinations.

Overseas research and experience indicates that nurses can collect quality evidence and that their evidence is acceptable to courts. Prosecutors in the US and Canada also strongly support nurse examiners for the quality of evidence they are able to provide to the courts.

The model is particularly appropriate for NSW where a well-established network of Sexual Assault Services is able to support such a development and the rural medical workforce issues have lead to delays in the provision of forensic examinations.

The SANE model was introduced with strong consumer and interagency support including support from NSW Police and the Adult Sexual Assault Interagency Committee.
Development of the program was overseen by a Working Group with representation from rural and metropolitan Area Health Services (AHSs), the Nursing and Midwifery Office, Centre for Aboriginal Health and senior sexual assault medical officers. NSW Police and the Office of the Director of Public Prosecutions, the Attorney General’s Department and the Nurses Association were also consulted in the development of the program.

Crown Solicitor’s advice was sought specifically in respect of the program, which indicates that there is no legal impediment to nurses giving expert advice in court cases within the scope of their training, study or experience.

NSW Health SANE attend a training course provided by the Victorian Institute of Forensic Medicine – Monash University entailing specific, detailed instruction on the nature and scope of their role and responsibilities, including the level of injury interpretation that they are able to provide. Following the training courses the nurses undertake supervised practice by medical officers before commencing work as a Sexual Assault Nurse Examiner as part of the local Sexual Assault Service teams.

DEFINITION OF THE PRACTICE AREA

NSW Health has responsibility for the provision of forensic examinations for victims of sexual assault. These examinations in NSW Health Sexual Assault Services are generally carried out by medical practitioners in association with the network of Sexual Assault Services. NSW Health is introducing a new model of practice called Sexual Assault Nurse Examiners (SANE) by which suitably qualified nurses, will also provide sexual assault forensic examinations for adult victims of sexual assault.

The practice area for the Sexual Assault Nurse Examiner is articulated in Section 9 of the NSW Health Sexual Assault Policy and Procedures Manual (Adult), 1999 Revised with this Policy Directive.

All forensic examinations of victims of sexual assault will be provided as part of the service delivery of NSW Health Sexual Assault Services and will be conducted within AHS facilities.

Only nurses employed by NSW Health, with recognised qualifications and who have completed the NSW Health approved training course for Sexual Assault Nurse Examiners, are eligible to provide this response to adult victims of sexual assault.

The practice area for a SANE does not include the provision of counselling to victims of sexual assault. Designated counsellors employed by the Sexual Assault Service provide this function.

DEFINITION OF AN ADULT VICTIM OF SEXUAL ASSAULT

An adult victim of sexual assault is a person who is 16 years or over who has experienced sexual assault and attends a NSW Health Sexual Assault Service.

A 14-15 year old adolescent who has experienced sexual assault by someone who is not a caregiver or relative and who wishes to attend a NSW Health Sexual Assault Adult Sexual Assault Service may also receive treatment from these Services.

ROLE OF A SEXUAL ASSAULT NURSE EXAMINER

The duties of a sexual assault nurse examiner are:

- Clinically managing and evaluating clients attending NSW Health Sexual Assault Services;
- Obtaining relevant health history and history of the sexual assault;
6. EMERGENCY CARE

• Performing a physical examination;
• Interacting with clients in a sensitive and professional manner that promotes informed consent or informed refusal with regard to collection and/or available treatment options;
• Inspecting and evaluating any area of the body of a victim who is reporting sexual assault as directed by the NSW Health Sexual Assault Investigation Kit;
• Administering/supplying certain medication as authorised by Standing Order;
• Collecting forensic evidence using the NSW Health Sexual Assault Investigation Kit;
• Documenting the findings by using the NSW Health Adult Sexual Assault Protocol;
• Maintaining continuity and secure storage in relation to the collection of forensic evidence;
• Providing treatment of certain injuries sustained by clients in the course of the sexual assault:
• Liaising with and/or referring to relevant medical services to provide treatment of injuries as required including assessment for sexually transmitted diseases;
• Providing/or referring clients to follow up clinical care in accordance with local service arrangements;
• Preparing an expert certificate according to the NSW Health format as required for any court matter related to the client’s presentation to the Sexual Assault Service;
• Liaising with a designated medical officer in the preparation of a supplementary expert certificate, if required, for any court matter related the client’s presentation to Sexual Assault Service;
• Providing evidence in court as required, within the scope of the nurse’s expertise based on training and experience;

CRITERIA FOR ENTRY INTO THE NSW HEALTH SEXUAL ASSAULT NURSE EXAMINER PROGRAM

Selection criteria to train as a SANE are:
• Employment by a NSW Area Health Service
• Registration as a nurse with the Nurses and Midwifery Board
• 5 or more years clinical nursing experience
• Postgraduate qualification in midwifery, sexual health, venereology or family planning
• 50 or more vaginal examinations conducted
• Interest in working in the area of sexual assault
• Competence to respond sensitively to people who have experienced serious trauma
• Willingness to attend one week training in Sydney and if necessary an additional week placement
• Willingness to undergo formal assessment and supervision
• Ability to respond to sexual assault examinations in a timely manner and organise workload accordingly
• Ability to be flexible and be placed on a 24hr on-call roster
• Ability to work in a multidisciplinary team
• Capacity to maintain a victim oriented perspective as it relates to sexual assault and other trauma
• Completion of the minimum Child Protection core training requirements within Area Health Service
• Understanding of health workers duty to report children at risk of harm to the Department of Community Services
• Support from the Area Health Service to undertake SANE training and participate in the provision of sexual assault forensic examinations in conjunction with Sexual Assault Services within the Area Health Service.

ORIENTATION, TRAINING, ASSESSMENT AND SIGN OFF PROCESS

Trainees will undertake orientation within their local Sexual Assault Service prior to attending the approved NSW Health training course.
Trainees will attend the NSW Health approved training course for the Sexual Assault Nurse Examiners that includes 40 hours face to face training and successfully complete assessment tasks in order to be signed off by the Department of Health as having qualified to practice within NSW Health.

Assessment tasks include clinical components of witnessing and performing, under the observation of an experienced forensic examiner, a specified number of examinations within 12 months of attending the training program and preparation of related reports. Other assessment tasks will include undertaking visits to court, their local Police and Sexual Health Service.

To facilitate trainees, particularly those from rural areas, completing the required number of examinations within the timeframe a one week placement may be undertaken within larger Sexual Assault Services to undertake all or some of these examinations. Nurses undertaking clinical placements within their own or another Area Health Service as part of their training to become a Sexual Assault Nurse Examiner are covered for Workers Compensation and Professional/Public Liability insurance by the NSW Treasury Managed Fund.

Trainees will submit a work log to the Victorian Institute for Forensic Medicine for ratification. This needs to be done within 12 months of the trainee completing the training course.

The work log will contain proof of participation in orientation to the local Sexual Assault Service, attendance at the training course, observers template for 3 examinations performed by the Trainee and the final drafts of 3 Expert Certificates prepared for 3 of the examinations performed by the trainee SANE.

AHS will facilitate nurse examiners’ participation in ongoing training related to the provision of clinical management and forensic examination of victims of sexual assault such as attendance at courses offered by the NSW Health Education Centre Against Violence (ECAV).

AVAILABILITY AND PAYMENT

To practice in NSW Health services, the nurse examiner must have approval from their line management to secure leave from performing other duties including participating in after hours on call rosters to provide this service. They need to be available to complete the forensic examination as soon as is practicable following the presentation of a victim of recent sexual assault.

Sexual assault forensic examinations must be conducted as soon as is practical, but within two hours, of request by the counsellor and without interruption.

Nurse examiners will need to prepare Expert Certificates or other reports related to the client’s presentation at the Sexual Assault Service. It is the responsibility of nurse’s line management to organise rosters that create availability to enable the nurse examiner to complete these reports as required.

It is the responsibility of Area Health Services to provide payment and conditions for nurse examiners in accordance with existing awards and/or local ‘on call’ arrangements.

It is the responsibility of the nurse examiner’s line management to ensure that a nurse examiner is available to attend at court if required in relation to their examination of clients seen in the Sexual Assault Service.

RESPONDING TO A VICTIM OF RECENT SEXUAL ASSAULT

Responses to victims by SANEs will accord with NSW Health Sexual Assault Services Policy and Procedure Manual (Adult), Revised in particular Section 9 “Medical Assessment and Management”.
6. **EMERGENCY CARE**

Area Health Services will ensure that 24 hour crisis counselling is available to the victim of a recent sexual assault within two hours of their presentation to a NSW Health service. This is stipulated in the NSW Health Sexual Assault Services Policy and Procedures (1999) and this will be provided in accordance with the minimum standards for an afterhours service involving:

- A coordinated roster of specifically trained and supervised on-call counsellors;
- A coordinated roster of specifically trained and supervised on-call sexual assault forensic examiners;
- Availability to respond to a client’s presentation at Sexual Assault Service as soon as possible and within 2 hours of request by the counsellor;
- Availability to provide sexual assault forensic clinical assessment to a client without interruption.

## ADMINISTER AND/OR SUPPLY MEDICATION

Nurse examiners will administer and/or supply the following medications as indicated to clients attending NSW Health Sexual Assault Services on the basis of Standing Orders endorsed by the relevant Area Health Service Drug Committee in accordance with Medication Handling in NSW Public Health Facilities (PD2013 043):

- Postinor 2 - emergency contraception
- Maxolon (Metochlopramide) - anti emetic
- Azithromycin - for Chlamydia
- Hep B Vaccine - Hepatitis B Virus

HIV-related PEP should only be commenced after consultation with a medical practitioner with expertise in HIV medicine. HIV-related PEP may only be prescribed by medical practitioners attached to HIV specialist services and other authorised medical practitioners, such as sexual health physicians and some general practitioners in each Area Health Service. In this situation the nurse examiner should consult with the designated Sexual Assault Medical Officer for the Sexual Assault Service and/or Emergency Department medical staff.

## PROVISION OF TREATMENT FOR INJURY

In all circumstances clients presenting to NSW Health Sexual Assault Services will undergo assessment for injury by the Emergency Department triage nurse. This must be expedited so that the Sexual Assault Service interview with the client is not delayed and they are not required to wait for any period in the Emergency Department waiting room.

In line with section 9.2 of the NSW Health Sexual Assault Services Policy and Procedure Manual (Adult), Revised the sexual assault forensic clinical assessment will be conducted as soon as possible unless urgent medical attention is required.

In relation to the treatment of injuries sustained by clients in the course of the sexual assault, a SANE may provide treatment for superficial injury to the body or ano-genital area. This is limited to the treatment of contusions and abrasions.

For the treatment of any deeper ano-genital injury such as lacerations or incised wounds, or injuries requiring suturing, a referral will be made to Emergency Department medical staff or other identified medical officer available to the Sexual Assault Service.

For the removal of any objects where there has been penetration, or suspicion of penetration by a foreign body to the ano-genital cavities a referral will be made to Emergency Department medical staff.

The nurse examiner will document referrals made to the Emergency Department in relation to the treatment of any injuries in the client’s general medical record in accordance with local procedures.
PROVISION OF EXPERT CERTIFICATES DURING TRAINING PERIOD

During their training period, trainees will be restricted from providing an opinion statement within their Expert Certificate for any sexual assault forensic examination that they perform. They will confine their Expert Certificates to the documentation of the background and account of the sexual assault, the examination findings and specimens taken. In general it would be anticipated that a nurse examiner would not give opinion evidence until they reach a sufficient level of clinical competency to do so.

Trainees will use a modified template for Expert Certificates that limits these certificates to the areas listed above during their training period.

SUPPORT AVAILABLE TO SEXUAL ASSAULT NURSE EXAMINERS

Nurse examiners will be provided with support from:
• Sexual Assault Service Coordinators
• Designated Medical Officer within the Area Health Service
• EAPs (Employee Assistance Program)

In each Area Health Service, there will be a designated Medical Officer for the Sexual Assault Service to provide clinical review and support to a SANE. Where this is not available, arrangements must be put in place so that an identified Medical Officer from another Area Health Service is contactable.

It is the responsibility of the Sexual Assault Service Coordinator in conjunction with the designated Medical Officer to ensure that the SANE has access to ongoing clinical supervision, consultation, peer review and networking.

APPEARANCE IN COURT

Area Health Services will ensure SANEs are supported by their line management to be available to attend at court as required in relation to the examination of clients seen in the Sexual Assault Service. This includes participating in any pre-hearing conferences with the Office of the Director of Public Prosecutions in relation to the evidence they may provide in the matter.

The attendance by nurse examiners at court to give evidence in any court matters related to their examination of clients seen in the Sexual Assault Service will be considered as being on duty. This is in accordance with NSW Health guidelines for staff attending court in the course of their employment.

DOMESTIC VIOLENCE - IDENTIFYING AND RESPONDING (PD2006_084)


It is important to note the inclusion of the following additional text in section 3.1 Identification of domestic violence (page 9), procedures section after the paragraph commencing “Ask about safety”:
“Ask about child safety:
- Do you have children? (If so) have they been hurt or witnessed violence?
- Who is/are your child/ren with now? Where are they?
- Are you worried about your child/ren’s safety?

Health workers must make a report to the Department of Community Services Helpline on 133 627 where he or she has reasonable grounds to suspect a child is at risk of harm.”

Procedures in Section 3.2.2, Counselling interventions with victims (page 13) have also been amended by deleting and replacing dot point six under “Assess safety” with the following text:

“Are there children involved? Who is/are your child/ren with now? Are they safe? Was/were your child/ren nearby when your partner was violent to you?” Health workers must make a report to the Department of Community Services Helpline on 133 627 where he or she has reasonable grounds to suspect a child is at risk of harm (refer to Section 4.5 – Children and domestic violence)”

It is recommended that any hard copies of the document Policy and Procedures for Identifying and Responding to Domestic Violence (2003) in circulation also be amended accordingly.

Living with domestic violence has a serious impact on short- and long-term psychological, emotional and physical health of victims and their children. The aim is to help reduce the incidence of domestic violence through the provision of primary and secondary prevention health care services, and to minimise the trauma that people living with domestic violence experience, through tertiary prevention approaches including ongoing treatment and follow-up counselling.

The term “domestic violence” is used to refer to abuse and violence between adults who are partners or former partners. NSW Health has existing policies and strategies that address other forms of violence that are commonly experienced. Health workers may find this policy can provide guidance in responding to situations where similar dynamics occur, in particular the section on legal responses for domestic violence.

The policy and procedures were developed by the NSW Department of Health in consultation with Area Health Services, interagency partners and non-government organisations.

A core component of the policy is routine screening for domestic violence, which is to be implemented for women attending antenatal and early childhood health services and women aged 16 years and over attending mental health and alcohol and other drugs services in accordance with the policy. Routine screening for domestic violence in NSW Health: an implementation package provides the screening protocol, guide for managers and the learning program:

DOMESTIC VIOLENCE – MEN’S BEHAVIOUR CHANGE PROGRAMS (IB2014_003)

PURPOSE

To provide information about Men’s Domestic Violence Behaviour Change Programs.

This information should be read in conjunction with the Policy and Procedures for Identifying and Responding to Domestic Violence PD2006_084. Where the information differs, the information in this bulletin applies.
The Policy and Procedures for Identifying and Responding to Domestic Violence are being reviewed in 2013 and the advice in this Information Bulletin will be incorporated into any new Policy Directive.

KEY INFORMATION

In NSW, there are a range of men’s domestic violence behaviour change programs, provided by Government and non-government services. These are provided in custodial settings, by welfare groups and by counselling services, and are a valuable service to men seeking to change their abusive behaviour.

The NSW Government has introduced minimum standards for men’s domestic and family violence behaviour change programs. The standards will significantly improve the safety of victims of domestic violence and assist those attending programs to stop the violent behaviour. The minimum standards aim to reflect good practice, and foster programs that are safe and effective in changing behaviour.

The standards apply to all group programs for male perpetrators of domestic and family violence in NSW. This includes programs run by government agencies, including NSW Health agencies. It also includes programs run by non-government agencies.

NSW Health responsibilities

The minimum standards are NSW Government policy, and the Director General has signed a formal agreement with the Department of Attorney General and Justice to implement the minimum standards. To comply:

- Where any NSW Health agency provides funding to Men’s Behaviour Change Programs, any new or revised funding agreement should require compliance with the minimum standards;
- Where any NSW Health agency provides funding to relevant community services, new or revised funding agreements should include a clause requiring those NGO staff to refer clients/patients only to programs complying with the Minimum Standards. These services may include Aboriginal Medical Services, Women’s Health Centres, multicultural services, Family Planning services, Lifeline, mental health & drug and alcohol services, health services for the homeless, youth services, and victim support services;
- NSW Health staff with concerns or complaints about programs, should report this directly to the Domestic and Family Violence Unit, Crime Prevention Division, Department of Attorney General and Justice at [http://www.domesticviolence.lawlink.nsw.gov.au/](http://www.domesticviolence.lawlink.nsw.gov.au/) or 02 8688 3277.

The Principles and Minimum Standards

1. **Principle**: The safety of women and children must be given the highest priority.
   1.1. **Standard**: Program providers will develop and operate from written procedures that address risks to women and children.
   1.2. **Standard**: Program providers will ensure that current partners of program participants are provided with support prior to and during the program.
   1.3. **Standard**: Partner support workers will prepare women for the participation of their partners in the behaviour change group program.
   1.4. **Standard**: Partner support workers will complete individual risk assessments and safety plans.
   1.5. **Standard**: The contact worker is to disclose to women any new expressed or perceived threat to their safety.
   1.6. **Standard**: Where women and children express an interest in having ongoing contact from a partner support worker, additional contact will occur for the duration of the program.
6. EMERGENCY CARE

1.7. **Standard:** Group facilitators and partner support workers will have approach knowledge and training about the impact of domestic and family violence on women and children.

1.8. **Standard:** Partner support workers must have relevant knowledge, training and experience to enable them to support and advocate for women and children.

2. **Principle:** Victim safety and offender accountability are best achieved through an integrated, systemic response that ensure that all relevant agencies work together.

2.1. **Standard:** To ensure program transparency, accountability and integration program providers will develop a formal relationship with relevant local agencies.

3. **Principle:** Challenging domestic and family violence requires a sustained commitment to professional and evidence-based practice.

3.1. **Standard:** Group facilitators must have relevant knowledge and training.

3.2. **Standard:** All programs will have a minimum of two group facilitators.

3.3. **Standard:** Group facilitators must undertake supervision.

3.4. **Standard:** Program providers will develop policies to ensure that group facilitators undertake ongoing professional development.

3.5. **Standard:** Behaviour Change Group Programs will have a duration of at least 24 hours over 12 weeks.

3.6. **Standard:** Program providers will complete an operational review of each program focussing on process and content.

3.7. **Standard:** Program providers will evaluate the impact of programs on the behaviour and attitude of group participants.

3.8. **Standard:** Program providers will contribute to an evidence base for behaviour change programs.

4. **Principle:** Perpetrators of domestic and family violence must be held accountable for their behaviour.

4.1. **Standard:** Programs must be grounded in an evidence-based theory of change.

4.2. **Standard:** Program providers will document and implement thorough participant assessment procedures.

4.3. **Standard:** Program provider will have procedures for engaging participants which challenge them to acknowledge their abusive behaviour.

4.4. **Standard:** Program content will include explicit information about the impact of domestic and family violence on women and children and women’s disproportionate experience of domestic violence.

4.5. **Standard:** Program content will include information on different forms of domestic and family violence and provide opportunities for participants to come to an understanding about the nature of their offending behaviour.

4.6. **Standard:** Program providers will develop procedures for non-attendance of mandated participants.

4.7. **Standard:** Program providers will have procedures for group facilitators to prevent their implicit or explicit collusion with participants’ attitude that support violence against women.

4.8. **Standard:** Program providers will offer appropriate referrals to meet participants’ additional needs.

4.9. **Standard:** Program providers must comply with the requirements of a referring agency for a report on the participant’s completion of a program.

5. **Principle:** Programs should respond to the diverse needs of the participants and partners.

5.1. **Standard:** Program facilitators must undertake training to ensure culturally competent practice.

5.2. **Standard:** Programs addressing other forms of family violence will be specific to the participant’s needs.
Further information can be found at http://www.domesticviolence.lawlink.nsw.gov.au/.

REQUESTS FOR URGENT MEDICAL ASSISTANCE OUTSIDE HOSPITAL PRECINCTS

It is not the normal function of a hospital to provide medical services outside its precincts. There are local medical practitioners, nurses and ambulances, etc., available for the purpose. However, when a casualty occurs in very close proximity to a hospital a request may well be received by the hospital to make a doctor available.

Hospitals employing full-time medical staff, if they have not already done so, are requested to consider the adoption of an appropriate code of procedures to deal with such situations. Normally resident medical officers should confine their activities to the work of the hospital, and they should be required only to leave their hospital duties to cope with what would appear to be life saving missions.

Whilst it is extremely difficult to define the precise action which should be taken in any particular case, it is suggested that one of the principles which should be observed is that all hospital staff be instructed that, in the event of the hospital receiving a request to provide medical assistance outside the precincts of the hospital, such request should in all circumstances be referred to the Medical Superintendent and/or the Senior Resident Medical Officer on duty at that particular time. It is the responsibility of that Medical Officer to decide, in the light of the information made available to him, whether a medical officer should proceed to the site of the accident.

It is suggested also that there should be always available an emergency kit similar to that which would be carried by a doctor in private practice.

DESTRUCTION OF PATIENT CLOTHING: WHEN POLICE ACTION IS LIKELY

The Police Department has asked that hospitals refrain from destroying clothing which may require Police action particularly blood-stained clothing, of patients who have been brought to hospital. The destruction of such clothing before it has been inspected by a responsible Police Officer may hamper the Police in their investigations.

DELIVERY OF HOSPITAL MESSAGES BY POLICE

The Police Force should be asked to convey messages only in cases of emergency.

Should there be any need to convey messages for any other purpose, such requests should be handled by correspondence or telegram.

MANAGEMENT OF DRUG OVERDOSAGE

The emptying of the stomach, whether by induced emesis or lavage is a potentially dangerous procedure, with a morbidity and mortality of its own.

It should never be done in overdosage with those drugs which are so innocuous that overdosage with them is never serious, e.g., diazepam (Valium), chlordiazepoxide (librium), meprobamate (equanil, miltown), nitrazepam (mogadon).

Some attempts should be made to retrieve the following drugs which are especially toxic, and tend to remain in the stomach for long periods, e.g., aspirin, tricyclic antidepressants, cardiac glycosides, iron tablets, unless it can be conclusively known that the quantities ingested were insignificant.

Other drugs occupy an intermediate position, and the decision to seek their retrieval from the stomach will depend on state of consciousness of the patient, the length of time since ingestion, and the dose taken.
The method chosen (induced emesis or lavage), as well as the decision to attempt to empty the stomach should be made in consultation with a senior member of the hospital medical staff or with an anaesthetist.

If lavage is to be done, it should be carried out in the presence of two medical officers, one of whom should be a person skilled in airway management, and competent to intubate the larynx should the need arise.

Neither lavage nor induced emesis should be carried out on an unconscious patient unless the airway is protected by a cuffed endotracheal tube.

**TECHNIQUE OF LAVAGE**
- Posture patient right side **UP**.
- Pass well-lubricated size 27 FG gastric tube via nose (for preference) or mouth.
- Confirm presence in stomach by aspiration.
- Inject 100 ml. **WATER** by means of 50 ml. bladder syringe and aspirate immediately.
- Continue until returns are clear.
- Lavage must cease if 250 ml. has been retained in stomach.
- Position of tube should be re-checked if vomiting occurs.
- All washing should be saved and sent for quantitative estimation.

**PRECAUTIONS ON INDUCING EMESIS**
- Large volumes of fluid should **NEVER** be given to induce emesis.
- Saline emetics are especially dangerous due to the likelihood of hypernatraemia.
- Syrup on ipecacuanha may be effective **BUT** ipecacuanha is itself a depressant.
- Apomorphine is always effective. If used, it should be diluted (6 mgm in 10 ml.) and administered **slowly**. IV Vomiting should occur in 45-60 secs.*
- Mechanical stimulation of pharynx with a plastic or rubber tube of large size is safest of all.

* Itself a depressant, the danger of apomorphine is that unconsciousness may ensue with the patient still vomiting.

**GUIDELINES FOR MEDICAL OFFICERS**

(a) See the patient as soon as possible after being notified.

(b) Make an immediate assessment of:
   - the airway
   - adequacy of respiration
   - adequacy of circulation

(c) If the airway is compromised, this must be attended to first, but the simple measures of posture, manipulation of the jaw, or a pharyngeal (Guedel) airway should be tried before resorting to intubation.

(d) If respiration is depressed and/or colour is poor, oxygen via a bag, mask and valve (such as is used in ECT) should be used to assist respiration. Failing this apparatus, an Air-Viva is a satisfactory substitute.

(e) If the patient is unconscious, commence an intravenous infusion, with 1000 ml. of Hartmann’s solution to be given over 4 hours, or more rapidly if hypotension is present.

(f) Instruct the nursing staff on the observations to be carried out, and state clearly the criteria for them to notify the duty medical officer (changes in depth of coma, blood pressure, and so on).

(g) Consult with the Staff Physician if available, or the Anaesthetist on call by telephone.
6. EMERGENCY CARE

(h) **DO NOT** attempt to empty the stomach, by induced emesis or lavage, until this consultation has taken place.

(i) Take steps to notify the administration of the hospital when all the clinical requirements affecting the patient’s safety have been seen to. For your own and the hospital’s medico-legal protection this is important.

GUIDELINES FOR NURSING

(a) Notify the Duty Medical Officer at once.

(b) If the patient is still conscious, try to produce vomiting by mechanical stimulation of the pharynx (finger or rubber tube in back of throat).

(c) Try to ascertain the **nature** and **quantity** of the tablets taken.

(d) Put the patient to bed. If unconscious, posture in semi-prone position.

(e) Assemble emergency equipment at or near bedside, viz.

   - Suction Apparatus
   - Oxygen
   - Endotracheal equipment
   - Intravenous requirement
   - Blood pressure machine
   - Airways

(f) Thoroughly search the patient’s surroundings and personal possessions for more tablets which may have been secreted.

(g) Commence observation chart and note the following every 15 minutes:

   - State of consciousness
   - Colour
   - Pulse
   - BP
   - Respiration (depth and regularity - rate is not important)
   - Chart temperature hourly

(h) **UNDER NO CIRCUMSTANCES GIVE ANYTHING BY MOUTH.** SALINE EMETICS ARE PARTICULARLY DANGEROUS.

SELECTED SPECIALTY AND STATEWIDE SERVICE PLANS: NSW TRAUMA SERVICES - 2009

The NSW Trauma Services Plan is founded on an inclusive trauma system that assures access for trauma patients consistent with the availability and effective use of health care resources, and clearly identifies the components of a system designed to meet the needs of all injured patients.

The new trauma service model aims to strengthen the overall management of trauma in NSW, including injury prevention, clinical services, rehabilitation, quality improvement and education and research, and provide a sustainable system to respond to major trauma.

NEW SOUTH WALES HEALTH SERVICES FUNCTIONAL AREA SUPPORTING PLAN (NSW HEALTHPLAN) (PD2014_012)

PURPOSE

NSW HEALTHPLAN details the health emergency management arrangements to ensure that health resources in NSW are effectively and efficiently coordinated in the event of emergencies through prevention, preparation, response and recovery.

MANDATORY REQUIREMENTS

NSW HEALTHPLAN is the NSW Health Services Functional Area Supporting Plan to the NSW State Emergency Plan (EMPLAN) developed pursuant to the State Emergency and Rescue Management Act 1989 (as amended).

The plan outlines the agreed roles and functions of the eight key contributing health services (Medical Services, Ambulance Services, Mental Health Services, Public Health Services, Health Communications, HealthShare NSW, NSW Health Pathology and The Sydney Children’s Hospital Network), which constitute a whole of health response incorporating an all-hazard approach.

NSW Health is designated as the Combat Agency for all health emergencies within NSW under the NSW State Emergency Plan (EMPLAN).

The principal position holder for health emergency management is the State Health Services Functional Area Coordinator (State HSFAC) who is contactable on a 24 hour basis.

The policy directive *Emergency Management Arrangements for NSW Health* PD2012_067 outlines the mandatory requirements, governance and operational arrangements for the Local Health Districts and the Health Service Functional Area Coordinators.

IMPLEMENTATION

New South Wales Health Services Functional Area Supporting Plan (NSW HEALTHPLAN) will replace NSW HEALTHPLAN PD2009_008 (v3.5 December 2009).

An e-learning package has been developed and distributed to the Local Health Districts to support the release of this policy and an online learning package is available through Interaction Pulse for NSW Ambulance.


MEDICAL SERVICES SUPPORTING PLAN (GL2010_011)

PURPOSE

The above plan is the NSW Health Medical Services Supporting Plan to the NSW Health Services Functional Area Disaster Plan (NSW HEALTHPLAN) developed pursuant to the *State Emergency and Rescue Management Act 1989* (as amended).

This plan identifies the emergency management arrangements necessary for the coordination of medical services at State level when HEALTHPLAN is activated.
The arrangements in this plan will also provide guidance for the preparation of the AHS medical services component of the Area HEALTHPLAN.

KEY PRINCIPLES

The plan outlines the agreed roles and functions for the medical services component of NSW Health being one of the five major contributing health service components that constitutes a whole of health response incorporating an all hazards approach.

The plan identifies recommended actions under four phases: Prevention, Preparation, Response and Recovery. Actions under the Prevention and Preparation phases are recommended to be carried out on a continual basis. Actions under the Response and Recovery phases are recommended to be carried out once the Medical Services Supporting Plan has been activated by the State Health Services Functional Area Coordinator (HSFAC).

The primary role for medical services in the response phase will be to manage multiple casualties and potential casualties using central coordination to ensure the provision of definitive care as rapidly as possible.

USE OF THE GUIDELINE

Responsibilities of key parties are detailed in Part Two of the Medical Services Supporting Plan. The plan should be communicated to those with roles and responsibilities under this plan and the HEALTHPLAN.

MASS CASUALTY TRIAGE PACK – SMART TRIAGE PACK (PD2011_044)

PURPOSE

This policy specifies the use of Mass Casualty Triage Pack - SMART Triage Pack in a mass casualty situation to denote the priority for treatment under the Medical Service Supporting Plan (GL2010_011).

MANDATORY REQUIREMENTS

This policy sets the requirements of the use of the SMART Triage Pack for casualty triage process, documentation in the field and when patients are immediately transported to hospital. The SMART Triage Tags become part of the patient’s medical records.

In Local Health Districts, the SMART Triage Packs are to be stored and formed part of the Health Response Team Medical Equipment list requirement (PD2009_080).

In Ambulance Services of NSW, the SMART Triage Packs are to be stored in the Ambulance vehicles for first responders’ use in mass casualty incident.

IMPLEMENTATION

This policy will be implemented across Local Health Districts and Ambulance Services of NSW in 2011.

In Ambulance Services of NSW, SMART Triage Packs are currently held in supervisors and Special Operations Team responder vehicles across the State.

In Local Health Districts, each Health Response Team Medical Equipment Kit requires two Mass Casualty Triage Packs. Ambulance Service of NSW has purchased one Smart Triage Pack and additional SMART triage Tags for each Health Response Team Equipment Kit in Local Health Districts. Local Health Districts will be responsible to replace all old triage labels by the 31st December 2011 and for future replacement.

Local Health Districts

Local Health Districts are responsible for:
- implementation of this policy and replacement of the remaining old triage labels in the Health Response Team Equipment Kit at the hospital locations within their district by 31 December 2011;
- ensuring that the policy is brought to the attention of staff who are responsible for maintenance, storing and management of the SMART Triage Packs for the Health Response Team Equipment Kit;
- future replacement of the SMART Triage Pack items.

Ambulance Services of NSW

Ambulance Services of NSW is responsible for:
- implementation of this policy and progress the replacement of the remaining old triage labels in accordance of the services budget allocation;
- ensuring that the policy is brought to the attention of staff who are responsible for maintenance, storing, management and use of the SMART Triage Pack;
- future replacement of the SMART Triage Pack items.
6. EMERGENCY CARE

NSW Health Counter Disaster Unit

NSW Health Counter Disaster Unit is responsible for:

- the development of this policy incorporating the new national Triage Tags
- the review and update this policy every 3 years or if any request is made to NSW Health Counter Disaster Unit following a mass casualty incident

5. BACKGROUND

1.1 Triage Process

Triage was first introduced in military context as a system of sorting the casualties for medical treatment in the field. In recent decades, the triage concept has been adopted and implemented in the disaster medical management and emergency departments.

In the context of medical management in a mass casualty situation, the aims of triage are not only to deliver the right patient to the right place for optimal treatment, but also to ‘do the greatest good for greatest number’ with the valuable medical resources at the scene which should not be diverted to treating an irrecoverable condition.

1.2 Australian Standard Mass Casualty Triage Labels (Tags)

In early 2010, the SMART Triage Tags were approved as an Australian standard mass casualty triage label by the Council of Ambulance Authorities (CAA) following consultation with jurisdictional Health Departments.

The SMART Triage Tags provide a standard tool for mass casualty triage process for both Health Response Teams and Ambulance Services in a mass casualty incident. These tags also provide, for the first time, a national consistency for mass casualty triage tags across Australia allows inter-operability.

The SMART Triage Tags meet world’s best practice and have been tested and evaluated for Australian conditions. The system was used during major incidents including the 2005 London bombings.

6. SMART Triage Pack

The SMART Triage Pack (Red colour for Ambulance Services and Green colour for Health Response Team) consists of:

- SMART Triage Tags
- Triage Sieve and Casualty Count Chart
- Paediatric SMART Tape
- CBR Tag
- Light stick and pencils
6. EMERGENCY CARE

2.1 SMART Triage Tag

The Mass Casualty Triage Tag (SMART Triage Tag) is an interchangeable triage tag that enables field documentation. The tag is durable, waterproof and can be written on when the tag is wet.

Each Mass Triage Tag has an individual barcode and unique identifier number. The unique identifier number should be recorded in all patient documentation. Each SMART Triage Tag also has a plastic bag with main pocket for Triage Tag and small front pocket to store CBR Tag.

The SMART Triage Tag has a prominent priority numbering and matching colour system on the tag (Table 1). A separate Black colour triage tag is used for deceased persons.

Table 1 – Mass Casualty Triage Colour and Priority Description

<table>
<thead>
<tr>
<th>Colour</th>
<th>Number</th>
<th>Priority</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>RED</td>
<td>1</td>
<td>First (Immediate) Priority</td>
<td>Casualties who require immediate life saving procedures.</td>
</tr>
<tr>
<td>YELLOW</td>
<td>2</td>
<td>Second Priority (Urgent)</td>
<td>Casualties who require definitive treatment within four to six hours.</td>
</tr>
<tr>
<td>GREEN</td>
<td>3</td>
<td>Third (Delayed) Priority</td>
<td>Less serious casualties who do not require treatment within the above times.</td>
</tr>
<tr>
<td>BLACK</td>
<td>*Dead Category</td>
<td></td>
<td>Deceased persons can be declared dead by an Ambulance Officer or a nurse. However, deceased persons must be certified as dead, by a registered medical practitioner. These are labelled and left undisturbed, in situ, and Police Forensic Services Group notified (note responsibility of the Institute of Forensic Medicine in mass casualty incidents).</td>
</tr>
</tbody>
</table>

130(07/07/11)

17 The blue colour corner of the SMART Triage Tag is referred as fourth priority (Expectant). The Expectant priority refers to casualty whose condition is so severe that they cannot survive despite the best available care and whose treatment would divert medical resources from salvageable patient who may then be compromised. This category (Blue – Expectant priority) is not used in NSW; however it is used in some jurisdictions in Australia.
6. EMERGENCY CARE

While there is no longer a need to use multiple triage tags to reflect patient’s changes in condition and priorities. The SMART Tag provides documentation for recording patient changes in condition. For example Total score 10 or less is equal to Priority 1. The time of condition changes should be recorded using 24hours time recording method.

Before the patient is transferred to definitive health care facility, the Ambulance Loading Point Officer will complete and remove the transport tag (at the side of the SMART Triage Tag) for records. This documentation enables the tracking and accounting of the casualty’s movement.

The SMART Triage Tag will be attached with patient who is then transferred to the definitive care destination.

2.2 Triage Sieve and Casualty Count Chart

A double sided card with an adult triage sieve process and the casualty count chart is attached to the SMART Triage Pack with an elastic band. The card is also made from the same waterproof material as the triage tags.
The chart provides a quick reference of the triage sieve process and a casualty count record is a document that can be used by Ambulance First Responders and Health Response Team to track the number of casualties and the clinical acuity.
2.3 Paediatric SMART Tape

The durable Paediatric SMART Tape is an evidence based system\textsuperscript{18} enables Ambulance First Responders and Health Response Teams to make non-biased triage decisions for children from 3kg/50cm to 32kg/140cm\textsuperscript{19}. The use of this tool has been incorporated into the existing Health and Ambulance training programs.

2.4 CBR Tag\textsuperscript{20}

The Chemical Biological and Radiological (CBR) Tag provides a form to record the details for contaminated casualties from an incident involving chemical, biological, radiological or infectious agents. However, the CBR Tag does not replace the SMART Triage Tag and does not have the unique identifier barcode and number. Therefore, the CBR Tag must be used together with the SMART Triage Tag.

\textsuperscript{20} The term “WMD” used in the SMART Triage Pack or Education Pack, should be referred as “CBR”. “WMD” is a term used in USA but not in Australia. In Australia, the term “CBR” is used instead.
6. EMERGENCY CARE

The unique identifier number of the victim’s SMART Triage Tag is required to be documented on the CBR Tag. The completed CBR Tag is to be inserted in the front clear plastic pocket of the SMART Triage Tag.

7. Training

The Mass Casualty Triage Pack has been incorporated in the Major Incident Medical Management and Support (MIMMS) course and Ambulance training programs. Updated training will be provided for existing trained health and ambulance personnel.

A train the trainer course has been conducted for relevant ambulance clinical educators, health services disaster coordinators and nominated health and ambulance services personnel, to ensure that the training process is undertaken across NSW Health.

Education packs were distributed to the relevant health and ambulance services for training purposes.

Each Education Pack consists of:
- 1 training DVD
- 1 training course presentation
- 1 Training Manual
- 8 Triage Exercise Cards
- Triage sieve and Casualty Count
- Paediatric SMART Tape
- SMART Triage Tag
- Deceased Tag
- CBR Tags
- Light stick
8. **Supplier Details**

The manufacturer, TSG Associate Company has appointed a distributor within Australia for future orders. The distributor is Midmed and the company details are:

Postal Address -
PO Box 508
Morningside QLD 4170

PH – 07 3348 9155

FAX – 07 3348 9950

CLOSED HEAD INJURY IN ADULTS – INITIAL MANAGEMENT (PD2012_013)


PURPOSE

The purpose of this policy is to advise that the Initial Management of Closed Head Injury in Adults clinical practice guideline has been updated to reflect the latest evidence based practice for the management of adults with a closed head injury. The guideline provides clinicians with practical evidence based recommendations to assist in the initial management of adults with mild, moderate and severe head injury.

The policy is to ensure that all Local Health Districts have protocols in place based on the key principles of the guideline.

The clinical practice guideline was prepared for the Ministry of Health by an expert clinical reference group under the auspice of the NSW Institute of Trauma and Injury Management.

MANDATORY REQUIREMENTS

This policy requires all health services to have local guidelines/protocols based on the clinical practice guideline in place in all hospitals and facilities likely to be required to assess or manage patients with a closed head injury.

The clinical practice guideline reflects what is currently regarded as a safe and appropriate approach to the acute management of head injury. However, as in any clinical situation there may be factors which cannot be covered by a single set of guidelines. The document should be used as a guide, rather than as a complete authoritative statement of procedures to be followed in respect of each individual presentation. It does not replace the need for the application of clinical judgement to each individual presentation.

IMPLEMENTATION

Chief Executives must ensure:

• Local protocols are developed based on the Initial Management of Closed Head Injury in Adults clinical practice guideline.
• Local protocols are in place in all hospitals and facilities likely to be required to assess or manage patients with a closed head injury.
• Ensure that all staff treating patients with a head injury are educated in the use of the locally developed protocols.

Directors of Clinical Governance are required to inform relevant clinical staff treating patients of the revised protocols.

1. BACKGROUND

1.1 About this document

The NSW Institute of Trauma and Injury Management (ITIM) has updated the Initial Management of Closed Head Injury in Adults clinical practice guideline to reflect the latest evidence based practice for the management of adults with a closed head injury.
The guideline is intended for use by clinicians in all facilities which provide initial care to the mild, moderate and severely head injured patient. The practical evidence based recommendations are regarded as a safe and appropriate approach to the acute management of adults with closed head injury. However, as with any clinical guideline the document should be used as a guide, rather than as a complete authoritative statement of procedures.

Each LHD must have clear and readily available protocols incorporating the following principles.

1.2 Key definitions

**Must** – indicates a mandatory action that must be complied with.

**Should** – indicates a recommended action that should be followed unless there are sound clinical reasons for taking a different course of action.

**Mild head injury** – a patient with an initial GCS score of 14-15 on arrival at hospital following acute blunt head trauma with or without a definite history of loss of consciousness or post traumatic amnesia.

**Moderate head injury** – a patient with an initial GCS score of 9-13 on arrival at hospital following acute blunt head trauma.

**Severe head injury** – a patient with an initial GCS score of 3-8 on arrival at hospital following acute blunt head trauma.

**Post traumatic amnesia** – period of time during which a person is unable to lay down new memories following an injury.

**Post concussion syndrome** – a set of symptoms which are commonly experienced following blunt acute head trauma. The symptoms may include headaches; dizziness; fatigue; memory impairment; poor concentration; mood swings; behavioural changes; sleep disturbances and social dysfunction.

2. Key Principles

2.1 Mild closed head injury

Patients with mild closed head injury (initial Glasgow Coma Scale 14-15) should be risk stratified into high and low risk groups based on the presence or absence of specified clinical risk factors.

Patients with a mild head injury should be assessed by a process of structured clinical assessment involving a combination of:

- Initial clinical history and examination.
- Serial clinical observations.
- CT scanning if clinically assessed as being at increased risk of clinically significant lesions requiring acute neurosurgical intervention or prolonged observation in hospital.

Patients with persistent acute clinical symptoms (including post traumatic amnesia, disorientation, confusion, drowsiness, dizziness, nausea, vomiting, headache) at four hours post injury require prolonged clinical observation; and a CT scan should be performed (if not already done) to exclude a structural lesion.

Where CT scanning is unavailable patients with high risk mild head injury will require either admission for prolonged observation or early transfer of CT scanning depending on clinical assessment of risk.
If a patient with mild head injury deteriorates, the priorities are exclusion of other injuries, supportive care of the ABCDEs and early CT scan to identify a neurosurgically significant lesion. If a neurosurgically significant lesion is identified, further management should be discussed with a neurosurgical service.

Mild head injury patients can be safely discharged for home observation after an initial period of in-hospital observation if they meet specified clinical, social and discharge advice criteria.

All patients with mild head injury must be given both verbal and written discharge advice covering signs and symptoms of acute deterioration, when to seek urgent medical attention, lifestyle advice to assist recovery, information about typical post concussion symptoms and reasons for seeking further medical follow up.

2.2 Moderate head injury

Patients who present initially with moderate head injuries should all have an early CT scan and close clinical observation. They should be admitted to hospital for at least 24 hours observation unless they rapidly return to normal, have a normal CT scan and absence of other clinical risk factors.

The majority of patients who suffer moderate head injuries will have some degree of cognitive behavioural social sequelae and should be considered for routine follow up with a brain injury rehabilitation service or a neurologist.

2.3 Severe head injury

Resuscitation with adequate oxygenation and fluid resuscitation and the treatment of other immediately life threatening injuries should be the priority for patients with severe head injury followed by the CT identification of focal intracranial lesions requiring acute neurosurgical intervention. Early intubation to prevent hypoxaemia and facilitate management is recommended.

A neurosurgical service must be consulted about further management of patients with severe head injury as soon as practical after the initial primary survey and resuscitation.

Patients with closed head injury assessed at hospitals without CT scanning facilities should be transferred to the nearest appropriate hospital if there is significant risk of intracranial injury. Transfer of patients to a hospital with CT scanning facilities but without neurosurgical services should be avoided wherever possible.

2.4 Analgesia

Most headaches associated with isolated mild head injury will respond to simple analgesia such as paracetamol. If paracetamol is ineffective as a sole agent then stronger analgesia such as oral opioids or parenteral opioids should not be prescribed to patients with isolated mild head injury unless the need for an initial or repeat CT scan to exclude clinically important intracranial lesions has been considered and a senior clinician has been consulted.

Most moderate head injury patients and nearly all severe head injury patients will require titrated intravenous analgesia and sedation for associated injuries, clinical management or intubation. These patients will all require close clinical observation in a high dependency area following initial clinical assessment and CT scanning.
2.5 Anti-convulsants

Post traumatic seizures are a recognised complication of closed head injuries with incidence depending largely on severity of injury. Acute post traumatic seizures occurring in hospital require systematic reassessment of the ABCDEs to exclude systemic causes and termination with benzodiazepines if required. Underlying structural lesions should be excluded with CT scan and then the need for prophylactic anti-convulsants considered.

Prophylactic anti-convulsants are not indicated for patients with uncomplicated mild head injury. Prophylactic anti-convulsants, such as phenytoin, should be considered in patients with complicated mild head injury or moderate to severe head injury who have specific risk factors that put them at increased risk of seizures. Clinical judgement is required and neurosurgical consultation is advisable.

3. LIST OF ATTACHMENTS

1. Initial Management of Closed Head Injury in Adults (2nd Ed)

2. Initial Management of Closed Head Injury in Adults (2nd Ed) Summary Document

3. Algorithm: Initial Management of Adult Closed Head Injury

4. Algorithm: Initial Management of Adult Mild Closed Head Injury

5. Implementation Checklist
CRITICAL CARE TERTIARY REFERRAL NETWORKS (PERINATAL) (PD2010_069)


PURPOSE

This Policy Directive relates to critically ill neonates and women with high risk pregnancies that require inter-hospital transfer, and should be read in conjunction with the Policy Directive PD2010_021; Critical Care Tertiary Referral Networks & Transfer of Care (Adults).

Pursuing ‘best practice’ perinatal care across NSW requires services to embrace an integrated model of maternity care that recognises the need for effectively linked and networked services across primary (role delineation 1 to 3), secondary (role delineation 3 to 5) and tertiary (role delineation 5 and 6) levels of care. This Policy Directive does not replace the requirement for Area Health Services to ensure the establishment and maintenance of tiered networks for the provision of timely access to higher levels of obstetric and neonatal support for women and babies as the need arises.

The NSW Critical Care Tertiary Referral Networks (Perinatal) Policy Directive defines the links between referring hospitals and tertiary referral hospitals, taking into account unit: capacity; AHS birth rates; and, ensuring functional clinical referral relationships.

MANDATORY REQUIREMENTS

Each AHS is required to make certain that escalation plans are in place to ensure the appropriate accommodation of a neonate or a pregnant woman. In the first instance, local escalation plans should promote the tiered network of services within the Area Health Service and the Perinatal Services Network.

In circumstances where it is identified that there are beds/cots required beyond the local Network, the local escalation plans should also articulate procedures for clinicians to seek advice and/or support beyond their designated Network. This will be the responsibility of a designated senior Area Health Service position.

Local escalation plans should include direction for clinicians regarding review of all inpatients to determine whether internal transfer of patients within a facility, or across facilities, would improve access to required beds. Where, after thorough exploration of local resources, it is determined that there are no locally available, appropriate resources for patient management, clinicians will escalate these requirements through the NSW neonatal and paediatric Emergency Transport Service (NETS) and the Perinatal Advice Line (PAL) where advice, or transfer, is required.

A tertiary referral hospital designated by the NSW Perinatal Default Matrix must take responsibility for providing critical care, irrespective of bed status, to a specified group of referral hospitals when the Default Perinatal Policy is invoked.

IMPLEMENTATION

Area Health Service Chief Executives are responsible for:

- Meeting the perinatal intensive care needs of that Area and linked rural Area Health Services where specified, including the provision of clinical advice and ensuring access to appropriate treatment.
- Ensuring that all options for placement of critically ill neonates and at risk mothers within the referral network have been explored and that all appropriate transfers from NIC and maternity Units within and outside the Area to inpatient wards have been made.
- Ensuring formalised intra-Area and inter-Area referral arrangements are in place for critically ill neonates and pregnant women needing a higher level of definitive care and for non-critically ill patients requiring referral for specialist care.
6. EMERGENCY CARE

- Ensuring formalised cross-jurisdictional border arrangements exist for the referral of critically ill neonates and women with high-risk pregnancies where required.
- Ensuring that clinical referral and support processes are transparent and effectively communicated to all staff to ensure patients can access timely definitive care. This responsibility lies ultimately with the Area Director of Clinical Operations.
- Engaging relevant clinicians and ensuring that consistent local protocols or operating procedures are developed and distributed to relevant clinical areas.

Directors of Clinical Governance are required to inform relevant clinical staff of this Policy Directive.

BACKGROUND

Introduction

Owing to the high level of complexity and specialist service requirements, neonatal intensive care and high risk obstetric services are not located in all Area Health Services. However, these services are available to all residents as they are provided through a formalised state network. This statewide network has been in operation since the development of the NSW Pregnancy and newborn Services Network (PSN) in 1990; this network includes the ACT as a partner. In order to provide stronger linkages between referral and other facilities, maternal and newborn service networks will be established in collaboration with clinicians, to support an integrated statewide approach.

This Policy Directive relates to critically ill neonates and women with high risk pregnancies that require inter-hospital transfer, and should be read in conjunction with the Policy Directive PD2010_021; Critical Care Tertiary Referral Networks & Transfer of Care (Adults). This Policy Directive supersedes PD2005_473 and PD2006_046.

Pursuing ‘best practice’ perinatal care across NSW requires services to embrace an integrated model of maternity care that recognises the need for effectively linked and networked services across primary (role delineation 1 to 2), secondary (role delineation 3 to 4) and tertiary (role delineation 5 and 6) levels of care.

This Policy Directive does not replace the requirement for Area Health Services to ensure the establishment and maintenance of tiered networks for the provision of timely access to higher levels of obstetric and neonatal support for women and babies as the need arises. The effective operation of the Statewide Perinatal Network relies on the intra- and inter-Area tiered Networks.

The NSW Critical Care Tertiary Referral Networks (Perinatal) Policy Directive defines the links between referring hospitals and tertiary referral hospitals, taking into account unit: capacity; AHS birth rates; and, ensuring functional clinical referral relationships.

Operating in conjunction with this Policy Directive, are clinical super-specialty referral networks which are also defined within this policy directive and include:

1. NSW Severe Burn Injury Service (Adult)
2. NSW Acute Spinal Cord Injury Referrals (Adult)
3. NSW Major Trauma Referrals (Adult)
4. NSW Critical Care Tertiary Referral Networks (Adults)
5. NSW Critical Care Tertiary Referral Networks (Paediatrics)

112(25/11/10)
Each AHS is required to ensure that escalation plans are in place to ensure the appropriate accommodation of a neonate or a pregnant woman. In the first instance, local escalation plans should promote the tiered network of services within the Area Health Service and the Perinatal Services Network. In circumstances where it is identified that there are clinical services required beyond the local Network, the local escalation plans should also articulate procedures for clinicians to seek advice and/or support beyond their designated Network. This will be the responsibility of a designated senior Area Health Service position.

Local escalation plans should include direction for clinicians regarding review of all inpatients to determine whether internal transfer of patients within a facility, or across facilities, would improve access to required beds. Where, after thorough exploration of local Network resources, it is determined that there are no available, appropriate resources for patient management, clinicians will escalate these requirements through the Neonatal and paediatric Emergency Transport Service (NETS) and the Perinatal Advice Line (PAL) where advice, or transfer, is required.

NETS provides statewide coordination of neonatal and paediatric retrieval, and complements the Perinatal Advice Line (PAL) in coordinating difficult or complex high-risk maternal referral consultation and transfer. Women with high obstetric risks who live near NSW borders may be appropriately referred, via mechanisms developed for obstetric transfer, with the adjoining state. Patient transport is arranged by the referring facility in consultation with the NSW Ambulance Service or through NETS.

All maternity hospitals and other health care facilities have the potential to deal with obstetric patients and as such should have procedures in place for the co-ordination of emergency inter-hospital transfer of obstetric and/or newborn patients. Where there are complications of pregnancy or labour (including preterm onset of labour), it is essential that the clinician responsible is aware of appropriate processes for escalation. If the clinical issue is beyond the normal scope of practice for the facility, the advice of obstetric and neonatal clinicians in a higher delineated unit should be sought. Where a clinician has determined that a patient needs to be transferred to receive the most appropriate care, the parent(s) should be aware of current information including the infant’s likely chance of survival; options for care around labour and birth; care of the infant immediately after birth; and, types of ongoing care that the baby may require. The Outcomes for Premature Babies Book, produced by PSN may be a useful resource for clinicians: [http://www.psn.org.au/parent-information](http://www.psn.org.au/parent-information)

The NSW Critical Care Tertiary Referral Networks (Perinatal) are supported by a number of organisations; policies and procedures; and, education supports. These include: the NSW Pregnancy and Newborn Services Network (PSN); the Neonatal and paediatric Emergency Transport Service (NETS); the Perinatal and Paediatric Resources System (PPRS); the Pregnancy Advice Line (PAL); as well as evidence based practice; policy; and, guideline development; and statewide education resources.

It is expected that AHSs will ensure the provision of clinical support, cooperation and appropriate education between units through current clinical and education staff. This process will be facilitated through the tiered maternity networks which are currently under development. It is acknowledged that the introduction of the proposed Local Hospital Networks may have an impact on the composition of the perinatal networks in NSW. As that work is progressed, and the perinatal networks finalised, it is acknowledged that there will be a requirement to revise this Policy Directive.
When women have been identified as requiring referral to a higher role delineated maternity unit, clinicians should contact the tertiary referral centre in their Network to discuss the care and transfer arrangements. Consultants at the tertiary referral centres should be readily available to discuss clinical issues; The Pregnancy Advice Line is a roster of senior obstetric specialists with high-risk pregnancy expertise from tertiary units who are available for clinical advice as a back-up to the network tertiary referral centre. If neonatal transport needs consideration, the NETS consultant should be included in the discussion, through teleconference facilitated by NETS.

Appendix One details the requirements for facilities for the stabilisation of patients prior to medical retrieval.

Key definitions

**Neonatal and paediatric Emergency Transport Service** - NETS is a statewide service of NSW Health that provides expert clinical advice, clinical co-ordination, stabilisation, and emergency treatment and inter hospital retrieval for very sick babies and children up to the age of 16 years; 24 hours a day, 7 days a week.

**Perinatal and Paediatric Resource Service (PPRS)** - The Perinatal and Paediatric Resources System (PPRS) is a statewide database showing available high-risk obstetric, neonatal and paediatric clinical resources in NSW and ACT. The site is updated regularly (two to three times daily) by all tertiary perinatal and paediatric hospitals in NSW and ACT and is pivotal to the day to day clinical functioning of the NSW Pregnancy and Newborn Services Network, the NSW Paediatric Intensive Care Network, and their medical retrieval arm, the NSW neonatal and paediatric Emergency Transport Service (NETS).

**Pregnancy and newborn Services Network (PSN)** - The PSN is multidisciplinary organisation of clinicians striving to provide the best care for high risk pregnant women and newborn infants. The aim of the NSW Pregnancy and Newborn Services Network is to improve the process and outcome of maternal and neonatal care in NSW, especially to those women and/or babies at risk of an adverse outcome, through clinical co-ordination, education and research.

**Pregnancy Advice Line (PAL)** - is a telephone hotline available to provide clinicians and ambulance staff with advice on the management and emergency transfer of women who require intensive care during pregnancy.

**Pregnancy Advice Line (PAL) Consultant** - fetomaternal specialists and obstetricians with an interest in high risk obstetrics from Level 6 obstetric hospitals in New South Wales and Australian Capital Territory who provide the telephone advice.

**Role Delineation** - Role delineation identifies the level of clinical complexity that can be safely managed with a clinical service based on the clinical support services available at the facility.

**Tiered Maternity Networks** – The organisation of maternity services from low risk to high risk in appropriately resources facilities. Role delineations of maternity services range from 1 to 6. The tiered maternity networks reflect complex and the inter-dependent relationships across clinical maternity services. The tiered maternity networks provide guidance for escalation when risk factors are identified beyond the designated role delineation of the local maternity service.

**High Risk Obstetric Referral Networks and Neonatal Intensive Care**

High risk obstetric and neonatal care may be provided in a level 5 or 6 facility, as described by the NSW Guide to the Role Delineation of Health Services. Clinicians will make the decision as to the most appropriate facility for care, based on patient needs in conjunction with available beds and resources.
Whilst recognising the Statewide remit of the NSW Neonatal Network, and that access for all high-risk babies and mothers is the priority, each referral hospital has a primary responsibility for provision of advice and accepting referrals from the associated group of hospitals. This list should be made readily available to all clinical staff likely to receive calls.

The tables below identify hospitals and the tertiary referral hospitals which are the primary source of advice and referral networks.

<table>
<thead>
<tr>
<th>Referral Hospital: Royal North Shore Hospital</th>
<th>Referral Hospital: Westmead &amp; Nepean Hospitals</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Gosford</td>
<td>• Cobar</td>
</tr>
<tr>
<td>• Hornsby</td>
<td>• Collarenebri</td>
</tr>
<tr>
<td>• Manly/Mona Vale</td>
<td>• Coonabarabran</td>
</tr>
<tr>
<td>• Ryde</td>
<td>• Coonamble</td>
</tr>
<tr>
<td>• Wyong</td>
<td>• Goodooga</td>
</tr>
<tr>
<td>Private</td>
<td>• Lightning Ridge</td>
</tr>
<tr>
<td>• Mater</td>
<td>• Narromine</td>
</tr>
<tr>
<td>• North Shore</td>
<td>• Walgett</td>
</tr>
<tr>
<td>• North Gosford</td>
<td></td>
</tr>
<tr>
<td>• Sydney Adventist Hospital</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Usually refer to Adelaide:</td>
</tr>
<tr>
<td></td>
<td>• Bourke</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Nepean</th>
<th>Westmead</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Blue Mountains</td>
<td>• Auburn</td>
</tr>
<tr>
<td>• Hawkesbury</td>
<td>• Blacktown</td>
</tr>
<tr>
<td>• Lithgow</td>
<td>Private</td>
</tr>
<tr>
<td>• Bathurst</td>
<td>• Norwest</td>
</tr>
<tr>
<td>• Condobolin</td>
<td>• Westmead</td>
</tr>
<tr>
<td>• Dubbo</td>
<td></td>
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<tr>
<td>• Dunedoo</td>
<td></td>
</tr>
<tr>
<td>• Forbes</td>
<td></td>
</tr>
<tr>
<td>• Gilgandra</td>
<td></td>
</tr>
<tr>
<td>• Lake Cargelligo</td>
<td></td>
</tr>
<tr>
<td>• Mudgee</td>
<td></td>
</tr>
<tr>
<td>• Gulgong</td>
<td></td>
</tr>
<tr>
<td>• Oberon</td>
<td>• Parkes</td>
</tr>
<tr>
<td>• Orange</td>
<td>• Wellington</td>
</tr>
<tr>
<td>• Parkes</td>
<td></td>
</tr>
<tr>
<td>• Wellington</td>
<td></td>
</tr>
<tr>
<td>Private</td>
<td></td>
</tr>
<tr>
<td>• Nepean</td>
<td></td>
</tr>
</tbody>
</table>
### 6. EMERGENCY CARE

#### Referral Hospital: John Hunter Hospital

<table>
<thead>
<tr>
<th>Referral Hospital: John Hunter Hospital</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Armidale</td>
</tr>
<tr>
<td>• Belmont</td>
</tr>
<tr>
<td>• Glen Innes</td>
</tr>
<tr>
<td>• Gloucester</td>
</tr>
<tr>
<td>• Gunnedah</td>
</tr>
<tr>
<td>• Inverell</td>
</tr>
<tr>
<td>• Maitland</td>
</tr>
<tr>
<td>• Manilla</td>
</tr>
<tr>
<td>• Moree</td>
</tr>
<tr>
<td>• Muswellbrook</td>
</tr>
<tr>
<td>• Narrabri</td>
</tr>
<tr>
<td>• Singleton</td>
</tr>
<tr>
<td>• Tamworth</td>
</tr>
<tr>
<td>• Quirindi</td>
</tr>
<tr>
<td>• Wee Waa</td>
</tr>
<tr>
<td>• Coffs Harbour</td>
</tr>
<tr>
<td><strong>Private</strong></td>
</tr>
<tr>
<td>• Maitland</td>
</tr>
<tr>
<td>• Newcastle Private</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Referral Hospital: John Hunter Hospital</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Grafton</td>
</tr>
<tr>
<td>• Kempsey</td>
</tr>
<tr>
<td>• Manning</td>
</tr>
<tr>
<td>• Port Macquarie</td>
</tr>
<tr>
<td>• Scott Memorial</td>
</tr>
<tr>
<td>• Walcha</td>
</tr>
</tbody>
</table>

North of Grafton will usually refer to Brisbane, owing to proximity.

- Ballina
- Byron Bay
- Casino
- Lismore
- Murwillumbah
- Mullumbimby
- Tweed Heads

Private:
- St Vincent’s Lismore
- Baringa

#### Referral Hospitals: Royal Prince Alfred & Liverpool Hospitals

<table>
<thead>
<tr>
<th>Referral Hospitals: Royal Prince Alfred &amp; Liverpool Hospitals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liverpool:</td>
</tr>
<tr>
<td>• Bowral</td>
</tr>
<tr>
<td>• Camden</td>
</tr>
<tr>
<td>• Campbelltown</td>
</tr>
<tr>
<td>• Fairfield</td>
</tr>
<tr>
<td>• Bankstown/Lidcombe</td>
</tr>
<tr>
<td><strong>Private:</strong></td>
</tr>
<tr>
<td>• Sydney South West Private</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Royal Prince Alfred (RPA):</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Balmain - emergency only</td>
</tr>
<tr>
<td>• Canterbury</td>
</tr>
<tr>
<td>• Concord - emergency only</td>
</tr>
<tr>
<td>• Griffith</td>
</tr>
<tr>
<td>• Hay</td>
</tr>
<tr>
<td>• Narrandera</td>
</tr>
<tr>
<td>• Leeton</td>
</tr>
</tbody>
</table>

Usually refer to Adelaide

- Broken Hill
### 6. EMERGENCY CARE

<table>
<thead>
<tr>
<th>Referral Hospital: Royal Hospital for Women</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Milton Ulladulla</td>
</tr>
<tr>
<td>• Shoalhaven and District</td>
</tr>
<tr>
<td>• St George</td>
</tr>
<tr>
<td>• St Vincent’s - emergency only</td>
</tr>
<tr>
<td>• Sutherland</td>
</tr>
<tr>
<td>• Wollongong</td>
</tr>
<tr>
<td>Private:</td>
</tr>
<tr>
<td>• Calvary Hurstville</td>
</tr>
<tr>
<td>• Kareena</td>
</tr>
<tr>
<td>• Prince of Wales</td>
</tr>
<tr>
<td>• St George Private</td>
</tr>
<tr>
<td>• Figtree Private (Illawarra)</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Referral Hospital: The Canberra Hospital (TCH)</td>
</tr>
<tr>
<td>TCH provide support for</td>
</tr>
<tr>
<td>• Calvary</td>
</tr>
<tr>
<td>Private:</td>
</tr>
<tr>
<td>• Calvary Private</td>
</tr>
<tr>
<td>• John James Private within ACT</td>
</tr>
<tr>
<td>and in NSW as follows:</td>
</tr>
<tr>
<td>• Batemans Bay</td>
</tr>
<tr>
<td>• Bega</td>
</tr>
<tr>
<td>• Bombala</td>
</tr>
<tr>
<td>• Cooma</td>
</tr>
<tr>
<td>• Cootamundra</td>
</tr>
<tr>
<td>• Goulburn</td>
</tr>
<tr>
<td>• Moruya</td>
</tr>
<tr>
<td>• Pambula</td>
</tr>
<tr>
<td>• Queanbeyan</td>
</tr>
<tr>
<td>• Temora</td>
</tr>
<tr>
<td>• Tumut</td>
</tr>
<tr>
<td>• Wagga Wagga</td>
</tr>
<tr>
<td>• Young</td>
</tr>
<tr>
<td>Private:</td>
</tr>
<tr>
<td>• Mercy Care Centre, Young</td>
</tr>
<tr>
<td>• Calvary – Wagga Wagga</td>
</tr>
</tbody>
</table>

Whilst predominantly providing neonatal surgical services, the neonatal intensive care beds at Sydney Children’s Hospital and The Children’s Hospital at Westmead should also be considered when maternity beds are identified at The Royal Hospital for Women and Westmead Hospital, due to campus co-location.

The Greater Southern Area Health Service, Greater Western Area Health Service and North Coast Area Health Service have tertiary obstetric and neonatal links with facilities in the Sydney metropolitan area. It is acknowledged that these Area Health Services and northern sections of the Hunter New England Area Health Service also have appropriate cross border relationships, owing to proximity, to tertiary critical care services in Queensland, South Australia, Victoria and the ACT. These linkages are appropriate and supported by NSW Health.
In specific cases, the referring consultant, medical retrieval consultant and the receiving consultant may decide to refer the woman or neonate to another hospital which is considered more clinically appropriate for the woman or neonate’s definitive care. Wherever possible, the woman or parent(s) should be included in these discussions.

**NSW Statewide Default Paediatric and Neonatal Intensive Care and High Risk Obstetric Bed Policy**

Each Area Health Service with tertiary neonatal and obstetric services is required to ensure that all options for placement of critically ill neonates and at risk mothers within the referral network have been explored and that all appropriate transfers from NIC and maternity Units within and outside the Area to inpatient wards have been made.

In situations where it needs to be declared that a combination of no neonatal intensive care and/or high risk obstetric beds are available and a tertiary transfer is necessary, then the Default Perinatal Policy may be invoked. This step is taken only after thorough assessment of statewide Neonatal Intensive Care and High Risk Maternity services capacity and intra-Area default mechanisms within the appropriate Critical Care Tertiary Referral Networks for Perinatal Care.

However, fundamental to this procedure being activated is the principle that:

> Where the condition of a patient or fetus is critical and requires immediate emergency treatment, then the process of initiating transfer of the patient must start without delay; regardless of bed issues. If in any doubt, transfer should be to the facility designated by the NSW Statewide Default ICU Matrix – Perinatal that is able to provide appropriate emergency treatment irrespective of bed status. This can be addressed following the initiation of emergency care.

In the event of the default system being activated, a referral hospital will be designated as the hospital responsible to provide critical care, irrespective of bed status, as specified in the NSW Statewide Default ICU Matrix – Perinatal. This matrix has been developed following consultation with Area Health Services, the Neonatal and paediatric Emergency Transport Service, the Paediatric Intensive Care Advisory Group, the Pregnancy and newborn Service Network, the High Risk Obstetric Group, Maternal & Perinatal Health Priority Taskforce, Neonatal Intensive Care Unit Managers Group and other key stakeholders.

The referring hospital will call the Obstetric or Neonatal Unit at the default matrix tertiary hospital to discuss the patient and arrange appropriate transfer.

Should the first tertiary hospital called be unable to accept the transfer, **that tertiary hospital will make alternative arrangements with another tertiary hospital within the network**; ensuring at all times that the patient’s clinical need is met, and communication maintained with the referring centre. No patient should be refused admission without discussion involving the senior specialist at the referral hospital. NETS can provide clinical conference facilities to assist this process but clinical leadership of the process rests with the default matrix tertiary hospital involved.

Where necessary, a rostered consultant is available for the state to discuss clinical (statewide obstetric advisor), system (PSN consultant) or logistic (NETS consultant) issues. In many cases, a solution will be found after a discussion between senior obstetric and neonatal clinicians. If transfer is required and other options are not possible, the patient will be transferred to default referral hospital listed in the matrix.
6. EMERGENCY CARE

Operational Principles for NETS and PAL

The key principles of the operation of NETS and PAL are:

1. Statewide coordination of neonatal and paediatric retrieval services, in collaboration with the Specialist Neonatal Retrieval Services located at:
   - Newcastle
   - Canberra
   - Victoria (Melbourne)
   - Queensland (Brisbane)
   - South Australia (Adelaide) and
   - Regional adult retrieval services in Orange, Tamworth, Lismore, Sydney and Wollongong.

2. Single point of access for referring hospitals (public and private) anywhere in the state. All critical care transfer requests or consultation (related to high-risk obstetrics, neonates or paediatrics) where a critical care transfer is contemplated must be made through NETS.

3. Use of conference call facilities to:
   - bring the referring clinician in direct contact with the medical retrieval consultant; preferred referral consultant; PAL; and, other clinicians, as appropriate. The patient’s immediate treatment requirements are the highest priority.
   - consult with various teams, coordination centres, ambulance services and vehicle operators.

4. NETS will facilitate the bed-finding process for critically ill or high risk babies and children for more complex or definitive care. NETS does not find beds for patients being electively transferred between hospitals. It is also not the role of NETS to find beds for maternity patients when there is no risk to the baby.

5. Where there is a variance in view regarding the clinical appropriateness of the transfer, then the final decision concerning the transfer will be made by the NETS medical retrieval consultant (babies) or PAL Consultant (mothers) following a conference call between the referring clinician, receiving medical consultant. This may need to include discussion with the relevant Area Health Service Executive.

6. If a medical retrieval is planned for a baby or child, NETS will determine the most appropriate transport vehicle to effect the retrieval.

Newborn and paediatric Emergency Transport Service (NETS-NSW)

NETS
1300 362 500
- Clinical Co-ordination
- Teleconferencing
- Arrange Paediatric/Neonatal Medical Retrieval
- Advice on nurse escort
- Facilitate identification of neonatal cots
- Problem solving
- Advice for Clinicians uncertain about the process
- Reporting systems “failures”
NETS is the 24-hour coordination service and major provider of neonatal and paediatric retrievals. These services include:
- Clinical advice from a critical care medical retrieval consultant;
- A “one phone call” referral which uses conference call facilities;
- Mobilisation of an appropriate retrieval team or ambulance escort;
- Support to hospitals having difficulties referring high risk obstetric patients;
- Support for Ambulance Service dealing with pre-hospital emergencies;
- Liaison with interstate high risk obstetric, neonatal and paediatric emergency transport services;
- Assistance with Intensive Care support when usual neonatal and paediatric hospital ICU beds are unavailable;
- Assistance with any emergency where routine patterns of referral are unavailable or delayed.
- Liaison and consultation; including PAL.

Which Newborns May Need Medical Retrieval?

It is impossible to provide an exhaustive list detailing every consideration that may require referral to a tertiary facility. Table One provides a list that offers cues to facilitate clinical decision-making.

Table One - Seek consultation regarding management and/or transfer of babies that have/are:

<table>
<thead>
<tr>
<th>Airway</th>
<th>Intubated</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Actual or threatened airway obstruction</td>
</tr>
<tr>
<td>Breathing</td>
<td>Respiratory distress of early onset</td>
</tr>
<tr>
<td></td>
<td>Respiratory distress persistent beyond 4 hours</td>
</tr>
<tr>
<td></td>
<td>Apnoea</td>
</tr>
<tr>
<td></td>
<td>Oxygen requirement &gt; FiO2 0.6 (blood gases available)</td>
</tr>
<tr>
<td></td>
<td>Oxygen requirement &gt; FiO2 0.4 (blood gases not available)</td>
</tr>
<tr>
<td></td>
<td>Respiratory distress with meconium aspiration proven radiologically</td>
</tr>
<tr>
<td>Circulation</td>
<td>Shocked (if not sure of threshold, refer)</td>
</tr>
<tr>
<td></td>
<td>Significant bleeding</td>
</tr>
<tr>
<td>Disability</td>
<td>Born before 35 weeks (outside role delineation)</td>
</tr>
<tr>
<td></td>
<td>Born before 33 weeks</td>
</tr>
<tr>
<td></td>
<td>Weigh &lt; 2,000g and are outside role delineation facility</td>
</tr>
<tr>
<td></td>
<td>Asphyxia with symptoms not rapidly correcting</td>
</tr>
<tr>
<td></td>
<td>“Apgar” score persistently less than 7.</td>
</tr>
<tr>
<td></td>
<td>Cyanosis despite oxygen therapy</td>
</tr>
<tr>
<td></td>
<td>Heart failure or arrhythmia</td>
</tr>
<tr>
<td></td>
<td>Seizures</td>
</tr>
<tr>
<td></td>
<td>Surgical conditions requiring acute therapy</td>
</tr>
<tr>
<td></td>
<td>“Unwellness”, especially if initially well.</td>
</tr>
</tbody>
</table>

Which Pregnant Women May Need Medical Retrieval?

Critically injured pregnant women should be treated as to any adult in this position, and transferred to the nearest designated appropriate facility (eg. Major Trauma Centre), irrespective of ICU bed status, so that emergency treatment can commence with minimal delay. Where possible it is prudent to transfer a critically injured pregnant woman to a facility that also has an obstetric and neonatal intensive care service.
A number of statewide clinical super-speciality networks operate in tandem with the NSW Tertiary Referral Networks (Perinatal).

These networks are largely determined by the location of the clinical super-specialty services, and in some cases, the imperative to achieve early clinical intervention such as for those patients with major trauma.

The following clinical super-specialty referral networks that may be required for pregnant women:

1. NSW Severe Burn Injury Service Referral Network (Adult)
2. NSW Acute Spinal Cord Injury Referral Network (Adult)
3. NSW Major Trauma Services (Adult)
4. NSW Critical Care Tertiary Referral Networks (Adult)

It is impossible to provide an exhaustive list detailing every consideration that may require referral to a tertiary facility. Table Two provides a list that offers cues that may facilitate clinical decision-making.

**TABLE 2 - Conditions requiring consultation regarding management and/or transfer**

<table>
<thead>
<tr>
<th>Condition</th>
<th>Criteria</th>
</tr>
</thead>
</table>
| Hypertension                                   | BP Diastolic > 110mmHg  
BP Systolic > 170mmHg  
+/- proteinuria ≥ 2 +  
+/- hyperreflexia                               |
| Threatened Premature Labour                    | < 34 weeks gestation  
Premature rupture of the membranes  
Premature cervical dilation identified with ultrasound scanning |
| Ruptured Membranes                             | < 34 weeks gestation                                                    |
| Antepartum Haemorrhage                         | Bleeding < 34 weeks gestation  
Bleeding in excess of 200 mls  
Placenta praevia encroaching or covering the internal os |
| Insulin Dependent Diabetes Mellitus (IDDM) or Gestational Diabetes Mellitus (GDM) on insulin | In the presence of ketoacidosis  
Unstable Blood Glucose Levels |
| Intra Uterine Growth Retardation (IUGR)        | Identified on ultrasound assessment                                       |
| DVT/Pulmonary Embolus/Coagulopathies           |                                                                         |
| Cholestasis                                    | < 34 weeks gestation                                                    |

**NSW Statewide Default ICU Matrix – Perinatal**

Each Area Health Service with tertiary neonatal and obstetric services is required to ensure that all options for placement of at risk mothers and critically ill neonates within the referral network have been explored and that all appropriate transfers from NIC and maternity units, within the Area, to inpatient wards have been made.
Access to emergency care for time-critical patients is not to be delayed due to no availability of a Level 5 or 6 maternity or Neonatal Intensive Care bed. The appropriate retrieval service should be contacted immediately regarding such patients.

In situations where it needs to be declared that a combination of no neonatal intensive care beds and/or high risk obstetric beds are available and a tertiary transfer is necessary, then the NSW Statewide Default Perinatal Bed Policy may be invoked. This step is taken only after thorough assessment of statewide Neonatal Intensive Care and High Risk Maternity services capacity and intra-Area default mechanisms, and, where they exist, within the appropriate Critical Care Tertiary Referral Networks for Perinatal Care.

Fundamental to this procedure being activated is the principle that:

Where the condition of a patient or fetus is critical and requires immediate emergency treatment, then that patient must be transferred immediately to the facility designated by the NSW Statewide Default ICU Matrix – Perinatal that is able to provide appropriate emergency treatment irrespective of bed status; this can be addressed following the initiation of emergency care.

In the event of the default system being activated, a referral hospital will be designated as the hospital responsible to provide critical care, irrespective of bed status, as specified in the NSW Statewide Default ICU Matrix – Perinatal. This matrix has been developed following consultation with Area Health Services, the Neonatal and paediatric Emergency Transport Service, Paediatric Intensive Care Advisory Group, Pregnancy and newborn Service Network, High Risk Obstetric Advisory Group, Neonatal Intensive Care Unit Managers Group, Maternal & Perinatal Health Priority Taskforce, and other key stakeholders.

The referring hospital will call the Obstetric or Neonatal Unit at the default matrix tertiary hospital to discuss the patient and arrange appropriate transfer.

Should the first tertiary hospital called be unable to accept the transfer, that tertiary hospital will make alternative arrangements with another tertiary hospital within the network; ensuring at all times that the patient’s clinical need is met, and communication maintained with the referring centre. No patient should be refused admission without discussion involving the senior specialist at the referral hospital.

NETS can provide clinical conference facilities to assist this process but clinical leadership of the process rests with the default matrix tertiary hospital involved.

Where necessary, a rostered Statewide Perinatal Advisor is available for the state to discuss clinical system or logistic issues and is contactable through NETS. In many cases, a solution will be found after a discussion between senior obstetric, neonatal and retrieval clinicians. If transfer is required and other options are not possible, the patient will be transferred to default referral hospital listed in the matrix.

Invoking the Default Perinatal Bed Policy

The referring hospital contacts their Network maternity or neonatal Level 6 service to verify that there is no capacity to accept the patient within their Network.

- All units are to review exit blocked beds, liaise with the hospital executive to have them cleared and update PPRS
- The referring hospital verifies that there are no appropriate available beds as shown on PPRS.
- The referring hospital contacts NETS who will explore any alternative destination for a neonatal intensive care bed, or the PAL Consultant for a maternal bed.

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6. EMERGENCY CARE

- Where no appropriate available bed can be identified across the system the on-duty NETS Consultant, in consultation with the PAL Consultant will invoke the Default Perinatal Bed Policy and contact the receiving NICU and/or Obstetric Consultant.
- The designated tertiary unit will accept the patient, irrespective of bed status, as per the Default Matrix.
- Where there is continued difficulty accessing a maternity bed, the PAL Consultant may need to discuss the issue with the relevant AHS Executive. On-going difficulties should be discussed with the Director, Statewide Services Development Branch.
- If NETS becomes aware of any exit block issues affecting access to tertiary neonatal beds, they will notify the Director, Statewide Services Development Branch who will liaise with the relevant AHS Executive to address these issues.

Fundamental to this procedure being activated is the principle that:

Where a patient requires time-critical care, not available at the referring hospital, then the patient must be transferred immediately to the facility designated by the Default Hospital Matrix that is able to provide appropriate emergency treatment irrespective of bed status.
Emergency Obstetric Referral Process

1. GP Obstetric Service (Level 1,2,3)
   - High Risk? yes -> Consult Maternal-Fetal Medicine
   - Medium Risk? yes -> Consult Obstetrician
   - no

2. Specialist Obstetric Service (Level 4,5)
   - High Risk? yes -> Needs tertiary care?
   - no

3. Maternal Transfer?
   - yes -> able to admit?
   - no
   - Accept patient, referring hospital books escort and ambulance

4. Obstetric Referral Process
   - Call correlatives in other Level 4 for alternate destination. Refer to PPRG
   - Not conviced
   - Advise senior clinicians about problem, unable to assist own hospital
   - Advise Area management that demand exceeds resources
   - Call PAL Consultant

5. NETS Line 1300 36 2500
   - Press 1 Emergency Neonatal Retrieval
   - Press 2 Perinatal Advice/Ostetric Referral
   - Press 3 EXIT
   - Press 4 Elective Neonatal Transfer

Legend:
- PPRG: Perinatal and Paediatric Resource System
- NETS: Newborn and Paediatric Emergency Transport Service
- PNS: Pregnancy and newborn Service Network
- Level 1: Canberra, Altona & Liverpool, Wrexham, Royal Hospital for Women, Royal North Shore, Royal Prince Alfred, Westmead

NETS can assist with a telephone conference call between multiple parties involved in a particularly difficult case. The call is chaired by a Consultant in retrieval medicine (neonatal retrieval) or in maternal-fetal medicine (high-risk obstetric transfer request) or in perinatal care (resource issues such as beds). Apparently insoluble problems are generally solved by appropriate involvement of senior staff, with appropriate clinical and administrative escalation.
6. EMERGENCY CARE

Neonatal/Paediatric Referral Process

- **Rural Hospital (L1-3 service)**
  - Needs retrieval or ICU?
    - Yes: Call NETS
    - No: Consider...

- **NETS Clinical conference call**
  - **Medical retrieval**
  - **Ambulance Transfer**
  - **Advice, no transfer**

- **Children's Hospital**

- **Tertiary Perinatal Centre (L6)**

- **Regional base or urban hospital**
  - Needs tertiary care?
    - Yes: Call NETS
    - No:
      - Needs regional care?
        - Yes: Needs retrieval?
          - No: Accept transfer
        - No:
          - No: Accept transfer

**NETS** can assist with the process where required:
1. Medical Retrieval
2. Clinical conference call (>2 participants)
3. System problems/failures
4. Escalation of discussion (clinical/operational)
5. Multi-unit discussion

**NETS** 1300 36 2500

**AO** = Admitting Officer, **TPC** = Tertiary Perinatal Centre, **NETS** = Neonatal & paediatric Emergency Transport Service.
Appendix

Requirements for Facilities for the Stabilisation of Patients Prior to Medical Retrieval

These guidelines are provided to assist hospitals using a medical retrieval team to transfer a patient requiring intensive care. It sets out the resources that are required for the safe and efficient stabilisation of patients of all ages. These resources are required at those hospitals at or above role delineation Level 2 for Maternity Services (newborn infants) and at or above Level 1 for all other age-groups.

These guidelines are designed to assist referring hospitals offer optimal care using the combined resources of the referring hospital and the retrieval team to manage, stabilise and prepare patients for transport.

The guidelines were developed by NETS in collaboration with the Ambulance Service Medical Retrieval Unit; regional advisory/retrieval services; and, referring hospitals.

Background
Guidelines were issued in 1997 for newborn patients to promote an effective mechanism for the stabilisation of newborns, from referring hospitals. It was recognised that the scope of these guidelines needed to be expanded to offer advice encompassing all age groups and include new aspects of clinical networking such as telemedicine. Accordingly, this document covers all age groups.

Compliance
It is acknowledged that not all hospitals will be able to immediately provide the physical space specified in this guideline. Hospitals are advised that if there is currently no suitable space within the ED, ICU, children’s ward or neonatal nursery, alternative resuscitation areas can be provided in an appropriate area. However, when a hospital is being refurbished or rebuilt, the requirements listed in this circular should be followed and reference made to the functional space requirements contained in the current “Health Facility Guideline”.

Where specific essential equipment items listed below are not available at present, provision should be made to include these items in forward planning cycles as soon as possible.

Ventilatory Support
Facilities that have medical officers formally trained in managing ventilated patients may have ventilators capable of supporting Adults, Children, Infants and Neonates - depending on caseload of patients requiring ventilatory support. Where such ventilators are available, they must be complemented by the capacity to measure airway pressure, expiratory tidal or minute ventilation, and end tidal CO2 (or skin CO2 monitoring).

Imaging Facilities
If imaging facilities are available in the referring facility, an X-Ray viewing box or Picture Archiving and Communication System (PACS) system must be in a location that allows use without losing visual contact with the patient. In addition, diagnostic images of the patient must be available to accompany the patient to their destination hospital.

Pathology facilities
If Pathology facilities are available in the referring facility, a pathology results viewing system must be in a location that allows use without losing visual contact with the patient.

Access by the mother of a newborn
After resuscitation of a newborn and prior to transport, it should be possible for the NETS Infant Transport Module to be wheeled to the mother’s bedside (or vice versa). Sufficient room is needed for the mother to be able to see and touch her baby in the NETS transport system from her bed.
### Essential Facilities

- An area or room that **can** be dedicated to the patient for retrieval and the workings of the team (minimum size **21m²** child/adult; **15m²** for a newborn). This area may be created from existing areas for those times a medical retrieval team is present. For instance, by combining two patient care areas into one.
- Easy, uncluttered access for a stretcher or hospital trolleys used by the retrieval team (size 900mm x 2000mm) from hospital entry to patient care area without obstruction to other functions.
- Procedure light (angle-poise type)
- Resuscitation trolley with appropriate drugs and equipment for those age-groups being treated
- Infant resuscitation trolley (open care system for body weight < 5kg):
  - Integrated overhead lighting
  - Variable radiant heat source
  - Swing-away hinge for overhead modules for mobile x-ray access
  - Space available for retrieval team module to be positioned adjacent and at right angles
- Panel fixtures:
  - Oxygen x 2 (reticulated preferred, cylinder supply will suffice in some locations)
  - Medical Air x 2 (reticulated preferred, cylinder supply will suffice in some locations)
  - Suction x 2 (one regulated for low/controlled suction, one high flow (reticulated supply and second high flow preferred)
  - Body-protected GPOs x 10 (2 for retrieval team use, 8 for referring hospital equipment)
- Height adjustable trolley to facilitate the loading and unloading of the patient/transport stretcher/medical equipment
- Counter, bench top or table (min. 550 x 1200mm) for additional treatment equipment
- Wash sink, soap dispenser, paper towel and alcohol/chlorhexidine hand rub dispenser
- Waste receptacle of large capacity with large aperture orifice; positioned close to resuscitation area
- Sharps disposal container, preferably mobile
- Procedure trolley (900mm x 450mm minimum)
- Telephone:
  - Capable of direct call to relevant retrieval services (without using an operator)
  - Handset usable at the bedside of the patient (may use cordless technology)
  - Programmed for 1-key dialling to Regional Advisory/Retrieval Service, NETS, MRU
  - Capable of direct in-dial with that number displayed on handset prominent
- Facsimile machine:
  - In a location that allows use without losing visual contact with the patient
  - Programmed for 1-key dialling to Regional Advisory/Retrieval Service, NETS, MRU
  - Capable of direct in-dial with that number displayed on device prominently
- Photocopier with contrast and brightness adjustment
- In-service training in using the medical retrieval system

### Desirable Facilities

- Lighting to meet standards of operating theatre, with adjustable intensity
- Infant resuscitation trolley (open care system for body weight < 5kg):
  - In built frame for X-Ray plate positioning without disturbing the patient for contact-less imaging
- Digital camera for clinical photography (including simple connection to computer for file transfer)
- Computer:
  - In a location that allows use without losing visual contact with the patient
  - That allows access to clinical email services
  - That allows access to approved clinical web-based services (eg. CIAP, NETS, etc.)
  - That allows electronic transmission of digital images
  - That allows rapid access to relevant policies and procedures for care and retrieval
- Capacity to export clinical data from local information systems to retrieval coordination centres and/or receiving hospitals
- Capability of continuously monitoring a patient’s ECG, pulse oximetry and automated non-invasive blood pressure measurements
- Interview room immediately accessible to resuscitation area for family conferences
POLICY FOR EMERGENCY PAEDIATRIC REFERRALS (PD2005_157)

The attached Policy is intended for display in emergency departments and paediatric wards. It details the appropriate communication path for facilitation of emergency paediatric referrals.

The Policy provides guidelines which will simplify access to tertiary paediatric hospitals and specialist intensive care centres. The policy will assist in facilitating appropriate clinical decisions regarding transfer requests and ensure consultant advice is available for complex or difficult problems.

The Policy was prepared by the Neonatal and Paediatric Emergency Transport Service (NETS), in consultation with the Perinatal Services Network, intensive care units, high risk obstetric services and the Ambulance Service of NSW.

Colour, laminated copies of the chart are available from NETS.
Policy for Emergency Paediatric Referrals

Aim: This policy aims to simplify access to specialist intensive care for sick children, infants, and babies, to facilitate appropriate clinical decisions about transfer requests to paediatric or neonatal intensive care units and to ensure consultant advice is available for complex or difficult problems.

Description: Children's Hospitals have on-call intensivists and other specialists available for discussing critical and/or difficult acute clinical problems in infants and children. Once consent for acute admission or advice should be directed to the Emergency Department of the preferred Children's Hospital.

For new borns, Children's Hospitals and Peripheral Referral Centres have neonatal ICUs. Registrars and/or consultant advice is available from there for neonatal problems.

It is expected that referring hospitals would involve their specialist paediatricians (where they are on staff) in transfer decision about children. However written paediatric advice should indicate how this operates locally, particularly in reference to the hospital's Emergency Department.

NSW Health

Referring medical officers in rural areas should contact their Base Hospital or regional centre for general paediatric problems according to regional policy guidelines. The appropriate names and/or telephone numbers can be entered in the boxes on the chart below.

Ideally, referring staff should expect to make only one phone call. A tertiary service will provide an "advice", including a bed.

The communication pathways available to referring hospitals are illustrated below.

Reconstructing Problem

NEONATAL PROBLEM

*Level 2* baby

Preterm baby well at 33 - 37 weeks, feeding problems, mild respiratory distress, need reassessment.

Consult neonatal unit, phone neonatal team.

Transfer with escort (if not a medical refusal)

In case of medical refusal...

Decide on alternate arrangements.

Clinical Considerations:

- Diagnosis medical refusal.
- Information about the patient
- Advice on nurse escort
- No escort

Procedural Referral:

Children's Hospital Emergency Dept

If at any time clinical circumstances change after the initial call, another call should be made so that any changes in arrangements can be made without delay.

If a bed is booked, it will be located and confirmed. The length should not delay the dispatch of a retrieval team and can often be arranged while the team is preparing the patient.

Referral hospitals must be contacted by the Ambulance Service for additional information about the patient.

NSW Health

Referring hospitals may contact the Neonatal Unit of the local Children's Hospital for additional information about the patient.

*Escorts*

The type of clinical escort required for the patient is determined by the patient's need for pre-transfer assessment, stabilisation and in transit care. Further advice is available upon request.

The need for a skilled paediatric assessment, a difficult airway or ventilatory problems or the management of multi-systems may necessitate different or additional skills in the team.

Based on that discussion, an appropriate clinical escort (peripheral team or other resources will be selected and a vehicle tasked.

If there has been a refusal from the local children's hospital on the first call, the second call should be made to another designated children's hospital.

Transfers of a patient by local hospital staff should not be undertaken if there is substantial risk of en-route deterioration. It is better to stay and wait for a retrieval team in the hospital setting with support by telephone (as required), than to attempt emergency patient care in a vehicle. Transfer of babies and children by air in an ambulance is avoided by the availability of flights.

If a patient is judged appropriate, the time a patient takes to reach the destination is usually determined more by the interval between 'departure time' & 'patient department time' than the time spent in transit.

Vehicles: Road ambulances, medical helicopters and fixed wing aircraft are available for medical retrieval. The selection of vehicles for medical retrieval follows the Department of Health published guidelines. These 'Guidelines for Mode of Transport Selection' take clinical urgency, distance, patient condition, cost and vehicle availability, access to referring and receiving hospitals and other factors into account.

*Problem solving*

Tertiary hospitals may contact the neonatal unit if they have failed to obtain a bed in either their own hospital or a suitable alternative hospital. A statewide NEUTS consultant is available through the NEUTS Line to assist this process.
MATERNITY EMERGENCIES (PD2005_161)

Maternity emergencies by definition afford clinicians little or no warning and may occur at times when senior staff are not immediately available.

All maternity facilities should have protocols in place for the immediate management of obstetric emergencies, including:

- Hypertensive crisis/eclampsia
- Antepartum hemorrhage
- Postpartum hemorrhage of more than 600 mls
- Tonic contractions
- Umbilical cord prolapse
- Neonate requiring resuscitation
- Shoulder dystocia

Emergency protocols must be clearly labelled and immediately accessible in the delivery suite.

Mechanisms for continuing staff education for the above maternity emergencies should also be in place.

The protocols should state that in some emergencies it may be appropriate to transfer a pregnant woman or a neonate to a hospital with a higher level of care.

The protocols should include:

- **Who to ring for obstetric emergencies**: phone numbers for district and tertiary obstetric referral hospitals. Tertiary perinatal centres have specialist obstetric consultants available to provide clinical management and maternal transfer advice. If the tertiary consultant is unable to assist a 24-hour feto-maternal specialist advice line exists (PAL).
- **Who to ring for neonatal emergencies**: phone numbers for tertiary referral centres and NSW newborn and paediatric Emergency Transport Services (NETS). NETS provides triaging, clinical management and transfer advice and mobile intensive care services.
- the NETS and PAL emergency phone number (1300 362 500)

Resources for Protocol Development

The **NSW Perinatal Services Network (PSN)** can assist with protocol development or adaptation (phone 02 9351 7318 or facsimile 02 9351 7742).

**Hospitals with tertiary referral services**

The Departments of Obstetrics and Gynaecology of hospitals with tertiary referral services have also indicated that they are willing to provide copies of their protocols to other hospitals as a resource and/or assist with the development of hospital specific clinical protocols. Requests for copies of policies/procedures may be forwarded to the Director of Obstetrics at:

- King George V Memorial Hospital, Missenden Road, Camperdown 2050
- Royal North Shore Hospital, Pacific Highway, St Leonards 2065
- Royal Hospital for Women, Barker Street, Randwick 2031
- Liverpool Hospital, Elizabeth Street, Liverpool 2170
- Westmead Hospital, Cnr Hawkesbury and Darcy Roads, Westmead 2145
- Nepean Hospital, Somerset Street, Penrith 2751
- John Hunter Hospital, Lookout Road, Newcastle 2305

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While protocols may be a common resource to many hospitals, individual hospitals remain responsible for ensuring that their own protocols are up to date and staff are trained and able to implement them. Regions may wish to consult with their Area Managers on protocol development.

Other resources

The “guiding principles” outlined in the *NHMRC Guidelines for the development and implementation of clinical practice guidelines (1999)* are the suggested framework for the development of policies addressing clinical emergencies.21

The NSW Guide to the Role Delineation of Health Care Services provides risk categories for maternity patients relating to appropriate level of care required for various maternal risk categories at the intended place of delivery.22

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22Guide to the role delineation of health services. Clinical Services Planning Unit. Statewide Services Development Branch. NSW Health Department.
DEPARTURE OF EMERGENCY DEPARTMENT PATIENTS (PD2014_025)


PURPOSE

For the purpose of this policy, ‘Departure from Emergency Department’ refers to patients leaving the Emergency Department (ED) whether they are to be discharged, admitted or transferred to another facility.

This policy outlines the principles for implementing a standardised approach to determining whether a patient is ready for departure from NSW EDs once the ED phase of their care is complete. These principles are to be implemented by NSW Public Health Organisations.

For information on patients awaiting care or commencement of clinical treatment please see PD2013_047 ‘Triage of Patients in NSW Emergency Departments’ and PD2010_075 ‘Emergency Department PatientsAwaiting Care’.

MANDATORY REQUIREMENTS

All NSW Public Health Organisations must:

• Ensure that local processes are in place which comply with this policy and support the four principles of readiness for departure from ED described here.

• Confirm that processes are in place in each ED to ensure that all patients are ready for departure from ED upon completion of the ED phase of their treatment and have been authorised as ready to depart. Readiness for departure from ED encompasses the following four principles:
  o The patient is safe for departure from a clinical and functional perspective.
  o The patient has had appropriate risk assessments undertaken prior to departure.
  o Identified risks likely to impact on readiness for departure have been mitigated where appropriate and possible.
  o Communication with the patient (including family and carers where appropriate) about ongoing care requirements has occurred. Patients should be given post-discharge care instructions in plain language which is relevant to the individual and provides information that adequately describes follow up treatment. Communication must be undertaken with any relevant health professionals who will be involved in the ongoing care of the patient upon leaving the ED, particularly if there is a requirement for them to provide patient care or a request to follow up outstanding care requirements.

• Ensure all staff are aware of the ‘Departure of Emergency Department Patients’ policy and their responsibilities in relation to managing the departure from ED of patients.

• Ensure that the Adult and Paediatric ED Observation charts ‘Departure and Discharge from ED’checklists are utilised to support implementation of this policy as per NSW Health policy PD2013_049 ‘Recognition and Management of Patients who are Clinically Deteriorating’. If the ED charts specifically are not used, that alternate local processes must be in place which demonstrate all information on the checklist being collected for patients.

• Ensure that local evaluation of compliance with this policy is undertaken. This should include internal review of incidents related to departure of patients from ED and review of consistency of use of the Adult and Paediatric ED Observation chart ‘Departure and Discharge from ED’ checklists (or equivalent local process).
6. EMERGENCY CARE

IMPLEMENTATION

Local Health District and Specialty Health Network Chief Executives are responsible for:

- Assigning responsibility, personnel and resources to implement this policy.
- Establishing mechanisms to ensure that the mandatory requirements are applied, achieved and sustained as usual processes for departure of patients from ED; this should include nomination of an executive sponsor.
- Ensuring that any local policy reflects the requirements of this policy and is written in consultation with hospital executive, Clinical Governance Unit, ED senior management and other relevant staff.
- Ensuring that hospital and ED processes support the minimisation of delays for patients departing the ED, including limiting delays which may occur as a result of the requirement to complete the ED departure process.

1. BACKGROUND

1.1 About this document

For the purpose of this policy, ‘Departure from Emergency Department’ refers to patients leaving the Emergency Department whether it is to be discharged, admitted or transferred to another facility.

This policy directive and procedure replaces PD2005_082 ‘Discharge Policy for Emergency Department at risk patients’, which was developed in recognition that patients being discharged from Emergency Departments (ED) may be at risk of re-presentation or adverse events. The Special Commission of Inquiry, Acute Care Services in NSW Public Hospitals also recommended in 2008 that a checklist be implemented in NSW EDs to communicate the needs of a patient being admitted to an inpatient unit.

This policy and procedure seeks to encompass both of these elements by detailing a standardised approach for all patients who depart the ED. It describes the principles required to minimise the risk of adverse events for patients who have completed the ED phase of their treatment and have been authorised as ready to depart the ED.

In accordance with NSW Health policy PD2013_049 ‘Recognition and Management of Patients who are Clinically Deteriorating’, this policy requires use of the NSW Health Standard Adult and Paediatric ED Observation Charts including the checklist for staff to complete for patients prior to leaving ED. If the charts are not used, alternative local processes must demonstrate that the information contained in the checklists is being collected.

This policy is also consistent with the Australian Charter of Healthcare Rights for patients described in NSW Health Policy PD2011_022 Your Health Rights and Responsibilities.
1.2 Key definitions

| At Risk | Refers to a patient who has been assessed as having an identified risk which is recognised to contribute to adverse events or readmissions upon leaving the ED. |
| Clinical Handover | The transfer of professional responsibility and accountability for some or all aspects of care for a patient, or group of patients, to another person or professional group on a temporary or permanent basis. |
| Emergency Department Departure | (ED Departure) refers to the transfer of responsibility and accountability for a patient’s care upon leaving the ED. The patient may be admitted to an inpatient ward, be transferred to another facility or be discharged back to the community and their usual place of residence. |
| Left at Own Risk | Refers to any person who leaves the ED after treatment has commenced, against advice. The patient’s health Care Record will reflect that the patient has been seen by Doctor/Nurse/Nurse Practitioner and will have a diagnosis. |
| Person Responsible | Refers to someone who has legal authority to make decisions on behalf of someone else who does not have the capacity to consent for themselves. A ‘person responsible’ is not necessarily the patient’s next of kin. A ‘person responsible’ is either: • a guardian (including an enduring guardian) who has the function of consenting to medical, or dental treatment. or, if there is no guardian: • the most recent spouse or de facto spouse with whom the person has a close, continuing relationship. ‘de facto spouse’ includes same sex partners. or, if there is no spouse or de facto spouse: • an unpaid carer who is now providing support to the person or provided this support before the person entered residential care. or, if there is no carer: • a relative or friend who has a close personal relationship with the person. • The NSW Civil & Administrative Tribunal, Guardianship Division |

Note: The above information has been provided by the NSW Civil & Administrative Tribunal, Guardianship Division

In accordance with PD2005_406 Consent to Medical Treatment – Patient Information:

• A child aged 14 years and above may consent to their own treatment provided they adequately understand and appreciate the nature and consequences of the operation, procedure or treatment

| Ready for Departure | Refers to a patient who has been authorised by senior ED staff as safe to depart the ED in accordance with the principles of this policy. |
| Risk Assessment | An activity that identifies risks, estimates their probability and the likely impact of their occurrence particularly in relation to adverse outcomes. |

2. PROCEDURE FOR DETERMINING READINESS FOR DEPARTURE OF EMERGENCY DEPARTMENT PATIENTS

2.1 The four principles for determining readiness for departure of Emergency Department patients

Determination of a patient being ready for departure is a multidisciplinary process with ultimate responsibility resting with the senior ED medical officer and nurse in charge of shift of the ED or their delegates. Readiness for departure from ED encompasses the following principles:

1. The patient is safe for departure from a clinical and functional perspective.
2. The patient has had appropriate risk assessments undertaken prior to departure.
3. Identified risks likely to impact on readiness for departure have been mitigated where appropriate and possible.

4. Communication with the patient (including family and carers where appropriate) about ongoing care requirements has occurred; as well as communication with any relevant health professionals who will be involved in the ongoing care of the patient upon leaving the ED.

2.2.1 Clinically and functionally safe for departure

When deeming a patient clinically safe for departure the following aspects must be met:

- The patient will be ‘between the flags’ with respect to recorded observations or there will be documented alterations to calling criteria on the relevant NSW Standard Observation Chart where this is appropriate for the patient. Patients who are leaving the ED for higher level care (e.g. Intensive Care Unit) are often unstable and may not be ‘between the flags’ – this should not delay departure from ED.
- All appropriate diagnostic tests will be completed or there is a documented plan of who is responsible to follow up outstanding tests and results. A management plan is documented including a provisional or definitive diagnosis and this is communicated to relevant health professionals.
- The patient is departing for a location that has a level of supervision or clinical care consistent with their clinical condition and risk assessment.

2.1.2 Risk assessment

There are many health risk assessment tools and guidelines available to clinicians – not all are suitable to be undertaken in the ED. Appropriate risk assessment should be undertaken at the discretion of the treating clinician and according to patient clinical need and local procedures.

In addition to clinical risk identification; mental health, social and cultural aspects that are likely to impact on the patient’s readiness for departure from the ED must be considered.

If a patient is determined to be at risk; documentation and a corresponding risk mitigation process should be enacted.

Possible risks include, but are not limited to:

- Level of supervision required for discharge.
- Availability and accessibility of competent supervision if required.
- Competency to access transport or the provision of own transport.
- Ability to comply with discharge instructions including access to other health providers e.g. GPs and pharmacies.
- Need for specialist care within an inpatient unit or the requirement for inter-hospital transfer.
- Patients with undifferentiated diagnoses.
- Evolving or rapidly progressing disease processes.
- Indication for additional resources including equipment and personnel that is not currently available.
- Unsafe home environment/circumstances e.g. departure of elderly patients to home at night, known domestic violence situations.
- Complex social situation/circumstances where significant allied health intervention is required e.g. homeless.
2.1.3 Risk mitigation

Not all risks can be mitigated in the ED, however every effort should be made to identify and manage potential risks during assessment and treatment in the ED. Referral to appropriate services to manage identified risks should occur as early as possible, this may include Mental Health Services, Aboriginal Liaison Officers or Allied Health services.

Departure from the ED must not take place if significant risk has been identified and these risks cannot be managed after ED Departure, or if the patient requires the supervision of a responsible adult for appropriate ED Departure and this cannot be ensured. A local facility protocol should identify the process to be undertaken in this situation (e.g. transfer to inpatient unit if appropriate).

2.1.4 Communication of the Patient’s care needs

The communication of information to patients, carers and other health professionals about the ongoing care needs of the patient is essential to ensuring continuity of care.

PD2009 060 ‘Clinical Handover – Standard Key Principles’ clearly states the requirements for the transfer of information, accountability and responsibility for a patient or group of patients between clinicians. The elements relevant to the clinical handover should be addressed as per the Adult and Paediatric ED Observation charts ‘Departure and Discharge from ED’ checklists.

Patients departing the ED for inpatient wards

Patients departing the ED for inpatient wards should have a clinical handover process completed with the relevant ward staff which details the patient’s plan of care and any outstanding tests and actions that require follow up.

Documentation is to be complete as per PD2012 069 Health Care Records - Documentation and Management as well as other relevant information to ensure ongoing care of the patient pending review of the inpatient team (e.g. interim orders for analgesia and other medications charted, progress notes completed).

Patients departing the ED for another facility

Patients departing ED for another facility must have communication managed as per PD2011 031 ‘Inter-facility Transfer Process for Adults Requiring Specialist Care’ and PD2010 031 ‘Children and Adolescents – Inter-Facility Transfers’.

Communication for the Transfer of Critically ill patients is as per PD2010 021 ‘Critical Care Tertiary Referral Networks & Transfer of Care (Adults)’ and PD2010 030 ‘Critical Care Tertiary Referral Networks (Paediatrics)’.

Patients departing the ED for home or usual place of residence

Patients departing the ED for home or their usual place of residence require adequate instruction to ensure the patient (and/or family/carer where appropriate) is aware of ongoing care requirements.

Not every patient requires a formally written discharge letter; however information should be given to the patient which adequately describes follow up treatment. This may be verbal instruction, patient fact sheets with information about their condition or details of who to call or follow up with regarding their treatment and any referrals made to other services.
The method of information given should be at the discretion of the treating clinician and take into account the patient’s understanding of information and any cultural, language and social requirements to assist with understanding of information. Documentation in the patient’s Health Care Record of the method used is appropriate, e.g. if verbal instruction only is given or a copy of the discharge letter.

Efforts should be made to contact Residential Aged Care Facility staff to notify them of the resident’s return to the facility.

**Discharge letter**

If further care by another health professional is required, then a discharge letter is appropriate. The letter should include information about the ED treatment, details of test results carried out in the ED or results which require follow up, any changes to medications and any other relevant information required to ensure continuity of the patient’s care. A copy of the letter should remain in the patient’s Health Care Record.

**Authorisation to depart ED**

All patients leaving the ED require authorisation that they are ready to depart the ED. This is the responsibility of senior medical and nursing staff in the ED (or their delegate) and should be indicated on the Adult and Paediatric ED Observation charts ‘Departure and Discharge from ED’ checklists (or documented as per equivalent local process).

In EDs where there is no senior medical staff on site, delegation of authorisation to depart the ED will be according to locally agreed to and communicated processes.

3. **PATIENTS WHO ‘LEFT AT OWN RISK’**

A competent adult patient has the right to refuse medical treatment for themselves or their children/dependents. A person is incapable of giving consent if they are not “competent”. There is no single legal test or definition of competency. However, in order to be competent to consent to or refuse treatment, a patient must be able to comprehend and retain treatment information and consider the information in order to reach a decision.

The **Guardianship Act 1987** provides methods for obtaining consent to treat those persons who are incapable of giving consent. A designated Person Responsible may substitute if the patient is unable to given consent.

All reasonable measures must be undertaken to manage the patient who expresses the wish to leave the ED against medical advice.

This includes ensuring the patient:

- Is counselled by appropriate staff against leaving against medical advice. All attempts to convince the patient to stay should be documented in the patient’s Health Care Record.
- Has had the potential consequences of leaving the ED explained in plain language which is relevant to the individual (by the senior doctor/nursing staff or their delegate) including the use of interpreters/Aboriginal Liaison Officer if necessary. This must be explicitly documented in the patient’s Health Care Record.
- Is competent to make the decision to leave.
- Is given advice on follow up options.
- Is given the option to return.
- Is encouraged to call to inform a friend or relative, or allow the ED staff to do so where appropriate.
- If appropriate has consulted with an Aboriginal Liaison Officer to ensure culturally appropriate treatment options.
Should a patient be found to have left the ED without the knowledge of staff and there are concerns for the patient’s or other’s safety, actions taken will be in consideration of both the patient’s level of competence to make the decision as well as the risk (clinical or otherwise) to the patient/others.

Section 2.5.2 of PD2012_060 Transfer of Care from Mental Health Inpatient Services provides specific detail on Procedures for locating missing patients which can be applied to the ED setting, particularly for patients being detained under the Mental Health Act 2007.
Attachment 1: Adult ED Observation Chart ‘Departure and Discharge from ED’ checklists.

<table>
<thead>
<tr>
<th>FAULTY NAME</th>
<th>MRN</th>
</tr>
</thead>
<tbody>
<tr>
<td>GIVEN NAME</td>
<td></td>
</tr>
<tr>
<td>D.O.B.</td>
<td></td>
</tr>
<tr>
<td>ADDRESS</td>
<td></td>
</tr>
</tbody>
</table>

**ADULT EMERGENCY DEPARTMENT OBSERVATION CHART**

**PROVISONAL DIAGNOSIS**
- Admitting Consultant name: 
- Delegate name (if applicable):
- Accepted Care of patient Date:

**MEDICAL ADMISSION AT TIME OF ACCEPTANCE OF CARE**
- Clinical Plan explained to patient/carer
- Clinical Plan documented in progress notes
- Admission completed by:
  - ED Medical Officer name:
  - ED Medical Officer signature:

**NURSING**
- Verified that all documentation is complete:
  - Admission/Transfer forms and MR
  - Medications charted
  - Analgesia charted
  - IV Fluids charted
  - Fluid Balances up to date
  - Progress notes up to date
  - Risk assessments completed
- Out: Eat & Drink
- Nil By Mouth
- IVT
- NG

**ED to WARD DEPARTURE CHECKLIST**
- Medical Handover given
- Outstanding results and actions handed over
  - 1.
  - 2.
  - 3.
  - 4.
  - 5.

**MEDICAL**
- Infection status
  - Precautions / Isolation required
  - Specified: Contact Precautions / Respiratory
  - Patient belongings sent to ward
  - Medication sent to ward
- Ward accepting care:
  - Ward Nurse accepting care
  - ED Nurse Transferring name
  - ED Nurse transferring sign

**AUTORISATION FOR DEPARTURE FROM ED TO WARD**

**NURSING**
- Observations within the last hour
- Is the patient ‘between the flags’
- If not, clinical reason and plan is documented and signed

**MEDICAL AUTHORIZATION**
- Authorised as safe for transfer
- Authorised as safe for transfer

**AUTHORISATION FOR DISCHARGE FROM ED TO HOME**

**NURSING**
- Authorised as safe for discharge
- Authorised as safe for discharge

**MEDICAL AUTHORIZATION**
- Authorised as safe for discharge
- Authorised as safe for discharge
Attachment 2: Paediatric ED Observation Chart ‘Departure and Discharge from ED’ checklists

<table>
<thead>
<tr>
<th>FAMILY NAME</th>
<th>MRN</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Facility:</th>
<th>D.O.B. / / N.D.</th>
</tr>
</thead>
<tbody>
<tr>
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</tbody>
</table>

**PAEDIATRIC EMERGENCY DEPARTMENT OBSERVATION CHART**

<table>
<thead>
<tr>
<th>1 - 4 YEARS</th>
<th>COMPLETE ALL DETAILS OR AFFIX PATIENT LABEL HERE</th>
</tr>
</thead>
</table>

**MEDICAL ADMISSION AT TIME OF ACCEPTANCE OF CARE**

**PROVISIONAL DIAGNOSIS:**
- Admitting Consultant Name: [Name]
- Delegated Name (if applicable): [Name]
- Accepted Care of patient: [Yes/No]
- Date: [Date]
- Time: [Time]

**Clinical Plan explained to patient/carer:** [Yes/No]
**Clinical Plan documented in progress notes:** [Yes/No]
**Admission completed by:** [Name]
**ED Medical Officer name:** [Name]
**ED Medical Officer signature:** [Signature]

**PAEDIATRIC ED to WARD DEPARTURE CHECKLIST**

**NURSING**
- Verified that all documentation is complete:
  - Admission/Transfer form/AR: [Yes/NA]
  - Medications charted: [Yes/NA]
  - Analgesia charted: [Yes/NA]
  - IV Fluids charted: [Yes/NA]
  - Fluid Balance up to date: [Yes/NA]
  - Progress notes up to date: [Yes/NA]
  - Risk assessments completed: [Yes/NA]
- Diet: Eat & Drink: [Yes/No]
- Nil By Mouth: [Yes/No]
- IV: [Yes/No]
- NG: [Yes/No]
- Infection status (incl. recent contact): [Yes/NA]
- Precautions / isolation Required: [Yes/NA]
- Specify: Contact Precautions / Respiratory: [Yes/NA]
- Parents / Guardian aware of transfer: [Yes/NA]
- Patient belongings sent to ward: [Yes/NA]
- Medication sent to ward: [Yes/NA]
- Ward accepting care: [Yes/NA]
- Ward Nurse Accepting care: [Yes/NA]
- ED Nurse Transferring name: [Name]
- ED Nurse transferring sign: [Signature]

**MEDICAL**
- Medical Handover given: [Yes/No]
- Outstanding results and actions handed over:
  1. [Details]
  2. [Details]
  3. [Details]
  4. [Details]
- Medical Officer Accepting Care name: [Name]
- ED Medical Officer providing Handover: [Name]
  - Sign: [Signature]
  - Date: [Date]
  - Time: [Time]

**AUTHORISATION FOR PAEDIATRIC DEPARTURE FROM ED to WARD**

**NURSING**
- Observations within the last hour: [Yes/No]
- Is the patient ‘Between the Flags’? [Yes/No]
- If not, clinical reason and plan is documented and signed: [Yes/NA]
- Authorised as safe for transfer: [Yes/NA]
- NUM Senior ED Nurse name: [Name]
- NUM Senior ED Nurse sign: [Signature]

**MEDICAL AUTHOURISATION**
- Authorised as safe for transfer: [Yes/NA]
- ED Medical Officer name: [Name]
- ED Medical Officer sign: [Signature]

**AUTHORISATION FOR PAEDIATRIC DISCHARGE FROM ED to HOME**

**NURSING**
- Cannula / ID Band removed: [Yes/No]
- Discharge Referral Letter: [Yes/No]
- Clothes / Belongings: [Yes/NA]
- Discharge Prescription / Medications: [Yes/NA]
- Authorised as safe for discharge: [Yes/NA]
- NUM Senior ED Nurse Name: [Name]
- NUM Senior ED Nurse Sign: [Signature]

**MEDICAL AUTHOURISATION**
- Authorised as safe for discharge: [Yes/NA]
- ED Medical Officer Name: [Name]
- ED Medical Officer Sign: [Signature]
CRITICAL CARE TERTIARY REFERRAL NETWORKS & TRANSFER OF CARE (ADULTS)
(PD2010_021)


PURPOSE

This Policy Directive relates to critically ill/injured adult patients and those patients at risk of critical deterioration requiring referral and transfer of care.

The NSW Critical Care Tertiary Referral Networks (Adults) define the links between Area Health Services and tertiary referral hospitals and take into account established functional clinical referral relationships.

The policy also defines the roles of various statewide clinical speciality referral networks that operate in conjunction with the NSW Critical Care Tertiary Referral Network (section 10).

MANDATORY REQUIREMENTS

- Access to emergency care and/or surgical intervention for time-urgent critically ill/injured patients is not to be delayed due to “no-available” ICU bed. Aeromedical and Medical Retrieval Service (AMRS) is to be contacted immediately should this situation arise.

- Requirements for transfer of critically ill obese patients as set out in section 6 must be applied.

- Each Area Health Services must have in place by February 2011 an Area-wide protocol for the “escalation of care” to guide the referral of non-critical patients for specialist care (section 9).

- A tertiary referral hospital designated by the NSW Intensive Care Default Hospital Matrix must take responsibility for providing critical care, irrespective of bed status, to a specified group of referral hospitals when the Default Adult Intensive Care Bed Policy is invoked (section 11).
6. EMERGENCY CARE

- In time urgent situations the AMRS has the authority to transport the patient directly to the linked tertiary hospital designated by the NSW statewide critical care tertiary networks, regardless of available bed state. If there is a closer hospital that can provide the time-urgent treatment required, AMRS may elect to transport the patient there. In each case the AMRS Consultant will notify the receiving clinician.

IMPLEMENTATION

Area Health Service Chief Executives are responsible for:
- Meeting the critical care and intensive care needs of that Area and linked rural Area Health Services, where specified, including the provision of clinical advice and ensuring access to appropriate treatment.
- Ensuring that all options for placement of the critically ill patient within the originating Area have been explored and that all appropriate transfers from Intensive Care Units within the Area to other inpatient wards have been made.
- Ensuring formalised intra-Area and inter-Area referral arrangements exist for critically ill patients needing a higher level of definitive care and for non-critically ill patients requiring referral for specialist care.
- Ensuring formalised cross-jurisdictional border arrangements exist for the referral of critically ill patients where required.
- Ensuring that clinical referral and support processes are transparent and effectively communicated to all staff to ensure patients can access definitive care in an appropriate timeframe. This responsibility lies ultimately with the Area Director of Clinical Operations.
- Engaging relevant clinicians and ensuring that consistent local protocols or operating procedures are developed and distributed to relevant clinical areas.

Directors of Clinical Governance are required to inform relevant clinical staff of the revised policy directive.

Area Directors of Clinical Operations are responsible for ensuring appropriate referral arrangements are in place for all non-critical patients requiring referral for specialist care. (Section 2)

The NSW Aeromedical and Medical Retrieval Service (AMRS), a unit of the NSW Ambulance Service, provides statewide coordination of adult medical retrieval services for critically ill patients in collaboration with the Regional Retrieval Services. Similarly, the Regional Retrieval Services liaise with AMRS regarding all retrieval activity. The AMRS is the central point of contact for the medical retrieval of all critically ill adult patients.

Aeromedical and Medical Retrieval Service (AMRS) Ph: 1800 650 004.

Background

Introduction

The NSW Critical Care Tertiary Referral Networks & Transfer of Care (Adults) Policy Directive (PD2010_021) was issued in 2010 and is currently utilised extensively across the system to guide the process of appropriate critical care adult tertiary networking, referral and patient transfer. Since releasing the 2006 version planning has progressed on the reconfiguration of the NSW Trauma System, establishing the NSW Extra Corporeal Membrane Oxygenation (ECMO) Medical Retrieval Service and implementing the web based Critical Care Resource management System (CCRS).

85(01/04/10)
6. EMERGENCY CARE

In addition to these developments a number of issues, identified through Incident Information Management System (IIMS) data review, Root Cause Analysis (RCA) recommendations and reported by the Critical Care Health Priority Taskforce, have been addressed, and have been incorporated to this revision of the Policy Directive including:

• Realignment of North Coast Area Health Service (south sectors) critical care tertiary referrals from Royal North Shore Hospital to John Hunter Hospital line with major trauma referrals
• Clarification of the clinical advice and bed finding role of Aeromedical and Medical Retrieval Service (AMRS)
• Formalising the AHS processes for the referral of non-critical patients for higher specialist care
• Managing non-critical patients at risk of critical deterioration
• Managing the transfer of obese critically ill patients
• Managing primary acute spinal injury and severe burn patient referrals by helicopter
• Clarifying the mandatory requirement that patients requiring emergency care are provided timely access to the appropriate level of definitive care irrespective of Intensive Care Unit (ICU) bed status
• Formalising the protocol for invoking the Default Adult ICU Bed Policy

CCRS is a statewide web based information system that informs the coordination and decision making for the referral and placement of critically ill patients to the appropriate level of definitive care. CCRS is used by the Aeromedical and Medical Retrieval Service (AMRS) to assist statewide coordination of adult medical retrieval services for critically ill patients in collaboration with the Regional Retrieval Services. Similarly, the Regional Retrieval Services liaise with AMRS regarding all retrieval activity.

AMRS is the central point of contact for the medical retrieval of all critically ill adult patients.

Aeromedical and Medical Retrieval Service (AMRS)
ph: 1800 650 004
Early Notification = Early Assistance
(In emergencies notification can occur prior to full patient assessment and investigation)

Key definitions

Aeromedical Operations Centre (AOC): A unit of the NSW Ambulance Service providing statewide coordination of aeromedical transport and medical retrieval services.

Aeromedical and Medical Retrieval Service (AMRS): A unit of the NSW Ambulance Service providing clinical support and advice, transport and escort services for critically ill patients requiring medical retrieval. AMRS is co-located with the AOC.

Time-urgent critically ill/injured patient: A patient requiring emergency care at the closest appropriate hospital in the shortest time possible to achieve early intervention and stabilisation.

Non time-urgent critically ill patient: A patient stabilised who requires transfer for a higher level of definitive critical care or clinical specialty, but whose transfer is not time-urgent.

Patient at risk of critical deterioration: A patient who has suffered a significant injury and/or illness who may appear to be stable but whose condition may quickly deteriorate requiring constant monitoring and early transfer for definitive care.

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6. EMERGENCY CARE

Non-critical patient requiring specialist definitive care: A patient requiring referral and transfer for specialist care facilitated by the Area Patient Flow Unit in consultation with the patient’s clinical management team.


Primary Retrieval: A patient transferred directly from the scene of an incident or medical emergency to hospital.

Secondary Retrieval: A patient transferred between health facilities.

NSW Critical Care Services Adult Tertiary Referral Networks
The NSW critical care services adult tertiary referral networks define the links between Area Health Services and tertiary referral hospitals and take into account established functional clinical referral relationships.

Operating in conjunction with the critical care networks are statewide clinical specialty referral networks which are also defined within this Policy Directive.

These include:
1. NSW Severe Burn Injury Service (Adult)
2. NSW Acute Spinal Cord Injury Referrals (Adult)
3. NSW Major Trauma Referrals (Adult/Paediatric)
4. NSW Rural Cardiac Catheterisation Services (Adult)
5. NSW Extra Corporeal Membrane Oxygenation (ECMO) Medical Retrieval
6. NSW Critical Care Tertiary Referral Networks (Neonatal and High Risk Obstetrics) and NSW Critical Care Tertiary Referral Networks (Paediatric).

In a number of cases, complementary Policy Directives will apply.

The Area Director of Clinical Operations is responsible for ensuring appropriate referral arrangements are in place for all non-critical patients requiring referral for specialist care. Formalised specialist clinical referral networks and referral process must be in place to guide and assist clinicians and Patient Flow Units to ensure appropriate and timely patient referrals. AMRS does not have capacity to manage the referral and transfer of non-critical patients. This also applies to patients requiring elective transfer between private hospitals.

Each Area Health Service is responsible for:
• Meeting the critical care and intensive care needs of that Area and linked rural Area Health Services, where specified, including the provision of clinical advice and ensuring access to appropriate treatment.
• Ensuring that all options for placement of the critically ill patient within the originating Area have been explored and that all appropriate transfers from Intensive Care Units within the Area to other inpatient wards have been made.
• Ensuring formalised intra-Area and inter-Area referral arrangements exist for critically ill patients needing a higher level of definitive care and for non-critically ill patients requiring referral for specialist care.
• Ensuring formalised cross-jurisdictional border arrangements exist for the referral of critically ill patients where required.

85(01/04/10)
6. EMERGENCY CARE

- Ensuring that clinical referral and support processes are transparent and effectively communicated to all staff to ensure patients can access definitive care in an appropriate timeframe. This responsibility lies ultimately with the Area Director of Clinical Operations.

The following adult critical care tertiary referral networks are designated for all critically ill adult patients requiring transfer to a tertiary facility, and are endorsed by the NSW Critical Care Health Priority Taskforce, Rural Critical Care Taskforce and Ambulance Service of NSW (ASNSW) Medical Retrieval Committee.

The Greater Southern Area Health Service (GSAHS), Greater Western Area Health Service (GWAHS) and North Coast Area Health Service (NCAHS) have critical care referral links with tertiary facilities as illustrated. Owing to proximity with other state and territory health facilities, these Area Health Services also have cross border networks with tertiary critical care services in Queensland, South Australia, Victoria and the ACT.

**NSW Aeromedical and Medical Retrieval Services (AMRS)**

The Aeromedical and Medical Retrieval Services (AMRS) is a unit of the NSW Ambulance Service, and provides statewide 24-hour coordination and support for primary and secondary adult medical retrievals. Responsibilities include:

- Clinical advice from a critical care medical retrieval consultant.
- Mobilisation of an appropriate retrieval team.
- A “one phone call” referral, wherever possible, for critically ill patients, which uses conference call facilities to connect the referring clinician, medical retrieval consultant and receiving clinician.
- Assistance with ICU bed availability, when usual tertiary referral hospital ICU beds are unavailable.
- Assistance with any urgent transfer where routine patterns of referral are unavailable or unacceptably delayed.
AMRS is not responsible for finding beds or for the transfer of non-critically ill patients who require referral for a higher level of specialist care. These referrals are to be facilitated through the Area Patient Flow Units, Area based transport services and if needed the Ambulance Service of NSW.

Which Adults May Need Medical Retrieval?

Those with actual or potential significant injuries, illness or at risk of critical deterioration including:

**Airway**
- All intubated patients
- Patients potentially requiring airway intervention enroute (threatened airway obstruction, altered or decreasing LOC, head/neck trauma, head/neck burns)

**Breathing**
- Significant respiratory distress or compromise after treatment
- RR < 5 or >30, SpO₂ < 90% on 15L oxygen
- PₐO₂ <60 or PₐCO₂ >60 or pH < 7.2 or BE < -5
- Respiratory dependency on CPAP or BIPAP

**Circulation**
- Circulatory shock of any cause
- Heart rate < 40 or > 140 beats per minute
- SBP ≤ 90mmHg OR > 200mmHg
- Complex or recurrent arrhythmias (e.g. recurrent VF, sustained VT, CHB)
- Ongoing significant bleeding

**Disability**
- Significant altered LOC – GCS ≤ 13
- Significant head injury
- Acute spinal cord injuries
- Recurrent or prolonged seizures
- Intracerebral bleeding

---

**NSW Critical Care Services Adult Tertiary Referral Network**
**Area Health Service to Tertiary Hospital Links**

<table>
<thead>
<tr>
<th>Referring Area Health Service</th>
<th>Receiving Tertiary Hospital</th>
</tr>
</thead>
<tbody>
<tr>
<td>Northern Sydney/Central Coast Area Health Service</td>
<td>Royal North Shore</td>
</tr>
<tr>
<td>Hunter/New England Area Health Service</td>
<td>John Hunter</td>
</tr>
<tr>
<td>North Coast Area Health Service</td>
<td></td>
</tr>
<tr>
<td>Sydney West Area Health Service</td>
<td>Westmead</td>
</tr>
<tr>
<td>Sydney South West Area Health Service</td>
<td>Nepean</td>
</tr>
<tr>
<td>Greater Western Area Health Service 1</td>
<td>Royal Prince Alfred</td>
</tr>
<tr>
<td>Greater Western Area Health Service 2</td>
<td>Liverpool</td>
</tr>
<tr>
<td>Greater Southern Area Health Service 3, 4</td>
<td>Concord</td>
</tr>
<tr>
<td>South Eastern Sydney/Illawarra Area Health Service</td>
<td>Canberra¹</td>
</tr>
<tr>
<td>Greater Southern Area Health Service 3, 4</td>
<td>Prince of Wales</td>
</tr>
<tr>
<td></td>
<td>St George</td>
</tr>
<tr>
<td></td>
<td>St Vincent’s</td>
</tr>
</tbody>
</table>

1. Owing to proximity, NCAHS maintains a clinical referral network with Queensland
2. Owing to proximity, Broken Hill maintains a clinical referral network with South Australia
3. Albury is networked with clinical services in Victoria however referral to a NSW facility may be required due to clinical need.
4. Owing to proximity, GSAHS maintains a clinical referral network between The Canberra Hospital and the following hospitals: Bateman’s Bay, Batlow, Bega, Bombala, Boorowa, Braidwood, Cooma, Delegate, Moruya, Pambula, Queanbeyan, Tumut, Yass and Young.

85(01/04/10)
To expedite the retrieval process, AMRS requires specific information regarding the patient’s details, clinical status and management, and any special considerations such as obesity. A pro-forma for the information required for adult critical care transfers is included in this Policy Directive to guide referring clinicians (page 69).

Key Elements of the Medical Retrieval System

- AMRS provides statewide coordination of adult medical retrieval services, in collaboration with the Regional Retrieval Services. Adult medical retrieval services operate from:
  - Sydney (Bankstown)
  - Illawarra
  - Orange
  - Newcastle (JHH)
  - Tamworth
  - Lismore
  - Canberra
  - Dubbo (Royal Flying Doctor Service)
  - Broken Hill (Royal Flying Doctor Service)

- Vehicle choice (road, helicopter or fixed wing) is made on pre-determined criteria, based on the clinical urgency, transport requirements, optimum transport team and vehicle utilisation.

- Vehicles providing aeromedical medical transport include both fixed wing aircraft and helicopters. Fixed wing aircraft operate out of Sydney, Dubbo and Broken Hill. Sydney and Dubbo aircraft are used exclusively for the inter-hospital transfers while the aircraft at Broken Hill is also used for primary missions and to provide outreach clinic services.

- Helicopters are designated as category 1 or category 2. Category 1 helicopters transport all age groups, can carry two patients, are capable of instrument flight profiles (to fly in some but not all adverse weather conditions), operate on a 24-hour basis and have a statewide utilisation profile. These aircraft are located at Lismore, Newcastle, Sydney, Wollongong and Canberra. Category 2 helicopters are capable of carrying one patient only, are capable of instrument flight profiles, operate from 0800 to 1800 and have primarily a regional utilisation profile. These aircraft are located at Tamworth and Orange. Only helicopters holding contracts with the ASNSW are to be used to transport patients.

- Tertiary referral intensive care units are also the default hospital for private hospitals from within their Area Health Service.

- Critically injured patients are to be transferred to the nearest (in-time) designated appropriate facility (e.g. Major Trauma Service), irrespective of ICU bed status, so that emergency stabilisation and treatment can commence with minimal delay. Aviation factors may at times influence the destination hospital.

- Where there is a difference in clinical opinion regarding the appropriateness of the transfer then the final decision will be made by the medical retrieval consultant at AMRS. This will follow a conference call between the referring clinician, receiving medical consultant and the medical retrieval consultant.

- In specific cases, the referring consultant, medical retrieval consultant and the receiving consultant may decide to refer a patient to a different hospital which is considered more clinically appropriate for that patient’s definitive care.

Obese Patients

For the purposes of aeromedical transfer, an obese patient is defined as a patient weighing 110kg or more. For road transfers, an obese patient is defined as a patient weighing 160kg or more. In addition to overall weight, the dimensions of the patient and distribution of mass may affect the ability of a patient to fit on a transport stretcher even if they meet the above criteria.
Transfer of critically ill obese patients is challenging for both clinical and logistic reasons. Such patients often have unrecognised clinical problems, and once recognised dealing with these can be technically challenging. The transfer of obese patients by any vehicle is significantly slower than normal transfers. Special equipment and facilities (height adjustable trolleys, manual handling aids, concrete helipads and relatively flat and well surfaced pathways) are required and it is the responsibility of hospitals to have these available. Lack of such equipment and facilities is likely to significantly delay or negate the possibility of transfer.

Patient weight and logistic issues must be accurately conveyed to AMRS at the time of request to inform the most appropriate mode of patient transport. A medical retrieval consultant (AMRS or Regional) should be contacted in all critical care bariatric transfers.

Hospitals must ensure they have a means of weighing obese (including critically ill) patients, as this is crucial for deciding which vehicles can be used for medical retrieval. An estimate of weight is unacceptable as it is invariably an underestimate which may result in delays for transport as alternative vehicles, stretchers and restraint systems are sourced. The Bariatric Sizing Chart on page 49 outlines the methodology for correctly weighing and measuring obese patients. These details must be provided to the AOC for all critical care patients over 110 kg.

In general it is not possible to transfer an obese patient by helicopter from, or to, a hospital that does not have an on-site concrete helipad with paved access from the hospital. In other circumstances a road transfer will be required, irrespective of distance.

Hospital trolleys used for transport must:
- Be height adjustable at the maximum safe working load via a self contained system and not reliant on external power
- Be height adjustable from 660mm to 1020mm above ground level
- Have a minimum safe working load of 300kg
- Have a patient platform length of least 2 metres with no raised edging at one end.
- Have a patient platform width of 700mm
- Have a patient platform surface that is smooth with raised edges on both sides and one end
- Have a stretcher/patient restraint system
- Large wheels suitable for manoeuvring over the hospital to helipad surface

It is the responsibility of the referring and receiving hospitals to provide sufficient personnel and/or equipment to physically transport the patient from their hospital location to and into the vehicle (or vice versa). Regular communication is vital regarding the status of the mission, the condition of the patient and any specific clinical requirements.
Bariatric Sizing Chart for Aeromedical Transport

**Weight**

**ACTUAL:** ........ Kg  
**ESTIMATED:** ........ Kg

To assist in correctly determining patient sizing  
Please use the following formula  

\[
\text{Patient Width} = \text{BW} - (A + B)  
\]

\[
\begin{align*}
\text{PW} &= \text{Patient Width} \\
\text{BW} &= \text{width of bed} \\
A &= \text{distance from edge of bed to R shoulder tip} \\
B &= \text{distance from edge of bed to L shoulder tip}
\end{align*}
\]

**Please Circle**

1. Height adjustable stretcher available  
   Yes / No
2. On Site Helicopter pad available  
   Yes / No
3. Sealed path from Hospital bedside  
   to helicopter pad  
   Yes / No

Please fax to Aeromedical Operations Centre 02 9553 2275

---

NSW Health Guideline GL2005_070 outlines the Occupational Health & Safety Issues Associated with the Management of Bariatric (Severely Obese) Patients. The Guideline can be accessed at:  
Organising an Adult Medical Retrieval and Bed Finding

AMRS will facilitate the provision of clinical advice, referral to the appropriate linked tertiary hospital consultant, bed finding and patient transfer for **time urgent critically ill patients** from both public and private facilities to public facilities.

**NB.** Patient Flow Units should not be contacted in the first instance for **time urgent critically ill patients** due to the lack of readily available clinical information for these patients.

The referral process for **time urgent critically ill patients** is:

- Referring clinician calls AMRS on 1800 650 004 and, where feasible, a conference call will be established; between the referring clinician, medical retrieval consultant and receiving clinician at the linked tertiary hospital designated by the default hospital matrix. If there is a closer hospital that can provide the time-urgent treatment, AMRS may elect to transport the patient there. In each case the AMRS Consultant will notify the receiving clinician.

- Clinical and logistic advice will be provided to the referring clinician to support the stabilisation and resuscitation of the patient;

- Referral will be triaged and coordinated by the AMRS within the context of competing priorities;

- Referring clinicians are responsible for ensuring timely updates of any significant changes in the patient’s condition are provided to AMRS;

- AMRS is responsible for providing timely updates to the referring clinician on despatch and estimated time of arrival of the medical retrieval team.

**Non urgent critical care referrals** are facilitated by reference to the Critical Care Resource management System (CCRS) and utilising the established Area Health Service patient referral processes and clinical networks. Once the destination has been accepted at the receiving hospital then AMRS is to be contacted to undertake the retrieval. Should the established referral processes and clinical network not be able to accommodate the patient then AMRS can be contacted to assist both bed finding and medical retrieval of the patient.

**Critical Care Resource Management System (CCRS)**

CCRS is a statewide web based information system that assists the coordination and decision making for the referral and placement of critically ill patients to the appropriate level of definitive care. CCRS informs the availability of neonatal, paediatric, high risk maternity and adult critical care beds across NSW. An integrated module of the statewide Bedboard program, CCRS receives automated data feeds from the Area Health Services Patient Administration Systems to inform the ICU/HDU bed status.


CCRS enables each referring site to see available ICU and HDU beds in all facilities and provides communication details to support the negotiation of critically ill patient transfers.

A key aim of the CCRS is improved distribution of critically ill patients across the system to reduce the concentrated demand on tertiary services by facilitating access to regional services for clinically appropriate patients. Rural Area Health Services are increasingly able to provide complex critical care services at regional referral hospitals. Where appropriate, these regional critical care services should be considered as potential sites to refer critically ill patients thereby improving overall access to ICU/HDU beds. This statewide networking increases the number of patients able to be managed in regional centres, and in many cases allowing patients to be cared for closer to their home and family.
Each individual unit is responsible for ensuring the information in CCRS is correct and current. In addition to real-time updates on bed status at the unit level the Patient Administration System (PAS) will automatically update the bed status hourly. Each unit is required to check and verify the unit bed status at each nursing shift handover.

**CCRS enables early recognition of the system approaching capacity; in this situation all potential patient transfers should be expedited to maximise available bed capacity.**

**Non-Critical Patients Requiring Referral for Specialist Care**

The role of AMRS does not extend to finding beds and facilitating clinical referral for non-critical patients. The volume of referrals and multitude of clinical referral networks for non-critical patients does not support a centralised model. However, it is recognised that in some cases, unless the referral and transfer is timely, the situation may become critical.

Each Area Health Service has intra-Area and inter-Area clinical networks for non-critical patients requiring referral for a higher level of specialist care. Formalisation of these networks and an “escalation of care” process must be in place to ensure patients who require specialist referral are afforded timely access to definitive care.

An area-wide protocol for the “escalation of care” for specialist referral, approved by the Chief Executive, which outlines the process and clinical networks, must be in place by February 2011 to guide the referral of non-critical patient for specialist care.

Patient Flow Units (PFU) support these established networks, facilitate patient referrals for specialist care and improve access. The NSW Health ‘BedBoard’ program facilitates the identification of general and specialist ward beds to facilitate patient referral and access.

This structure provides the framework for the appropriate intra-Area clinical referral of non-critical patients requiring a higher and/or more specialised level of definitive care.

**Statewide Clinical Specialty Referral Networks**

A number of statewide clinical speciality networks operate in tandem with the NSW Critical Care Tertiary Referral Networks (Adults).

These networks are determined by Statewide and Selected Specialty Services Plans to achieve appropriate concentration of highly specialised services which can respond to the needs of NSW residents. The location of these services is determined by a range of factors including the volume of clinical demand, critical mass issues, workforce and clinical support services and in some cases, the imperative is to achieve early clinical intervention such as for those patients suffering serious trauma.

**NSW Severe Burn Injury Service Referral Network (Adult)**

The NSW Statewide Severe Burn Injury Service (Adults) is located at Concord Repatriation General Hospital and Royal North Shore Hospital. Children requiring attention for severe burn injury are cared for at The Children’s Hospital at Westmead.
In primary retrieval cases of a combined severe trauma and burn injury in the greater Sydney metropolitan area, where a helicopter with accompanying doctor has responded, then these patients may be transported directly to Royal North Shore Hospital if considered clinically appropriate.


<table>
<thead>
<tr>
<th>Referring Area Health Service</th>
<th>Receiving Severe Burn Hospital</th>
</tr>
</thead>
<tbody>
<tr>
<td>Concord Repatriation General Hospital</td>
<td></td>
</tr>
<tr>
<td>South Eastern Sydney/Illawarra AHS</td>
<td>Burns Registrar/Consultant on-call Ph: (02) 9767 5000 then page.</td>
</tr>
<tr>
<td>Sydney West AHS</td>
<td>Intensive Care Unit Ph: (02) 9767 6404</td>
</tr>
<tr>
<td>South Western Sydney AHS</td>
<td>Burn Unit/Ambulatory Care Ph: (02) 9767 7775 (b/h) Ph: (02) 9767 7776 (a/h) Fax: (02) 9767 5835</td>
</tr>
<tr>
<td>Greater Southern AHS</td>
<td>Burns CNC Ph: (02) 9767 5000 then page 60271 Office 9767 7798</td>
</tr>
<tr>
<td>Greater Western AHS</td>
<td>Australian Capital Territory (ACT)</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>Royal North Shore Hospital</th>
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<tbody>
<tr>
<td>Northern Sydney/Central Coast AHS</td>
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<tr>
<td>Hunter/New England AHS</td>
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<tr>
<td>North Coast AHS</td>
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</table>

Paediatric patients requiring medical retrieval are facilitated by NETS call: 1300 36 2500

**NSW Acute Spinal Cord Injury Referral Network (Adult)**

The Statewide Spinal Cord Injury Service (SSCIS) for adults is located at Prince of Wales Hospital and Royal North Shore Hospital. Children requiring care for acute spinal cord injury are cared for at The Children’s Hospital at Westmead and Sydney Children’s Hospital. SSCIS is responsible for the management of patients who have sustained a spinal cord injury where there is persistent neurological deficit arising from damage to neural tissue as a result of trauma, or from a non-progressive disease process (e.g. transverse myelitis, vascular occlusion, compression by infective process or haemorrhage).

Trauma patients who have sustained a spinal injury with neurological deficit are to be transferred to a specialist acute spinal injury service at the earliest opportunity, once medically stable. The relevant SSCIS is to be notified in all cases where a spinal cord injury has been sustained to facilitate referral and transfer as soon as possible, and to obtain guidance on clinical management.
The key element of this referral network is the coordination and facilitation of the bed finding process for acute spinal cord injuries with neural loss, by AMRS, who will facilitate communication between referring services and spinal unit clinicians in relation to acute clinical care. This referral process only pertains to acute spinal cord injuries with neural loss and those spinal cord injuries as defined by the SSCIS. Patients with vertebral fractures only, are to be referred to a Spinal/Orthopaedic or Neurosurgeon via the existing referral process for each Area Health Service. AMRS does not find beds for patients with vertebral fractures only.

The Spinal Cord Injury Referral Network describes specialist spinal services for acute spinal cord injuries and networked Area Health Services. AMRS is to be contacted to facilitate the medical retrieval of adults with an acute spinal cord injury on 1800 650 004.

<table>
<thead>
<tr>
<th>NSW Statewide Spinal Cord Injury Referral Network (Adult)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Referring Area Health Service</strong></td>
</tr>
<tr>
<td>South Eastern/Illawarra AHS</td>
</tr>
<tr>
<td>Greater Southern AHS</td>
</tr>
<tr>
<td>South Western Sydney AHS</td>
</tr>
<tr>
<td>Australian Capital Territory (ACT)</td>
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<tr>
<td>Northern Sydney/Central Coast AHS</td>
</tr>
<tr>
<td>Sydney West AHS</td>
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<tr>
<td>Greater Western AHS</td>
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<tr>
<td>Hunter/New England AHS</td>
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<tr>
<td>North Coast AHS</td>
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</tbody>
</table>

Patients with an established and stable spinal injury who require readmission to hospital should be referred to the local health facility which has the appropriate level of anaesthetic/intensive care service to oversee and manage any respiratory support requirements.

**NSW Major Trauma Referral Networks (Adult and Paediatric)**

It is the goal of the NSW Trauma Services Plan to integrate all hospital facilities into an inclusive trauma network in order to provide definitive trauma care to all injured patients throughout NSW. Patients with minor to moderate injuries will continue to be managed at the nearest appropriate facility, while patients with more serious injuries require management at a higher level of care necessitating transfer to a Major Trauma Service (MTS) for definitive care or a Regional Trauma Service (RTS) as required in the first instance in accordance with ASNSW Protocol T1. The Trauma Plan is available at: [http://www.aci.health.nsw.gov.au/_data/assets/pdf_file/0003/244236/NSW_Trauma_Services_Plan_Dec_2009.pdf](http://www.aci.health.nsw.gov.au/_data/assets/pdf_file/0003/244236/NSW_Trauma_Services_Plan_Dec_2009.pdf).

Paramedics are encouraged to transport all major trauma patients to the highest level trauma facility within one (1) hour travel time. If the patient has an un-relievable airway obstruction, the patient may be taken to the nearest available hospital, for urgent resuscitation.

Trauma networks which, are closely aligned with the NSW Critical Care Tertiary Referral Networks for adults, are largely determined by the location of the MTS and the imperative to achieve early clinical intervention for seriously injured patients in accordance with ASNSW Protocol T1.
Availability of an ICU bed at the receiving Major Trauma Service/Regional Trauma Service is not to delay the acceptance of time critical patients for emergency care.

Adults

Details of the adult MTS, the networked RTS and AHS networks are outlined in the following matrix:

<table>
<thead>
<tr>
<th>Major Trauma Service</th>
<th>Regional Trauma Service</th>
<th>Referring Area Health Services</th>
</tr>
</thead>
<tbody>
<tr>
<td>John Hunter</td>
<td>Coffs Harbour</td>
<td>Hunter New England AHS</td>
</tr>
<tr>
<td></td>
<td>Lismore¹</td>
<td>North Coast AHS</td>
</tr>
<tr>
<td></td>
<td>Port Macquarie</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Tamworth</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Tweed Heads¹</td>
<td></td>
</tr>
<tr>
<td>Royal North Shore</td>
<td>Gosford</td>
<td>Northern Sydney Central Coast AHS</td>
</tr>
<tr>
<td>Liverpool</td>
<td>N/A</td>
<td>Sydney South West AHS</td>
</tr>
<tr>
<td>Royal Prince Alfred</td>
<td>N/A</td>
<td>Sydney South West AHS</td>
</tr>
<tr>
<td>St George</td>
<td>Wagga Wagga</td>
<td>South Eastern Sydney/Ilawarra AHS</td>
</tr>
<tr>
<td></td>
<td>Wollongong</td>
<td>Greater Southern AHS²³</td>
</tr>
<tr>
<td>Westmead</td>
<td>Nepean</td>
<td>Sydney West AHS</td>
</tr>
<tr>
<td></td>
<td>Orange</td>
<td>Greater Western AHS⁴</td>
</tr>
</tbody>
</table>

1. Owing to proximity, NCAHS maintains a clinical referral network with Queensland.
2. Owing to proximity, Albury also maintains a clinical referral network with Victoria.
3. The Canberra Hospital maintains a referral network for the following hospitals: Batemans Bay, Batlow, Bega, Bombala, Boorowa, Braidwood, Cooma, Delegate, Moruya, Pambula, Queanbeyan, Tumut, Yass and Young.
4. Owing to proximity, Broken Hill also maintains a referral network with South Australia.

All patients assessed to be suffering severe trauma are to be taken directly to the closest Major Trauma Service. If travel time is greater than sixty minutes then initially they should be taken to the closest regional trauma service. There are however, four potential exceptions:

1. In primary cases of an **isolated acute spinal cord injury in the greater Sydney metropolitan area, where a helicopter with accompanying doctor has responded**, then these patients may be transported directly to the relevant specialist spinal cord injury service.

2. In primary cases of a **severe burn injury in the greater Sydney metropolitan area, where a helicopter with accompanying doctor has responded**, then these patients may be transported directly to the relevant specialist severe burn injury service.

3. In primary cases of a **combined severe trauma and burn injury in the greater Sydney metropolitan area, where a helicopter with accompanying doctor has responded**, then these patients may be transported directly to Royal North Shore Hospital if considered clinically appropriate.

4. In primary cases of a **combined severe trauma and acute spinal cord injury in the greater Sydney metropolitan area, where a helicopter with accompanying doctor has responded**, then these patients may be transported directly to Royal North Shore Hospital if considered clinically appropriate.
Paediatric

Prehospital response, triage, clinical management and transport of paediatric patients suffering serious trauma occurs according to the processes and criteria contained within the ASNSW Protocol T1 (page 56). Paediatric trauma is included in this Policy Directive due to the application of Protocol T1 to both adult and paediatric patient groups.

Children aged up to 16 years fitting the criteria in the pre-hospital Protocol T1 (with due consideration given to paediatric physiological changes) should be transferred, if within the recommended pre-hospital transport time, to a paediatric MTS capable of providing specialised acute, diagnostic and definitive paediatric trauma care. These cases are time-critical and need access to definitive trauma care in as timely manner as possible.

When direct transport to a paediatric MTS is not feasible, the child should be transported to the most appropriate adult MTS or RTS facility for initial assessment, stabilisation and appropriate transfer. Pre hospital notification to the ASNSW Operations Centre (Trauma Code 3 MIST), and through activation of the RLTC model and NETS, will facilitate an early retrieval response to support efficient transfer to a designated paediatric MTS.

The role of the paediatric MTS in supporting the hospitals within its clinical networks is emphasised here as it is important that there are adequate skill levels among staff in the emergency department, trauma services and other key areas as injured children will continue to present to these services. A policy of compulsory acceptance by the paediatric MTS of all requests for transfer of moderate to severely injured paediatric trauma patients is in place to ensure optimal care.

Area Health Services currently form part of the three Child Health Networks which are linked to each of three paediatric major trauma services as outlined in the following NSW Trauma Services Referral Network (Paediatric):

<table>
<thead>
<tr>
<th>Major Trauma Service</th>
<th>Child Health Network</th>
<th>Referring Area Health Services</th>
</tr>
</thead>
<tbody>
<tr>
<td>John Hunter Children’s Hospital</td>
<td>Northern</td>
<td>Hunter New England AHS</td>
</tr>
<tr>
<td></td>
<td></td>
<td>North Coast AHS1</td>
</tr>
<tr>
<td>Children’s Hospital, Westmead</td>
<td>Western</td>
<td>Sydney South West AHS (Liverpool, Fairfield, Concord)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sydney West AHS</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Northern Sydney Central Coast AHS (Gosford, Hornsby, Ryde, Wyong)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Greater Western AHS2</td>
</tr>
<tr>
<td>Sydney Children’s Hospital</td>
<td>Greater Eastern and Southern</td>
<td>South Eastern Sydney Illawarra AHS</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Northern Sydney Central Coast AHS (Manly, Mona Vale, RNSH)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sydney South West AHS (Balmain, Bankstown, Bowral, Camden, Campbelltown, Canterbury, RPA)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Greater Southern AHS3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ACT</td>
</tr>
</tbody>
</table>

1. Grafton and north of Grafton will usually refer to Brisbane
2. Referrals from Greater Western may go to Adelaide due to proximity.
3. Referrals from Greater Southern may go to Royal Children’s Melbourne due to proximity.

Where there is a need to train and up-skill staff the Area should liaise with the Trauma Network Coordinator and/or Trauma Clinical Nurse Consultant.
ASNSW Major Trauma Triage Tool

The accurate identification of patients with serious injury and their timely arrival at an appropriate hospital are crucial to the effectiveness of the trauma system. All trauma patients attended by the ASNSW are assessed according to the ASNSW Protocol T1 Pre-hospital Management of Major Trauma which is based on the MIST criteria to trigger a system-wide response to a patient suffering major trauma and a maximum sixty minute travel time to definitive care if required and clinically appropriate.

Trauma Triage Tool — Major Trauma Criteria (MIST)

M  MECHANISM OF INJURY

Blunt
- Transport Accident
  - Death in same vehicle
  - Impact to head, chest or lower limb compartment >30km
  - Patient side impact
  - Vehicle + pedestrian/cyclist/AAD
  - Ejection from vehicle
  - Entrapment with constriction
- Facial blunt trauma to head or torso
- Falls - 2m or paediatrics twice the height
- High voltage injury
- crush injury excluding fingers/toes
- Any rapid deceleration mechanism that results in a large inertia change at impact

Penetrating
- All penetrating injury (excluding isolated injury to hands or feet)

I  INJURIES

Head: Minor head injury with loss of consciousness or amnesia to event with:
- 2 or more vomits or a seizure
- un anticoagulants
- Open, depressed skull or signs of base of skull.
A decreased LOC due to traumatic injury, until proven otherwise.
Face: Injury with potential airway risk; severe haemorrhage.
Neck: Swelling, bruising, hoarseness or stridor.
Chest: Severe pain, paradoxical breathing, restraint abrasion/contusion.
Abdomen: Severe pain, rigidity, swelling, palpable tenderness, restraint abrasion/contusion.
Limb: 2 or more proximal long bone fracture, amputation proximal to digits, ischaemia, deforming injury.
Spinal: Visibly deformed.
Burns: Partial or full thickness burns, all circumferential burns in a patient with comorbidities or pregnancy.

S  SIGNS AND SYMPTOMS

Airways: at risk, hoarseness, stridor
Breathing: HR >120 or <90, P CO2 >35mmHg or cyanosis or respiratory difficulty
Circulation: HR >120, SBP >90 or severe haemorrhage
Disability: GCS <13 or paralysis/sensory deficit or any worsening trend in AEGD

P  Paediatric

Physiological changes are late indicators of serious injury in a child whom may lose 30% blood volume prior to ANY changes in vital signs. The following are a guide:
1st Year 1-2yrs
1yr <80
HR >80
SBP >80
1-2yrs
4-5yrs

T  TRANSPORT

If patient meets Major Trauma Criteria they are to be transported to the highest level Trauma Centre within a 1 hour travel time or Aeromedical Retrieval Service advised.
6. EMERGENCY CARE

NSW Rural Cardiac Catheterisation Laboratory Referrals

The NSW Rural Health Plan (2002) provided for the establishment of cardiac catheter services for adults at Tamworth, Orange, Wagga Wagga, Coffs Harbour and Lismore. In the event of a critically ill patient requiring urgent inter-hospital transfer from a rural cardiac catheter service to a tertiary hospital then the patient will be transferred according to the NSW Critical Care Tertiary Referral Networks (Adults). Critically ill cardiac patients who require transfer for an urgent procedure (usually interventional cardiology or surgery) will be immediately transferred for this procedure, regardless of an available ICU or CCU bed.

AMRS will facilitate the transfer and, where an Intra-Aortic Balloon Pump (IABP) device is required AMRS, will provide its own device configured for aeromedical transport.

NSW Extra Corporeal Membrane Oxygenation (ECMO) Medical Retrieval Service

For adults, an increasing demand for ECMO support has been observed for patients with severe respiratory failure, who are at the limits of conventional therapy. Improving survival rates of patients treated with ECMO have led to an increased demand for this support. Often these patients present to hospitals which do not have ECMO facilities and expertise resulting in a tertiary referral service performing an “ECMO heart - lung rescue”.

Patients who may be considered for ECMO are often too sick to safely transport with conventional equipment therefore the need arises to establish the patient on ECMO and stabilise their condition prior to transport. The safe management of an ECMO retrieval patient requires a coordinated response by the referring and receiving hospitals, ECMO team, Ambulance and the medical retrieval services.

For children in New South Wales, ECMO is provided at the Sydney Children’s Hospital and the Children’s Hospital at Westmead. Both these centres also refer patients to the Royal Children’s Hospital in Melbourne most commonly for non-cardiac patients where extended therapy is anticipated.

For adults, ECMO is provided at tertiary facilities in NSW with Level 6 Cardiothoracic and ICU services including:

- John Hunter Hospital
- Liverpool Hospital
- Prince of Wales Hospital
- Royal North Shore Hospital
- Royal Prince Alfred Hospital
- St Vincent’s Hospital
- St George Hospital
- Westmead Hospital

The primary reason for ECMO in these facilities is for cardiac surgery in adults however there has been an increasing incidence of ECMO being required to support or “rescue” adult patients in refractory respiratory failure.

Increasingly in adult cases, ASNSW is being called upon to transport an ECMO clinical team (3 persons) plus necessary equipment to metropolitan and rural based hospitals to stabilise patients on ECMO. After the patient is established on ECMO, the patient is then transported with a team of three (2 x retrieval, 1 x ECMO) to RPA or St Vincent’s Hospital.
The three potential transport modalities available are road, helicopter and fixed wing. While road transport is a viable option using the ASNSW large capacity road vehicles a number of problems are encountered using this mode of transport due to the extended travel time. An adequate supply of oxygen, air, suction, and electrical power cannot be maintained for prolonged periods requiring multiple stops at health facilities to replenish these essential elements of ECMO therapy which in turn increases the risk of adverse incidents. The ASNSW AW-139 helicopters have been configured to enable ECMO retrievals.

St Vincent’s Hospital and Royal Prince Alfred Hospital, in collaboration with AMRS, provide the ECMO referral and transfer service and ECMO retrieval team on alternate weeks. AMRS is notified of the active ECMO referral service. To organise the referral and transfer of a patient requiring rescue ECMO the following steps and conditions must be adhered to:

1. Early notification of a patient potentially requiring referral for ECMO is essential and should be undertaken in accordance with the “Indications for ECMO Referral” Guideline (page 59).
2. Initial contact is with AMRS who will then contact the active ECMO service (either the on-call General Intensive Care consultant at RPAH or the Cardiac Intensive Care consultant at SVH). The receiving hospital’s ICU consultant would then discuss the case with the referring clinician, on-call cardiac surgeon and medical perfusionist.
3. The destination hospital (either SVH or RPAH) will be determined according to the patients underlying condition, required clinical/surgical intervention and access to an available ICU bed.

AMRS is to be contacted to facilitate all adult ECMO referrals and transportation call: 1800 650 004

Case selection and treatment protocols used during ECMO are now well defined by the international Extracorporeal Life Support Organisation (ELSO). The flow diagram outlines the indications for ECMO therapy and referral based on guidelines developed by ELSO and used internationally.

In response to the increasing demand for patient stabilisation on ECMO, medical retrieval and transfer, and prolonged ECMO support an expert clinical group formed in NSW to provide advice on service and resource requirements, and to develop the following Indications for ECMO Referral Guideline which is to be used by all referring clinicians.
INDICATIONS FOR ECMO REFERRAL

Non-cardiogenic respiratory failure?
Potentially reversible?
Pneumothorax / large pleural effusion drained?
No contraindications to veno-venous ECMO?

Optimal ventilation?
(including PCV / PEEP > 10cmH2O)
consider: prone ventilation / inhaled NO / iloprost

\[ \text{PaO}_2 / \text{FiO}_2 < 100 \text{mmHg} \quad \text{for} > 48 \text{h} \]

delayed consultation

Cardiogenic shock?
Potentially reversible?
Refractory to maximal medical therapy / IABP?
\[ \text{PaO}_2 / \text{FiO}_2 > 100 \text{mmHg}? \]
No contraindications to veno-arterial ECMO?

\[ \text{PaO}_2 / \text{FiO}_2 < 100 \text{mmHg} \]
\[ \text{AND} \quad \text{pCO}_2 > 100 \text{mmHg} \]
\[ \text{for} > 1 \text{ hour} \]

\[ \text{PaO}_2 / \text{FiO}_2 < 80 \text{mmHg} \]

immediate consultation

Absolute contraindications to all forms of ECMO
* Significant pre-existing co-morbidity, such as irreversible neurological condition, cirrhosis with ascites, encephalopathy, history of variceal bleeding, active malignancy with predicted limited survival, HIV.
* Weight > 120kg

Relative contraindications to all forms of ECMO
* Age > 65
* Multiple trauma with uncontrolled haemorrhage
* Multiple organ failure

Absolute contraindications to veno-venous ECMO (for respiratory failure)
* Pulmonary hypertension (mPAP > 50mmHg)
* Severe right or left heart failure (EF < 25%)
* Cardiac arrest

Relative contraindications to veno-venous ECMO
* High pressure, high FiO2 IPPV for > 1 week

Absolute contraindications to veno-arterial ECMO (for cardiac failure)
* Severe aortic valve regurgitation
* Aortic dissection

Relative contraindications to veno-arterial ECMO
* Severe peripheral vascular disease
NSW High Risk Obstetric Referrals

The NSW Critical Care Tertiary Referral Networks (Neonatal and High-Risk Obstetric) are supported by the NSW Pregnancy and Newborn Services Network (PSN), the NSW Neonatal and Paediatric Emergency Transport Service (NETS), the Perinatal and Paediatric Resources System, Pregnancy Advice Line, evidence-based practice and policy and guideline development along with statewide education resources.

It is expected that AHS will ensure the provision of clinical support, cooperation and appropriate education between units through current clinical and education staff.

When women have been identified as requiring referral to a high-risk maternity unit, clinicians should contact the Tertiary Referral Centre in their Network to discuss the care and transfer arrangements. Consultants at the Tertiary Referral centres should be readily available to discuss clinical issues. Notification of the ICU team, and communication with the medical retrieval team, should occur early to ensure all clinical support services are aware and available as required.

Critically injured pregnant women should be managed the same as non-pregnant injured adults and transferred directly to the most appropriate designated trauma facility in accordance with the Ambulance of NSW Protocol T1 for trauma triage, management and transportation. A secondary transfer of the pregnant patient to a facility that has obstetric and neonatal services can occur once considered clinically appropriate. Early notification to NETS is warranted in this situation.

The Pregnancy Advice Line can be contacted through NETS and the NETS clinicians will be available to provide clinical support and advice. NETS provides statewide coordination of neonatal and paediatric retrieval, and compliments the Perinatal Advice Line (PAL) in coordinating difficult or complex high-risk maternal referral and transfer. PAL is a roster of senior specialists from tertiary units who are available for clinical advice.

High risk obstetric and neonatal care is provided by level 5 or 6 services. Clinicians will make the decision as to the most appropriate facility based on patient needs in conjunction with available beds and resources. Whilst predominantly providing neonatal surgical services, the neonatal intensive care cots at Sydney Children’s Hospital and The Children’s Hospital at Westmead will be considered when maternity beds are identified at The Royal Hospital for Women and Westmead Hospital, due to campus collocation.

The Greater Southern Area Health Service, Greater Western Area Health Service and North Coast Area Health Service have tertiary obstetric and neonatal links with facilities in the Sydney metropolitan area. It is acknowledged that these Area Health Services and northern sections of Hunter New England also have appropriate cross border networked referral arrangements with tertiary services in Queensland, South Australia, Victoria and the ACT. The NSW Critical Care Tertiary Referrals Networks (Neonatal and High-Risk Obstetrics) Policy Directive and the NSW Critical Care Tertiary Referrals Networks (Paediatrics) Policy Directive will become available in 2010 and will provide detailed clinical guidelines on the tertiary referral of high-risk obstetric and paediatric patients.

NSW Statewide Default Adult ICU Bed Policy

Access to emergency care and/or urgent surgical intervention for time-critical patients is not to be delayed due to no-available ICU bed. AMRS should be contacted immediately for such patients.
In time urgent situations, the AMRS has the authority to transport the patient directly to the linked tertiary hospital designated by the default hospital matrix regardless of bed state. If there is a closer facility that can provide the time-urgent treatment, AMRS may elect to transport the patient there.

Each Area Health Service is ultimately responsible for meeting the intensive care needs (except for super-specialty services) of that Area and is responsible for a linked rural Area Health Service, where specified. In addition, each Area Health Service has a responsibility to ensure that all options for placement of the patient within the Area have been explored and that all appropriate transfers from Intensive Care Units to inpatient wards have been made.

The Area Director of Clinical Operations (DCO) is responsible for ensuring formalised intra-Area and inter-Area referral arrangements exist for critically ill patients needing a higher level of definitive care and for non-critically ill patients requiring referral for specialist care. Clinical referral and support processes are transparent and effectively communicated to all staff to ensure patients can access definitive care in an appropriate timeframe. The AMRS may contact the DCO where necessary to resolve inter-Area and non urgent transfers.

In situations of high demand, where there are **no appropriate adult intensive care beds available across the system for a non-urgent critical patient** then the Default Adult Intensive Care Bed Policy may be invoked. This step is taken only after thorough assessment has been undertaken of the intensive care services capacity and intra/inter-Area Health Service critical care referral networks to ensure all potential referral options have been exhausted.

In the event of the default system being activated, the tertiary referral hospital designated by the **NSW Intensive Care Default Hospital Matrix** will be responsible for providing critical care, irrespective of bed status, to a specified group of referral hospitals.

The default matrix has been developed following consultation with Area Health Services, the NSW Medical Retrieval Committee, Critical Care Health Priority Taskforce, Intensive Care Taskforce and other key stakeholders. The default matrix is based on a hospital-to-hospital network and does not necessarily follow the normal Area Critical Care Referral Networks. In specific cases the referring consultant, medical retrieval consultant and the receiving consultant may decide to refer a patient to a different hospital which is considered more clinically appropriate for the patient’s definitive care.

**Invoking the Default Adult ICU Bed Policy:**

- The referring hospital contacts their intra-Area ICU/s to verify there is no capacity to accept the patient within Area.
- All units are to review exit blocked beds, liaise with the hospital executive to have them cleared and update CCRS
- The referring hospital verifies that there are no appropriate available ICU beds as shown on CCRS.
- The referring hospital contacts AMRS who will explore any alternative destination for an ICU/HDU bed.
- Where no appropriate available ICU bed can be identified across the system the on-duty Medical Retrieval Consultant at AMRS will invoke the Default Adult ICU Bed Policy and contact the receiving ICU Consultant.

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6. EMERGENCY CARE

• The designated tertiary ICU will accept the patient, irrespective of bed status, as per the Default ICU Matrix.

• AMRS will advise the Director, Statewide Services Development Branch

• If AMRS becomes aware of any exit block issues affecting access to ICU/HDU beds, they will notify the Director, Statewide Services Development Branch who will liaise with the relevant AHS Executive to address these issues.

Fundamental to this procedure being activated is the principle that:

Where a patient requires time-critical care, not available at the referring hospital, then the patient must be transferred immediately to the facility designated by the Default Hospital Matrix that is able to provide appropriate emergency treatment irrespective of bed status.
# APPENDIX 1 Clinical Referral Networks

## JOHN HUNTER HOSPITAL

### Hunter New England Area Health Service

- Armidale
- Barraba
- Belmont
- Bingara
- Boggabri
- Bulahdelah
- Cessnock
- Denman
- Dungog
- Glen Innes
- Gloucester
- Gunnedah
- Guyra
- Inverell
- James Fletcher
- Kurri Kurri
- Lake Macquarie (private)
- Maitland
- Manilla
- Manning
- Merriwa
- Moree
- Morisset
- Murrurundi
- Muswellbrook
- Narrabri
- Calvary Mater Newcastle
- Quirindi
- Scone
- Singleton
- Tamworth
- Taree
- Tenterfield
- Tingha
- Tomaree Community (formerly Nelson Bay Polyclinic)
- Vegetable Creek (Emmaville)
- Walcha
- Warralda
- Wee Waa
- Werris Creek

### North Coast Area Health Service

Owing to proximity, some northern NCAHS Hospitals also maintain a clinical referral network with Queensland.

- Ballina
- Bellingen
- Bonalbo
- Byron
- Campbell
- Casino
- Coffs Harbour
- Dorrigo
- Grafton
- Kyogle
- Lismore
- Maclean
- Macleay/Kempsey
- Macksville
- Mullumbimby
- Murwillumbah
- Nimbin
- Port Macquarie
- Riverlands
- Tweed Heads
- Urbenville
- Wauchope
Clinical Referral Networks

### ROYAL NORTH SHORE HOSPITAL

**Northern Sydney Central Coast Area Health Service**

- Castlecrag (Private)
- Dalcross (Private)
- Gosford
- Hornsby
- Manly
- Mater Misericordiae (Private)
- Mona Vale
- North Shore (Private)
- Royal Rehabilitation
- Ryde
- Sydney Adventist (Private)
- Woy Woy
- Wyong

### WESTMEAD HOSPITAL

**Sydney West Area Health Service**

- Auburn
- Blacktown
- Baulkham Hills (Private)
- Mt Druitt
- St Joseph’s Auburn
- Westmead (Private)

### NEPEAN HOSPITAL

**Sydney West Area Health Service**

- Blue Mountains
- Hawkesbury
- Lithgow
- Portland
- Springwood

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Clinical Referral Networks

**CONCORD HOSPITAL**

*Sydney South West Area Health Service*

- Canterbury

**LIVERPOOL HOSPITAL**

*Sydney South West Area Health Service*

- Bowral
- Campbelltown
- Camden
- Bankstown/Lidcombe
- Fairfield

Referral Hospital: **ROYAL PRINCE ALFRED HOSPITAL**

*Sydney South West Area Health Service* | *Greater Western¹ Area Health Service*
---|---
- Balmain | Balranald
- Baradine | Baradine
- Bathurst | Bathurst
- Blayney | Blayney
- Bourke | Bourke
- Brewarrina | Brewarrina
- Broken Hill | Broken Hill
- Canowindra | Canowindra
- Cobar | Cobar
- Collarenebri | Collarenebri
- Coolah | Coolah
- Condobolin | Condobolin
- Coonabarabran | Coonabarabran
- Coonamble | Coonamble
- Cowra | Cowra
- Cudal | Cudal
- Dubbo | Dubbo
- Dunedoo | Dunedoo
- Eungowra | Eungowra
- Forbes | Forbes
- Gilgandra | Gilgandra
- Goodooga | Goodooga
- Grenfell | Grenfell
- Gulgong | Gulgong
- Gulargambone | Gulargambone
- Ivanhoe | Ivanhoe
- Lake Cargelligo | Lake Cargelligo
- Lightning Ridge | Lightning Ridge
- Molong | Molong
- Mudgee | Mudgee
- Narramine | Narramine
- Nyngan | Nyngan
- Oberon | Oberon
- Orange | Orange
- Parkes | Parkes
- Peak Hill | Peak Hill
- Rylstone | Rylstone
- Tibooburra | Tibooburra
- Tottenham | Tottenham
- Trangie | Trangie
- Trundle | Trundle
- Tullamore | Tullamore
- Walgett | Walgett
- Warren | Warren
- Wellington | Wellington
- Wentworth | Wentworth
- White Cliffs | White Cliffs
- Wilcannia | Wilcannia

¹. Owing to proximity, GWAHS maintains a clinical referral network with South Australia.
### Clinical Referral Networks

#### PRINCE OF WALES HOSPITAL

<table>
<thead>
<tr>
<th>Sydney South East Illawarra Area Health Service</th>
<th>Greater Southern Area Health Service</th>
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<tbody>
<tr>
<td>• Prince of Wales (Private)</td>
<td>• Boorowa</td>
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<td>• Crookwell</td>
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<td>• Goulburn</td>
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<td>• Murrumburrah-Harden</td>
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<td>• Young</td>
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#### ST VINCENT’S HOSPITAL

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<thead>
<tr>
<th>Sydney South East Illawarra Area Health Service</th>
<th>Greater Southern Area Health Service</th>
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<tr>
<td>• St Vincent’s (Private)</td>
<td>• Coolamon</td>
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<tr>
<td>• Sydney/Sydney Eye</td>
<td>• Cootumundra</td>
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<td>• Griffith</td>
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<td>• Wagga Wagga</td>
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<td>• West Wyalong</td>
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Clinical Referral Networks

### ST GEORGE HOSPITAL

<table>
<thead>
<tr>
<th>Sydney South East Illawarra Area Health Service</th>
<th>Greater Southern Area Health Service</th>
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<tr>
<td>• Bulli</td>
<td>• Barham</td>
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<tr>
<td>• Kareena (Private)</td>
<td>• Berrigen</td>
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<tr>
<td>• Milton Ulladulla</td>
<td>• Corowa</td>
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<tr>
<td>• Port Kembla</td>
<td>• Culcairn</td>
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<tr>
<td>• Shell Harbour</td>
<td>• Deniliquin</td>
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<tr>
<td>• Shoalhaven</td>
<td>• Finley</td>
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<tr>
<td>• St George (Private)</td>
<td>• Henty</td>
</tr>
<tr>
<td>• Sutherland</td>
<td>• Holbrook</td>
</tr>
<tr>
<td>• Wollongong</td>
<td>• Jerilderie</td>
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<tr>
<td></td>
<td>• Tocumwal</td>
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<tr>
<td></td>
<td>• NB. Albury is networked with clinical services in Victoria however referral to a NSW facility may be required due to clinical need.</td>
</tr>
</tbody>
</table>

### THE CANBERRA HOSPITAL

<table>
<thead>
<tr>
<th>Greater Southern Area Health Service</th>
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<tbody>
<tr>
<td>• Batemans Bay</td>
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<td>• Batlow</td>
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<td>• Bega</td>
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<tr>
<td>• Bombala</td>
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<tr>
<td>• Braidwood</td>
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<td>• Cooma</td>
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APPENDIX 2 Clinical Resource Documents & References

Joint Faculty of Intensive Care Medicine, Australian & New Zealand College of Anaesthetists and the Australasian College of Emergency Medicine: Minimum Standards for Transport of Critically Ill Patients.

Joint Faculty of Intensive Care Medicine, Australian & New Zealand College of Anaesthetists and the Australasian College of Emergency Medicine: Minimum Standards for Intra-hospital Transport of Critically Ill Patients.

ICCMU Intensive Care Services Statewide Clinical Guidelines


NSW Health (2009) Selected Specialty and Statewide Service Plans - NSW Trauma Services NSW Health, Sydney, Australia
# NSW Aeromedical and Medical Retrieval Services (AMRS)

## ADULT CRITICAL CARE TRANSFERS

<table>
<thead>
<tr>
<th>Patient Name</th>
<th>Age</th>
<th>Weight (kgs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Referring Hosp</td>
<td>Referring Doctor</td>
<td></td>
</tr>
<tr>
<td>Receiving Hosp</td>
<td>Rec Doctor</td>
<td>Ward</td>
</tr>
</tbody>
</table>

### AIRWAY
- [ ] Consider if ETT required
- [ ] Correct ETT position
- [ ] ETT secure
- [ ] NGT/OGT if intubated or vomiting
- [ ] Consider hard C collar

### BREATHING
- Resp Rate
- SpO2
- FiO2
- Ventilation Parameters
- ETCO2
- PAWP
- [ ] Consider if ICC/s required
- [ ] Correct ICC/s position and function

### CIRCULATION
- Pulse
- Blood Pressure
- Urine Output (IDC)
- Core Temperature
- Arrhythmias
- [ ] Peripheral (large) IVs x2
- [ ] All maintenance fluids/blood on pumps/infusions
- [ ] Patient and fluids warmed
- Total fluids IN
- [ ] Pelvic stabilisation/limb splints
- [ ] Consider Central line
- [ ] Consider Arterial line

### DISABILITY
- GCS
- Pupils
- Focal Neurology
- Seizures

### DIAGNOSTICS
- X-rays
- CT/Scan’s
- ABG
- K / Cr
- ECG
- BSL
- Hb
- Other

### INFUSIONS
- Sedation?
- [ ] Morphine/Midazolam (50mg:50mg/to total 50ml)
- [ ] Propofol (40ml neat in 50ml syringe)
- [ ] Nil

#### Others
- 1. Drug
- Concentration
- Rate
- 2. Drug
- Concentration
- Rate
- 3. Drug
- Concentration
- Rate

### DOCUMENTATION
- [ ] Summary letter
- [ ] Photocopies of all notes including ECG’s and Ambulance Cases-sheets
- [ ] All relevant X-rays and CT scans – originals or copies

### STABILITY
- Is the patient’s overall condition
- [ ] Improving?
- Is there anything more I can do to help this patient without delaying transfer?
- [ ] Stable?
- Clinical and transport advice is available around the clock from an experienced
- [ ] Deteriorating?
- Retrieval Physician for critically ill adult transfers – Ring 1800 650 004.
6. EMERGENCY CARE

AUTONOMIC DYSREFLEXIA (REVISED) – SAFETY NOTICE 014/10

Safety Notice 014/10 replaces IB2001/1.

Background

Autonomic dysreflexia is a medical emergency that can occur in people with spinal cord injury at or above the sixth thoracic (T6) level. It is a sudden and severe rise in blood pressure resulting from overactivity of an isolated sympathetic nervous system below the lesion, triggered by a nociceptive stimulus that can result in intracranial haemorrhage, fits, arrhythmias, hypertensive encephalopathy and even death. This potentially life-threatening condition requires immediate and decisive action.

Spinal units are very familiar with the diagnosis and treatment of autonomic dysreflexia. However, people with spinal cord injury most often present or are taken by an ambulance to their local healthcare facility. As spinal cord injury is not a common condition local healthcare professionals may have little or no experience in recognising or managing autonomic dysreflexia. This has resulted in preventable adverse outcomes with a minimum of 3-4 critical incidents reported each year in NSW.

Symptoms and Signs

The person may present with all or some of the following:

- Pounding headache, which gets worse as the blood pressure rises.
- Flushing or blotching of the skin and/or profuse sweating above Spinal Cord Injury (SCI) lesion level.
- Skin pallor and goose pumps below the SCI lesion level.
- Blurred vision, nasal congestion (stuffiness).
- Chills without fever.
- Shortness of breath, sense of apprehension or anxiety.
- Hypertension - blood pressure is significantly elevated (at least 20-40 mmHg above normal resting systolic level).

Note: It is important to remember that blood pressure for individuals with high paraplegia or tetraplegia may usually be low, around 90-100/60 mmHg lying down and possibly lower whilst sitting. Therefore, patients with spinal cord injury may become symptomatic with blood pressure in the normal range for the general population.

- Bradycardia (as secondary compensatory response to raised blood pressure).

Common Causes of Autonomic Dysreflexia

Any irritating stimulus below the level of the spinal cord injury lesion may precipitate autonomic dysreflexia. Causes of irritation include the following:

- Bladder-related: bladder distension, urine infection, calculus, epididymo-orchitis.
- Bowel-related: bowel distension from constipation, inflamed haemorrhoids, chemical irritation from suppositories.
- Skin-related: pressure sore, burn, ingrowing toenail.
- Other: fractured bones, contracting uterus, acute abdominal condition.

Treatment

Refer below for the Autonomic Dysreflexia Treatment Algorithm.
6. EMERGENCY CARE

Treatment Alert

DO NOT use glyceryl trinitrate if sildenafil (Viagra) or vardenafil (Levitra) has been taken in the previous 24 hours or tadalafil (Cialis) in the previous 4 days. In situations where glyceryl trinitrate is contraindicated, an alternative (short-acting) anti-hypertensive agent, such as captopril should be used. Captopril, administered sublingually as a 25mg tablet, has been shown to effectively lower blood pressure within 15 minutes. Advantages of sublingual administration are that the drug enters the general circulation directly, with therapeutic concentrations and onset of action achieved more rapidly than with oral administration. In addition, the partially dissolved tablet may be spat out if there is a very rapid reduction in blood pressure. A rectal examination or insertion of an indwelling catheter may exacerbate autonomic dysreflexia.

Suggested Actions

Emergency Departments and the Ambulance Service are often the first point of contact for the person with autonomic dysreflexia. To prevent delayed or missed diagnosis of autonomic dysreflexia, it is recommended that the following steps be followed.

Ambulance Officers and Services

- Ambulance triage officers should be familiar with the symptoms and signs of autonomic dysreflexia and be able to alert and dispatch Paramedics to respond quickly to this situation.
- When assessing a person with spinal cord injury at/above the T6 level, a high index of suspicion for autonomic dysreflexia is required. The person should be asked if they have had autonomic dysreflexia before and simple measures to reduce blood pressure should be taken.
- Ring ahead to alert the Emergency Department that a person with suspected autonomic dysreflexia is arriving.
- Ensure the autonomic dysreflexia management algorithm is readily available in ambulances.
- Provide education on autonomic dysreflexia management on a regular basis.
- Have glyceryl trinitrate sublingual (eg: Anginine tablets, Nitrolingual Pumpspray) or transdermal patches available.

Emergency Departments

- On arrival at the Emergency Department, the patient should be seen immediately by the triage nurse. Suspected autonomic dysreflexia should be assigned a Category 2.
- Care should be directed by the most senior doctor present in the Emergency Department (ED) with appropriate specialist consultation.
- The cause of autonomic dysreflexia needs to be identified and treated for resolution. If no cause is found and/or autonomic dysreflexia persists, blood pressure must be adequately controlled. Management of hypertensive crisis with intravenous medication may be required to control blood pressure, while contact is being made with a spinal specialist about further management (see below).
- After resolution of an autonomic dysreflexia episode, blood pressure should be monitored for 4 hours. In some severe cases of autonomic dysreflexia, the person should be admitted for observation.
- Ensure the autonomic dysreflexia management algorithm (see below) is easily available in the ED and education on autonomic dysreflexia management is provided.
- For facilities using the EDIS/FirstNet, a clinical alert should be entered onto the system noting that “the patient is at risk of autonomic dysreflexia please refer to Safety Notice 014/10 - Autonomic Dysreflexia for guidance in the management of this condition”.

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6. EMERGENCY CARE

Staff in general hospitals and wards
- Any person with spinal cord injury at/above the T6 level should have a “when necessary” order for sublingual glyceryl trinitrate (e.g., Nitrolingual Pumpspray or Anginine tablet/s) recorded on the drug chart on admission.
- Development of symptoms and signs of autonomic dysreflexia requires immediate attention to assess blood pressure and look for reversible causes. If a reversible cause is not rapidly found, prompt medical review is necessary to further assess possible causes and initiate appropriate treatment.
- The autonomic dysreflexia management algorithm (see below) should be easily accessible.
- For facilities using the electronic medical record a clinical alert should be entered onto the system noting that “the patient is at risk of autonomic dysreflexia please refer to Safety Notice 014/10 - Autonomic Dysreflexia for guidance in the management of this condition”.

Further Advice about Patient Management

If glyceryl trinitrate or captopril do not lower the blood pressure sufficiently and/or the cause of the autonomic dysreflexia has not been identified, please contact, via the hospital switch board, the on-call Spinal Cord Injury Physician at either Royal North Shore Hospital (02) 9926 7111 or the Prince of Wales Hospital (02) 9382 2222.

Other Suggested Actions
- Consult the patients and carers, determine if they know about this condition as they can often suggest a cause of the symptoms and management strategies.
- Check if patients are carrying an Autonomic Dysreflexia Management Card that can assist to identify the cause of symptoms and provide treatment strategies.
- It is suggested that Autonomic Dysreflexia is noted in the EDIS, NSW Health medical record or Electronic Medical Record Alert and NSW Ambulance Service Alert (Protocol 71 or electronic Mobile Data Terminal) systems.

Further Information about Autonomic Dysreflexia
The NSW State Spinal Cord Injury Service website includes clinical information sheets and practice guides about:
- Treatment of Autonomic Dysreflexia for Adults and Adolescents with spinal cord injury
- An Overview of Skin and Pressure Ulcer Management
- Management of the Neurogenic Bladder in spinal cord injury
- Management of the Neurogenic Bowel in spinal cord injury

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MATERNITY – CLINICAL CARE AND RESUSCITATION OF THE NEWBORN INFANT (PD2008_027)

This policy should be read in conjunction with
- **PD2005_256** newborn infants with respiratory maladaptation to birth - observation and management
- **PD2010_069** Critical Care Tertiary Referral Networks (Perinatal)
- **PD2011_076** Deaths – Review and Reporting of Perinatal Deaths


This policy has been developed by an expert clinical group convened by the NSW Pregnancy and Newborn Services Network (NSW PSN). The policy has been endorsed by the NSW Maternal and Perinatal Committee.

The health system will use the ARC Guidelines with the suggested amendments to develop clear local policies and procedures for clinical care and resuscitation of the newborn infant. These local policies will establish standards of practice and serve as a foundation for staff education and training programs.

**In this context, newborn means the first minutes to hours following birth.**

**Introduction**

Resuscitation of the newborn presents a different set of challenges from resuscitation of the adult or even the older infant or child. Transition from fetal to extrauterine life presents unique physiological challenges for the newborn infant. The effect of gestational age on the development of the lung and pulmonary circulation influences how newborn infants at different gestational ages are resuscitated. Although most babies achieve this transition from fetal to extrauterine life without difficulty, a minority (<10%) require some degree of active resuscitation at birth.

---

23 ILCOR (2005) ARC (2006)+-
While the need for resuscitation of the newborn infant can often be predicted, the need may also arise suddenly and in any birth setting. Policies and procedures for resuscitation of the newborn infant which establish evidence-based standards of clinical practice and underpin staff education and training programs play an important role in reducing perinatal morbidity and producing quality neonatal outcomes.

Section 1

As recommended by the National Health and Medical Research Council (NHMRC)\(^{24}\), local policies and procedures must be prominently displayed in each Maternity Unit and be made readily accessible to all medical, midwifery, nursing and paramedical staff attending routine and emergency births. This includes home birth attendants, flight nurses and Ambulance Service Officers of all grades. The flowchart attached has been developed for prominent display to provide visual cues for the provision of newborn resuscitation (Appendix A). In particular:

- Statements covering special resuscitation circumstances such as preterm birth (<37 weeks), multiple birth, maternity emergencies must be developed in keeping with the Hospital Role delineation.
- The local policies must also direct that appropriate assessment must occur of every woman for antepartum and intrapartum conditions associated with risk to the newborn infant.
- The local policies must also direct that evaluation of every newborn infant should occur, to assess the need for resuscitation. These will include: Visual inspection for meconium on the skin, vigorous cry, respiratory effort, muscle tone, colour and gestation (term, preterm);

Section 2

NSW Health supports the ARC guidelines 13.1-13.10 however has identified some differences that need to be addressed in local policy and practice documents. The variances from ARC (2006) that are to be included in local policy are as follows:

- **Newborn Resuscitation** training is mandatory for all clinical staff in services providing maternity care to ensure all staff, who may be called upon to provide birthing services, possess the necessary knowledge and skills to initiate basic newborn resuscitation which includes manual ventilation using bag and mask and cardiac compressions.
- Direction that a person trained in advanced neonatal resuscitation must be on call for low risk and in attendance for all high-risk births.
- Information that relates to the components of a complete set of resuscitation equipment and the required checking procedure to ensure it remains operational. This must include instructions for use of all equipment, including the radiant warmer. A list can be found in ARC Guideline 13.1 page 4/6.
- Infants less than 28 weeks gestation must not be dried before wrapping in heat resistant polyethylene bags or wrap to maintain normothermia.

\(^{24}\)NHMRC (1996) Clinical practice guidelines. Care around preterm birth. AGPS: Canberra. p.120-122

*A person with the knowledge and skill to perform advanced airway manoeuvres, including endotracheal intubation and a person with advanced vascular access skills including umbilical vein catheterization.
6. EMERGENCY CARE

- In NSW Sodium Bicarbonate and Naloxone H must not be on the neonatal resuscitation trolleys however should be readily available in all units for ongoing stabilisation of a newborn by trained personnel.**

- Reference must be made to the need for special consideration of infants born with meconium-stained liquor. There is no evidence to support suction on the perineum or routine intubation. If the newborn infant has absent or depressed respirations suction is to be initiated with endotracheal intubation and use of meconium aspirator under direct laryngoscopy. This must be brief and not compromise the infant further.

- When pressure limited flow driven devices (e.g. Neopuff) are used policy must include the use of them and note these should be used only when a self-inflating bag (Laerdel) bag is available as back up.

- If a pressure limited flow driven device (e.g. Neopuff) is used the positive inspiratory pressure (PIP) should be set at 20-30 cm H2O to commence resuscitation, and adjusted as required to achieve chest movement.

- Air should be administered as part of the resuscitation process however 100% O2 should be available if there is no response in heart rate by 90 seconds. The flow rate should be set at 8-10L/min**

- Any newborn infant that requires Naloxone needs to be observed appropriately in a nursery until the risk of apnoea has been eliminated.

- In the resuscitation of a newborn infant born unexpectedly without signs of life, airway support can be instituted with a bag and mask or T piece and mask (Neopuff) device until more experienced personnel* are available to determine further resuscitative methods.

- Any infant who has been intubated must be extubated in the presence of experienced personnel and observed closely.

- An Orogastric tube (Size 8FG) must be inserted and air aspirated to facilitate decompression of the stomach of any newborn requiring prolonged ventilation.

In addition

- Statements on ethical issues, such as circumstances where non-initiation or discontinuation of resuscitation in the delivery room may be appropriate. These statements must be consistent with the hospital’s Role Delineation,25 local resources and outcome data and must emphasise the need to include parents in the process of decision-making.

- Emphasise the need for early consultation and collaboration between parents and all caregivers (general practitioners, midwives, neonatologists, obstetricians and paediatricians) where there may be a need for active resuscitation.

** It should be noted that almost all research done in the last decade has focussed on term infants compromised by mild to moderate intrapartum asphyxia. It cannot be assumed that air is of greater benefit than 100% O2 for infants affected by extreme prematurity, severe intrapartum asphyxia, intrapartum sepsis or at risk of pulmonary hypertension following delivery through meconium stained liquor. Furthermore, the studies comparing air with 100% O2 for newborn resuscitation have not reported long term neurodevelopmental outcomes.  
25 NSW Health Department (2002). Guide to the role delineation of Health Services
• Local procedures for implementation of NSW Health Policy Directive PD2010.069 Critical Care Tertiary Referral Networks (Perinatal) must be in place.

Section 3

Local policies must include:
• Continuing care of the infant and family after active resuscitation, including supportive care, continuous observation and appropriate diagnostic evaluation of the infant
• Provision of information and support to the parents
• Procedures for documentation of resuscitation interventions and responses that:
  • Contribute to an understanding of the infant’s pathophysiology and possible further treatment;
  • Can be used for audit and peer review purposes to monitor resuscitation outcomes and improve resuscitation performance and training;

Section 4

A staff education and training program is mandatory and must include provision of training:
• in orientation programs for all new staff providing birthing services and working with newborns;
• annual continuing education and staff development programs;
• that includes theoretical and practical components;
• that includes mechanisms for an annual assessment of competence in resuscitation of the newly born infant;
• attendance at the Fetal welfare Obstetric emergency Neonatal resuscitation Training (FONT) Maternity Emergency and Neonatal Resuscitation one day Training is mandatory for all clinicians privileged or appointed to practice Obstetrics, Registered Midwives and Student Midwives under the supervision of a Registered Midwife, once every three years. This one day of education is acceptable as part of the annual accreditation.

Further information on staff education, training programs and policy development in neonatal resuscitation is available from the NSW Pregnancy and Newborn Services Network on 02 9351 7318.

1 ILCOR (2005)
   ARC (2006)+
3 NSW Health Department (2002). Guide to the role delineation of Health Services
Flow Diagram for the Newborn requiring Resuscitation

Birth

Good Tone, Crying, Pink, Term

Yes

Routine Care

Dry

Keep warm (skin to skin)

Maintain airway

Assess breathing and HR

No

Dry, Keep warm, Maintain airway

Assess Breathing and Heart Rate

**

Heart Rate < 100 or inadequate breathing

30 secs

Give Positive Pressure Ventilation at 40-60 breaths per minute for 30 seconds or til HR >100 or regular breathing **

No

HR < 60 or Inadequate breathing

30 secs

Assess Airway (Neutral position) and Breathing (Chest movement)
If HR < 60- commence CPR with IPPV, 3 compressions to 1 breath for 30 seconds then reassess **

No

HR < 60 or Inadequate breathing

30 secs

Assess Airway (Neutral position) and Breathing (Chest movement), and CPR technique
If HR < 60- Adrenaline 0.1-0.3ml/kg of 1:10,000 via UVC/ETT
Consider fluid bolus 10ml/kg normal saline
Repeat 3-5 minutely
Always maintain Airway, Breathing and CPR **
Section 1: Overview

Introduction

This document describes the response of emergency departments (EDs) and multi purpose services to an influenza pandemic. For simplicity, when the term ‘emergency department’ is used in this document, it refers to all facilities in NSW with an emergency department, and all multi purpose services.

Due to the wide variability of health care facilities in New South Wales (NSW), a document such as this cannot be entirely prescriptive. Rather, it should be seen as a guide for developing and implementing a local response to pandemic influenza. Strategies will need to be implemented at each facility to ensure they meet the objectives described in this document.

The two main stages of the pandemic response are the containment stage and the ‘maintenance of social function’ stage.

In the containment stage, the emphasis is on slowing the spread of a pandemic to reduce the burden on the health system and to buy time for the development of a pandemic influenza vaccine. The main strategies in this stage are to:

- prevent people with pandemic influenza entering Australia
- find people with pandemic influenza, isolate them, and treat them with antiviral medication
- trace the contacts of these people, provide them with antiviral prophylaxis, and quarantine them.

A close liaison between clinicians and public health unit (PHU) personnel is vital for containment to be successful.

The ‘maintenance of social function’ stage will occur when the resources required for containment are exceeded. In this stage, the key role of EDs will be to manage the potentially large number of patients with pandemic influenza who require high level medical care.

A response to an influenza pandemic will require the mobilisation of resources from across the area health services (AHSs), particularly during the later stages. Each AHS will be required to develop plans to operationalise the ED response to an influenza pandemic at all facilities with an ED.

The Hospital Response to Pandemic Influenza. Part 1: Emergency Department Response document should be read in conjunction with the Interim National Pandemic Influenza Clinical Guidelines and Interim Infection Control Guidelines for Pandemic Influenza in Healthcare and Community Settings, which are appendices to the Australian Health Management Plan for Pandemic Influenza (AHMPPI) (June 2006).

Overview of emergency department response to an influenza pandemic

EDs have a key part to play in the response to an influenza pandemic in NSW, particularly in their role in activating enhanced ED triage and influenza screening stations.
To respond to the changing nature of an influenza pandemic, a graded response to the threat will be required. This response will range from the establishment of enhanced ED triage (when a new influenza strain is reported to be causing clusters of human disease with human-to-human transmission overseas) to the establishment of ED screening stations (when there is a high likelihood that a patient meeting the case definition will present to an ED). Once there are clusters of cases in Australia that exceed (or are expected to exceed) the capacity of EDs such that a broader AHS response is required, stand-alone influenza clinics will be established. The role of stand-alone influenza clinics will be to see suspected pandemic influenza patients who are not in need of high-level ED care. Stand-alone influenza clinics will not provide high-level emergency care; this role will be maintained by the EDs.

The NSW Department of Health (NSW DoH) will request initiation and escalation of response through the AHS chief executives. The NSW DoH will define the level of the operational response required, which will depend upon the epidemiological characteristics of the disease, including the extent of pandemic influenza overseas, transmissibility of the pandemic influenza virus, and the level of morbidity and mortality resulting from the new influenza strain.

Table 1 summarises the levels of response required and the drivers that will determine the need for an increase in the level of response. All NSW public and private hospitals with EDs will be required to initiate the response described in this table. Each facility will need to consider their own circumstances and devise strategies to ensure they meet the response objectives.
### Table 1. Description, drivers for activation, and purpose of emergency department (ED) response to an influenza pandemic

<table>
<thead>
<tr>
<th>Response</th>
<th>Description</th>
<th>Drivers for activation</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Enhanced emergency department (ED) triage initiated</strong></td>
<td>Additional screening conducted at the usual ED triage point, based on an up-to-date case definition.</td>
<td>Declaration of overseas pandemic alert phase 4 (OS phase 4) - clusters with human-to-human transmission overseas - where the clusters are occurring in a relatively isolated region. (If first clusters are in a major centre overseas, a move directly to pandemic influenza screening stations may be required.)</td>
<td><strong>Containment stage</strong> To decrease the rate of transmission of pandemic influenza in the community, general practice surgeries, hospitals and other health care facilities by: ensuring rapid identification and isolation of suspected cases allowing diagnosis and treatment of cases with antiviral agents, if indicated providing a linkage with the public health response of contact tracing and provision of anti viral prophylaxis allowing collection of epidemiological and clinical data to inform clinical management and public health decisions.</td>
</tr>
<tr>
<td><strong>ED pandemic influenza screening station established</strong></td>
<td>Pandemic influenza screening station established at the entrance to ED to identify patients who meet the pandemic influenza case definition before they enter the waiting room.</td>
<td>No cases in Australia (Australian pandemic alert phase 0-3) but outbreaks occurring in areas overseas from which it is significantly likely that people will be travelling to Australia. Widespread outbreaks overseas. Significant morbidity and mortality from pandemic influenza overseas. Declaration of Australian pandemic alert phase 4 (i.e., clusters with human-to-human transmission in Australia).</td>
<td><strong>Containment stage</strong> As for enhanced ED triage, and to allow a higher level of vigilance than provided by enhanced ED triage in light of an increased likelihood of pandemic influenza cases being encountered.</td>
</tr>
<tr>
<td><strong>Stand-alone influenza clinic</strong></td>
<td>A separate influenza clinic facility established to identify and treat those who meet the case definition for pandemic influenza. Note: an influenza screening station at the entrance to ED will still need to be maintained.</td>
<td>At containment stage ED capacity to isolate and manage suspected cases is exceeded. At ‘maintenance of social function’ stage Inability to contain pandemic influenza outbreaks (resulting in declaration of ‘maintenance of social function’ stage). Declaration of influenza pandemic (Australian phase 6b).</td>
<td><strong>Containment stage</strong> As for enhanced ED triage, and to allow effective management of an increased number of pandemic influenza patients. <strong>‘Maintenance of social function’ stage</strong> To provide standardised assessment, triage, and management of patients with suspected pandemic influenza. To reduce patient presentations to EDs and general practices, thereby allowing those facilities to continue their core business and reduce the risk of transmission within those settings. To collect epidemiological data to monitor progress of the pandemic and inform optimal resource allocation.</td>
</tr>
</tbody>
</table>

1 This assumes that a pandemic starts overseas. If a pandemic starts in Australia, an elevated level of response will be immediately required.

2 The governance structure of the stand-alone influenza clinic will need to be determined by the area health service (AHS) and identified in AHS and facility plans.
Activation of enhanced triage, influenza screening stations and influenza clinics

The NSW Chief Health Officer (CHO) will notify the AHS chief executives of the change in the pandemic alert level and instruct AHSs to activate one of the ED response strategies listed below. The response will depend on the phase of the pandemic alert, the number and location of people with pandemic influenza, and the epidemiology of the new influenza virus. The three levels of response are:

- enhanced triage within EDs
- separate pandemic influenza screening stations
- stand-alone influenza clinics (note: if a stand-alone influenza clinic is required, screening stations will still need to operate at the entrance to the ED).

Activation of enhanced triage within EDs will be required within 8 hours of notification; activation of ED screening stations will be required within 12 hours, and activation of stand-alone influenza clinics within 48 hours. The NSW DoH will require confirmation by AHS chief executives that activation has occurred.

A pandemic influenza case definition to be used for screening purposes will be provided to all AHSs at, or shortly after, the formal request to activate an ED response. The new case definition, and subsequent case definitions, will be available on the NSW Health intranet and internet websites, and will be found immediately after the Netepi login page. Netepi is a web-based public health data collection and management system.

A detailed breakdown of the ED pandemic influenza response, according to the containment and ‘maintenance of social function’ stages, is provided in Section 2 of this document.

Governance structure

The governance structure for the various response levels will need to be determined by individual AHSs and outlined in the AHS plan.

Patient disposition

Following assessment of patients’ clinical condition, likelihood of complying with home isolation, and ability to care for themselves, patients will be either admitted to hospital and isolated or discharged for self-care in home isolation. The decision to discharge a potentially infectious patient must be made in consultation with the PHU and relevant specialists. Patients must remain in isolation (in hospital or at home) until an alternative diagnosis is made or the infectious period is over.

If admitted to hospital, the patient may be admitted to either the hospital to which the patient has presented or to another hospital in accordance with AHS plans for suspected and confirmed cases of pandemic influenza. If admitted to hospital, the patient should be cared for in a single room. Patients with confirmed pandemic influenza should also be cared for in a single room; however, if insufficient single rooms are available, patients with confirmed pandemic influenza can be cohorted and isolated in a separate ward or wing of the hospital. The number of staff who come into contact with the patient should be minimised.
The collection of clinical and demographic information required to facilitate contact tracing by the PHU will be an important activity in the ED response. The investigation does not have to be carried out in the ED, but it is important that the patient is kept in isolation at the facility while this investigation is being carried out.

**Accompanying persons**

It is likely that patients who are suspected of being infected with pandemic influenza will present with accompanying persons. In all but exceptional circumstances (e.g., where the suspected case is a child) accompanying persons who do not meet the case definition should be provided with information about pandemic influenza, have their contact details collected and provided to the PHU, and (upon advice of the PHU) be sent to home quarantine. The PHU will provide advice about the management of accompanying persons.

If the ED clinician decides that it is necessary for an accompanying person to remain with the patient, advice must be sort from the PHU before the accompanying person is allowed into the isolation room with the suspected case.

Management procedures for persons accompanying children presenting to a children’s hospitals have not yet been finalised. This document will be updated when these procedures are available.

**Section 2: Response levels**

**Enhanced emergency department triage**

During the containment stage - when small clusters of human-to-human transmission of the new influenza virus have been reported overseas (WHO Overseas phase 4, Australian phase 0-3) - all facilities with emergency departments (EDs), and multipurpose services, will be required to commence enhanced ED triage with screening for pandemic influenza. Screening is to be performed at the beginning of the ED triage process, and provision must be made for the isolation and management of suspected pandemic influenza patients in single rooms. To ensure the safety of health care workers, screening should be conducted from behind a physical barrier such as a glass screen or by keeping more than a metre away from the patient. If this is not possible, full personal protective equipment (PPE) should be worn.

**Operating requirements**

Once advised to activate enhanced ED triage screening, a senior medical or nursing staff member, as designated in the AHS pandemic influenza plan, will be required to ensure:

- correct signage is displayed
- an up-to-date version of the case definition is available
- all presentations to ED are screened for pandemic influenza during the triage process
- there is a one-way flow of suspected pandemic influenza patients through the ED
- the availability of at least one single room to be used for isolating a suspected case of pandemic influenza (this room should be selected beforehand and identified in the AHS pandemic influenza plan)
- there is an adequate stock (20-100, depending on the facility size) of P2 masks and other PPE for use by the doctor/nurse(s) assessing and managing the suspected case(s), and that these staff use the PPE appropriately
- PPE stock is replenished as required
6. EMERGENCY CARE

- A medical officer (or experienced nurse where no medical officer is normally available) is nominated to assess person(s) meeting the case definition. The staff member should be familiar with the case definition and with protocols for diagnosis, clinical management and infection control.
- The PHU is contacted immediately upon identification of a suspected case.
- Viral swabs (as per testing algorithm) are readily accessible (the designated person should, ideally, be experienced in taking nose and throat swabs for viral testing, given the importance of obtaining a quality specimen for an urgent influenza test).
- Surgical masks and hand washing facilities (or alcohol-based gel) are available for use by the suspected pandemic influenza case(s).
- Screening staff have access to hand washing facilities and/or alcohol-based gel and wash their hands frequently.
- Availability of anti-influenza medication for treatment of pandemic influenza patients (this should be detailed in the AHS pandemic influenza plan).
- An appropriate cleaning regime in accordance with infection control guidelines is in place to disinfect areas potentially infected.

Operating procedure

The procedure for enhanced ED triage is described below. A flow diagram summarising the process is shown in Figure 1.

Step 1: Screen

- At first contact, all patients are to be asked the up-to-date pandemic influenza screening questions.
- If a patient meets the case definition, proceed to Step 2. If a patient does not meet the case definition, the triage process continues as normal.
- Refer to Figure 2 for a more detailed description of the screening process.

Note 1: In facilities where the implementation of enhanced ED triage is not possible (e.g., in facilities that do not have a permanently staffed ED), different strategies will need to be implemented to keep pandemic influenza out of the facility. Strategies may include an early move to setting up a screening station at the entrance to a facility.

Note 2: Once enhanced ED triage is implemented, ambulance officers will screen all patients upon pickup and report identified suspected pandemic influenza cases to facilities prior to arrival. Section 3 of this document provides more information on the role of ambulance officers in response to pandemic influenza.

Note 3: When there is an outbreak or outbreaks of pandemic influenza overseas but not in Australia (WHO Overseas phase 4 or above, Australia phase 0-3) the epidemiological screening questions (on travel history) are to be asked before the clinical questions because they are the more specific discriminators and because they can be asked while keeping a safe distance. Once cases are identified widely in Australia (implying that overseas travel/contact with someone who has travelled overseas to the affected areas ceases to be the discriminating factor) travel history will be removed from the case definition and clinical features will prevail.
Step 2: Isolate
- If a patient meets the case definition, treat them as a suspected case of pandemic influenza: provide them with a surgical mask, instruct them to wash their hands, and isolate them immediately in a single room. If a single room is not available, cohort pandemic influenza patients in such a way that risk of transmission is minimised.

Note: If a patient with suspected pandemic influenza has not been triaged immediately on arrival at the ED, the contact details of all the people within the ED waiting room (including other patients and staff) who have been in contact with the suspected case must be recorded in case pandemic influenza is later confirmed and contact tracing is required.

- Clean the triage area as per infection control guidelines.

Step 3: Assess/manage
- Continue subsequent assessment and management of the patient with suspected pandemic influenza in a single room. If the patient requires immediate medical intervention, this should be performed in the single room wherever possible.
- Obtain demographic information for the patient.
- Perform a clinical assessment.
- Obtain appropriate specimens for laboratory testing. Details relating to the collection of microbiological specimens can be found in Pandemic Influenza - Interim Response Protocol for NSW Public Health Units. For viral specimen collection, one viral swab (not a bacterial swab) from the right nostril, one viral swab from the left nostril and one viral swab from the throat (i.e., three swabs in total) are required.

Step 4: Notify/consult
- If the suspected case still fits the case definition, notify the PHU of the suspected case by telephone and provide details of information collected to date. PHI staff are available 24 hours a day in all areas of NSW; contact details are available in the AHS pandemic influenza plan or via the AHS switchboard or the NSW Health intranet contact directory.
- Consult with PHI staff and infectious disease and/or other relevant physicians regarding diagnosis and continued management of the suspected case.
- Obtain advice from the PHI about where specimens should be sent.

Step 5: Send specimens
- Following consultation with the public health unit and infectious disease physician, and confirmation that the patient meets the case definition for pandemic influenza, send specimens.
- Specimens are to be labelled ‘suspect case of pandemic influenza’.
- The hospital laboratory is responsible for notifying the reference laboratory and ensuring the urgent transport of the specimens to the reference laboratory for specific detection of the pandemic influenza strain. The two reference laboratories in NSW are the Institute for Clinical Pathology and Medical Research (ICPMR) at Westmead, and the South East Illawarra Area Laboratory Service (SEALS) at Prince of Wales Hospital, Randwick.
6. EMERGENCY CARE 6.100

- Other specimens (including microbiological specimens) should be processed following usual procedures.

- Specimens are to be packaged and transported in accordance with the National Pathology Accreditation Advisory Council’s Requirements for the packaging and transport of pathology specimens and associated materials. (The National Pathology Accreditation Advisory Council guidelines can be found at http://www.health.gov.au/internet/publications/publishing.nsf/Content/npaac-pub-transp-path-spec-drft

Step 6: Treat

- If there is a high index of clinical suspicion for pandemic influenza, assess the patient for contraindication to anti-influenza medication and consider administering the first dose of treatment while awaiting the pathology result (given the importance of administering anti-influenza medication as early as possible after symptom onset), and certainly within 48 hours.

- If reference laboratory confirmation of the diagnosis is likely to take longer than 8 hours, it is recommended that the first dose of anti-influenza medication be administered as soon as possible.

Step 7: Admit/discharge

- If the pandemic influenza test is positive or a diagnosis of pandemic influenza cannot be excluded, admit the patient to hospital or, following assessment of the patient’s clinical condition and ability to comply, discharge them to home isolation. Discharge of potentially infectious patients must be made in consultation with the PHU and relevant specialists.

- If a decision has been made to admit the patient and they do not require further care in the ED, they can be transferred out of the ED and into a single room elsewhere in the facility. Further clinical and public health follow up can occur in that single room.
Figure 1. Flow diagram for the screening, assessment and management of a suspected pandemic influenza case in the emergency department

1 Early in the pandemic response, all pandemic influenza specific tests will be performed at either the Institute of Clinical Pathology and Medical Research (ICPMR) or the South East Area Laboratory Service (SEALS). As case numbers increase diagnostic capacity will be boosted by recruitment of other laboratories.

2 Tests other than those specifically for pandemic influenza should be carried out using the usual processes.
Figure 2. Flow diagram of the screening process for pandemic influenza

1 Pandemic affected areas may change rapidly. The most up-to-date listing of pandemic affected areas will be found in the case definition provided to hospitals and public health units, or at http://www.who.int/en/.
2 Number of days will depend on the epidemiological characteristics of the virus, including the incubation period and infectious period. This information will be included in case definitions provided to hospitals and public health units. If these values are not known, the default number is 7 days.
3 Contact is defined as having been within one metre of an infectious case, or in physical contact with a case or their respiratory droplets or secretions (see AHMPPI 2006 Annex: Interim National Pandemic Influenza Clinical Guidelines, pg 32 for more detail on definition of a contact).
4 An influenza-like illness is characterised by an abrupt onset of symptoms that includes fever and cough, and one or more of: headache, fatigue, sore throat, myalgia (muscle pain), chills and shortness of breath.
5 A history of fever includes either i) a recent temperature of $\geq 38^\circ$C (within the last 24 hours) as measured and reported by the patient, or ii) a description of chills and sweats, or a feeling of being hot, or hot and cold.
Emergency department screening stations

Screening for influenza using screening stations at the entrance to EDs (or in smaller facilities without permanent EDs, at the entrance to the facility) will commence when the likelihood of patients with pandemic influenza being encountered has increased to a stage that warrants screening of all people presenting to an ED before they enter the ED waiting room, and before they are triaged. This is expected to occur when Australia pandemic alert phase 4 is declared (clusters of cases with the new influenza strain with human-to-human transmission are reported in Australia) or when cases have not yet been reported in Australia but are occurring in major regional transport hubs. Activation of screening stations will be required within 8 hours in metropolitan and base hospitals and within 12 hours in rural hospitals. It is expected that close monitoring of epidemiological data will provide advanced warning that an elevation of response will be required.

It is possible that some parts of the state will establish ED screening stations, while others that are less likely to see patients with suspected pandemic influenza because of their distance from the reported cases of influenza, will continue with an enhanced ED triage response.

The driver for the activation of ED screening stations is principally an assessment that the new influenza virus poses an increased and imminent risk to NSW health facilities. This risk will be assessed based on the epidemiological characteristics of patients identified with the new influenza virus, the number and location of people with confirmed pandemic influenza, and the threat to the local area.

It is acknowledged that a number of very small facilities will not be able to implement screening stations. These facilities will need to be identified in AHS plans and will need to develop strategies locally to meet the objective of keeping pandemic influenza out of their facilities. Strategies may include screening through intercom, facility lock down, or advance screening by telephone.

A cascaded approach to ‘ramping up’ a broader whole-of-facility response to keeping pandemic influenza out of facilities will be implemented according to the level of threat. This will include limiting entry and exit points to facilities; limiting visitor number and times that visitors can enter facilities; postponing elective and non-urgent treatment for persons returning from pandemic influenza-affected areas; and screening staff. A policy designed to keep hospitals safe from the threat of pandemic influenza is being developed.

Operating requirements

In essence, an ED screening station is similar to the enhanced ED triage response, and the operating requirements are also similar. The significant difference is that with a screening station the screening for pandemic influenza will occur at the entrance to the ED and not at the normal ED triage point. Screening stations will need to operate 24 hours and screen all patients and accompanying persons who present to the ED. The location and management of this screening station will be described in the AHS pandemic influenza plan.

Operating requirements and procedure

The operating requirements for ED screening stations are similar to those for enhanced triage, described in Section 2.1, except that a screening table, chairs and, if appropriate, shelter will be required.
6. EMERGENCY CARE

The operating procedure is also similar, apart from the changes and additions listed below.

**Step 1: Screen**
- All patients and accompanying persons attending the ED must be screened at the influenza screening station located at the entrance to the ED.
- All patients presenting are to be asked screening questions based on an up-to-date pandemic influenza case definition.
- If the patient does not meet the case definition, the patient proceeds to triage as normal.

Note: All staff at pandemic influenza screening stations must wear full PPE while screening and the screening station must be disinfected in accordance with infection control guidelines each time a suspect case is identified.

**Steps 2 to 7**

If the patient meets the case definition, follow steps 2 to 7 (isolate, assess/manage, notify, send specimens, consult, treat, admit/discharge) as outlined in the enhanced ED triage operating procedure described in Section 2.1.

Refer to Figure 2, above, for a summary of the process of screening for pandemic influenza.

**Stand-alone influenza clinic (during containment stage)**

Stand-alone influenza clinics will commence operation in a location separate from the ED when the number of people with suspected pandemic influenza exceeds the capacity of the ED to isolate and manage them appropriately.

Stand-alone influenza clinics will require activation within 24 hours of notification in metropolitan and base hospitals and within 48 hours in rural and remote hospitals. It is expected that close monitoring of epidemiological data will provide advanced warning of the need to activate stand-alone influenza clinics.

During the containment stage, the key roles of a stand-alone influenza clinic will be to continue the process of containing the spread of pandemic influenza by enabling the rapid identification, isolation, and management of patients with suspected pandemic influenza, and to expedite follow up of their contacts by the PHU. Stand-alone influenza clinics will relieve the patient load on EDs by assessing and managing patients who do not require high-level care in an ED, thus allowing EDs to continue their core role of treating critically ill patients.

Stand-alone influenza clinics will not have the capacity to provide high-level emergency care; EDs will maintain this role. If a patient with suspected pandemic influenza is sick enough to require high-level emergency care, they will need to be transferred to the ED.

Stand-alone influenza clinics will need to be prepared to operate 24 hours per day and have their own dedicated workforce.

Stand-alone influenza clinics will initially be established on hospital campuses. As the number of people affected by pandemic influenza increases, stand-alone influenza clinics may need to be established at other sites.
6. EMERGENCY CARE

Operating requirements

A stand-alone influenza clinic during the containment stage will perform the same function as the enhanced ED triage and screening station, but operate on a larger scale. The driver for establishing a separate influenza clinic is an increase (or anticipated increase) in the numbers of patients that meet the pandemic influenza case definition, or an increase in the numbers of patients presenting at EDs in order to be screened for pandemic influenza.

Note that a screening station will still be required at the entrance to the ED when a stand-alone influenza clinic is in operation. Refer to Figure 3, following, for a summary of screening procedures for pandemic influenza at EDs when stand-alone influenza clinics have been activated. The procedures are described in more detail in the next section.

Operating procedure

Patients are likely to present at the stand-alone influenza clinic via two mechanisms:

- after being screened and triaged at an ED, or
- having come directly to the influenza clinic (see Figure 3).

The text below describes operating procedures for both the ED pandemic screening station and the stand-alone influenza clinic.

(i) Patients presenting to the ED pandemic influenza screening station

Step 1: Screen

- All patients and accompanying persons attending the ED must be screened at an influenza screening station located at the entrance to ED.
- All patients and accompanying persons presenting need to be asked screening questions based on an up-to-date case definition for pandemic influenza.
- If the patient does not meet the case definition they should be instructed to proceed through the hospital system as normal.
- Patients that meet the pandemic influenza case definition and are not in need of emergency treatment should be provided with a surgical mask and asked to wear it, be asked to wash their hands and then sent to the separate stand-alone influenza clinic for treatment.
- Patients that meet the pandemic influenza case definition and that are in need of emergency treatment should be triaged and treated in a single room in the ED.

Steps 2 to 7

Follow steps 2 to 7 (isolate, assess/manage, notify, send specimens, consult, treat, admit/discharge) as outlined in the enhanced ED triage operating procedure above.

Refer to Figure 2, above, for a description of the process of screening for pandemic influenza.

(ii) Patients presenting to the stand-alone influenza clinic after being screened and triaged at an ED

Step 1: Identify screened patients

All patients and accompanying persons presenting to the stand-alone clinic after being screened and triaged at an ED need to be identified and placed in a separate queue.
6. EMERGENCY CARE

Steps 2 to 7

Follow steps 2 to 7 (isolate, assess/manage, notify, send specimens, consult, treat, admit/discharge) as outlined in the enhanced ED triage operating procedure above.

(iii) Patients presenting directly to the stand-alone influenza clinic

Step 1: Screen

- Patients and accompanying persons presenting directly to the stand-alone influenza clinic need to be screened to ensure that they meet the case definition:
  - If the patient meets the pandemic influenza case definition, they should be triaged and, if not in need of high-level emergency treatment, should be assessed and managed in the stand-alone influenza clinic
  - If the patient meets the pandemic influenza case definition, they should be triaged and, if in need of high-level emergency treatment, directed to the ED.
- Patients that do not meet the pandemic influenza case definition should be re-directed to the ED, other health care providers (a GP for example) or sent home. Patients that do not meet the influenza case definition should not be treated in an influenza clinic.

Steps 2 to 7

Follow steps 2 to 7 (isolate, assess/manage, notify, send specimens, consult, treat, admit/discharge) as outlined in the enhanced ED triage operating procedure above.

Stand-alone influenza clinic (during ‘maintenance of social function’ stage)

The ‘maintenance of social function’ stage of an influenza pandemic will be declared when it is no longer possible to contain the spread of the new influenza virus in the community. Once the ‘maintenance of social function’ stage of the pandemic is declared, the purpose of stand-alone influenza clinics will change significantly, moving from a focus on containment (identification and isolation of patients, and quarantining of contacts) to a focus on maintaining essential health service delivery.

During this stage, stand-alone influenza clinics will operate as influenza triage, assessment, and management facilities for potentially large numbers of sick people. The stand-alone influenza clinic staff will determine whether the patient requires admission to a hospital or staging facility, or whether they can be discharged home with community follow-up as required. Laboratory testing for pandemic influenza will not routinely occur during this stage (unless the patient is hospitalised). Contact tracing will no longer be carried out. Current national policy is that stockpiled anti-influenza medications will be available for pre and post exposure prophylaxis and not for treatment of patients. However, this may change as the size of the stockpile is increased.

Operating requirements

The scope and capacity of the ‘maintenance of social function’ stage stand-alone influenza clinics will be determined by a number of factors including the epidemiological characteristics of the virus, the availability of anti-influenza medication for the treatment of cases and the availability of an effective vaccine.
6. EMERGENCY CARE

Operating procedure

The procedure for operating a stand-alone influenza clinic during the maintenance of social function phase will be significantly different to those for previous response levels.

Staff in a stand-alone influenza clinic will:

- refer patients in need of high-level emergency care to an ED
- manage patients based on a clinical, rather than laboratory, diagnosis of pandemic influenza
- administer anti-influenza medication within 48 hours of symptom onset if medication is still available for treatment of patients, treatment is clinically indicated and there are no contraindications for treatment
- determine whether admission to a hospital, a staging facility, or discharge into home isolation with community follow-up, is required
- if discharging a patient to home care, provide appropriate advice to patient and carer(s) and refer for community follow-up.

A flow diagram summarising case management during the maintenance of social function stage is shown in Figure 3, below.
Figure 3. Flow diagram for the screening, assessment and management of patients with suspected pandemic influenza during the ‘maintenance of social function’ stage.

1 If the patient appears unwell or requires/request further assessment, refer to a general practitioner or the nearest emergency department.
2 The current Australian policy for anti-influenza medication use during the maintenance of social function stage, is that if available, these medications will be used for pre- and post-exposure prophylaxis of workers considered to be at high risk through direct contact with influenza cases (see Australian Health Management Plan for Pandemic Influenza, June 2006, page 51).
3 Overflow facilities are temporary facilities for the accommodation and care of patients, when it is impractical to manage them at home or in a hospital. The role of these facilities will vary according to the severity of the pandemic but, in general, be the provision of supportive care rather than the provision of high-level interventions.
Role of other health service providers

Role of general practitioners

The key role of general practitioners (GPs) during an influenza pandemic is to ensure that their usual primary health care services are maintained. If pandemic influenza is suspected in a patient, GPs are encouraged to provide the patient with a surgical mask, refer the patient to an emergency department (ED) or influenza clinic immediately, and notify the ED or influenza clinic that a suspect case has been referred. All suspected pandemic influenza patients should be referred to an ED or influenza clinic as these facilities have the capacity to appropriately assess and manage pandemic patients, access rapid diagnostic tests and anti-influenza medication, and contain further spread of infection.

An exception to this rule will occur in rural and remote areas where GPs may be the only health service provider, or be involved in providing ED response at a local facility. AHSs should plan with GPs as to what the GPs’ role will be, and how the GPs’ usual primary care role is to be maintained, particularly during the ‘maintenance of social function’ stage of an influenza pandemic.

The NSW DoH will provide information to all GPs when a change in pandemic alert phase occurs. This information will include advice to refer suspected pandemic influenza patients to EDs and will direct GPs to refer to the NSW DoH website to ensure they are up to date with current case definitions and protocols (e.g., infection control). GPs will also be asked to immediately notify their PHU and ED of any patients with suspected pandemic influenza that they identify and refer.

Role of Aboriginal Medical Services

In metropolitan areas, Aboriginal Medical Services (AMSs) will be encouraged to refer patients that meet the pandemic influenza case definition to EDs. In rural areas, a case-by-case assessment to define the role of AMSs will need to be undertaken, taking into account access to ED facilities, the capacity for isolation and management of patients, and the normal role of the AMS.

AHSs will be required to advise AMSs within their boundaries of any change in the pandemic alert phase or pandemic influenza case definition.

Role of private hospitals that provide emergency department services

The Hills Private Hospital, Kareena Private Hospital and Sydney Adventist Hospital are the only private hospitals in NSW that have EDs. These hospitals will be required to activate enhanced ED triage and ED screening stations at the same time as public hospitals. AHSs are responsible for notifying private hospitals within their boundaries whenever a change in pandemic alert phase and case definition occurs. The mechanism for notifying private hospitals and the role of private hospital EDs during an influenza pandemic, are to be described in the individual AHS influenza pandemic plans.

Role of the NSW Ambulance Service

Once enhanced ED triage is activated, NSW ambulance officers will screen all patients (that are able to be screened) for pandemic influenza on pick-up and, if a case is identified, will (if appropriate) provide the patient with a surgical mask and notify the ED of the suspect case in advance. When ED screening stations are activated, patients that cannot be screened will be presumed to be a suspect case of pandemic influenza, and treated accordingly until proven otherwise. The Ambulance Service of NSW is developing a protocol to guide this process.
6. EMERGENCY CARE

The Ambulance Service of NSW is also in the process of developing a protocol defining when ambulances transporting patients who have been identified as suspected pandemic cases should bypass smaller facilities.

The Ambulance Service of NSW will be involved in the transport of suspected and confirmed pandemic influenza patients between facilities. Protocols to cover this are being developed.

Role of pharmacies

The primary role of pharmacies during all stages of an influenza pandemic is to continue to provide their normal pharmaceutical services. Pharmacies in rural and remote areas in particular should plan for the need to continue to provide essential medicines during an influenza pandemic.

The NSW DoH will notify NSW pharmacies of a change in pandemic alert phase and the pandemic influenza case definition via the Pharmacy Guild. Pharmacies will be encouraged to refer patients that meet the case definition to the nearest public hospital ED.
PUBLIC HEALTH REAL-TIME EMERGENCY DEPARTMENT SURVEILLANCE SYSTEM (PHREDSS) – PUBLIC HEALTH UNIT RESPONSE GUIDELINES (GL2010_009)

PURPOSE

These guidelines describe the purpose and activities of the ED Surveillance Team in monitoring PHREDSS and reporting to Public Health Units (PHUs). It also describes the reasons that a PHREDSS Situation Report will be sent to a PHU and provides guidance for PHUs in considering activity in response to a PHREDSS Situation Report.

KEY PRINCIPLES

PHREDSS provides daily monitoring of ED visits presenting with various health problems grouped into syndromes. Each PHREDSS signal is assessed by the ED Surveillance Team before further reporting. The ED Surveillance Team issue a Situation Report via electronic mail to relevant Departmental and Area Health Service public health authorities for consideration if one or more of the following criteria are met:

- A higher than expected or sustained increase in ED visits (an unseasonal increase) for a syndrome;
- A significant change in the epidemiology of a syndrome (such as the age or sex distribution);
- An increase in the severity or urgency of the ED visits for a syndrome (based on admission status or triage category);
- An increase in an inherently severe syndrome such as meningitis/encephalitis, critical care admissions or deaths in ED; or
- An increase in a syndrome of particular interest to a stakeholder or stakeholder group (eg. influenza-like-illness, gastrointestinal illness, annual childhood asthma epidemics, drug or alcohol misuse).

USE OF THE GUIDELINE

The level of response from a PHU to a PHREDSS Situation Report should be graded according to:

- the apparent size of the increase in the syndrome reported;
- the severity of the illness being caused;
- the opportunity for intervention by the PHU; and
- any existing local knowledge.

NSW Department of Health may direct or provide guidance for a coordinated response.

PHREDSS provides daily monitoring of ED visits presenting with various health problems. Using the information transferred to the Department’s PHREDSS database, computer programs automatically prepare statistical reports that highlight unusual trends in a range of acute health problems. Situation reports arising from the system are sent by PHREDSS personnel using electronic mail to relevant Departmental and Area Health Service public health authorities for consideration.
Surveillance Objectives

- To provide early warning of increases in disease activity in the population that may not be evident through other routine surveillance.
- To provide situational awareness and supplement other information on trends in acute disease and injury in the NSW population.
- To monitor syndrome epidemiology to assist the development and monitoring of prevention strategies for the causes of these syndromes.

Response options for the PHU receiving the situation report:

The level of response should be graded according to the apparent size of the increase, severity of illness being caused, opportunity for intervention and local knowledge. The NSW Department of Health may direct or provide guidance for a coordinated response.

Assessment should:

- Consider other available information such as notifiable disease reports, the presence of demographic changes through mass gatherings or similar events.
- Include case characteristics, such as: number of people affected, seasonality, age, sex, place of residence and severity of illness (as measured by increases in triage urgency or the proportion of patients being admitted for further treatment or being admitted to a critical care illness). Further information relating to a situation report can be obtained from the PHREDSS team or directly from the PHREDSS reports or other PHREDSS query tools (see next page).

Responses may include:

- For sharp increases in the number of ED visits apparently caused by infections or toxins, contacting the relevant ED director, (and other relevant personnel who managed the cases) to determine the likely cause of the increase and unless there is a good alternative explanation, encourage testing for likely causal agents on patients presenting over the next few days with similar syndromes.
- Consultation with the relevant policy branch of NSW Health for advice.
- For diseases, including seasonal disease, where alerts to other clinicians or the public are considered likely to assist in prevention of further cases, the issuing of alerts through fax streams or the media.

Heightened surveillance

Options are available for heightened surveillance for planned events, such as mass gatherings, or emergencies. For planned events, several weeks notice is required. Options include: increased frequency of data updates; regular line listings of available data; reduced level at which increased activity is signalled, or creation of additional syndromes. For regular events, comparison with equivalent event days rather than the same weekday may be possible.

PHREDSS uses statistical methods to signal unusual occurrences in daily or weekly counts of ED visits categorised into a range of related diagnosis groupings. Each signal is assessed by the PHREDSS team before further reporting. Data available at 12 midnight on the previous day are included in the analysis. Total counts of ambulance arrivals, critical care ward admissions and ED deaths are monitored as well as diagnoses to identify large increases in severe illness. Reports are checked in the morning and afternoon on weekdays and mornings only on weekends and public holidays.
6. EMERGENCY CARE

PHREDSS personnel evaluate each signal before issuing a “situation report”, as follows:

- Has there been a recent increase in ED visits?
- Is the increase expected at this time of year (a seasonal increase)?
- How big is the increase compared with both recent and seasonal activity?
- Has the epidemiology of the syndrome changed (such as the age or sex distribution)?
- Has the severity or urgency of the visits increased (based on admission status or triage category)?
- How long has the increase been sustained?
- Is the diagnosis grouping inherently severe, such as meningitis/encephalitis, critical care admissions and ED deaths?
- Is the phenomenon of known interest to our stakeholders? E.g.: influenza-like-illness; gastrointestinal illness; annual childhood asthma epidemics; and drug or alcohol misuse.

The PHREDSS team issues a situation report if the answers to these questions justify informing relevant health stakeholders. The reports generally provide an overview summary along with a description of how the recent epidemiology compares with usual epidemiology. The epidemiological factors include age, sex, mode of arrival at ED, triage urgency, departure status from ED, locality of patient residence.

PHUs can view the PHREDSS reports directly. Various tools to assist with line listing review and statistical analysis (NetEpi Analysis) and ‘keyword searches’ to identify patient visits meeting certain presentation criteria are available from the home page of the PHREDSS reports. Available fields for each ED visit include: medical record number (for some hospitals); date and time of arrival; mode of arrival; presenting problem and triage nurse assessment; triage urgency category; mode of separation; and ED diagnosis. Patient names, addresses and dates of birth are not recorded.

The PHREDSS reports home page is available from the Biosurveillance link at:

hoist.health.nsw.gov.au (NB: this is on the intranet, not the internet).

A username and password are required, which can be obtained by completing the one-page form available at:


and returning by facsimile to HOIST Support on: (02) 9391 9232.

For further information about PHREDSS please send an email to: phredss@doh.health.nsw.gov.au
6. EMERGENCY CARE

RETRIEVAL HANDOVER (ADULTS) (PD2012_019)

PURPOSE

The purpose of this Policy is to confirm the process to ensure a coordinated handover and transfer of care between hospital clinicians and medical retrieval teams. Compliance with this Policy will minimise the chances of adverse events during handover of adult retrieval patients between hospital and retrieval teams.

A medical retrieval is defined as the interhospital transfer of an acutely or critically ill patient by a team that includes a medical (physician) escort. The majority of medical retrievals are done by teams with specific training, equipment and experience in out-of-hospital care for critically ill patients. These teams belong to medical retrieval services that are recognised and authorised by NSW Health.

This policy is intended for use by senior clinical medical and nursing staff in critical care areas of hospitals, particularly the Emergency Department and Intensive Care Units. The procedures for retrieval handover are regarded as a safe and appropriate approach for the efficient handover of clinical care of adult patients between the retrieval team and the senior clinician at the hospital.

Timely and efficient handover of clinical care of patients between the retrieval team and the senior clinician at the hospital should occur before the transfer of management begins (unless urgent resuscitation is required) to ensure a systematic transfer of patient care. The full transfer of care is completed once all monitoring and therapies are safely established and this is verbally confirmed by the team who are taking over the care of the patient.

This Policy is complements Clinical Handover – Standard Key Principles (PD2009_060) which mandates the implementation of standard principles for all types of clinical handover.

MANDATORY REQUIREMENTS

This policy requires all health services to have local guidelines/protocols for retrieval handover in place for all hospitals and facilities involved in the transfer of care of adult patients between hospital and retrieval teams.

IMPLEMENTATION

Chief Executives must ensure that health facilities implement a process for retrieval handover to ensure the safe transfer of patient care between retrieval teams and hospitals.
Attachment 1: Retrieval Handover (Adults)

**RETRIEVAL HANOVER PROCEDURE**

*The retrieval team is responsible for directing the coordinated handover and transfer of care.*

This is a vulnerable time for the patient.

**HANDOVER**

- The handover should be between the most senior Hospital clinician caring for the patient and the Retrieval clinician.
- The handover should take place at a predictable time – an estimated time of arrival for the Retrieval team should be provided, with the expectation that the relevant team is assembled at the agreed time.
- The handover should occur before the transfer of management begins (unless urgent resuscitation is required). This ensures all staff listen to the handover and then focus on the systematic transfer of patient care.

**HANDOVER PROCESS**

1. At handover the following information is exchanged:
   - Presenting problem and relevant past history
   - Initial and current management (including monitoring, infusions, ventilation)
   - Response to management and current condition (including current vital signs)
   - Significant results - verbally, plus paper/electronic copy
   - A list of issues that need addressing within the next 60 minutes.

2. Transfer to stretcher/bed
   The hospital is responsible for ensuring that sufficient staff and equipment are available. The retrieval team is responsible for coordinating the move, as they are familiar with the retrieval equipment.

3. Transfer Monitors
   Monitoring should be transferred between the hospital monitors and retrieval bridge monitors one at a time. There should be no disruption to the continuity of monitoring.

4. Transfer Therapies
   Therapies should be transferred one at a time, at the direction of the Retrieval team.
   - **Ventilation:**
     - Hospital bed to retrieval stretcher = transfer ventilation last
   - **Drug infusions:**
     - One drug at a time, like-to-like, ensure no dead space
     - Retrieval team will determine initial concentration and rate
   Specific therapies: i.e. intercostal drainage systems, EVDs, Sengstaken Blakemore tubes, IV fluids.
   Routine therapies: i.e. nasogastic tubes, urinary catheters etc.

Full transfer of care is not complete until all monitoring and therapies are safely established and this is verbally confirmed by the team who are taking over the patient.
NSW AGED CARE SERVICES IN EMERGENCY TEAMS PRACTICE GUIDELINES
(GL2014_011)

PURPOSE

The NSW Aged Care Services in Emergency Teams (ASET) Practice Guidelines are intended to be an information resource and guide to consistent practice for ASET workers and their managers/supervisors in NSW and an information resource for other services working with ASETs, particularly in the Emergency Department.

KEY PRINCIPLES

The Aged Care Service in Emergency Teams (ASET) is a key initiative implemented in NSW Emergency Departments. ASETs are multidisciplinary specialist aged health staff who focus on the needs of older people with complex medical and care needs in order to improve their discharge, whether this is at home with appropriate services organised or into hospital with a care plan in place.

The Guidelines provide service operational principles and guidance to both ASET managers and staff and are designed to complement Local Health District policy and procedures, including all policy statements and/or practice guidelines with a legislative or regulatory basis.

USE OF THE GUIDELINE

The Guidelines provide a management tool for clinical and corporate governance, a training and orientation tool for NSW ASET managers and staff, a quality improvement resource and a reference document with links to other legislation and policies to support the provision of safe, consistent, efficient and effective ASET services in NSW.

The Guidelines are for the use of ASET managers and staff and for services that work with ASETs.

The Guidelines have been developed following consultation with health professionals and key stakeholders.

EMERGENCY DEPARTMENT SHORT STAY UNITS (PD2014_040)

PURPOSE

This policy outlines the mandatory requirements for the use of Emergency Department Short Stay Units (EDSSUs) in NSW Hospitals. EDSSUs are Inpatient Units, managed by Emergency Department (ED) staff, designated and designed for the short term (generally up to 24 hours) treatment, observation, assessment and reassessment of patients initially triaged and assessed in the Emergency Department.

The National Partnership Agreement on Improving Public Hospital Services clearly states the requirements for EDSSUs in Australia. However further detail is required for NSW Hospitals to ensure correct implementation of these requirements.

MANDATORY REQUIREMENTS

Emergency Department Short Stay Units in NSW must adhere to the following principles:

- EDSSUs are Inpatient Units attached to emergency departments, managed under the clinical governance of the ED senior clinical management team located at the hospital.
- EDSSUs are designated and designed for the short term treatment, observation, assessment and reassessment of patients with selected conditions, initially triaged and assessed in the ED.
- The aim of EDSSU is to improve care of ED patients, improve the flow of patients through the ED, thereby improving ED bed access and reducing inpatient ward length of stay for EDSSU appropriate patients.
- EDSSUs must have specific admission and discharge criteria and policies. General principles for admission to EDSSU should focus on patients that are:
  - Clinically stable AND
  - Anticipated to require a period of observation or treatment less than 24 hours.

In some facilities, it may be appropriate for clinically stable ED patients being transferred to another facility, after confirmation of timely availability of a bed at the accepting facility has occurred, to be admitted to EDSSU pending transport to the accepting facility.

- The design of the EDSSU should be a purpose built facility which allows it to be physically separated but in close proximity to the ED, have a static number of beds with oxygen suction and include its own patient bathroom and shower facilities.
- EDSSUs are not a temporary ED overflow area nor used to keep admitted patients who are solely awaiting an inpatient bed nor awaiting treatment in the ED prior to medical assessment.
- EDSSUs are staffed by dedicated Medical, Nursing and Allied Health staff with appropriate skills and knowledge to manage EDSSU patients. Patients are admitted under the care of the designated Specialist Emergency Physician rostered for EDSSU. In facilities with no Specialist Emergency Physician, other Specialist Medical Officers credentialed to admit patients to the hospital as a treating Specialist may be designated as responsible for EDSSU admissions.
- Patients admitted to EDSSU whose condition changes and therefore require a bed on an appropriate inpatient ward should have timely allocation of the bed through hospital patient flow processes. This is to ensure timely access to appropriate care and flow of ED patients into EDSSU is not impeded.
6. EMERGENCY CARE

- Regular monitoring of EDSSUs is important to ensure efficient and appropriate use of EDSSU beds. An admission rate (from EDSSU into the hospital) of 10%-15% is considered acceptable.

- Regular review of incidents should be undertaken as per the EDs procedure for compliance with PD2014_004 Incident Management Policy and be included in ED Morbidity and Mortality meetings.

- Two specific measures for patients admitted to EDSSU (Bed Type 59) which are monitored on a statewide level are:
  1. Length of Stay in the EDSSU, reported as:
     - Percentage of all patients admitted to EDSSU with a LOS (in the EDSSU) less than or equal to 24 hours (calculated in minutes), and
     - Percentage of all patients admitted to the EDSSU with a length of stay less than 4 hours (calculated in minutes).
  2. Destination on departure from the EDSSU
     - Percentage of all patients admitted to EDSSU who were either:
       o Discharged home
       o Transferred to another admitted patient setting in the same service
       o Discharged to another health service.

Local teams should review adherence to these monitoring measures.

IMPLEMENTATION

Local Health District Chief Executives are responsible for:

i. Assigning responsibility, personnel and resources to implement this policy.
ii. Establishing mechanisms to ensure that the Mandatory Requirements are applied, achieved and sustained as usual processes for admission of patients to EDSSU. This should include nomination of an executive sponsor.
iii. Ensuring that any local policy reflects the requirements of this policy and is written in consultation with hospital executive, Clinical Governance unit, ED senior management, and clinical staff.

1. BACKGROUND

1.1 About this document

This Procedure document supports and further explains the mandatory requirements of the Emergency Department Short Stay Unit (EDSSU) Policy through the following components:

- Background and use of EDSSU in NSW
- Clinical governance of EDSSU
- EDSSU admission and discharge criteria
- EDSSU design considerations
- Admitted patients in EDSSU
- Paediatric patients in adult EDSSU
- EDSSU staffing
- EDSSU monitoring measures.
1.2 Key definitions

- EDSSU – (also previously known as ‘Emergency Medical Units’ ‘EMU’ and ‘ESSU’) are Inpatient Units, managed by Emergency Department (ED) staff, designated and designed for the short term treatment, observation, assessment and reassessment of patients initially triaged and assessed in the Emergency Department.

- Bed type 59 - is a bed, staffed 24 hours a day that is designated for the accommodation of patients requiring emergency medical care who would otherwise have remained in the general Emergency Department. Beds in this category may be used for a mix of both day stay and overnight patients, but must be staffed for overnight patient care.

2. PROCEDURE FOR USE OF EDSSU

2.1 Background

Short stay medicine in Emergency Departments (EDs) offers intensive short-term assessment, observation or therapy, in a ‘ward-like’ environment, to optimise the early treatment and discharge of selected ED patients. The model is an alternative to extended stays in hospital EDs and/or the use of multi-day inpatient beds for short-term care.

The aim of the EDSSU is to improve care of patients requiring short term inpatient clinical management. EDSSUs have been shown to reduce inpatient ward length of stay for appropriately selected patients who would otherwise have been admitted to a ward bed, and improve care of those who may have stayed within the ED for prolonged periods. EDSSUs improve the flow of patients through the ED, thereby improving access to care for new emergency patients.

EDSSUs are designated for patients who are to be discharged within 24 hours. This includes stable patients who require observation and/or further investigation to ascertain the seriousness of their condition (e.g. minor head injury, chest pain, infections) or a short course of treatment for conditions that may be rapidly resolved (e.g. asthma, allergic reactions, snake bite and renal colic). Patients are admitted and managed under the care of local Specialist Emergency Physicians (EPs).

EDSSUs also provide a location for ED patients who may require allied health and social support intervention, such as physiotherapy, occupational therapy or social welfare services prior to discharge.

2.2 Clinical governance of EDSSU

Governance of the clinical and operational management of the EDSSU is the responsibility of the ED Director and Nurse Manager/Nursing Unit Manager.

Patients accepted for admission to EDSSU must be authorised by the duty Specialist Emergency Physician or delegate (e.g. emergency registrar overnight) following direct consultation. Clinical governance includes:

- Review of the EDSSU admission policy and procedures for common Diagnostic Related Group admission categories.
- Medical governance to ensure that all practices in patient care delivery are consistent with high quality evidence based practice, and local LHD, state or national guidelines.
- Governance of patient care, safety and quality, incident reporting and management within an ED quality framework.
- Ensuring that peer review of clinicians involved in the care of patients in the EDSSU occurs and that supervision practices are adequate.

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2.3 EDSSU admission and discharge criteria

EDs should devise local guidelines regarding the inclusion or exclusion of patients into EDSSU based on local availability of resources and practices which may/may not preclude the management within 24 hours. Some principles which may be used for development of local inclusion and exclusion criteria are as follows.

2.3.1 Patient Inclusion Criteria

Anticipated LOS < 24 hours

- EDSSU should target patients with a range of low to moderate risk symptom complexes who, with optimal diagnostic support and clinical management, can be discharged within a 4-24 hour period.
- There should be a focused goal for the period of observation.
- Patients should be clinically stable.

2.3.2 Patient Exclusion Criteria

Anticipated LOS >24 hours

The criteria for patient exclusion from an EDSSU will vary between institutions but should be consistent with the following principles:

- It is anticipated that the duration of treatment will be more than 24 hours.
- The patient is admitted under the care of an inpatient team. (local procedures for Hospital in the Home patients returning to hospital for review should be established.)
- The patient has been transferred to the hospital for admission under care of an inpatient team.

Clinical exclusion criteria

- The EDSSU cannot provide a suitable level of care or the patient has complex care needs which are unable to be met in the EDSSU.
- Psychotic/violent/disruptive patients/patients at risk of absconding, including patients detained under the Mental Health Act 2007 may often be unsuitable to be cared for in EDSSU unless appropriate resources are available to manage them in the EDSSU environment. Forward planning of resource requirements for this group of patients must be undertaken and not addressed on an ad-hoc basis.
- The patient is clinically unstable. No patients with ‘red zone’ vital signs according to the Standard Observation Charts and Between the Flags process should be admitted to EDSSU unless there are documented alterations to the calling criteria.
- The patient has no clear diagnosis or provisional diagnosis.

2.3.3 Admission and Discharge procedures

Procedure for admitting a patient to EDSSU

- Discuss with the Specialist Emergency Physician or their delegate on duty for EDSSU.
- Complete an EDSSU admission which must include the applicable medical history, examination findings, provisional and differential diagnoses, a management plan and any outstanding results to be followed up.
- Complete a diagnosis in eMR.
- Complete a clinical hand over of the patient to EDSSU staff including outstanding results or reviews required, and subsequent management plan.

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While in EDSSU

- Any patient in EDSSU must be included in clinical handover rounds.
- Minimum 4th hourly observations should be performed or as determined by Specialist Emergency Physician.
- The Specialist Emergency Physician must be informed about any deterioration in an EDSSU patient and normal escalation processes utilised across the ED/EDSSU should be followed.

On discharge from EDSSU

- Discharge of patients from the ED SSU will be to home or usual residence, inpatient unit (including Hospital in the Home) or another hospital.
- Discharge process should adhere to PD2014_025 Departure of ED Patients and follow the four principles of departure outlined in the policy.
- A discharge summary must be completed for all patients leaving EDSSU.

2.4 EDSSU design considerations

EDSSUs must be designed in a way that allows the unit to be physically separate but in close proximity to the ED. EDSSUs are designated inpatient care areas and as such, the physical design should reflect this. Design should be in line with the Australasian Health Facility Guidelines – Emergency Unit.

The Australasian College for Emergency Medicine Emergency Department Design Guidelines recommend a minimum of 8 beds with the capability to monitor each bed to the same level as an acute cubicle. Beds are to be static in number and are separate to the ED bed base. Decisions regarding final numbers of EDSSU beds/clinical spaces will be determined locally.

It is recognised that some EDSSUs may utilise a process where one clinical bed space may accommodate several recliner chairs for patients staying short periods in the EDSSU. This process should not be used for overnight patients and must ensure appropriate staffing and other resources are maintained.

A dedicated nursing station and adequate desk space for both medical and nursing staff is required. The EDSSU is to have its own patient toilet and shower facilities.

Additionally, the following criteria should be considered in EDSSU design:
- Should have a single room(s) with en suite for the management of short term infectious patients (e.g. gastroenteritis).
- Designs may allow for infection control cohort of patients (or as part of a disaster management response).
- ‘Lounge area’ where patients can be treated that do not require a bed.
- Beverage Bay facilities.
- Storage facilities as well as clean and dirty utility located in the unit (or in close proximity) to maximise productivity and efficiency.

2.5 Admitted patients in EDSSU

An admission rate (from EDSSU into the hospital) of 10%-15% is considered acceptable. as it provides a balance of appropriate patient selection, cost effective resource utilisation, and optimisation of quality of patient care. Admission may be required due to a change in the patient’s clinical condition or the subsequent requirement for specialised care and investigations outside of the remit of EDSSU.

Patients must be referred, accepted and transferred from the EDSSU to another appropriate inpatient ward within the 24 hours of arrival to the EDSSU. Direct consultation between the Specialist Emergency Physician and the in-patient consultant (or their delegates) should facilitate clinical handover of the patient as well as the use of NSW Health Policy PD2009_055 “Emergency Department- Direct Admission to Inpatient Wards”.

Movement of patients out of EDSSU to a hospital inpatient bed should be a priority to ensure continued flow of appropriate ED patients into EDSSU. Effective communication with the Hospital Bed Manager and After Hours Nursing Manager is essential.

Once transfer of care has taken place, all aspects of clinical care for those patients who are admitted under inpatient teams; but are still in the physical bed space of the EDSSU are the responsibility of the admitting team’s Medical Officers. This includes liaising with family members and carers, reviewing medications, clinical reviews and appropriate discharge planning. Deterioration of these patients whilst they remain in the EDSSU should follow usual local escalation process with the patient being managed jointly by the inpatient team and EDSSU staff.

The EDSSU should not be used to board those patients who are known or expected to be admitted to an in-patient ward from the ED whilst waiting for that bed to become available. Patients who are admitted to inpatient wards via EDSSU are known to have longer total lengths of stay in hospital and utilise more resources than patients admitted directly to the hospital inpatient wards from the ED.

2.6 Paediatric patients in adult EDSSU

Children requiring short stay admission should be accommodated in paediatric specific units. NSW Health Policy states that “children admitted to NSW Health acute facilities are not to be accommodated with adult patients” PD2010_033 Children and Adolescents - Safety and Security in NSW Acute Health Facilities.

If no other option exists, any admission of paediatric patients to adult EDSSU is under the strict guidance of PD2010_033 to ensure they are accommodated in designated paediatric safe beds. These admissions should occur in consultation with the on call Paediatrician or delegate, or according to local procedures and care must be provided in accordance with the requirements of PD2010_034 Children and Adolescents - Guidelines for Care in Acute Care Settings.

The definition of a child in this document is any person under the age of 16 years, neonates excluded. It is acknowledged that adolescents are defined as those of an age 12-18 years.

Documented local processes may vary between units and are dependent on appropriate resources being provided, however the following principles should provide guidance.

No paediatric patient will be admitted to an EDSSU where the child is:

- Clinically unstable
- Has no definitive diagnosis
- Has no clear signs of clinical improvement following initial treatment
- Is subject to any suspicion of child protection issues
- Has any significant co-morbidity
- Has known acute mental health issues.

2.7  EDSSU staffing

Staffing must be commensurate with achieving the EDSSU key functions of: close observation, specialist assessment and diagnosis, short-term high-level care and management of patient conditions 29.

2.7.1  Medical Staffing

- A Specialist Emergency Physician will be designated and identified on the senior staff roster as EDSSU admitting officer at all times.
- Medical staffing of the EDSSU must ensure senior medical input is available and occurs for every patient.
- Medical staffing must be sufficient to meet the objectives of the EDSSU in providing quality timely care.
- Where junior medical staff are rostered to the EDSSU, the roster profile will be structured to allow direct supervision, on a case by case basis, for every patient by a more senior medical officer (at least registrar level).
- Medical staff in a supervisory role in the EDSSU must be specifically trained and credentialed in emergency medicine.

2.7.2  Nursing Staffing

- Staffing must meet the needs of the patient groups streamed to the EDSSU, and ensure reasonable nurse workloads are maintained. 30
- A senior nurse in the EDSSU will be allocated per shift that will have first-line management responsibility for the running of the unit, and, working closely with the EDSSU Specialist Emergency Physician/or their delegate, to proactively ‘pull’ appropriate patients from ED into EDSSU. 3
- At least 1 nurse per shift should be allocated to the EDSSU that has skills in Emergency nursing 31 32 to ensure a range of patient conditions can be managed in the EDSSU.

2.7.3  Allied Health in EDSSU

The EDSSU should have dedicated allied health professionals with appropriate skills and knowledge to provide early intervention, discharge planning and prevent non-medical admission of patients.

Allied health services should be delivered as part of a multidisciplinary team, with staffing levels and skill mix varying in response to the clinical needs of the facility. For an EDSSU, it may be necessary for allied health professionals to work extended hours, on weekends or on-call.

2.8  EDSSU monitoring measures

The ongoing performance of the EDSSUs should be evaluated against the principles and intent of this policy. Data and other monitoring information should be used to drive improvements in service delivery, safety and quality in the EDSSU.

Services should establish mechanisms to ensure that their performance against relevant monitoring measures is regularly reviewed and where issues are identified that there are processes in place to facilitate appropriate action. Monitoring and review should address both the specifically identified state level indicators as well as other locally meaningful measures.

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30 2011 NSW Health. Public health system nurses' and midwives' (state) award (available).
32 2011 NSW Health Transition to Specialty Practice Emergency Nursing Program (available).
Core monitoring measures of for EDSSUs (Bed Type 59) at a state level will include:

- Length of Stay in the EDSSU, reported as:
  - Percentage of all patients admitted to EDSSU with a LOS (in the EDSSU) less than or equal to 24 hours (calculated in minutes) and
  - Percentage of all patients admitted to the EDSSU with a length of stay less than 4 hours (calculated in minutes).

- Destination on departure from the EDSSU
  - Percentage of all patients admitted to EDSSU who were either:
    - Discharged home
    - Transferred to another admitted patient setting in the same service
    - Discharged to another health Service

These measures will be calculated by the MoH using existing admitted patient data routinely submitted to the State centralised data warehouse. EDSSU patients should be included in local hospital Morbidity and Mortality meetings.

As well as the core state level indicators, services may wish to investigate the use of other locally meaningful measures, for example:

- Volume of patients admitted and discharged in ED – before and after establishment of the short stay unit.
- Volume of patients admitted from ED to other inpatient locations with LOS less than 24hrs.
- Unplanned representations to ED within 48 hours for patients discharged from an EDSSU.
- NSW Patient Survey Program information.
EMERGENCY DEPARTMENT, NURSE DELEGATED EMERGENCY CARE, MEDICATION STANDING ORDERS (PD2015_024)

PURPOSE

The Nurse Delegated Emergency Care (NDEC) patient care model has been developed to support rural and remote facilities provide care for patients presenting to Emergency Departments with low-risk, low-acuity conditions. Under NDEC the care of these patients is managed entirely by an appropriately trained and credentialed Registered Nurse (RN), under the explicit delegation of the site Medical Officer/s.

The statewide Standing Order authorises an appropriately trained and credentialed Registered Nurse to administer and/or supply specified medications for the purpose of treatment of defined low-risk conditions specified under the NDEC patient care model. The Standing Orders describe procedures for ordering, storing, administering, and supplying (for take-home use) the specified medication. Any medication Standing Order must be used in conjunction with the applicable NDEC Nursing Management Guideline.

The statewide Standing Order for Nurse Delegated Emergency Care applies where the provision of medication is required to treat patients in the Emergency Department with certain less-urgent, low-risk conditions.

MANDATORY REQUIREMENTS

This policy is for the management of patients presenting to Emergency Departments with certain less-urgent, low-risk conditions by appropriately trained and credentialed registered nurses practicing under the NDEC model.

When the implementation requirements outlined in this policy are met, the statewide Standing Order provides the basis for Institutional/Local Health District (LHD) Drug and Therapeutics Committees (DTC) to adopt the NDEC patient care model. DTCs must review and endorse Standing Orders locally.

IMPLEMENTATION

In order to fulfil the standing order, supply 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 a medical officer designated by the District’s Public Health Unit Director/Public Health Officer.

The standing order authorises a registered nurse to administer and supply medications to patients with defined conditions for the purpose of treatment of defined low-risk conditions. Administration or supply may only be carried out in Emergency Departments by registered nurses trained and credentialed to operate the Nurse Delegated Emergency Care patient care model.
LEGAL INSTRUMENT

POISONS AND THERAPEUTIC GOODS ACT 1966

Authorisation to Supply Poisons and Restricted Substances

PUSUANT to clauses 170 and 171 of the Poisons and Therapeutic Goods Regulation 2008, I, Dr Kerry Chant, Chief Health Officer, a duly appointed delegate of the Secretary of the Ministry of Health, do hereby grant AUTHORITY to registered nurses hereby specified as a class of persons, to supply those poisons and restricted substances listed in the Schedule hereunder either singly or in combination, pursuant to clauses 17 and 53 of that Regulation and subject to the following conditions:

1. The registered nurse is employed in a public health organisation within the meaning of the Health Services Act 1997.
2. The supply of the poisons or restricted substances is in accordance with the NSW Health Policy Directive PD2015_024, Standing Orders for the Supply or Administration of Medication under the NDEC Model.

SCHEDULE

cephalexin
chloramphenicol
ibuprofen
paracetamol

Dated: Sydney, 20 July 2015

Dr KERRY CHANT
Chief Health Officer
Ministry of Health, New South Wales
1 BACKGROUND

1.1 About this document

The Standing Order authorises an appropriately trained and credentialed Registered Nurse to administer and/or supply specified medications for the purpose of treatment of defined low-risk conditions specified under the Nurse Delegated Emergency Care (NDEC) patient care model. The Standing Orders describe procedures for ordering, storing, administering, and supplying (for take-home use) the specified medication. Any medication Standing Order must be used in conjunction with the applicable NDEC Nursing Management Guideline. The NDEC state-wide Guidelines and Standing Orders are for the management of patients presenting to Emergency Departments (EDs) with the following conditions:

- Minor burns
- Earache
- Eye problems
- Foreign body - minor
- Mild/minor head injury
- Insect bites and stings
- Soft tissue limb injuries
- Stings from marine creatures
- Pain
- Rash
- Respiratory type illness
- Tick bite
- Urinary symptoms
- Vomiting and Diarrhoea.

The state-wide medication Standing Orders form part of a comprehensive suite of patient care resources and, together with the Education and Accreditation Framework and implementation support materials and structures, comprise the Nurse Delegated Emergency Care model.

The NDEC patient care resources include a set of procedures known as Nursing Management Guidelines (NMGs) which can be found online: [http://www.ecinsw.com.au/node/282](http://www.ecinsw.com.au/node/282). The NMGs direct all clinical care provided through the NDEC patient care model and these Standing Orders are only applicable in accordance with the appropriate NDEC NMG.

The Medication Standing Orders in this document include links to the relevant NMG, describing the types of clinical conditions for which they may be used.
1.2 Key definitions

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treatment</td>
<td>An intervention (including medication) to treat an individual case of disease or medical condition.</td>
</tr>
</tbody>
</table>
| Supply/ Administration | To provide to or for a specific patient and is consistent with the definition of supply in section 4 of the Poisons and Therapeutic Goods Act 1966. This includes medication selection, recording, labelling, handover to patient/carer, verbal counselling and provision of information sheets and/or Consumer Medicines Information. In this document:  
  a) To ‘administer’ means the supervised administration of a medication in a health facility.  
  b) To ‘supply’ means the provision of a medication for take-home use. |
| Registered Nurse   | A nurse or midwife who (i) is on the register of the Nursing and Midwifery Board of Australia, (ii) has completed a 3-year nursing degree from a higher education institution or equivalent from a recognised hospital-based program, and (iii) fulfils all of the ongoing requirements of the Nursing and Midwifery Board of Australia’s registration standards. |
| General Practitioner (GP) | Refers in this document to a GP who has a Visiting Medical Officer (VMO) appointment at a health facility, usually in a rural or remote area, and is a Medical Officer for that site. |
| Local Facilitator  | A key role within the local NDEC governance framework which is usually a senior nurse at a site or LHD level. The role is responsible for ensuring that implementation sites meet the requirements of the NDEC Education and Accreditation Framework. |

1.3 Legal and legislative framework

Clauses 170 and 171 of the Poisons and Therapeutic Goods Regulation 2008 allow the Secretary 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 Schedule 4 medications (restricted substances) under clause 53 of the Regulation and Schedule 2 and Schedule 3 medications under clause 17 of the Regulation. The authorisation applies only to the listed medications for the Standing Orders included in this policy.

1.4 Nurse Delegated Emergency Care

The Nurse Delegated Emergency Care (NDEC) patient care model has been developed to support rural and remote facilities provide care for patients presenting to Emergency Departments with low-risk, low-acuity conditions. Under NDEC the care of these patients is managed entirely by an appropriately trained and credentialed Registered Nurse (RN), under the explicit delegation of the site Medical Officer/s. To be credentialed to practice NDEC, RNs must fulfil the requirements of the NDEC Education and Accreditation Framework, including satisfactory completion of the education modules, and competency assessment.

Rationale for development of the NDEC Model

NDEC has been developed to improve the care of patients presenting to Emergency Departments with minor illnesses/injuries, and to support the rural clinical workforce in small Emergency Departments. The Model defines the components of safe and quality care for selected low-acuity conditions, and outlines education, credentialing and quality assurance processes so that an episode of care may be delivered entirely by an NDEC credentialed nurse. A robust clinical framework supports care provision when the patient presents, even when no medical officer is available at the site, under a delegated care model.

Key features of NDEC include:
- Assessment of the patient against strict inclusion and exclusion criteria.
- If inclusion criteria are not met, a medical review/phone consult must be sought.
6. EMERGENCY CARE

- If the patient is suitable for management under the NDEC model, the RN manages the episode of care using specified:
  - Nurse Management Guidelines
  - Medication Standing Orders
  - Patient Factsheets.
- Nurses may provide interventions to manage symptom relief. The patient will then be discharged with specific follow up instructions in accordance with PD2014_025 Departure of Emergency Department Patients.
- The patient is asked to attend follow up with the local GP at their rooms or the ED. The patient will receive a follow up phone call from an NDEC RN within 24 hours of Emergency Department visit to check that symptoms have improved.
- The NDEC model may operate in a facility 24/7, or as an after-hours model, or when no GP is available.
- If at any stage the patient’s condition deteriorates and they are deemed no longer suitable for NDEC, the RN is required to revert to “usual care” and contact a the medical officer for further review.
- RNs can opt out of the model if they are concerned about a patient’s condition.

1.5 Implementation Requirements

Key prerequisites for the implementation of the NDEC include:
- Express support of care delegation and co-operation in implementing the model from the site General Practitioner(s), Health Service Manager/Nurse Unit Manager and Local Health District Executive is required.
- Submission of NDEC Site Nomination Form to the Agency for Clinical Innovation Emergency Care Institute NSW (ECI). Endorsement by the NDEC Steering Committee is required for sites to work with the ECI to support implementation.
- Pre-implementation education needs assessment.
- Pre-implementation “Snapshot” audit of Emergency Department (ED) presentations pertinent to NDEC.
- Pre-implementation staff survey.
- Pre-implementation patient survey.
- Pre-implementation audit covering existing clinical practice standards related to:
  - Patient assessment
  - Patient symptom management
  - Disposition practices
  - Documentation; and
  - Nursing staff competency and confidence with core nursing skills required for NDEC implementation.
- Establishment of a local governance structure.
- RN training and credentialing in the NDEC Model of Care (MoC) nursing skills.
- Review and local endorsement of Nurse Management Guidelines (NMG).
- Endorsement of Standing Orders by Local Health District (LHD) Drug and Therapeutic Committee.
- Adaption of the paper based NDEC documentation to FirstNet electronic medical record (eMR) if applicable/
- Authorisation and communication of the NDEC “go-live” decision.
1.6 Credentialing of Registered Nurses for NDEC

Operating the NDEC model is within the scope of practice of a Registered Nurse. To be credentialled to practice NDEC, RNs must fulfil the requirements of the NDEC Education and Accreditation Framework, including satisfactory completion of the education and competency assessment. Qualification or endorsement as an Advanced Practice Nurse or Nurse Practitioner is not required.

Credentialing requires NDEC RNs to demonstrate ongoing evidence of recency of practice using NDEC, and ongoing safe use of NDEC through clinical practice audits.

In addition to specific training requirements, the following mandatory education must be completed:
- Emergency Triage Education Kit program (or equivalent).
- NSW Ministry of Health Acute Paediatric Clinical Practice Guidelines on-line.
- NDEC mapped core skills review.

Further information can be found in the NDEC Education and Accreditation Framework: http://www.ecinsw.com.au/sites/default/files/field/file/NDEC%20RN%20Education%20and%20Accreditation%20Framework.PDF

1.7 Review Process

The ECI will conduct regular reviews of the NDEC clinical practice materials through its Clinical Advisory Committee, and NDEC Steering Committee, in line with its standard review schedule for clinical tools. Implementation sites can initiate review or revision of NDEC materials through ECI clinical governance processes. NDEC Patient Care Resources have been reviewed by the:
- ECI Executive Committee.
- NDEC Steering Committee.
- CEC Medication Safety Expert Advisory Committee.
- LHD Drug and Therapeutics Committees.

The ECI will provide NDEC sites with appropriate resources and education as reviews and updates occur. Individual sites will be responsible for updating local resources and completing reviews of local Standing Orders in accordance with PD2013_043 Medication Handling in NSW Public Health Facilities.

2 IMPLEMENTATION OF STATEWIDE STANDING ORDERS FOR NURSE DELEGATED EMERGENCY CARE

When a state-wide 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:
  o Comply with the requirements of the NDEC Education and Accreditation Framework.
  o Determine whether the patient meets the criteria for the standing order.
  o Recognise patients who do not meet inclusion criteria for NDEC and refer them to a medical officer for clinical care.
  o Determine any known allergies, hypersensitivity to the medication or contra-indications to treatment, and where these are identified, contact the medical officer to discuss appropriate management.
6. EMERGENCY CARE

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- Explain the medication and its purpose to the patient (or guardian).
- Obtain patient/guardian consent for treatment as appropriate.
- Document all assessments and details relating to the supply of medication as detailed below.
- Attend yearly training in cardio-pulmonary resuscitation, including review of the protocol for the administration of adrenaline.

- Medications are supplied by the Pharmacy Department to the Emergency Department pre-labelled in accordance with PD2013_043 Medication Handling in NSW Public Health Facilities.
- All medication that is supplied for dosing at a later time is pre-prepared and labelled by a pharmacist, or, in circumstances where pre-prepared packs are not available, is labelled by the clinician supplying the medication to the patient. Labelling must include the name(s), strength(s), and active ingredient(s) of the medication and the directions for use, including duration of use, ancillary labels and other required information. The patient’s name and date of supply must be hand-written on the label by the nurse at the time of supply. Any pre-prepared label must be initialed by the nurse supplying the medication to the patient. Additional information that must also be supplied includes the relevant medication factsheet.
- A Medical Officer is able to be contacted to provide advice to the Registered Nurse who is providing medication under the standing order.
- A Medical Officer will review, sign and date records within 24 hours to confirm that medications were administered or supplied in accordance with the standing order.
- All records relating to the administration 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).
- Where possible, medications are stored as Imprest stock Schedule 2, 3 and 4 (but not Schedule 4D) in ED or ED after-hours store – see sections 6.3.3 and 6.8 of PD2013_043.

3 MEDICATIONS FOR THE MANAGEMENT OF SYMPTOMS ASSOCIATED WITH MINOR INJURIES/ILLNESSES DEFINED IN THE NURSE DELEGATED EMERGENCY CARE PATIENT CARE MODEL

3.1 Purpose

This standing order authorises a registered nurse, who has demonstrated compliance with requirements set out in Section 2, to administer and/or supply specified medications for the purpose of treatment of defined low-risk conditions specified under the Nurse Delegated Emergency Care patient care model. It also sets out procedures for ordering, storing, administering and supplying the medications.

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 responsible Medical Officer, whether in the hospital or on call, to assess the patient so appropriate administration of medication can occur as soon as possible.

Where no medical officer is on call, the usual procedure designated by the hospital executive for obtaining medical officer advice will apply.
6. EMERGENCY CARE

3.2 Scope

The following Standing Orders are to be used within the framework of the Nurse Delegated Emergency Care (NDEC) patient care model. These Standing Orders are not approved for use outside of the NDEC model of care, even if such use may be covered by other NSW Ministry of Health or LHD specific policy or protocol.

These Standing Orders are not intended to replace clinical judgement and expertise.

3.3 Additional points to be noted for all standing orders:

- Note on drug Trade Names: where applicable, every attempt has been made to list Australian available unique trade names that do not articulate the primary medication within the trade name (e.g. Heron Paracetamol is not listed). To confirm specific constituent components, consult medication packaging, product information such as MIMS Online® or pharmacological resource such as the Australian Medicines Handbook [https://amhonline.amh.net.au.acs.hcn.com.au](https://amhonline.amh.net.au.acs.hcn.com.au).
- Note on listed Indications: The listed indications are for the NDEC context only. No attempt has been made to present a full scope of indications for each drug. For full medication information, consult an appropriate pharmacological resource like MIMS Online®.
- Note on listed Contraindications: Any RED FLAG listed within a specific Nursing Management Guideline is a contraindication for medication administration under NDEC. In addition, for the purpose of nurse administration of medication within NDEC, relative contraindications are treated as absolute contraindications; and a medical review will be required prior to medication administration.
- Note on listed Side Effects: The management of side effects from administration of any medications under the following Standing Orders should occur as per usual practice. For severe reactions, including anaphylaxis, care should be in accordance with NSW Rural Adult or Paediatric Emergency Clinical Guidelines. Should a patient develop any concerning side effects, a medical officer should be contacted.
### 3.3 Standing Order for supply of Amethocaine Hydrochloride eye drops

<table>
<thead>
<tr>
<th>TITLE</th>
<th>Standing order for Amethocaine Hydrochloride eye drops</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trade Name(s)</td>
<td>Minims Amethocaine Eye Drops</td>
</tr>
<tr>
<td>Presentation</td>
<td>Clear, colourless sterile eye drops 0.5% (5mg/mL), or 1% (10mg/mL) Single patient, single use</td>
</tr>
<tr>
<td>Indication</td>
<td>Production of local anaesthesia in the eye. Reduces pain to facilitate adequate eye exam.</td>
</tr>
<tr>
<td>Contraindications</td>
<td>Current use of sulphur based antibiotics (sulphonamides)</td>
</tr>
<tr>
<td>Precautions</td>
<td>Instruct patient not to rub or touch the affected eye while anaesthesia persists. Should be used with caution in children, as this group is more susceptible to drug effects.</td>
</tr>
<tr>
<td>Dose</td>
<td>1 drop into affected eye/s, repeated every 5 minutes if necessary. Up to 3 drops may be used for foreign body removal.</td>
</tr>
<tr>
<td>Dose frequency</td>
<td>Single dose</td>
</tr>
<tr>
<td>Storage</td>
<td>Refrigerate and store out of patient and public access, preferably in a locked room or a locked cabinet securely attached to the wall or floor – see PD2013_043.</td>
</tr>
</tbody>
</table>
| Adverse effects | • On instillation an initial burning sensation may be experienced. This may last for up to 30 seconds.  
• Blurred vision, lacrimation (watery eyes)  
• Persistent use may result in corneal damage  
Never give patient anaesthetic drops to take home |
| Nursing Accreditation Requirements | An RN whose competency to practice Nurse Delegated Emergency Care and to comply with this Standing Order has been assessed and approved by a Local Facilitator, in accordance with the NDEC Education and Accreditation Framework. |
| Documentation | Administration record is to be documented by the administering nurse. Document on the “once only” section of the appropriate medication chart. The record of administration must be checked and countersigned by a medical officer within 24 hours of initial administration. |

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The drug information provided is to act as a guide only, for further information reference should be made to the full product info available on MIMS or the Australian Medicines Handbook <accessible in NSW Health facilities via CIAP. If contraindications, precautions or interactions are present refer to MO before administration>

245(23/07/15)
### 6. EMERGENCY CARE

#### 3.4 Standing Order for supply of Cephalexin

<table>
<thead>
<tr>
<th>TITLE</th>
<th>Standing order for Cephalexin</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trade Name(s)</td>
<td>Cefalexin, Cephatrust, Cilex, Ialex, Ibilex, Keflex, Rancef</td>
</tr>
<tr>
<td>Presentation</td>
<td>Tablet/capsules containing 250mg; 500mg Oral suspension for reconstitution 125mg/5mL; 250mg/5mL</td>
</tr>
<tr>
<td>Indication</td>
<td>Antibiotic treatment for suspected UTI by clinical history and positive U/A (positive leukocytes and/or nitrites)</td>
</tr>
<tr>
<td>Contraindications</td>
<td>Known allergy to cephalosporin group of antibiotics or previous history of a major allergy to penicillins</td>
</tr>
<tr>
<td>Precautions</td>
<td>Nil specific</td>
</tr>
<tr>
<td>Dose and frequency</td>
<td><strong>Adults</strong>&lt;br&gt;500mg first dose only*&lt;br&gt;or&lt;br&gt;500mg every 12 hours for 5 days*&lt;br&gt;<strong>Children &gt; 12 years</strong>&lt;br&gt;12.5mg/kg up to 500mg first dose only*&lt;br&gt;or&lt;br&gt;12.5mg/kg up to 500mg every 6 hours for 5 days*&lt;br&gt;*Refer to local facility NDEC guidelines regarding administration of first dose versus dispensing a full course of antibiotic via this Standing Order.</td>
</tr>
<tr>
<td>Administration and Supply</td>
<td>May be administered in hospital and full course of medication may be supplied via pre-labelled stock for use outside the hospital. Oral tablet/capsule Oral suspension – consult product information for reconstitution instructions. Store in fridge once reconstituted (discard unused portion after 14 days).</td>
</tr>
<tr>
<td>Storage</td>
<td>Store out of patient and public access, preferably in a locked room or a locked cabinet securely attached to the wall or floor – see PD2013_043.</td>
</tr>
<tr>
<td>Adverse effects</td>
<td>Gastrointestinal symptoms Hypersensitivity reactions</td>
</tr>
<tr>
<td>Nursing Accreditation Requirements</td>
<td>An RN whose competency to practice Nurse Delegated Emergency Care and to comply with this Standing Order has been assessed and approved by a Local Facilitator, in accordance with the NDEC Education and Accreditation Framework.</td>
</tr>
<tr>
<td>Documentation</td>
<td>Administration and supply record is to be documented by the administering nurse. Document first dose and supply of the full course in the “once only” section of the medication chart. The record of administration and supply must be checked and countersigned by a medical officer within 24 hours of initial administration.</td>
</tr>
</tbody>
</table>

Local Standing Order Authorisation:

<table>
<thead>
<tr>
<th>Date approved by XXX LHD Drugs and Therapeutics Committee:</th>
<th>Medical Officer Name:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Review Date:</td>
<td>Signature:</td>
</tr>
</tbody>
</table>

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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 full product info available on MIMS or the Australian Medicines Handbook. If contraindications, precautions or interactions are present refer to MO before administration.

245(23/07/15)
# 6. EMERGENCY CARE

## 3.5 Standing Order for supply of Chloramphenicol eye drops

<table>
<thead>
<tr>
<th>TITLE</th>
<th>Standing order for Chloramphenicol eye drops Minims Chloramphenicol 0.5% Eye Drops</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trade Name(s)</td>
<td>Chloromycetin Eye Drops; Chlorsig Eye drops; Minims Chloramphenicol 0.5% Eye Drops</td>
</tr>
<tr>
<td>Presentation</td>
<td>Clear to slightly hazy, colourless, sterile eye drops 0.5% (5mg/mL).</td>
</tr>
<tr>
<td>Indication</td>
<td>Prophylactic antibiotic coverage against bacterial infection in superficial ocular injuries including corneal foreign body and “welder’s flash” burn</td>
</tr>
<tr>
<td>Contraindications</td>
<td>1. Known allergy to chloramphenicol 2. Restriction of eye movement/abnormal pupils cloudy cornea 3. Chronic eye disease (e.g. glaucoma) 4. Recent (within 6 months) eye surgery, including laser surgery</td>
</tr>
<tr>
<td>Precautions</td>
<td>Patients should be instructed to cease using contact lenses during treatment and seek GP or optometrist advice prior to recommencing use.</td>
</tr>
<tr>
<td>Dose</td>
<td>1 drop into affected eye/s</td>
</tr>
<tr>
<td>Dose frequency</td>
<td>Every 2–4 hours for 2 days; then 1 drop 4 times daily for 5 days</td>
</tr>
<tr>
<td>Storage</td>
<td>Refrigerate and store out of patient and public access, preferably in a locked room or a locked cabinet securely attached to the wall or floor – see PD2013_043.</td>
</tr>
<tr>
<td>Adverse effects</td>
<td>Local ocular irritation; burning or itching. Allergic type reactions. Unpleasant taste. Blurred vision.</td>
</tr>
<tr>
<td>Nursing Accreditation Requirements</td>
<td>An RN whose competency to practice Nurse Delegated Emergency Care and to comply with this Standing Order has been assessed and approved by a Local Facilitator, in accordance with the NDEC Education and Accreditation Framework.</td>
</tr>
<tr>
<td>Documentation</td>
<td>Administration and supply record is to be documented by the administering nurse. Document first dose and supply of the full course in the “once only” section of the medication chart. The record of administration must be checked and countersigned by a medical officer within 24 hours of initial administration.</td>
</tr>
</tbody>
</table>

### Local Standing Order Authorisation:

<table>
<thead>
<tr>
<th>Date approved by XXX LHD Drugs and Therapeutics Committee</th>
<th>Medical Officer Name:</th>
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<tbody>
<tr>
<td>Review Date:</td>
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</tr>
</tbody>
</table>

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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 full product info available on MIMS or the Australian Medicines Handbook <accessible in NSW Health facilities via CIAP: > If contraindications, precautions or interactions are present refer to MO before administration

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## 3.6 Standing Order for supply of Fluorescein eye drops

<table>
<thead>
<tr>
<th><strong>TITLE</strong></th>
<th>Standing order for Fluorescein eye drops</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Trade Name(s)</strong></td>
<td>Minims Fluorescein Eye Drops</td>
</tr>
<tr>
<td><strong>Presentation</strong></td>
<td>Sterile ophthalmic solution 2% (20mg/mL) or 1% (10mg/mL). Single patient, single use.</td>
</tr>
<tr>
<td><strong>Indication</strong></td>
<td>Diagnostic aid during eye exams.</td>
</tr>
<tr>
<td><strong>Contraindications</strong></td>
<td>Nil recorded</td>
</tr>
<tr>
<td><strong>Precautions</strong></td>
<td>Ensure single use/single patient regime maintained; significant risk of iatrogenic ocular infection if solution reused. Advise patient to avoid rubbing eyes and avoid expose to dust. Advise patient may temporarily stain skin, urine, tears, nasal secretions yellow; may permanently stain soft contact lenses and clothing.</td>
</tr>
<tr>
<td><strong>Dose</strong></td>
<td>Use sufficient solution to apply stain to damaged area – generally 1-2 drops in each eye. Excess can be washed away with sterile saline solution.</td>
</tr>
</tbody>
</table>
| **Administration** | To be administered in hospital only.  
- Ensure contact lens are removed  
- Instil solution into affected eye/s  
- Use cobalt blue light source for assessment  
- Stain does not show up on a normal cornea. Corneal abrasions or ulcers are stained a bright green. Foreign bodies are surrounded by a green ring. Conjunctival abrasions are also stained. |
| **Storage** | Refrigerate and store out of patient and public access, preferably in a locked room or a locked cabinet securely attached to the wall or floor – see PD2013_043. |
| **Adverse effects** | May cause blurred vision – caution driving. |
| **Nursing Accreditation Requirements** | An RN whose competency to practice Nurse Delegated Emergency Care and to comply with this Standing Order has been assessed and approved by a Local Facilitator, in accordance with the NDEC Education and Accreditation Framework. |
| **Documentation** | Administration record is to be documented by the administering nurse. Document on the “once only” section of the appropriate medication chart. The record of administration must be checked and countersigned by a medical officer within 24 hours of initial administration. |

### Local Standing Order Authorisation:

<table>
<thead>
<tr>
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</tr>
</tbody>
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245(23/07/15)
### 3.7 Standing Order for supply of Ibuprofen

<table>
<thead>
<tr>
<th><strong>TITLE</strong></th>
<th>Standing order for Ibuprofen</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Trade Name(s)</strong></td>
<td>Advil, Brufen, Bugesic, Dimetapp, Heron Blue, Nurofen, Panafen, ProVen, Rafen</td>
</tr>
<tr>
<td><strong>Presentation</strong></td>
<td>Tablets/capsules containing 200mg</td>
</tr>
<tr>
<td></td>
<td><strong>Suspension</strong></td>
</tr>
<tr>
<td></td>
<td>• 200mg/5mL</td>
</tr>
<tr>
<td></td>
<td>• 100mg/5mL</td>
</tr>
<tr>
<td></td>
<td>• 100mg/100mL</td>
</tr>
<tr>
<td></td>
<td>(Note: Some ibuprofen preparations contain codeine, phenylephrine or pseudoephedrine combinations – this Standing Order is for ibuprofen only. Other preparation combinations are not covered).</td>
</tr>
<tr>
<td><strong>Indication</strong></td>
<td>Analgesia for the treatment of mild to moderate pain (any cause). Corresponding pain score may range from 1 – 6.</td>
</tr>
<tr>
<td><strong>Contraindications</strong></td>
<td>• History of allergy to aspirin or other NSAIDs</td>
</tr>
<tr>
<td></td>
<td>• Concurrent antiplatelet (including low dose aspirin) or anticoagulant use</td>
</tr>
<tr>
<td></td>
<td>• History of, or likelihood of, active peptic ulcer disease or GI bleeding</td>
</tr>
<tr>
<td></td>
<td>• History of, or likelihood of, liver, kidney or cardiovascular disease, including hypertension, heart failure, stroke, myocardial infarct</td>
</tr>
<tr>
<td></td>
<td>• History of asthma or hypertension</td>
</tr>
<tr>
<td></td>
<td>• Current or possible pregnancy</td>
</tr>
<tr>
<td></td>
<td>• Breast feeding mothers</td>
</tr>
<tr>
<td></td>
<td>• Patients &gt;65yrs with multiple comorbidities and on multiple medications</td>
</tr>
<tr>
<td></td>
<td>• Dehydration</td>
</tr>
<tr>
<td></td>
<td>• Concurrent use of diuretics, ACE inhibitors or angiotensin receptor blockers</td>
</tr>
<tr>
<td><strong>Precautions</strong></td>
<td>Nil specific – assess effectiveness by repeating pain assessment 30 – 60 minutes post administration</td>
</tr>
<tr>
<td><strong>Dose</strong></td>
<td><strong>Elderly – 200mg per dose</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Adults – 200 - 400mg per dose</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Children - 10mg / kg up to 400mg per dose</strong></td>
</tr>
<tr>
<td><strong>Dose frequency</strong></td>
<td><strong>Adults - 4-6 hourly (maximum 3 doses/24hrs)</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Children - 6-8 hourly (maximum 3 doses/24hrs)</strong></td>
</tr>
<tr>
<td><strong>Administration and Supply</strong></td>
<td>May be administered in hospital and supplied via pre-labelled stock for use outside the hospital in a take-home pack of no more than 10 tablets. Advise patient to consult a doctor about using for more than 2 days.</td>
</tr>
<tr>
<td></td>
<td>Oral tablet/capsule or suspension syrup</td>
</tr>
<tr>
<td><strong>Storage</strong></td>
<td>Store out of patient and public access, preferably in a locked room or a locked cabinet securely attached to the wall or floor – see PD2013_043.</td>
</tr>
<tr>
<td><strong>Adverse effects</strong></td>
<td>• Gastrointestinal symptoms</td>
</tr>
<tr>
<td></td>
<td>• Hypersensitivity reactions</td>
</tr>
<tr>
<td></td>
<td>• Longer term use may exacerbate cardiac or renal disease</td>
</tr>
<tr>
<td><strong>Nursing Accreditation Requirements</strong></td>
<td>An RN whose competency to practice Nurse Delegated Emergency Care and to comply with this Standing Order has been assessed and approved by a Local Facilitator, in accordance with the NDEC Education and Accreditation Framework.</td>
</tr>
<tr>
<td><strong>Documentation</strong></td>
<td>Administration record and supply is to be documented by the administering nurse. Document first dose and supply (if applicable) on the “once only” section of the appropriate medication chart. The record of administration must be checked and countersigned by a medical officer within 24 hours of initial administration.</td>
</tr>
</tbody>
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245(23/07/05)
6. EMERGENCY CARE

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### 3.8 Standing Order for supply of Lignocaine 1%

<table>
<thead>
<tr>
<th>TITLE</th>
<th>Standing order for Lignocaine 1%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trade Name(s)</td>
<td>Lignocaine, Xylocaine (Plain)</td>
</tr>
<tr>
<td>Presentation</td>
<td>Ampoule containing clear, colourless, sterile liquid. Specific ampoule type depends on manufacturer however, contains either 50mg/5mL, 200mg/20mL</td>
</tr>
<tr>
<td>Indication</td>
<td>To facilitate the removal of a crawling insect from the ear canal by gentle aural instillation.</td>
</tr>
<tr>
<td>Contraindications</td>
<td>Known perforation, bleeding or obvious trauma to external auditory canal, inability for patient to stay still/immobilised during instillation</td>
</tr>
<tr>
<td>Precautions</td>
<td>Nil specific</td>
</tr>
</tbody>
</table>
| Dose | Single dose (1% lignocaine) for adults and children > 10kgs. Maximum dose (based on 3mg/kg)  
- ≥ 10kg: 3mL |
| Dose frequency | Single dose |
| Administration | To be administered in hospital only. The aim of administration is to cover/drown the insect. Gently instil into the ear to achieve desired outcome. Note if the insect is still alive, it may rapidly crawl out of the auditory canal upon commencement of instillation. |
| Storage | Store out of patient and public access, preferably in a locked room or a locked cabinet securely attached to the wall or floor – see PD2013_043. |
| Adverse effects | If instilled in an ear with a perforated membrane, middle ear type symptoms may develop (vertigo etc.) |
| Nursing Accreditation Requirements | An RN whose competency to practice Nurse Delegated Emergency Care and to comply with this Standing Order has been assessed and approved by a Local Facilitator, in accordance with the NDEC Education and Accreditation Framework. |
| Documentation | Administration record is to be documented by the administering nurse. Document on the "once only" section of the appropriate medication chart. The record of administration must be checked and countersigned by a medical officer within 24 hours of initial administration. |

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245(23/07/15)
# 6. EMERGENCY CARE

## 3.9 Standing Order for supply of Loratadine

<table>
<thead>
<tr>
<th>TITLE</th>
<th>Standing order for Loratadine</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trade Name(s)</td>
<td>Alledine; Allerdyne; Allereze; Claratyne; Lorano; Lorapaed; Lorastyne</td>
</tr>
</tbody>
</table>
| Presentation 1 | Tablet containing 10mg  
Syrup containing 1mg/mL  
(Note: Some loratadine preparations contain a pseudoephedrine combination – this Standing Order is for loratadine only. Other preparation combinations are not covered.) |
| Indication | Minor urticarial rashes of probably allergen origin |
| Contraindications 1 | Allergy to sodium benzoate (preservative in syrup form)  
Severe liver disease |
| Precautions 1 | Nil specific |
| Dose 1 | Adults/children aged ≥ 12 years  
• 10mg (1 tablet) orally, daily  
Children  
• 2 – 12 years  
  ▪ Body weight > 30kg; 10mg (10mL or 1 tablet) orally, daily  
  ▪ Body weight ≤ 30kg; 5mg (5mL) orally, daily  
• 1 – 2 years  
  ▪ 2.5mg (2.5mL) orally, daily |
| Dose frequency 1 | Daily |
| Administration 1 | To be administered in hospital only.  
Oral tablet/syrup |
| Storage | Must be stored out of patient and public access, preferably in a locked room or a locked cabinet securely attached to the wall or floor – see PD2013_043. |
| Adverse effects 1 | May rarely cause drowsiness, fatigue, headache, nausea, dry mouth especially in the elderly. |
| Nursing Accreditation Requirements | An RN whose competency to practice Nurse Delegated Emergency Care and to comply with this Standing Order has been assessed and approved by a Local Facilitator, in accordance with the NDEC Education and Accreditation Framework. |
| Documentation | Administration record is to be documented by the administering nurse. Document on the “once only” section of the appropriate medication chart.  
The record of administration must be checked and countersigned by a medical officer within 24 hours of initial administration. |

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</table>

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245(23/07/15)
### 6. EMERGENCY CARE

#### 6.141

### 3.10 Standing Order for supply of Metoclopramide

<table>
<thead>
<tr>
<th><strong>TITLE</strong></th>
<th>Standing order for Metoclopramide</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Trade Name(s)</strong></td>
<td>Maxolon; Pramin</td>
</tr>
<tr>
<td><strong>Presentation</strong></td>
<td>Tablets containing 10mg</td>
</tr>
<tr>
<td><strong>Parenteral solution</strong></td>
<td>containing 5mg/mL, 2mL</td>
</tr>
</tbody>
</table>

(Note: Some metoclopramide preparations contain a paracetamol combination – this Standing Order is for metoclopramide only. Other preparation combinations are not included.)

<table>
<thead>
<tr>
<th><strong>Indication</strong></th>
<th>Relief of nausea and/or vomiting</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Contraindications</strong></td>
<td>Age &lt; 20 years</td>
</tr>
<tr>
<td></td>
<td>Hx epilepsy</td>
</tr>
<tr>
<td></td>
<td>Previous reactions to metoclopramide (including dystonic reactions)</td>
</tr>
<tr>
<td></td>
<td>Impaired renal or hepatic function</td>
</tr>
<tr>
<td><strong>Precautions</strong></td>
<td>Nil specific</td>
</tr>
<tr>
<td><strong>Dose</strong></td>
<td>Adults ≥ 20 years</td>
</tr>
<tr>
<td></td>
<td>• 10mg oral tablet/OR by intramuscular injection</td>
</tr>
<tr>
<td></td>
<td>If patient weighs 30-60kg</td>
</tr>
<tr>
<td></td>
<td>• 5mg oral tablet/OR by intramuscular injection</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Dose frequency</strong></th>
<th>Can be given three times a day (every 8 hours)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Administration</strong></td>
<td>To be administered in hospital only.</td>
</tr>
<tr>
<td></td>
<td>Oral tablet OR by intramuscular injection</td>
</tr>
</tbody>
</table>

| **Storage**                 | Must be stored out of patient and public access, preferably in a locked room or a locked cabinet securely attached to the wall or floor – see PD2013_043. |
| **Adverse effects**         | Dystonic type reactions (involuntary muscle contractions and abnormal postures of the trunk, neck, face, or extremities), akathisia, drowsiness, dizziness, headache. |

**Nursing Accreditation Requirements**
An RN whose competency to practice Nurse Delegated Emergency Care and to comply with this Standing Order has been assessed and approved by a Local Facilitator, in accordance with the NDEC Education and Accreditation Framework.

**Documentation**
Administration record is to be documented by the administering nurse. Document on the “once only” section of the appropriate medication chart. The record of administration must be checked and countersigned by a medical officer within 24 hours of initial administration.

**Related Documents**
NDEC Nurse Management Guideline: Vomiting and Diarrhoea

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245(23/07/15)
### 3.11 Standing Order for supply of Ondansetron

<table>
<thead>
<tr>
<th>TITLE</th>
<th>Standing order for Ondansetron</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trade Name(s)</td>
<td>Ondaz; Zifojim Zofran, Zondan</td>
</tr>
<tr>
<td>Presentation</td>
<td>Wafer (fast dissolving) or oral tablet containing 4mg or 8mg</td>
</tr>
<tr>
<td>Indication</td>
<td>Relief of nausea and/or vomiting</td>
</tr>
</tbody>
</table>
| Contraindications | • Concomitant use with apomorphine  
• Children < 2 years  
• Cardiac disease, particularly conduction anomalies  
• Hypokalaemia |
| Precautions | Nil specific |
| Dose | Adults and children ≥ 2 years  
• 4mg single dose (tablet or wafer) |
| Dose frequency | Single dose |
| Administration | To be administered in hospital only.  
Wafer is placed on top of the tongue where it dissolves within seconds and is swallowed  
Or  
Tablet orally |
| Storage | Must be stored out of patient and public access, preferably in a locked room or a locked cabinet securely attached to the wall or floor – see PD2013_043. |
| Adverse effects | Headache, sensation of warmth or flushing, dizziness, hypotension, hiccups, arrhythmias, chest pain, seizures. |
| Nursing Accreditation Requirements | An RN whose competency to practice Nurse Delegated Emergency Care and to comply with this Standing Order has been assessed and approved by a Local Facilitator, in accordance with the NDEC Education and Accreditation Framework. |
| Documentation | Administration record is to be documented by the administering nurse. Document on the “once only” section of the appropriate medication chart.  
The record of administration must be checked and countersigned by a medical officer within 24 hours of initial administration. |
| Related Documents | NDEC Nurse Management Guideline: Vomiting and Diarrhoea  

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245(23/07/15)
### Standing Order for supply of Oral Rehydration Solution

**TITLE**: Standing order for Oral Rehydration Solution

<table>
<thead>
<tr>
<th>Trade Name(s)</th>
<th>E-Lyte; Gastrolyte; Gold Cross Gluco-lyte; HYDRAlyte, O.R.S.; Pedialyte; Repalyte; Restore O.R.S.</th>
</tr>
</thead>
</table>

**Presentation**

Oral Rehydration Solutions are generally available in 4 forms:
- Soluble powder
- Effervescent dissolvable tablet
- Pre-made solution
- Ice blocks.


**Indication**

Oral correction of fluid and electrolyte loss in infants, children and adults as a result of vomiting and/or diarrhoea

**Contraindications**

Possible surgical intervention and/or a requirement to remain ‘nil by mouth’

**Precautions**

Strict fluid balance record. Input should exceed output. Further vomiting ≠ failed trial of fluid – worsening dehydration assessment status = failed trial of fluid

**Dose**

0.5mL/kg

**Dose frequency**

Every 5 minutes

**Administration**

To be administered in hospital only. If required, reconstitute specific Oral Rehydration Solution as per manufactures instructions. Instruct patient/carer to administer Oral Rehydration Solution in small, frequent amounts (0.5mL/kg every 5 minutes). Provide patient/carer with appropriate measuring/administration equipment; syringe, measuring cup etc.

**Storage**

Must be stored out of patient and public access, preferably in a locked room or a locked cabinet securely attached to the wall or floor – see PD2013_043.

**Adverse effects**

No clinically significant side-effects

**Nursing Accreditation Requirements**

An RN whose competency to practice Nurse Delegated Emergency Care and to comply with this Standing Order has been assessed and approved by a Local Facilitator, in accordance with the NDEC Education and Accreditation Framework.

**Documentation**

Administration record is to be documented by the administering nurse. Document on the “once only” section of the appropriate medication chart. The record of administration must be checked and countersigned by a medical officer within 24 hours of initial administration.

**Related Documents**


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245(27/03/15)
### 3.13 Standing Order for supply of Paracetamol

<table>
<thead>
<tr>
<th>TITLE</th>
<th>Standing order for Paracetamol</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trade Name(s)</td>
<td>APO, Dimetapp, Dymadon, Febridol, Lemsip, Panadol, Panamax, Paralgin (Note: Some paracetamol preparations contain combinations of caffeine, chlorpheniramine, codeine, dextromethorphan, dextropropoxyphene, doxylamine, metoclopramide, orphenadrine, phenylephrine, pseudoephedrine, and/or triprolidine. This Standing Order is for paracetamol only).</td>
</tr>
</tbody>
</table>
| Presentation | Tablets/capsules/chewable tablets/soluble tablets or soluble powder: containing 120mg, 250mg, 500mg, 600mg, 1000mg Suspension:  
• 50mg/mL  
• 100mg/mL  
• 120mg/5mL  
• 240mg/5mL  
(Note: paracetamol is available as modified/sustained release (665mg) tablets, suppositories and intravenous infusions. This Standing Order is for oral non-modified release preparations only). |
| Indication | Analgesia for the treatment of mild to moderate pain (any cause). Corresponding pain score may range from 1 – 6 |
| Contraindications |  
• Known allergy to paracetamol or specific preparation components  
• Impaired liver function including current alcohol dependence  
• Previous dose 15mg/kg (1g adult dose) of paracetamol within 4 hours  
• Cumulative dose 60mg/kg (4g adult dose) of paracetamol within preceding 24 hours  
• Avoid soluble preparations (due to high sodium content) in heart failure/hypertension/where low sodium intake is indicated |
| Precautions | Nil specific – assess effectiveness by repeating pain assessment 30 – 60 minutes post administration |
| Dose | Adults and children > 12 years  
• 1g  
Children > 1 month  
• 15mg / kg (maximum 1g)  
(maximum 60mg / kg / 24 hours – not more than 4g per 24 hours) |
| Dose frequency | Adults and children > 12 years  
• every 4 – 6 hours (maximum 4g per 24 hours)  
Children > 3 months  
• every 4 – 6 hours  
(maximum 60mg/kg/24 hours – not more than 4g per 24 hours) |
| Administration and Supply | May be administered in hospital and supplied via pre-labelled stock for use outside the hospital in a take-home pack of no more than 10 tablets.  
Prepare and administer appropriate oral dose based on product concentration, product instructions and intended dose. |
| Storage | Must be stored out of patient and public access, preferably in a locked room or a locked cabinet securely attached to the wall or floor – see PD2013_043. |
| Adverse effects | Rare – though hypersensitivity/allergic type reactions are possible |
| Nursing Accreditation Requirements | An RN whose competency to practice Nurse Delegated Emergency Care and to comply with this Standing Order has been assessed and approved by a Local Facilitator, in accordance with the NDEC Education and Accreditation Framework. |
| Documentation | Administration and supply record is to be documented by the administering nurse. Document first dose and supply of take home pack (if applicable) on the “once only” section of the appropriate medication chart. The record of administration must be checked and countersigned by a medical officer within 24 hours of initial administration. |
6. EMERGENCY CARE


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### 3.14 Standing Order for supply of Paracetamol 500mg/Codeine 8mg

<table>
<thead>
<tr>
<th><strong>TITLE</strong></th>
<th>Standing order for Paracetamol 500mg/Codeine 8mg (adults only)</th>
</tr>
</thead>
</table>
| **Trade Name(s)** | Codapane, Panamax Co, Panadeine, Panalgesic  
(Note: Paracetamol/codeine preparations are available in multiple dose ratios. Some preparations also contain combinations of doxylamine. This Standing Order is for paracetamol 500mg/codeine 8mg only.) |
| **Presentation** | Tablet/soluble tablet containing 500mg paracetamol/8mg codeine |
| **Indication** | Analgesia for the treatment of moderate pain in adults (any cause). Corresponding pain score may range from 4 – 6. |
| **Contraindications** | - Known allergy to paracetamol, codeine or specific preparation components  
- Breastfeeding mothers  
- Impaired liver function including current alcohol dependence  
- Impaired renal function  
- Decreased respiratory reserve  
- Previous paracetamol dose (≥ 1g) within last 4 hours  
- Cumulative dose of paracetamol ≥ 4g within last 24 hours  
- Avoid soluble preparations (due to high sodium content) in heart failure/hypertension/where low sodium intake is indicated |
| **Precautions** | Nil specific – assess effectiveness by repeating pain assessment 30 – 60 minutes post administration. |
| **Dose** | 2 tablets (paracetamol 500mg / codeine 8mg) |
| **Dose frequency** | 4 – 6 hourly up to 8 tablets (4g paracetamol total) per 24 hours |
| **Administration** | To be administered in hospital only.  
Tablet or soluble tablet orally |
| **Storage** | Must be stored out of patient and public access, preferably in a locked room or a locked cabinet securely attached to the wall or floor – see PD2013_043. |
| **Adverse effects** | - Drowsiness and mental impairment  
- Gastrointestinal symptoms  
- Rare – though hypersensitivity/allergic type reactions are possible for both paracetamol and codeine |
| **Nursing Accreditation Requirements** | An RN whose competency to practice Nurse Delegated Emergency Care and to comply with this Standing Order has been assessed and approved by a Local Facilitator, in accordance with the NDEC Education and Accreditation Framework. |
| **Documentation** | Administration record is to be documented by the administering nurse. Document on the “once only” section of the appropriate medication chart.  
The record of administration must be checked and countersigned by a medical officer within 24 hours of initial administration. |

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### 3.15 Standing Order for supply of Sodium Citrotartrate

<table>
<thead>
<tr>
<th>TITLE</th>
<th>Standing order for Sodium Citrotartrate (adults only)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trade Name(s)</td>
<td>Citralite, Citravescent, Ural</td>
</tr>
<tr>
<td>Presentation</td>
<td>Powder for reconstitution containing 3.7g or 4g sodium citrotartrate</td>
</tr>
<tr>
<td>Indication</td>
<td>Symptom management of dysuria in adult patients only</td>
</tr>
</tbody>
</table>
| Contraindications | • Renal failure/renal impairment  
• Hypernatraemia/heart failure/hypertension / peripheral or pulmonary oedema/ where low sodium intake is indicated  
• Pregnancy  
• Breastfeeding mothers |
| Precautions | Nil specific |
| Dose | 1 – 2 reconstituted sachets (3.7 – 8g) |
| Dose frequency | 3 – 4 times a day |
| Administration | May be administered in hospital and supplied via pre-labelled stock for use outside the hospital. (Patient information sheet must be included.)  
Reconstitute powder as directed by product packaging. |
| Storage | Must be stored out of patient and public access, preferably in a locked room or a locked cabinet securely attached to the wall or floor – see PD2013_043. |
| Adverse effects | • Mild laxative effect  
• Prolonged use may cause systematic alkalosis and/or hypernatraemia |
| Nursing Accreditation Requirements | An RN whose competency to practice Nurse Delegated Emergency Care and to comply with this Standing Order has been assessed and approved by a Local Facilitator, in accordance with the NDEC Education and Accreditation Framework. |
| Documentation | Administration record is to be documented by the administering nurse. Document on the “once only” section of the appropriate medication chart.  
The record of administration must be checked and countersigned by a medical officer within 24 hours of initial administration. |
| Related Documents | NDEC Nurse Management Guideline: Urinary Symptoms  

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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 full product info available on MIMS or the Australian Medicines Handbook <accessible in NSW Health facilities via CIAP: > If contraindications, precautions or interactions are present refer to MO before administration.
### 3.16 Standing Order for supply of Tetanus Toxoid

<table>
<thead>
<tr>
<th><strong>TITLE</strong></th>
<th>Standing order for Tetanus Toxoid</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Trade Name(s)</strong></td>
<td><em>Tetanus toxoid is only available in combination with other antigens.</em> Adacel (Diphtheria toxoid + Tetanus toxoid + Pertussis vaccine), ADT (Diphtheria toxoid + Tetanus toxoid), Boostrix (Diphtheria toxoid + Tetanus toxoid + Pertussis vaccine), Tripackel Injection (Diphtheria toxoid + Tetanus toxoid + Pertussis vaccine)</td>
</tr>
<tr>
<td><strong>Presentation</strong></td>
<td>0.5mL in needleless prefilled syringe for injection</td>
</tr>
</tbody>
</table>
| **Indication** | • All wounds in patients that have not had a booster in the last 10 years  
• All wounds other than clean minor cuts in adults who have not received a booster in the last 5 years  
• All wounds where vaccination history is uncertain or less than 3 doses of tetanus toxoid. *Ensure this is noted on discharge paperwork. The patient will require further immunoglobulin as part of routine follow-up.* (see table below) |
| **Contraindications** | Previous anaphylaxis following a previous dose of tetanus-containing vaccine or any vaccine. Consider Tetanus Immunoglobulin (TIG) TIG for tetanus prone wounds for persons with history of severe adverse event following tetanus vaccination |
| **Precautions** | Observe patient until at least 15 minutes post administration for development of allergic type reactions. Notify medical officer immediately if allergic type symptoms develop. |
| **Dose** | 0.5mL of a tetanus-containing vaccine in combination with diphtheria toxoid. Refer to medication packaging for specific dosages |
| **Dose frequency** | Once only |
| **Administration** | To be administered in hospital only. Shake thoroughly before use. 0.5mL given as a slow intramuscular injection |
| **Storage** | Refrigerate, store between +2°C to +8°C and according to *The National Vaccine Storage Guidelines Strive for 5* (2013). Store out of patient and public access, preferably in a locked room or a locked cabinet securely attached to the wall or floor – see PD2013 043. |
| **Adverse effects** | Pain, redness and swelling at the injection site are common. Headache, malaise, myalgia and fever are uncommon. Anaphylaxis, urticaria and peripheral neuropathy are rare. Brachial neuritis is very rare. |
| **Nursing Accreditation Requirements** | An RN whose competency to practice Nurse Delegated Emergency Care and to comply with this Standing Order has been assessed and approved by a Local Facilitator, in accordance with the NDEC Education and Accreditation Framework. |
| **Documentation** | Record specific medication trade name and batch number in notes and in discharge letter (will allow GP to update Patient Healthcare Record) Administration record is to be documented by the administering nurse. Document on the “once only” section of the appropriate medication chart The record of administration must be checked and countersigned by a medical officer within 24 hours of initial administration. |
Local Standing Order Authorisation:

<table>
<thead>
<tr>
<th>Date approved by XXX LHD Drugs and Therapeutics Committee:</th>
<th>Medical Officer Name:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Review Date:</td>
<td>Signature:</td>
</tr>
</tbody>
</table>

Table 1: Guide to tetanus prophylaxis in wound management (*Australian Immunisation Handbook*)

<table>
<thead>
<tr>
<th>Time since vaccination</th>
<th>Type of wound</th>
<th>Tetanus toxoid vaccine [NB1]</th>
<th>Tetanus immunoglobulin</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>History of 3 or more doses of tetanus toxoid vaccine</em></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>less than 5 years</td>
<td>all wounds</td>
<td>no</td>
<td>no</td>
</tr>
<tr>
<td>5 to 10 years</td>
<td>clean minor wounds</td>
<td>no</td>
<td>no</td>
</tr>
<tr>
<td></td>
<td>all other wounds</td>
<td>yes</td>
<td>no</td>
</tr>
<tr>
<td>greater than 10 years</td>
<td>all wounds</td>
<td>yes</td>
<td>no</td>
</tr>
<tr>
<td><em>Uncertain vaccination history or less than 3 doses of tetanus toxoid vaccine</em></td>
<td>clean minor wounds</td>
<td>yes</td>
<td>no</td>
</tr>
<tr>
<td></td>
<td>all other wounds</td>
<td>yes</td>
<td>yes</td>
</tr>
</tbody>
</table>

NB1: Tetanus toxoid is available only in combination with other antigens.

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