

Key recommendations of the NSW Taskforce on SARS (TSARS)

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Foreword

In late April 2003, in response to the threat of severe acute respiratory syndrome, or SARS, the NSW Minister for Health announced the formation of the NSW Taskforce on SARS (TSARS). TSARS first met on 1 May and comprised experts in the fields of public health, clinical medicine (intensive care, emergency medicine, mental health and general practice), microbiology, infection control, ambulance, counter disaster, industrial relations and communications. TSARS provided a forum for discussion between health and other professionals about issues concerning SARS in NSW.

The terms of reference for TSARS were to advise the Chief Health Officer on:

- measures to be taken to prepare the NSW public health system for any outbreak of SARS in NSW
- implementation of national disease control guidelines on SARS
- communication strategies to inform health care workers and the general public of SARS-related issues
- appropriate integration of clinical, public health, quarantine and other services.

Five subcommittees were formed to address issues around infection control, clinical response and capacity, community health, clinical management, and staffing.

A total of eight meetings of TSARS took place from 1 May to 9 September 2003. Each of the subcommittees tabled their final recommendations at the penultimate meeting of TSARS in July 2003. A draft overarching summary of key recommendations of TSARS was then tabled at the final meeting on 9 September and this formed the basis for the recommendations presented in this report.

Some of the key recommendations of TSARS were implemented during the time of the SARS crisis and others will require implementation in the near future. A timetable for the implementation of recommendations that remain outstanding is being prepared. It is important that a high level of commitment and appropriate resources be devoted to the implementation for two major reasons. First, there remains a chance that another SARS epidemic will occur in the approaching northern hemisphere winter. Second, there is an ever-present risk of other communicable disease threats such as bioterrorism, pandemic influenza, and other emerging or re-emerging infectious diseases, and many of the recommendations in this report are applicable to their control.

Finally, as Chair of TSARS, I would like to express my gratitude to the many people who took part in its deliberations. Apart from the members of TSARS and subcommittees, I would like to particularly thank those from the Communicable Diseases Branch of the NSW Department of Health who worked tirelessly in coordinating TSARS and in compiling this final report.



Professor Ronald Penny AO, Chair
October 2003

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Background

Severe acute respiratory syndrome (SARS) first appeared in southern China in late November 2002. By late February 2003, the disease began to spread around the world and on 12 March the World Health Organization (WHO) issued a global alert. Yet less than four months later, the epidemic was over. Central to the containment of this new disease was unprecedented international cooperation between public health, clinical and laboratory teams. A new coronavirus was identified as the cause of SARS, however no specific treatment has yet been identified. Twenty-seven countries reported probable cases of SARS to WHO as of 15 October. A total of 8098 probable infections, and 774 deaths, are estimated to have occurred worldwide, predominantly in certain provinces of China, and in Hong Kong, Taiwan, Singapore, Hanoi (Vietnam), and Toronto (Canada).

The SARS epidemic highlights the speed with which infections may spread around the world, and the need for a rapid and coordinated international public health response. With no reliable tests available for early diagnosis, and no specific treatment available, the most effective means of interrupting transmission was rapid identification and isolation of cases, follow up and quarantine of close contacts, and rigorous infection control practices.

In NSW there were a total of 56 patients investigated who fitted the WHO definition of 'suspect' or 'probable' SARS. All cases had travelled to a former SARS affected area and all have completely recovered. Only one case has been confirmed by laboratory testing, and is in fact Australia's only confirmed case. This was a foreign traveller infected in Hong Kong en route to Australia in late February, prior to WHO issuing the global alert. The diagnosis was made retrospectively and a thorough investigation found no evidence of further spread.

Since the announcement by WHO on 5 July that human-to-human transmission of SARS had been interrupted, only one further confirmed case of SARS has been recorded globally, in a laboratory worker from Singapore. There has been no secondary spread from this case, and investigations to date have implicated the laboratory in which he worked as the source of the infection.

While the current threat of SARS around the world appears low, it is important to remember that a single case is capable of igniting an outbreak. An environmental source has yet to be identified and it is unknown at this stage whether or not SARS is a seasonal disease. The risk of SARS re-emerging is therefore unknown and ongoing vigilance for the re-occurrence of the disease is needed.

Key recommendations of TSARS

1. Implementation strategy for the key recommendations of TSARS

There are several challenges for the implementation of SARS control policies in NSW and these form the basis of the following key recommendations. NSW Health is currently developing an implementation strategy for those recommendations that remain outstanding. This strategy will require a significant commitment of resources from NSW Health. The real risk of SARS re-emerging in the coming northern winter underscores the urgency of implementing this plan. Many of these recommendations will have benefits for the control of other communicable disease threats, such as bioterrorism, pandemic influenza, and emerging or re-emerging infectious diseases.

Recommendation

That NSW Health finalise an implementation strategy for the key recommendations of TSARS and that NSW Health devote the appropriate resources needed to carry out this strategy.

2. Communication with the public

Public perception of a communicable disease outbreak and its management by health authorities is critical to successful control. The provision of regular, accurate and timely information to the public is therefore essential.

Recommendation

That a strategy for informing and educating the public in the event of a major communicable disease outbreak be developed. Content will need to include general information about the unfolding epidemic, preventative messages, and advice on what to do if an individual suspects they have the disease.

3. Communication with general practitioners (GPs)

Information was provided to GPs via emails to the Divisions of General Practice and the Alliance of NSW Divisions using existing public health unit networks, and by letter from the Chief Health Officer mailed by a commercial mailing house to all medical practitioners in NSW. However, anecdotal reports indicate that this communication strategy was not always successful. Media releases were used as an additional method of informing GPs as well as the public.

Recommendation

That NSW Health establish improved systems for rapid communication of urgent advice to GPs and other medical practitioners. This may include systems using email, facsimile, print media, mobile phone networks, or rapid distribution of written materials through mail or via services such as pathology couriers. The feasibility of utilising the existing mailing database of the NSW Medical Board needs to be explored.

4. Early management of SARS cases – Fever Clinics

Should an epidemic of SARS occur in NSW, existing systems for the initial assessment of patients in general practice surgeries and Emergency Departments would rapidly be put under strain. In many SARS-affected countries, specialised public clinics (so-called Fever Clinics) were successfully utilised for the early management of possible SARS cases.

Recommendation

That all Area Health Services report on proposed early management of possible SARS cases and their contacts, specific to their local circumstances, using a framework provided by NSW Health to ensure consistency of approach. Each Area's plan needs to address the development of proposed Fever Clinics. This would entail nominating facilities and staff for the screening, triage, assessment, and isolation of cases. Consideration also needs to be given to 'staging facilities' for those that require observation but not acute hospital care.

5. Capacity to manage suspected/confirmed SARS cases in the community

Possible or confirmed cases of SARS discharged from hospital and requiring a further period of isolation,¹ as well as contacts of SARS cases requiring quarantine,² will need to be managed in the community. The majority of these will be able to be managed in their homes, but some, such as tourists or those with inadequate social supports, will require alternative accommodation. It will be critical that appropriate community supports are put in place for both of these groups.

Recommendation

That all Area Health Services identify and report on their strategies for management of SARS cases and their contacts in the community. This will include plans for patient transport, outpatient care, appropriate community supports for individuals in isolation and quarantine, and accommodation facilities for those unable to be managed in their homes. When a SARS case is released into home isolation, it is the responsibility of the treating clinicians (either hospital treating team or GP) to formulate a comprehensive discharge plan.

6. Infection control practices

Twenty percent of all SARS deaths around the world occurred in health care workers (HCW), mostly in the hospital setting. It was realised early in the epidemic that transmission rates decreased with stringent infection control practices, yet breaches of infection control, even by experienced hospital staff, were commonplace. There seems little doubt that had the SARS epidemic involved Australia, transmission to HCWs would have occurred, and personal infection control practices need to be improved by all staff with patient contact to prevent this occurring in the future.

TSARS identified general practice as a setting that requires a particular focus, evidenced by a lack of necessary infection control resources such as specialised personal protective equipment, isolation facilities and training.

¹ Isolation refers to the separation of infected individuals from others in order to prevent further spread.

² Quarantine refers to the restriction of activities of well contacts of infected individuals in order to prevent further spread during the incubation period of that contact should he/she become infected.

Recommendation

That NSW Health strengthen infection control practices in health care facilities by employing a 'whole-of-system' approach. A greater focus on infection control at orientation sessions for new staff, provision of regular training and modelling on senior staff are some suggestions. A review of infection control policies and adherence to them is warranted, along with new systems to support senior health care facility management in improving infection control. In liaison with bodies representing GPs, a strategy needs to be developed to improve infection control in the GP setting.

7. SARS hospitals

Reports from clinicians treating SARS patients in affected countries indicate that there are immense difficulties in maintaining high levels of infection control and personal protection among clinical staff managing SARS patients. The risk of spread of the infection to other parts of the health facility is therefore substantial. Centralisation of SARS patients in designated hospitals has been identified as a key containment strategy. This would also have the effect of helping keep other hospitals SARS-free and facilitate the ongoing core business of the health system in NSW.

Recommendation

That the NSW Health Counter Disaster Unit designate a small number of suitable hospitals to manage suspected SARS patients in the event of an outbreak. Facilities are to be identified early, however, the final decision regarding their use would depend upon the extent and location of any outbreak and must remain flexible.

8. Workforce issues

International evidence shows that adequate training, appropriate use of personal protective equipment and compliance in infection control measures, do protect staff from SARS infection. During an epidemic, maintenance of a healthy and motivated health care workforce is essential and this depends on good communication and measures to protect the physical, social and mental wellbeing of workers.

Recommendation

That Area Health Services ensure staff caring for possible SARS cases are screened for conditions that might increase their risk of serious disease, are well trained in infection control and the use of personal protective equipment, are aware of the risks involved, and are provided with adequate roster relief. Dedicated SARS teams were used in SARS-affected areas overseas, and are recommended in NSW. Additionally, if isolation of staff is required, they are to be provided with appropriate accommodation and arrangements made for the care of any dependents.

9. Patient transportation

In NSW, guidelines were released early in the SARS epidemic that recommended against air transport of possible SARS cases because of the risk of transmission to staff en route. Instead, the Ambulance Service of NSW developed protocols for patient transfer by road. Not all states and territories adopted recommendations against air transportation. If SARS hospitals were used in NSW as part of a SARS containment plan, rapid transport of suspected or confirmed cases would be necessary. If transportation by air could be safely carried out, it would be the preferred method.

Recommendation

That the NSW Health Counter Disaster Unit review options for air transportation of possible SARS patients and identify barriers to safety, and strategies to overcome these.

10. Case management

An expert panel was established through TSARS to provide advice and support to clinicians and public health units regarding management of particularly complex cases. The panel included specialists in public health, virology, clinical infectious diseases and infection control. When required, the panel was convened at short notice via teleconference and it was felt by all involved to be an extremely worthwhile measure.

Recommendation

That NSW Health ensure the expert panel continues to be available to advise on management of SARS cases.

11. Laboratory capacity

During the epidemic, SARS testing using polymerase chain reaction and serological methodologies increased the workload for laboratories and placed them under significant pressure. Initially, laboratories accepted specimens from clinicians whether or not the case had been triaged by the public health units. On occasion, this resulted in confusion about priorities for testing and delay in receipt of urgent results.

Recommendation

During any future outbreak of SARS, and in the interepidemic periods, that laboratories performing SARS testing in NSW ensure specimens sent to them for analysis have been triaged by the local public health unit. Laboratories will test specimens according to national guidelines and provide timely results of all tests relevant to the case to the treating clinician and the public health unit.

12. Disease notification

SARS did not become a notifiable disease under the *NSW Public Health Act* until 6 June 2003, well into the epidemic. There are potential barriers to making a new disease notifiable in NSW, especially when knowledge about the disease is rapidly evolving and when there are no reliable laboratory tests. However, declaring a disease notifiable is essential for effective surveillance and subsequent control of the disease. Additionally, it provides doctors, hospitals, laboratories and public health practitioners with confidence that provision of case details does not breach patient confidentiality.

Recommendation

That NSW Department of Health's Legal Branch identifies methods to streamline the process for making notifiable an emerging communicable disease, where initially only syndromic clinical criteria exist.

13. Legal issues around quarantine

One of the mainstays of SARS containment in affected areas was the quarantining of asymptomatic contacts of SARS patients. Ideally this is done on a voluntary basis, however, if mandatory quarantine of well contacts were required, NSW currently has no clear mechanism for ensuring this.

Recommendation

That NSW Department of Health's Legal Branch examine mechanisms for ensuring asymptomatic contacts of patients with SARS and other such communicable diseases can be placed in mandatory quarantine should it be deemed necessary by the Chief Health Officer.

14. Stocks of personal protective equipment

An audit of Area Health Services conducted by the Clinical Response and Capacity Subcommittee of TSARS identified a relative shortage of personal protective equipment. An outbreak of SARS would have soon depleted available stock of P2 (N95 equivalent) masks and other personal protective equipment.

Recommendation

That NSW Health establish a central cache of personal protective equipment with sufficient stock to protect health care workers in an outbreak.

15. Facilities for isolation within health care facilities

The ability to isolate patients with SARS was identified as a key method of containment. Isolation rooms within hospitals, including negative pressure rooms, are an important component of this. A review of isolation facilities available in hospitals across the state was conducted by the Clinical Response and Capacity Subcommittee of TSARS. It is essential in planning for a SARS outbreak that the number, design and location of these facilities are known, both within a hospital and across the state.

Recommendation

That the database of negative pressure and isolation facilities held by the NSW Health Counter Disaster Unit be kept up-to-date and that a uniform standard to isolation and infection control infrastructure be used when designing or upgrading any future health care facilities.

16. **Border surveillance – SARS airport nurses**

In early April 2003, as part of an enhanced national border surveillance strategy for SARS, the Commonwealth Department of Health and Ageing (DoHA) directed states and territories to provide registered nurses at all international airports. Their purpose was to screen incoming passengers for signs of SARS infection. A report from DoHA regarding outcomes of screening by the SARS airport nurses is pending.

Recommendation

That in the event of a future SARS threat to Australia, a national border surveillance strategy be developed in light of existing evidence. This new strategy should be rapidly deployed. Additionally, if the Commonwealth perceives a future need for airport nurses to screen for SARS, their employment should be the responsibility of the Australian Quarantine Inspection Service.

17. **Ongoing vigilance following interruption of SARS transmission worldwide**

Following interruption of human-to-human transmission of SARS in July 2003, the WHO urges ongoing vigilance for the re-emergence of SARS. Recommendations by the WHO regarding surveillance for SARS in the post-epidemic era have been used as the basis for national guidelines for ongoing surveillance. These centre on the identification of clusters of possible cases in health-care settings, and ongoing notification of positive SARS-specific tests from laboratories.

Recommendation

That NSW Health maintains a high level of vigilance for developments in relation to SARS and that national surveillance guidelines are disseminated to relevant groups for implementation in NSW.

18. **Dissemination of TSARS reports**

It is important to ensure that the work of TSARS is disseminated to key stakeholders. It is envisaged that the report *Key Recommendations of the NSW Taskforce on SARS* will be distributed to Area Chief Executive Officers, public health units and TSARS members, as well as being publicly available, accessible via the internet website of the NSW Department of Health. A second report is planned, entitled *Compendium of Reports From the Subcommittees of The NSW Taskforce on SARS*. This will contain national SARS control guidelines, along with specific recommendations of each of the TSARS subcommittees to aid in the implementation of these guidelines. This report will be disseminated to Area Chief Executive Officers, public health units, and TSARS members.

Recommendation

That NSW Health disseminate relevant reports of TSARS to key stakeholders.

