



Communicable  
Diseases  
network  
AUSTRALIA



Commonwealth Department of  
Health and  
Ageing

**Interim\***  
**Australian Infection Control  
Guidelines for  
Severe Acute Respiratory Syndrome  
(SARS)**

**Series 3 General Practice  
To be used with Series 5 Appendices**

**25 April 2004**

**These guidelines supersede those of 16<sup>th</sup> May 2003**

**These guidelines were prepared by a working group from the Department of Health and Ageing and the Communicable Disease Network of Australia (CDNA).**

Working group members:

Irene Wilkinson, Julie Hunt, Meredith Ochota, Celia Cooper, Catherine Quoye, Rod Givney, Catherine Murphy, Lance Sanders and Leslee Roberts. The working group values the contributions from numerous practitioners in health care around Australia.

**\* As new information becomes available on the clinical characteristics, diagnosis and management of the disease the guidelines will be updated.**

# **Australian Infection Control Guidelines for SARS**

## **Series 3 General Practice**

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Adapted from CDC, WHO and Health Canada guidelines for SARS Infection Control and Australian National Infection Control Guidelines.

# **Australian Infection Control Guidelines for SARS**

## **Series 3 General Practice**

### **Severe Acute Respiratory Syndrome (SARS)**

Severe Acute Respiratory Syndrome (SARS) is an illness characterised by atypical pneumonia caused by a novel coronavirus. For information about the affected areas, see the WHO web site: <http://www.who.int/csr/sarsareas/en/> or phone the Department of Health and Ageing hotline 1800 004 599. This document deals with infection control guidelines for General Practice. A compilation of appendices is published separately.

### **Australian Infection Control Guidelines for SARS**

Early detection of cases and containment of infection by isolation and infection control has been the most effective method of SARS control when SARS is introduced into a country. Methods have been instituted for early detection of any cases of SARS entering Australia including establishment of quarantine powers if needed. This gives legal authority to enforce the directions of the Quarantine Medical Officer.

The Australian approach to SARS is multifaceted. Early detection of cases and containment of infection by isolation and infection control has been the most effective method of SARS control when SARS is introduced into a country. In the process of detection of and management of cases, vigilant infection control measures are required to prevent any transmission of SARS. In the first section infection control measures in flight and at sea along with measures at Australian Borders are presented. Section 2 addresses infection control in health care facilities. In this Section infection control practices appropriate for general practitioners and other outpatient settings is described. Other community settings where SARS may be a concern, such as aged care facilities and some industries are addressed in Section 4. Appendices for all documents can be found in Section 5.

These infection control guidelines have been developed with the best information available at the time. The evidence base is scant and changes to the guidelines may occur as more evidence becomes available.

The information provided by the World Health Organisation to date is that;

- In the incubation period SARS is not transmitted from person to person,
- In the prodromal period of fever and non specific symptoms infectivity starts,
- When respiratory symptoms develop there is a higher level of infectivity,
- High levels of transmission come from very severe cases, "super spreaders" who are extremely unwell,
- Droplet and direct contact appear to be the predominant mode of transmission, although airborne, indirect contact through fomites and oral faecal transmission remain a possibility,
- Introduction of infection control measures to prevent airborne, droplet and contact transmission has reduced transmission rates and
- Health care workers and close contacts of cases are at greatest risk.

The risk of acquiring SARS is low if the contact between an unwell individual and a second person is more than one metre distance. By wearing a surgical mask a symptomatic person

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(coughing and sneezing) reduces the risk to others because the moist respiratory secretions containing infectious particles are contained within the mask. The combination of maintaining a distance from an unwell person and having a symptomatic person wear a mask can reduce transmission of SARS.

General practitioners have a particularly important role in managing SARS when it is introduced into Australia. Despite its name, Severe Acute Respiratory Syndrome, infection with the SARS-coronavirus is not always severe. A wide range of spectrum of illness is seen from mild upper respiratory infection to full respiratory distress. Health care facilities have been the amplification factor in SARS outbreaks. Health care workers, often with mild to moderate infections have continued to work and transmitted the organism to many others. Workers who are employed by more than one health care facility have spread the disease to other institutions. Severe cases of SARS clearly need to be managed within a hospital with appropriate infection control procedures in place. However where the disease is mild, it is preferable to manage the patient outside a health facility where isolation at home may be more effective at reducing transmission than isolation in hospital.

The need for scrupulous infection control when seeing people with respiratory infections is greater than ever before. Most transmission of SARS to health care workers has occurred when the person with SARS is not thought to have SARS as an initial diagnosis. The following guidelines will help practitioners to protect themselves, their office staff and their families from SARS. By considering SARS as a differential diagnosis, by using appropriate infection control and by encouraging home isolation for unwell general practitioners can play an important role in control of the disease. Foremost in each practitioners mind when seeing a person with respiratory symptoms or fever needs to be;

**“Has this person been overseas or had contact with someone with SARS in the 10 days before onset of their illness?”**

If yes the person should be considered to have SARS until another diagnosis is established. General Practitioners should liaise with Public Health Departments or Hospitals prior to referring suspected cases for pathology tests or chest X-rays.

### **Preparation for SARS**

All general practitioners and their staff should familiarise themselves with SARS and infection control including:

- General understanding of the disease.
- Possible routes of transmission.
- Appropriate use of personal protective apparel and relevant isolation procedures.

To prepare for SARS patients general practitioners should;

1. Establish routines that determine at the time appointments are made whether patients have recently travelled overseas.
2. Establish a routine of checking the current SARS affected areas at [www.health.gov.au](http://www.health.gov.au)
3. Prepare an infection control kit including personal protective equipment specifically for SARS (see below).
4. Erect SARS warning signs outside the surgery (See Series 5 Appendices).

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5. Advise staff in the practice that if they worked in a SARS affected clinical setting (see [www.health.gov.au](http://www.health.gov.au)) they should not return to the health care workplace until 10 days after departure from the SARS-affected area (See Section 5 Appendices). If they have visited a SARS affected area they may return to work if they are well. They should be alert for any symptoms of SARS.

### SARS Infection control Kit for GP's

*Essential in each Kit:*

- 10 or more of P2 (N95 equivalent) disposable masks/respirators<sup>1</sup>
- 2 boxes of 50 surgical masks
- 2 pairs protective eyewear (goggles/visor or shield)
- 2 bottles alcohol-based hand gel/foam/rub
- Multiple disposable, long-sleeve gowns (approx 10)
- 2 boxes disposable gloves
- Garbage/linen bags
- Hospital grade disinfectant (e.g.sodium hypochlorite 500 ppm (1 in 100 dilution of household bleach) or alcohol 60 - 70%)
- Single use thermometers or thermometer with single use protective covers
- Disposable cleaning cloths
- Paper and pens
- Stethoscope

SARS has been introduced into hospitals overseas and has rapidly overwhelmed the facilities. In addition to maintaining impeccable infection control standards in hospitals, it is critically important to prevent undetected transmission of SARS to staff and patients in the office based setting.

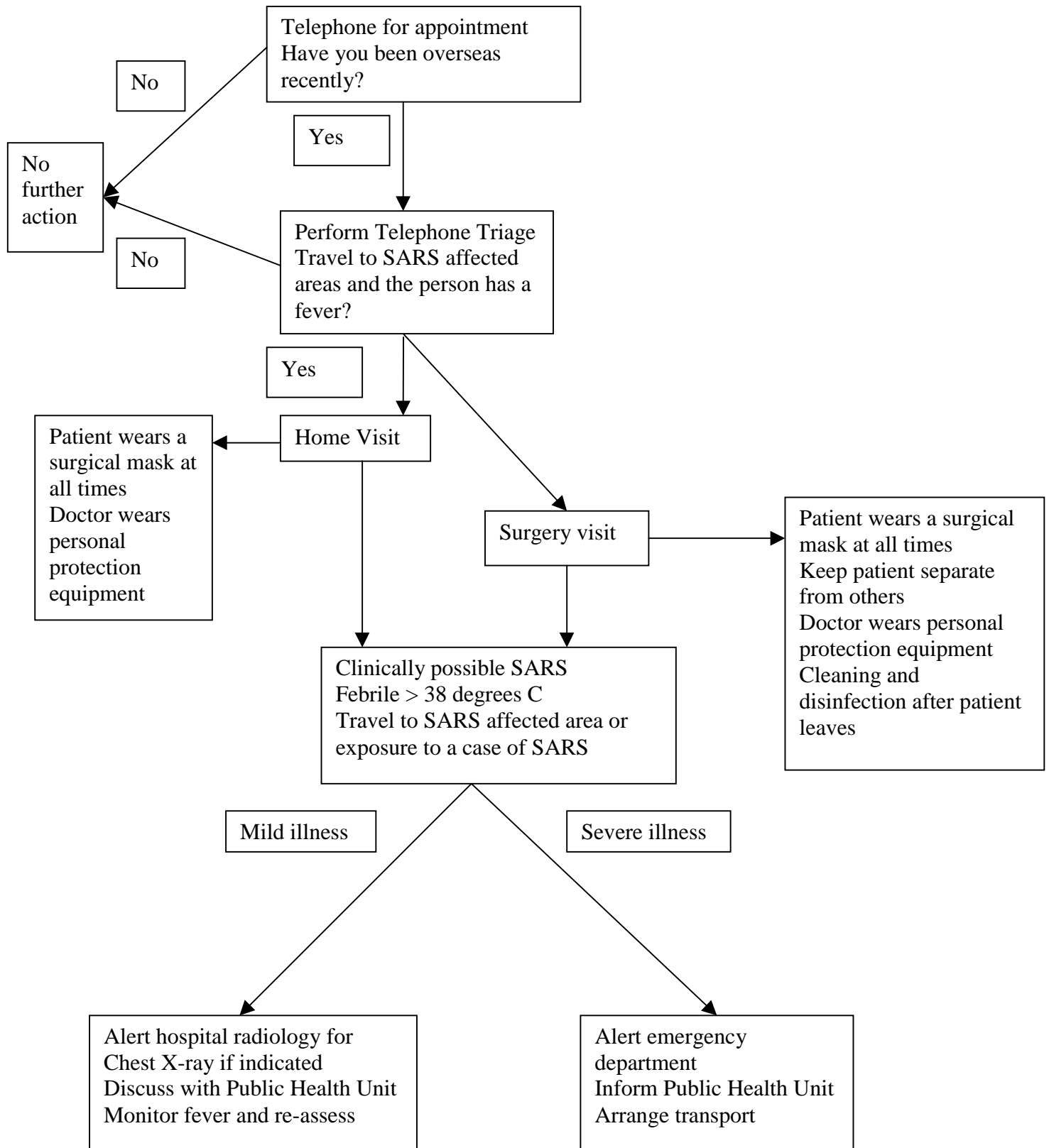
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#### <sup>1</sup> Australian suppliers of P2 Masks

Kimberly-Clark	1800-101-021 ask for local distributor for your area
3M	136 136 ask for local distributor for your area
Amcla Pty Ltd	ph 02-9437-6899 fax 02-9438-3228 E-mail charles@amcla.com

# Australian Infection Control Guidelines for SARS Series 3 General Practice

## Flow Diagram for SARS in General Practice



# Australian Infection Control Guidelines for SARS

## Series 3 General Practice

### Infection control methods

#### Prior to clinical assessment

All patients presenting with a relevant history and symptoms should be treated with appropriate infection control precautions until it can be demonstrated that they do not fulfill the SARS criteria. All patients who telephone a practice to make an appointment should be asked if they have recently travelled overseas (See below).

#### *Telephone Triage*

While SARS has not been transmitted locally in Australia, each patient who phones for an appointment should be asked if they have travelled overseas in the 10 days before the onset of their illness. If so, some additional infection control precautions might be necessary. Refer to [www.health.gov.au](http://www.health.gov.au) for up to date information about current SARS-affected areas.

#### **Have you travelled overseas in 10 before the onset of this illness? Yes/No**

IF YES.....

1. Which countries/regions were you in?
2. What date did you arrive in Australia?
3. Do you have cough, difficulty breathing or shortness of breath (compared to your normal breathing pattern)?
4. Do you have a fever? If yes, do you know what your temperature is?

If the patient has relevant travel/SARS contact history, together with fever above 37.5 degrees C or respiratory symptoms, try to arrange a home visit. If this is not possible, make an appointment for an office visit and apply SARS infection control procedures. Have the patient don a surgical mask, which will limit droplets from coughs, before entering the surgery. If the person is severely unwell the doctor should call and advise an ambulance service of the patient's possible SARS status, contact the hospital's Emergency Department of the patient's impending arrival, and contact the local public health unit with details of the case.

If the patient presents without phoning first, and has a cough, is sneezing, or has other respiratory symptoms, the person should immediately be asked if they have traveled overseas in 10 days before the onset of this illness. If yes, staff should provide the patient with a surgical mask and separate the person from others as much as possible.

Some medical interventions have been associated with very high risk of nosocomial transmission of SARS to health care workers. **Routine use of nebulisers in a practice is dangerous.** Aerosol generating procedures, eg. nebulisers, should **not be used** on any patients **before they are assessed by a medical practitioner for possible SARS.**

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## Series 3 General Practice

### During clinical assessment

Transmission of SARS is believed to occur through close contact with an infected person mainly through droplet transmission via respiratory secretions. There is also some evidence that urine, faeces and other body fluids may be infectious. In order to minimise the risk of transmission of SARS, the following should be observed for all patients who meet the clinical criteria for a possible SARS case:

- The patient should wear a surgical mask while in the doctor's rooms and when being examined at home, a surgical mask will capture large wet particles near the nose and mouth of the wearer, thus preventing the spread from the wearer to others.
- The patient should be placed in a separate room with the door closed, if possible a window in the room should be opened.
- As few workers as possible should have contact with the patient.
- All attending health care workers and others entering the room should wear gloves, impermeable gowns, protective eyewear (goggles/visor/shield) and a P2(N95) masks/respirators, and should carefully follow recommendations for hand hygiene (e.g. frequent handwashing or use of alcohol-based hand rubs/gels).
- Every personal protective equipment item should be handled as a potential fomite that could be a source of contamination and transmission of infection. Fomites like stethoscopes can be disinfected with alcohol or washed followed by bleach (see Section 5 Appendix)

In particular the HCW should;

- Avoid direct contact with patient secretions and excretions,
- Be careful to not touch his/her own face (eyes, nose or mouth),
- Wash hands before and after patient contact, after activities likely to cause contamination, and after removing gloves,
- Use a single use thermometer or a reusable thermometer with single use protective cover to measure the patient's temperature,
- Ensure that reusable devices such as stethoscopes are reprocessed according to the manufacturer's instructions to remove possible contamination,
- Ensure that all potentially contaminated environmental surfaces are cleaned with neutral detergent and water and wiped over with a broad spectrum disinfectant of proven antiviral activity (e.g. sodium hypochlorite 500 ppm (1 in 100 dilution of household bleach) or alcohol 60 - 70%).

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### **Clinical assessment**

A person is a SARS suspect case if they have a relevant travel history or contact with a SARS patient, together with clinical signs and/or symptoms as outlined in the Australian case definition (see Series 5 Appendices). Rapid changes in information about SARS and diagnostic testing necessitate the ongoing review of the case definition. In general a case of SARS will;

1. have a temperature of greater than 38 degrees C or a cough or dyspnoea; and
2. has been in a SARS affected area (current SARS affected areas are listed at [www.health.gov.au](http://www.health.gov.au).) or had contact with a probable SARS case in the 10 days prior to onset of symptoms.

If the patient meets these clinical and contact criteria, and it is clinically indicated, arrangements should be made for transfer to hospital for a chest X-ray. All radiology departments at public hospitals should have been instructed in specific infection control procedures for suspected SARS cases. If the patient is transported by private vehicle the driver should give informed consent; ie to transport a possible SARS patient. If the patient is severely unwell and ambulance transport is required, inform the ambulance service of the provisional diagnosis so that appropriate infection control can be used. Other forms of transport, such as bus or taxi, should not be permitted. The doctor should also advise the hospital's Accident and Emergency Department of the patient's impending arrival, and the local Public Health Unit of the details of the case.

If well enough to be managed at home the patient should be instructed to monitor their own temperature every 4-6 hours and make telephone contact twice a day. The patient should remain in isolation at home for until the symptoms have resolved.

If the patient's temperature is normal, but meets the travel/contact and respiratory involvement criteria other diagnoses should be considered. The patient should, however, be instructed to monitor their temperature and to telephone for reassessment if a fever develops.

### **After clinical assessment**

If the person has been assessed at home the practitioner should remove personal protective equipment immediately outside the home and discard disposable items in a plastic bag in the patients general waste bin. Re-useable items should be bagged and decontaminated prior to re-use. (See Removal of PPE in Series 5 Appendices). They should then disinfect their hands with alcohol rub and wash hands on return to the practice.

If assessed in the office, PPE should be removed and hands should be washed immediately. The patient should leave via the route causing the least amount of person to person contact, such as a back door and should wear a surgical mask. Anyone who accompanies the suspect case should be given written information on infection prevention and control related to SARS (see Series 5 Appendices: Advice Sheet for Contacts of a suspect or probable SARS case).

### **Health Care Workers and Others Exposed to a SARS Case**

If a possible or probable SARS patient has been seen in the practice the local public health unit should be notified of the case and will provide assistance in surveillance of illness in staff and others. A list of people who were in the surgery at the time and whether they had

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close contact with the patient should be made. Individuals under surveillance may include health care professionals, practice managers, cleaners and others present in the office at the time the person was seen. As a precaution all staff should take their temperature and be alert for SARS symptoms for 10 days.

### **Cleaning**

#### **Environmental surfaces**

The door to the room should be kept closed until the room is cleaned and windows should remain open if possible. Surfaces that have been directly touched by the patient such as light switches, door knobs toilets, hand basins and horizontal surfaces should be cleaned with neutral detergent and warm water then disinfected with broad-spectrum disinfectants of proven antiviral activity (e.g. sodium hypochlorite 500 ppm, alcohol 60 - 70%).

#### **Linen and Waste**

Linen should be transported in a sealed plastic bag. Decant linen directly from the plastic bag into the washing machine - do not touch with hands. Launder separately on a normal hot cycle. Linen can be air or tumble dried after laundering.

No special requirements are needed for disposal of waste generated in the care of a suspected or probable SARS patient, provided that the relevant Australian Standards are adhered to by the service provider.

### **Pathology specimen collection**

Testing for the presence of SARS coronavirus has recently commenced in Australia and antibody tests will soon be available. However, these will be performed in only a few centres. It would be wise to contact the medical microbiologist in the local public laboratory before requesting SARS tests. Specimens must be enclosed in leak proof containers with secure closures. The specimen container must be enclosed in an appropriate biological specimen bag with biological hazard symbol displayed. The accompanying request form should be clearly marked as "Suspected or probable SARS". A document prepared by Public Health Laboratory Network "Handling of specimens from suspected or probable cases of SARS" is available from [www.health.gov.au](http://www.health.gov.au).