

Health Information Bulletin - Severe Acute Respiratory Syndrome (SARS)

Issued: Thursday, May 1st, 2003

Consequences for OSH and Employers and employees	General Information
<p>1 The information OSH presents in this Bulletin is general advice for all workplaces in New Zealand and their employees.</p> <p>This section contains general information.</p>	<p>1 Introduction</p> <p>SARS is an emerging illness. Strategies for containment are being worked on in New Zealand by the Ministry of Health as the lead agency and in conjunction with other relevant government agencies including the Department of Labour and the Occupational Safety and Health Service (OSH). OSH will continue to communicate about developments and further information will be circulated.</p> <p>Detailed information about SARS is available on the Ministry of Health website: http://www.moh.govt.nz/sars or free phone: 0800 0800 80. The Ministry of Health updates its web-site regularly in response to information and advice received, in particular from the World Health Organization (WHO - web-site: www.who.int/sars) and the US Center for Disease Control and Protection (CDC - web-site: www.cdc.ncidod/sars)</p> <p>The Ministry of Health web-site contains information for health care workers, border control staff and educational institutions specifically. Other government agencies such as the Ministry of Education (www.minedu.govt.nz) also have SARS-related advice and information on their web-sites which you may also need to refer to.</p>
<p>2 This section describes the criteria for deciding if a person has SARS</p>	<p>2 SARS signs and symptoms and screening</p> <p>The WHO stipulates that to have SARS you must have been in close contact with someone who has the disease. The following symptoms and criteria meet the case definition of SARS:</p> <ul style="list-style-type: none"> • High fever (greater than 38 degrees C or 100.4 degrees Fahrenheit); <i>and</i>

	<ul style="list-style-type: none"> • One or more respiratory symptoms including cough, shortness of breath, difficulty breathing; <i>and to</i> • Have done one or more of the following in the past 10 days: <ul style="list-style-type: none"> ▪ had close contact with a person who has been diagnosed with SARS; <i>and/or</i> ▪ had worked in, or visited, a health care facility; <i>and/or</i> ▪ had travelled to areas reporting cases of SARS. <p>Current tests for SARS are unreliable. Screening for SARS is a matter of initially excluding other potential illnesses. In New Zealand there are border control measures in place for screening and assessing suspected SARS cases.</p>
<p>3 How is SARS transmitted?</p>	<p>3 How is SARS transmitted?</p> <p>The transmission of SARS appears to occur predominantly by direct contact with infectious material, including dispersal of large respiratory droplets. However, it is also possible that SARS can be spread through the airborne route. SARS also appears to spread by direct contact with respiratory secretions, which makes touching contaminated objects a potential concern.</p>
<p>4 SARS should be treated the same as any workplace hazard under the HSE Act.</p>	<p>4 SARS as an identifiable workplace hazard</p> <p>SARS should be considered in the same way as any other hazard under the Health and Safety in Employment Act, 1992. Workplace health and safety policies and procedures should apply and be adhered to for a suspected and/or confirmed SARS case as for any other identified work place hazard. This bulletin suggests some of the elements for those policies.</p>
<p>5 If an employee returns from a SARS affected area but is free of symptoms, there is no reason to exclude them from the workplace or to ask them to undergo health screening.</p>	<p>5 What happens if an employee returns from a SARS affected area?</p> <p>Currently, border controls are in place to screen inbound passengers traveling to New Zealand. Health authorities have statutory powers to further assess and screen any suspected SARS cases. These border control measures are being continually assessed and modified as required by the Ministry of Health. Inbound passengers are also being given information about SARS and what to do if they become unwell.</p> <p>The Ministry of Health does not recommend routine isolation or quarantine for people who do not have symptoms of SARS when they return from overseas trips to SARS-affected areas.</p>

<p>5a If an employee returns from a Non-SARS affected area there is no reason to exclude them from the workplace.</p> <p><i>Note:</i> the list of SARS affected areas is reviewed regularly by WHO</p>	<p>If an employee returns from an overseas location that is not 'SARS-affected' there is no need for them to stay away from work and other people at their workplace should have no concern about their health.</p> <p>OSH does not recommend employers routinely asking employees to stay away from the workplace if the employee has no symptoms of SARS. OSH's advice is that if the employee is well and does not have symptoms of SARS that they should be allowed to return to work as usual.</p>
<p>6 What if an employer suspects an employee of having SARS?</p>	<p>6 If an employee is suspected of having SARS.</p> <p>The employer should refer to the criteria in section 2 of this advice to establish and refer the employee to a hospital (as opposed to a GP). The hospital and ambulance staff should be advised of the situation beforehand.</p>
<p>7 People in contact with large numbers of members of the public do not need to wear masks.</p>	<p>7 People in contact with members of the public</p> <p>OSH does not believe that there is a need for employees such as transport workers, health workers, emergency workers and those in the hospitality industry to use respiratory protection (masks) or gloves routinely, unless it is confirmed that they are dealing with a suspected or confirmed SARS case.</p>
<p>8 Isolation or quarantine is NOT recommended for students returning from SARS affected areas overseas.</p>	<p>8 Overseas students returning from an affected area (and people who work with them)</p> <p>People working, studying or living with students who have recently returned from SARS-affected areas may be concerned that they will be exposed to SARS.</p> <p>Border controls are in place to screen inbound passengers traveling to New Zealand and health authorities have statutory powers to further assess and screen any suspected SARS cases. These border control measures are being continually assessed and modified as required by the Ministry of Health. Inbound passengers are also given information about SARS and what to do if they become unwell.</p> <p>When students are returning from overseas trips to SARS-affected areas the Ministry of Health does not recommend isolation or quarantine for those who do not have symptoms of SARS. This stance is endorsed by the Ministry of Education.</p> <p>OSH agrees with the advice of the Ministries of Health and Education that students should not be routinely asked to stay away if the student has no symptoms of SARS. If the student is well and not showing symptoms of SARS they should be allowed to resume their studies as usual.</p>

	<p>Neither the Ministry of Health or OSH advise routine screening of employees or students in educational facilities who are free of SARS symptoms. If the employee or student develops symptoms of SARS they should seek medical advice immediately, and call an ambulance if they are having difficulty breathing. Tell the ambulance service of the situation.</p> <p>For more specific information and policy refer to the relevant Student Health Service, and web-sites of the Ministry of Health (section on education facilities www.moh.govt.nz/sars) and the Ministry of Education web-site (section on SARS www.minedu.govt.nz)</p>
<p>9 Employer and employee rights and obligations</p> <p>9a Right to refuse dangerous work.</p>	<p>9. Employer and Employee Rights and Obligations</p> <p><i>(A) If an employer believes an employee has, or may have SARS, what are their rights and responsibilities in terms of workplace health and safety?</i></p> <p>If an employee shows the symptoms described in Section 2 of this bulletin then they may have SARS. The employer should stand the affected employee down from work on leave in order to prevent the spread of the disease. Any such direction for the employee to take leave should first be discussed with the employee concerned and his/her representative. The type and duration of the leave the employee is placed on will be governed by the employees' employment agreement.</p> <p><i>(B) If an employee believes another employee has, or may have SARS, what are their rights in terms of preserving their personal health and safety?</i></p> <p>If a person believes that, by going to work, they will be in contact with a person who has recently returned from a SARS affected area, they should note the contents of Sections 2 and 5 of this bulletin. If residual concern remains, they should discuss their concerns and the possibility of alternate work arrangements with their employer.</p> <p>If an employee believes that their work will expose them to serious harm, including the risk of contracting SARS by exposure to a person with the disease, then the employee may refuse to perform that work. Section 28A of the Health and Safety in Employment Act 1992 sets out the sequence of events that must follow when an employee acts on this belief. Contact the Occupational Safety and Health Service of the Department of Labour for further advice.</p>

	<p>If a person develops SARS symptoms and must take leave, then the relevant sick leave provisions will apply to the employee in accordance with the terms of their employment agreement and/or the relevant provisions of the Holidays Act. For contractors, the provisions in their contract for services will apply.</p> <p>If employees are in doubt about their leave entitlements they should discuss this in the first instance with their employer and/or employee (union) representative and/or workplace health and safety representative. If still in doubt they should seek legal advice or contact the Employment Relations Service of the Department of Labour on 0800 800 863 or www.ers.dol.govt.nz</p> <p>If there are doubts about whether the suspected or confirmed case is the result of a workplace exposure you should contact the Accident Compensation Corporation and seek advice in relation to the Injury Prevention, Rehabilitation and Compensation Act, 2001 [give contacts].</p>
<p>10 Use of protective clothing when dealing with a case of SARS.</p> <p>This section applies to health care workers, airline employees, border control employees and employees in educational facilities and boarding hostels.</p>	<p>10 Protective clothing and equipment</p> <p>Health care workers should refer to the Ministry of Health web-site: www.moh.govt.nz/sars for advice regarding the protective clothing and equipment to use (and how to use it) when dealing with a suspected or confirmed SARS case.</p> <p>As with any other protective clothing and equipment required in the course of employment, the employer is required to supply this for the use of the employee. If you are required to wear a mask and/or gloves in the workplace, or think you should be, refer to the Ministry of Health web-site: www.moh.govt.nz/sars. The Ministry of Health bases its advice on that of the World Health Organisation. See also Section 13 of this bulletin.</p> <p>For employees of airlines, border control authorities and health care workers (including doctors) refer to the relevant section of the Ministry of Health web-site www.moh.govt.nz/sars.</p> <p>For employees of educational facilities, boarding hostels, or international homestay hosts refer to section 8 above and the relevant section of the Ministry of Health web-site or the Ministry of Education web-site: www.moh.govt.nz/sars or www.minedu.govt.nz.</p>

11 Cleaning workplaces after occupancy by a person suspected to have SARS

11 Management and cleaning in the workplace if there is a suspected or confirmed case of SARS

The following general advice is based on advice from the WHO and the US Centers for Disease Control and Protection.

- Undertake normal cleaning procedures. In addition, use an alcohol-based disinfectant solution to clean all potentially affected areas (if not already done as part of routine cleaning)
- Wipe all hard surfaces (especially those that are often touched like door handles, tables, chairs, television remote controls)
- Wash cutlery and crockery in the normal way
- Clean/disinfect soft furnishings
- Wash bed linen, blankets and towels in the normal way.

General dos and don'ts for cleaning:

- when cleaning wear disposable gloves and if the gloves become dirty or damaged, throw them away and put on new gloves
- do not wash or reuse gloves that have been worn while cleaning
- dispose of used gloves safely after you have finished cleaning
- wash your hands with soap and hot water after removing the gloves
- you do not need to wear a mask or gown when cleaning
- use routine laundry procedures for cleaning linen and uniforms.

Aircraft and ships: For information regarding aircraft and ship cleaning and disinfection refer to the Ministry of Health web-site, *Health advice to airlines and airports or ports to reduce the potential for travel-related spread of SARS*: www.moh.govt.nz

<p>12 General travel advice</p> <p>This advice should be read by people who are required by their employer to travel overseas.</p>	<p>12 Travel advice</p> <p>The Ministry of Health is encouraging all New Zealanders, especially those who have recently travelled to SARS-affected countries, to be aware of the symptoms and mode of transmission of SARS and to seek medical advice if they have any doubts about their health or feel unwell.</p> <p>The Ministry of Health is advising people in New Zealand to postpone all non-essential travel to SARS-affected countries.</p> <p>New Zealand-based employers who have staff (and possibly their families) stationed in SARS-affected areas must weigh up the risk to their employees by requiring them to remain living and working in those countries, as they would with any other work-place risk or hazard. The employer also has an obligation to keep these employees fully informed of the situation globally regarding SARS and in the country they are living and working in, including providing health advice relating to SARS.</p> <p>New Zealand-based employers who have staff (and possibly their families) that may be expected to travel to SARS-affected areas in the course of their employment must weigh up the risk to their employees within the context of the Ministry of Health travel advice, as they would with any other work-place risk or hazard. The employer also has an obligation to keep these employees fully informed of the situation globally regarding SARS and in the country they are living and working in, including providing health advice relating to SARS.</p> <p>The Ministry regularly updates its travel advice, refer to www.moh.govt.nz/sars</p>
<p>13 Protection options for healthcare workers</p> <p>(a) Isolation</p> <p>(b) Patient respirators</p> <p>(c) Personal protection</p> <p>(d) Ventilation</p> <p>(e) Disinfection</p> <p>(f) Respiratory protection</p>	<p>13 Protecting people from the SARS causing organism.</p> <p>OSH recommends structuring control procedures along the traditional hierarchy of elimination, isolation, and minimisation. The use of respirators should be regarded as a last line of defence. This is because, although laboratory tests may show a high level of prevention, the inevitable rigours of wearing one (mouth, face and neck movements, creasing, heavy breathing during periods of high effort) reduce their effectiveness.</p> <p>1 Elimination – will not be possible for some groups of workers such as health care workers</p> <p>2 Isolation – This is already a well used method for infectious diseases</p> <p>3 Minimisation – In principle, there are four elements to correct minimisation, as described below</p>

1 Engineering solutions

Ventilation (at 12 air changes per hour with direct exterior exhaust, a ceiling to floor air flow, negative pressure treatment rooms for confirmed cases with no recycling of air). This level of protection is usually provided by a purpose designed and built facility.

2 Work practice solutions -

Where there is a high concern of clinical suspicion, appropriate nursing practices should be adhered to until the case is confirmed/cleared

- Those presenting to health care facilities who require assessment for SARS should be rapidly diverted by triage (initial screening) nurses to a separate area to minimise transmission to others
- Those patients should be given a respiratory protection to wear. It must provide filtration of their expired air, which means that masks with an exhalation valve should ***not*** be used
- Staff involved in the initial screening process should wear a respirator (see below) and eye protection (even if they wear glasses) and wash their hands before and after contact with any patient, after activities likely to cause contamination and after removing gloves
- Wherever possible, patients under investigation for SARS should be separated from the probable cases
- Soiled gloves, stethoscopes and other equipment have the potential to spread infection so they must be cleaned as appropriate
- Disinfectants should be widely available at appropriate concentrations
- Additional information can be obtained from the WHO website:

<http://www.who.int/csr/sars/infectioncontrol/en/>

3 The use of Personal Protective Equipment

- **All staff accessing the isolation unit should wear Personal Protective Equipment (PPE).** The PPE should include: (1) Appropriate respiratory protection (see below), (2) Single pair of gloves, (3) Eye protection, (4) Disposable gown, (5) Apron, (6) Footwear that can be decontaminated

People working in high risk situations (e.g caring for a person with SARS) should wear a high level of respiratory protection such as an N100 or equivalent device.

N95 respirators may not offer sufficient protection in high risk situations.

Reference – this panel adapted from:

<http://www.who.int/csr/sars/infectioncontrol/en/>

- Visitors, if allowed by the health care facility should be kept to a minimum. They should be issued with and required to use Personal Protective Equipment as described and supervised

Respiratory Protection Devices.

- The use of respirators should be regarded as a last line of defence. Different levels of risk may require different levels of respiratory protection. Facility managers must determine the relative risks of each activity and issue instructions on the types of protection required.
- Respiratory protection provided at *P100/FFP3, or P99/FFP2 filter level (99.97% and 99% efficiency respectively) will be necessary in the vicinity of suspected active SARS.
- N95* respirators (95% filter efficiency) provide a lower level of protection and could be worn where no acceptable higher protection alternatives are available, for example staff working in triage areas, prior to isolation.
- Training in the correct fitting procedures should be provided and fit tested using an appropriate "fit test kit" in accordance with the manufacturing instructions should be carried out.
- Disposable masks should never be reused.

*N/R/P 95/99/100 or FFP 2/3 or an equivalent national manufacturing standard (NIOSH (N,R,P 95,99,100) or European CE EN149:2001(FFP 2,3) and EN143:2000 (P2) or comparable national/regional standards applicable to the country of manufacture.

Respiratory protection - For maximum protection a comprehensive programme is required and should have the following elements:

1. Senior Management must take full accountability for the correct respiratory protection of staff. This is at Board level as well as at operating management level
2. One person must be assigned to take accountability for day-to-day operation of the program and have access to the appropriate resources
3. A risk assessment process must delineate the various levels of risk and allocate the appropriate level of protection accordingly. High risk situations will require high levels of protection

<p>A specific respiratory protection program should be set up to ensure that the correct management and use of respirators is maintained.</p>	<ol style="list-style-type: none"> 4. Information as to the correct level of protective measures will involve reference to a variety of sources. Commercial supply organisations can be one of these sources. However sales staff may not have sufficient expertise and may be motivated by commercial considerations. Any recommendations they make must be backed up by technical references and reviewed by a person knowledgeable in respiratory protection and the risk involved 5. In high-risk areas it will be necessary to individually assign each individual their own respirator and ensure an adequate seal by fit testing 6. Employees must be instructed as to how to verify the facial fit of a respirator. Full training and education must be given to all individuals required to wear respirators. This includes information about the respirator, its maintenance and precautions as well as detailed information as to the respirator's effectiveness and its limitations. The correct removal and disposal procedures must also be explained 7. A comprehensive respiratory protection program will include training and information about maintenance, disposal, cleaning, and storage of the equipment 8. Recording information about results of fit testing and filter replacement may also be included. <p>4 Monitoring</p> <p>Staff health should be monitored. This means watching staff for symptoms of SARS and monitoring temperatures.</p>
<p>14 Updates</p>	<p>14 Updates</p> <p>This information contained in this advice is current on the date of issue, and as more information comes to hand this bulletin will be updated. Further advice on SARS is available from the Ministry of Health website: www.moh.govt.nz/sars or by ringing freephone 0800 08 00 80.</p>