

PPHSN Interim Guidance: March 19th 2003

Management of Severe Acute Respiratory Syndrome (SARS).

The Centers for Disease Control and Prevention (CDC) and the World Health Organization (WHO) have received reports of patients with severe acute respiratory syndrome (SARS) from Canada, China, Hong Kong Special Administrative Region of China, Indonesia, Philippines, Singapore, Thailand, Vietnam, Germany and the United Kingdom. The cause of these illnesses is unknown and is being investigated. Early manifestations in these patients have included influenza-like symptoms such as fever, myalgias, headache, sore throat, dry cough, shortness of breath, or difficulty breathing. In some cases these symptoms are followed by hypoxia, pneumonia, and occasionally acute respiratory distress requiring mechanical ventilation and death. Laboratory findings may include thrombocytopenia and leukopenia. Some close contacts, including healthcare workers, have developed similar illnesses. CDC, WHO and PPHSN have initiated surveillance for cases of SARS among travelers or their close contacts.

WHO Case Definitions for hospital based surveillance

Suspected case

Clinicians should be alert for persons with onset of illness after February 1, 2003 with:

Fever (>38° C)

AND

One or more signs or symptoms of respiratory illness, including:

- cough,
- shortness of breath,
- difficulty breathing,

AND

One or more of the following:

- History of travel to Hong Kong or Guangdong Province in People's Republic of China, or Hanoi, Vietnam, Singapore within ten days of symptom onset
- Close contact with persons with respiratory illness having the above travel history. Close contact includes having cared for, having lived with, or having had direct contact with respiratory secretions and body fluids of a person with SARS.

Probable case

- A suspected case with chest X-ray findings of pneumonia or adult respiratory distress syndrome.

OR

- A person with an unexplained respiratory illness resulting in death, with an autopsy examination demonstrating the pathology of Respiratory Distress Syndrome without an identifiable cause.

Management of cases and contacts

Management of suspect cases

- Patients with symptoms of SARS should be triaged immediately to designated examination rooms or wards
- Patients with with suspected SARS should be issued with surgical mask
- obtain and record detailed clinical, travel and contact history including occurrence of acute respiratory diseases in contact persons during the last 10 days
- obtain chest X-ray (CXR) and full blood count (FBC)

if CXR is normal:

- provide advice on personal hygiene, avoidance of crowded areas and public transportation, remain at home until well
- discharge with advice to seek medical care if respiratory symptoms worsen

if CXR demonstrates uni- or bi-lateral infiltrates with or without interstitial infiltration

- SEE MANAGEMENT OF PROBABLE CASES

Management of probable cases

- hospitalize under isolation or cohorted with other SARS cases
- samples for laboratory investigation (if possible) and exclusion of known causes of atypical pneumonia:
 - throat and/or nasopharyngeal swabs and cold agglutinins
 - blood for culture and serology
 - urine
 - bronchoalveolar lavage
 - post mortem examination as appropriate

It is advised that specimens are collected on alternate days. A number of reference laboratories are now able to receive and process samples. This should be co-ordinated through your national public health authority and PPHSN. Samples should be investigated in laboratories with proper containment facilities (BL3).

- CXR as clinically indicated
- treat as clinically indicated

Comments:

Broad-spectrum antibiotics have not appeared to be proven effective in halting SARS progression to date.

Intravenous ribavirin and steroids may have stabilised the condition of one critically ill patient.

Management of contacts of suspected and probable cases

- Provide reassurance
- Record name and contact details
- Provide advice in the event of fever or respiratory symptoms to:
 - immediately report to doctor/physician/health authority
 - not report to work until advised by health authority
 - avoid public places until advised by health authority
 - minimize contact with family members and friends

Reporting of cases

- **Report all probable cases to National Public Health Authorities.**
- **Report all probable cases to PPHSN via PacNet or PacNet-restricted**

Hospital Infection Control Guidance

Care for patients with probable SARS

WHO advises strict adherence with the barrier nursing of patients with SARS using precautions for airborne, droplet and contact transmission. Triage nurses should rapidly divert persons presenting to their health care facility with flu-like symptoms to a separate assessment area to minimise transmission to others in the waiting room. Suspect cases should wear surgical masks until SARS is excluded.

Patients with probable SARS should be isolated and accommodated as follows in descending order of preference:

- Negative pressure rooms with the door closed
- Single rooms with their own bathroom facilities
- Cohort placement in an area with an independent air supply and exhaust system.

Note Turning off air conditioning and opening windows for good ventilation is recommended (if an independent air supply is unfeasible).

Wherever possible, patients under investigation for SARS should be separated from those diagnosed with the syndrome.

Disposable equipment should be used wherever possible in the treatment and care of patients with SARS. If devices are to be reused, they should be sterilised in accordance with manufacturers' instructions. Surfaces should be cleaned with broad spectrum (bactericidal, fungicidal, and virucidal) disinfectants of proven efficacy.

Patient movement should be avoided as much as possible. Patients being moved should wear a surgical mask to minimise dispersal of droplets. NIOSH standard masks (N95), often used to protect against other highly transmissible respiratory infections such as tuberculosis, are preferred if tolerated by the patient. All visitors, staff, students and volunteers should wear a N95

mask on entering the room of a patient with confirmed or suspected SARS. Surgical masks are a less effective alternative to N95 masks.

Handwashing is the most important hygiene measure in preventing the spread of infection. Gloves are not a substitute for handwashing. Hands should be washed before and after significant contact with any patient, after activities likely to cause contamination and after removing gloves. Alcohol-based skin disinfectants formulated for use without water may be used in certain limited circumstances. Health care workers are advised to wear gloves for all patient handling. Gloves should be changed between patients and after any contact with items likely to be contaminated with respiratory secretions (masks, oxygen tubing, nasal prongs, tissues). Gowns (waterproof aprons) and head covers should be worn during procedures and patient activities that are likely to generate splashes or sprays of respiratory secretions.

HCWs must wear protective eyewear or face-shields during procedures where there is potential for splashing, splattering or spraying of blood or other body substances.

HCWs are advised to wear masks whenever there is a possibility of splashing or splattering of blood or other body substances, or where airborne infection may occur. Particulate filter personal respiratory protection devices capable of filtering 0.3µm particles (N95) should be worn at all times when attending patients with suspected or confirmed SARS.

Standard precautions should be applied when handling any clinical wastes. All waste should be handled with care to avoid injuries from concealed sharps (which may not have been placed in sharps containers). Gloves and protective clothing should be worn when handling clinical waste bags and containers. Where possible, manual handling of waste should be avoided. Clinical waste must be placed in appropriate leak-resistant biohazard bags or containers labelled and disposed of safely.

Comment

Please note that this situation is rapidly evolving and that the advice given will be constantly changing as more evidence about the causation and options for treatment becomes available.

Compiled by:
Dr Kevin Carroll
MO/Epidemiologist
WHO South Pacific on behalf of PPHSN

Reviewed by:
Dr Tom Kiedrzyński
Epidemiologist (Ag)
Secretariat of the Pacific Community, PPHSN-CB Focal Point