

SARS Infection Control

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Key Objectives

- Early detection
- Containment of infection
- Protection of personnel and the environment of care
- Hand hygiene

Key Strategies

- Administrative measures
- Infection precautions
 - Standard
 - Contact (droplet)
 - Airborne
- Environmental cleaning/disinfection

SARS Transmission During Aerosol-Generating Procedures

- Transmission of SARS to healthcare personnel during aerosol-generating procedures may be particularly efficient
- Clusters detected in Toronto, Hong Kong, Singapore and Hanoi
- Intubation, suctioning and nebulization specifically implicated

Why? How?

- Patient infectivity higher?
- Is it: Droplet? Contact? Airborne?
- Is it failure to wear protective equipment?
- Is it failure of protective equipment?

Until Risks During Aerosol-Generating Procedures Better Defined.....

- Limit cough-inducing procedures
- Avoid use of non-invasive positive pressure ventilation (e.g., CPAP, BiPAP)
- Protect the environment
 - Use closed suctioning devices
 - HEPA filtration on exhalation valve port

Protect Healthcare Personnel During Aerosol-Generating Procedures

- Limit personnel to those essential for performing procedure
- Wear appropriate personal protective equipment
 - Gowns and gloves
 - Sealed eye protection (i.e., goggles)
 - Respiratory protection device

Respiratory Protection During Aerosol-Generating Procedures

- Proper fit is essential
 - Reassess respirator fit among personnel who may be involved in intubation of SARS patients
- Consider better fitting respiratory protection devices
 - Disposable respirators with better seal, e.g., N99, N100
 - Half- or full-face elastomeric (rubber)
 - Powered air-purifying respirators (PAPR)

Management of SARS Exposures in Healthcare Settings

- Surveillance of healthcare personnel
 - Develop list of personnel who have contact with SARS patients (I.e., enter room, participate in care)
 - Encourage reporting of unprotected exposures
 - Monitor absenteeism for SARS-like illness
- Management of asymptomatic exposed HCWs

Management of Asymptomatic Exposed Healthcare Workers

- No evidence of transmission from asymptomatic persons
- Symptomatic HCWs have transmitted
- Active surveillance of HCWs who have unprotected exposure is recommended
 - Monitor temperature and symptoms before reporting to duty
- Ten-day exclusion from duty for HCWs who have unprotected exposures during aerosol-generating procedures

Addressing the limited supply of respirators

- Should respirators be reused?
 - Disposal after one-time use preferred
 - Use up higher level respirators first
 - Reuse preferred to no respirator
 - Consider using surgical mask to protect respirator from contact with respiratory droplets
 - Carefully handle contaminated respirator
 - Use surgical masks only when respirators are unavailable

Cleaning and Disinfection of the SARS Patient Environment

- Environment may be a key to transmission
- Clean/disinfect frequently touched surfaces daily in in-patient areas
 - Bed rails, over-bed table, door knobs, lavatory surfaces
- Perform more thorough cleaning at transfer or discharge
- Use EPA-registered hospital detergent disinfectant
- No need for air “fogging” or washing of ceilings and walls

Management of Exposed and Symptomatic Persons

Infection Control Principles Applied in the Home

- Early detection of infection
- Containment of infection
- Protection of household members
- Limiting contamination in the home environment

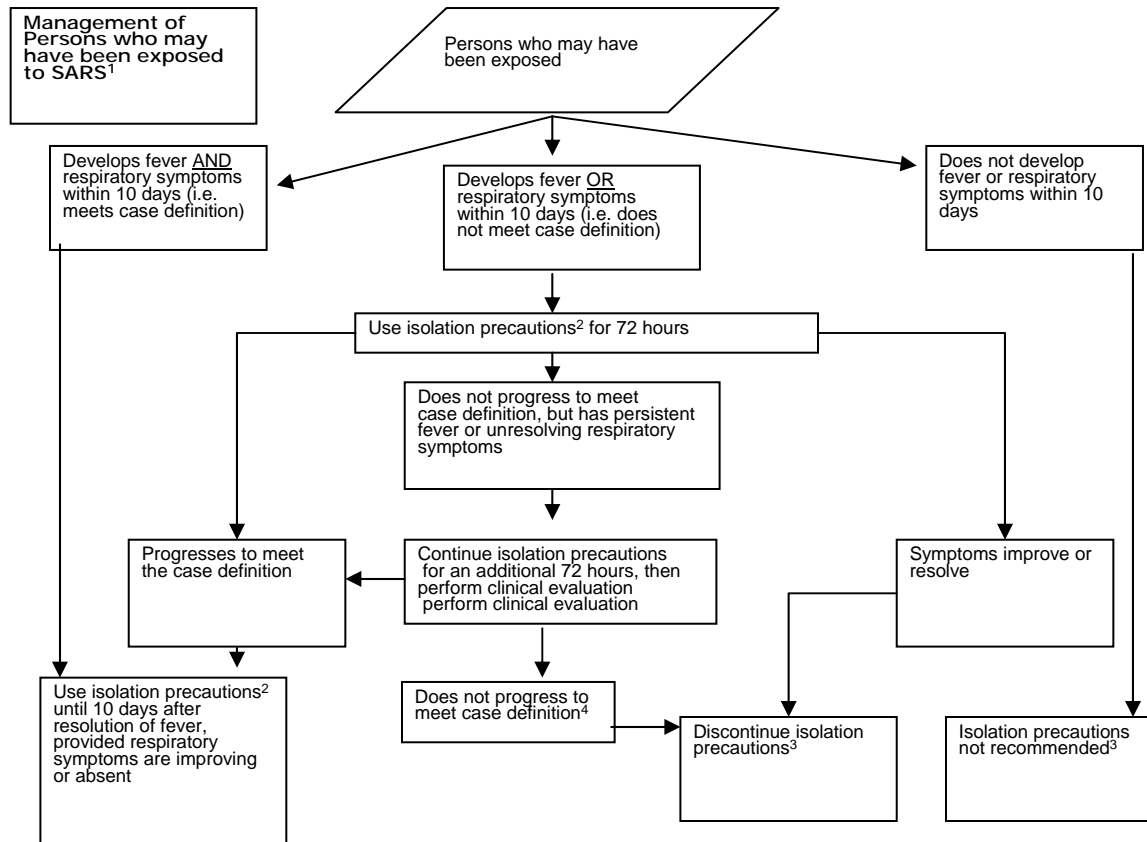
Key Time Periods

- 10 days after last exposure –
 - Duration of post-exposure monitoring period
- “72 hour rule”
 - Period for reassessing early symptoms of SARS
- 10 days after resolution of fever
 - Duration of post-SARS confinement

Guidance for Persons Exposed to SARS

- Asymptomatic exposed persons
 - No change in daily activities
 - Monitor for respiratory symptoms and fever (i.e., measure temperature twice daily) for 10 days after last exposure
- Fever or respiratory symptoms develop
 - Notify healthcare provider
 - Limit interactions outside the home
 - Reassess in 72 hours

72 Hour Reassessment



Infection Control for Persons with SARS*

- Avoid interactions outside the home (school, work, day care, church, shopping)
 - Wear surgical mask and avoid public transportation if travel outside home is necessary
- Limit persons coming into the home

* Including persons who have not been diagnosed with SARS but have SARS symptoms

Infection Control Advice to SARS Patients

- Wear a surgical mask when in the presence of other household members
- Contain respiratory secretions in facial tissue and place in lined container for disposal with household waste
- Perform hand hygiene frequently and especially after touching respiratory secretions and other body fluids (e.g., urine, stool)

Advice to Household Members of SARS Patients

- Wear surgical mask when around SARS patient (if patient cannot wear mask)
- Perform hand hygiene frequently (hand washing with soap and water or use of alcohol-base gel)
- Consider wearing disposable gloves for direct contact with body fluids of SARS patients

Other Infection Control Measures in the Home

- Do not share personal items until thoroughly washed with soap and water (towels, linen, eating utensils)
 - Consider separate sleeping arrangements
- Clean surfaces that are touched frequently or come into contact with body fluids (e.g., food preparation areas, phones, lavatories)

Anticipatory Guidance for SARS Patients

- How will they get food and other supplies (e.g., surgical masks)?
- How will they travel to and from necessary appointments (e.g., medical)
- How will they deal with family members who are afraid?

Prevention is Primary!