Severe Acute Respiratory Syndrome (SARS)

The World Health Organization and the Centers for Disease Control and Prevention (CDC) have received increasing reports of patients with severe respiratory illness from Canada, China, Hong Kong, Indonesia, Philippines, Singapore, Thailand and Vietnam. Furthermore, suspected cases have been reported from the U.S. At present, the cause of this illness is unknown but current information suggests that a coronavirus may be responsible. Early clinical manifestations have included flu-like symptoms and, in some cases, there is the development of severe hypoxia, pneumonia, and occasionally respiratory distress requiring mechanical ventilation and death. There have been secondary cases in some close contacts (including healthcare workers). The CDC has begun surveillance for cases of SARS among travelers or close contacts from areas with known cases.

Case Definition

The current CDC case definition for SARS includes the onset of respiratory illness since February 1, 2003 and the following:

- Recorded temperature ≥ 100.5°F (> 38ºC) AND
- 1 or more clinical findings of respiratory illness (nonproductive cough, dyspnea, hypoxia, or chest x-ray findings of pneumonia or ARDS) AND
- Travel within 10 days of symptom onset to an area with documented or suspected community-acquired SARS OR
- Close contact (having cared for, having lived with, or having direct contact with a case of respiratory illness) within 10 days of onset of symptoms with either a person with a respiratory illness who traveled to a SARS area or a person suspected to be a SARS case

Epidemiology, Clinical Manifestations and Diagnostic Features

- Incubation period for SARS is typically 2-7 days but there are isolated reports occurring up to 10 days after exposure
- Majority of cases have been in adults 25-70 years with few suspected cases among children ≤ 15 years
- Clinical illness ranges from mild illness to death
- Illness onset (prodrome) includes fever (> 100.4°F) and can be associated with chills/rigors, headache, malaise, and myalgias; rash, neurologic, and gastrointestinal symptoms are generally absent, except diarrhea may be present
- After 3-7 days, lower respiratory symptoms develop with a dry cough or dyspnea which occasionally is followed by hypoxia (10-20%) severe enough to require intubation
- The case-fatality rate is 3-4%
- Chest x-rays are often normal in the prodrome phase but a substantial number of cases in respiratory phase associated with focal interstitial infiltrates progressing to more generalized patchy interstitial infiltrates; in late stages of SARS, areas of consolidation have been observed
• Early lymphopenia is frequent with leukopenia and thrombocytopenia in 50% at the peak of the respiratory illness; less frequent modest elevations in CPK and transaminase levels have been observed
• At present, there is no known effective therapy
• Suspected cases should be placed in strict airborne isolation and contact precautions observed; healthcares workers should practice careful hand hygiene, gown, glove and use N-95 respirators (same as used for TB precautions)
• Suspected cases at University Hospitals of Cleveland should be reported to the Department of Infection Control and Prevention, Pamela Parker, R.N. pager 30482 or Robert A. Salata, M.D., pager 35209