

Severe Respiratory Illness (SRI) / Nosocomial Pneumonia Surveillance Definitions

A. Surveillance in Non-Elective Admissions: Community-Acquired

1. Meets SRI/SARS Definition – Newly Admitted Patient

A person **admitted to hospital** with:

- Fever (over 38 degrees Celsius)

AND Respiratory symptoms, i.e.:

- Cough or breathing difficulty

AND Radiographic abnormalities, i.e.:

- Radiographic evidence of infiltrates consistent with pneumonia or respiratory distress syndrome (RDS).

AND No alternate diagnosis within the first 72 hours of hospitalization, i.e.:

- Results of preliminary clinical and/or laboratory investigations, **within the first 72 hours** of hospitalization, cannot ascertain a diagnosis (i.e. SARS or other emerging respiratory pathogen cannot be ruled out).

AND one or more of the following exposures/conditions, i.e.:

- Residence, recent travel or visit to a potential zone of emergence/re-emergence (i.e. Asia) within the 10 days prior to onset of symptoms; **OR** close contact of a symptomatic person who has been to a potential zone of emergence/re-emergence within the 10 days prior to onset of symptoms.
- The admitted person is a laboratory worker handling live SARS-CoV

2. Other Severe Respiratory Illness - Newly Admitted Patient - Pneumonia

A person **admitted to hospital** with:

- Fever (over 38 degrees Celsius)

AND Respiratory symptoms, i.e.:

- Cough or breathing difficulty

AND Radiographic abnormalities, i.e.:

- Radiographic evidence of infiltrates consistent with pneumonia or respiratory distress syndrome (RDS).

AND does not meet the case definition for SRI/SARS, i.e.:

- Results of preliminary clinical and/or laboratory investigations, **within the first 72 hours** of hospitalization has ruled out SARS or other emerging respiratory pathogen

OR does not have the exposures/conditions for SRI/SARS

3. Other Respiratory Infections other than Pneumonia - Newly Admitted Patient

Paediatric hospitals only

A person **admitted to hospital because of:**

- Fever (over 38 degrees Celsius)

AND Respiratory symptoms, i.e.:

- Cough or breathing difficulty

AND No radiographic abnormalities, i.e.:

- No radiographic evidence of pneumonia or respiratory distress syndrome (RDS).

<p>B. Nosocomial Surveillance on Medical/Surgical Units within Acute Care Hospitals</p>
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4. Nosocomial Pneumonia

A person **admitted to hospital for more than 72 hours** with one of the following criteria:

1. Rales or dullness to percussion on physical examination of chest **AND** any of the following;
 - a. New onset of purulent sputum or change in character of sputum
 - b. Organism isolated from blood culture
 - c. Isolation of pathogen from specimen obtained by transtracheal aspirate, bronchial brushing, or biopsy
2. Chest radiographic examination shows new or progressive infiltrate, consolidation, cavitations, or pleural effusion **AND** any of the following:
 - a. New onset of purulent sputum or change in character of sputum
 - b. Organism isolated from blood culture
 - c. Isolation of pathogen from specimen obtained by transtracheal aspirate, bronchial brushing, or biopsy
 - d. Isolation of virus or detection of viral antigen in respiratory secretions
 - e. Diagnostic single antibody titer (IgM) or fourfold increase in paired serum samples (IgG) for pathogen

f. Histopathology evidence of pneumonia

Patient ≤12 months of age with nosocomial pneumonia must meet one of the following criteria:

1. Patient has two of the following: apnea, tachypnea, bradycardia, wheezing, rhonchi, or cough **AND** any of the following:
 - a. Increased production of respiratory secretions
 - b. New onset of purulent sputum or change in character of sputum
 - c. Organism isolated from blood culture
 - d. Isolation of pathogen from specimen obtained by transtracheal aspirate, bronchial brushing, or biopsy
 - e. Isolation of virus or detection of viral antigen in respiratory secretions
 - f. Diagnostic single antibody titer (IgM) or fourfold increase in paired serum samples (IgG) for pathogen
 - g. Histopathology evidence of pneumonia

2. Patient has chest radiologic examination that shows new or progressive infiltrate, cavitations, consolidation, or pleural effusion **AND** any of the following:
 - a. Increased production of respiratory secretions
 - b. New onset of purulent sputum or change in character of sputum
 - c. Organism isolated from blood culture
 - d. Isolation of pathogen from specimen obtained by transtracheal aspirate, bronchial brushing, or biopsy
 - e. Isolation of virus or detection of viral antigen in respiratory secretions
 - f. Diagnostic single antibody titer (IgM) or fourfold increase in paired serum samples (IgG) for pathogen
 - g. Histopathology evidence of pneumonia

5. Febrile Respiratory Infection – Not Nosocomial Pneumonia

A person **admitted to hospital for more than 72 hours with new onset** of:

- Fever (over 38 degrees Celsius)

AND Respiratory symptoms, i.e.:

- Cough or breathing difficulty

AND does not meet the case definition for nosocomial pneumonia

OR no radiographic evidence of pneumonia or RDS

C. Surveillance for Clusters of Severe Respiratory Illness within Acute Care Hospitals

For the purposes of surveillance a cluster is considered to be **hospital acquired illness** in **2 or more health care workers** or **3 or more persons** (health care workers and/or other hospital staff and/or patients and/or visitors) **within a health care unit** with onset of illness in the same 10-day period and with:

Respiratory symptoms, i.e.:

- Fever (over 38 degrees Celsius) **AND** Cough or breathing difficulty

AND Admitted to hospital

AND Radiographic evidence OR Autopsy finding consistent with SRI, i.e.:

- Radiographic evidence of infiltrates consistent with pneumonia or respiratory distress syndrome (RDS), **OR**
- Autopsy findings consistent with the pathology of RDS without an identifiable cause.

AND No alternate diagnosis within the first 72 hours

- Results of preliminary clinical and/or laboratory investigations, within the first 72 hours of hospitalization, cannot ascertain a diagnosis (i.e. SARS or other emerging respiratory pathogen cannot be ruled out).