

## Pneumonia Intervention

Educating patients at risk and taking measures to prevent pneumonia are priority interventions. Overall goals for a patient with pneumonia include having clear breath sounds, normal breathing patterns, no signs of hypoxia, normal chest x-ray, and no complications as a result of the disease.



PLAY PICMONIC

### Interventions

#### Humidified Oxygen

##### [Wet O2-tank](#)

Patients should be treated with humidified oxygen to help loosen up secretions.

#### Deep Breathing Exercises

##### [Deeply Breathing with Incentive Spirometer](#)

Deep breathing exercises assist in alveolar expansion, help facilitate expectoration of excessive mucus and prevent atelectasis, or the collapse of lung tissue. Alveoli can then remain open longer for improved oxygen exchange and prevention of fluid or mucus accumulation. Teaching the patient to turn, cough, and deep breathe is important. An incentive spirometer is a device used as an aid in achieving these deep breathing exercises by requiring patients to inhale slowly and deeply while measuring the volume with an indicator so the patient can visualize the consistency and progress of their efforts.

#### Position of Comfort

##### [Comfort-inn Position](#)

Reposition the patient often to a position of comfort, ideally with the head of the bed raised, to promote full lung expansion and increase oxygenation.

#### Increase Fluid Intake

##### [Up-arrow Fluid Intake](#)

Increasing fluid intake helps thin out lung secretions and promote expectoration of mucous.

#### Manage Fever

##### [Managing Fever-beaver with Cold Pack](#)

If the patient presents with a fever, manage with antipyretic medications, as well as, implement non-pharmacologic interventions, such as removing excess bed linens and clothes and using a cooling fan. The patient should be encouraged to increase fluids, and vital signs monitored at least every 4 hours.

### Medications

## Antibiotics

### ABX-guy

Pneumonia as a result of bacterial infection may be treated with antibiotics. The patient should be educated to take the full dose as prescribed, and be aware of common side effects and when to notify their provider.

## Mucolytics

### Mucus-lights

Mucolytics, such as acetylcysteine (Mucomyst), work to reduce the viscosity of tenacious secretions by increasing respiratory tract fluid and breaking up mucus.

## Expectorants

### Expelling-ants in mucus

Expectorants, such as guaifenesin, work to decrease surface tension and allows for mucus to be expelled by increasing the amount or hydration of secretions. The expectorant can also ease a cough, if one is present.

## Considerations

### Pneumococcal Vaccine

#### Nude-cock Syringe

The pneumococcal vaccine is a vaccine against the bacterium *Streptococcus pneumoniae*, a common cause of pneumonia. However, it is only indicated for children under 5 years of age, adults 65 or older, and those 19 and older with certain risk factors.

### Sepsis

#### Sepsis-snake

Sepsis can result from an infection anywhere in the body, including pneumonia. Be sure to monitor for signs of sepsis which include a fever (>38 degrees C), tachycardia (>90 bpm), tachypnea (>20 breaths), and abnormal white blood cells (>12,000 or <4,000 cells/mL).

### Acute Respiratory Failure (ARF)

#### Acute-angle Dead Lungs

Acute respiratory failure is one of the top causes of mortality in patients with severe pneumonia. It occurs as a result of inadequate oxygen passing from the lungs into the blood. Signs and symptoms may include shortness of breath, rapid breathing, air hunger, cyanosis, or confusion.

### Prevention Education

#### Prevention Educator

Prevention education can serve as a key factor in decreasing the spread of pneumonia, which includes educating high risk patients. Encourage individuals to stop smoking, avoid people with active infections, wash hands, maintain proper eating and sleeping habits, increase fluid intake, and stay active.