**Community-Acquired Pneumonia (CAP) Core Processes**

Ensure appropriate and timely treatment of community-acquired pneumonia with the National Hospital Quality Measures.

**Domain**

Patient Care Processes:
Clinical processes that ensure delivery of high-quality care to individual patients

**Aims**

- **Effective:** An evidence-based practice that produces better outcomes than its alternative
- **Timely:** Care delivery that is prompt and provided without delay to mitigate any harm to a patient

**Process Attributes**

- **Cost to Implement**
  - The monetary resources required to implement this process
    - **Minimal:** Just the cost of the improvement effort itself

- **Time to Implement**
  - The amount of time, from months to years, it will take on average to establish this process
    - Fewer than 12 months

- **Difficulty to Implement**
  - The challenges of implementing this process
    - **Moderately Challenging:** Either involves multiple units or disciplines OR requires a substantial shift in culture and/or operations, but not both of these

- **Level of Evidence**
  - The degree to which the actions in this process are supported by research and experience; based on the Cochrane scale
    - **Some Evidence:** Level III — Studies published with some control included

**Details**

**Elements**

- Oxygenation assessment on arrival to hospital
- For high risk and patients 65 years of age or over, screen, and/or give pneumococcal and influenza vaccine
- Obtain blood cultures obtained prior to first antibiotic administration
- Provide smoking cessation counseling

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• Administer first dose of antibiotic within 6 hours of arrival

Outcomes
• Mortality (HSMR): Decreased mortality (hospital standardized mortality ratio, or HSMR)
• Reliability: Increased delivery of evidence-based care 100% of the time

Service Lines and Critical Functions
• Emergency Department
• Hospital Medicine, Adult
• Intensive Care
• Nursing

Key Measures
• Percent of CAP patients with all applicable CAP core measures completed or documented as contraindicated
• Percent of CAP patients with Initial Antibiotic Received Within 6 Hours of Hospital Arrival

Reasons and Implications
Importance for Patients and Families
When patients receive the right antibiotics within 24 hours of being admitted to the hospital with pneumonia that they get outside the hospital, they have increased chances of a speedy recovery and decreased chances of death.

Requirement, Standards, Policies, and Guidelines
• American Thoracic Society/ Infectious Disease Society of America (IDSA)
  Community Acquired Pneumonia Guidelines
• Centers for Medicare & Medicaid Services (CMS)
• National Quality Forum (NQF)
  Safe Practice for Better Healthcare—2009 Update
  Safe Practice 11: Intensive Care Unit Care
• The Joint Commission (TJC)

Financial Implications
• Expense reduction can occur due to timely care, a standardized approach that reduces length of stay, and appropriate antibiotic usage. • Expense increases can occur due to additional laboratory testing. • Revenue increases can occur due to potential payment for performance.

Prerequisites
None for this process
Resources

Additional Resources

- **The Commonwealth Fund**
  Why Not the Best?
  Comparative performance data on pneumonia care

- **American Academy of Family Physicians (AAFP)**
  Diagnosis and Treatment of Community-Acquired Pneumonia

- **Agency for Healthcare Research and Quality (AHRQ)**
  Improving Treatment Decisions for Patients with Community-Acquired Pneumonia [Research in Action, Issue 7] [July 2002]
  Includes description of AHRQ-funded Pneumonia Severity Index treatment algorithm

- **Agency for Healthcare Research and Quality (AHRQ)**
  Chapter 36. Pneumococcal Vaccination Prior to Hospital Discharge

- **Cleveland Clinic Center for Continuing Education**

Information Compiled By

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