Community-Acquired Bacterial Pneumonia (CAP)
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Overview
This document addresses the management of community-acquired bacterial pneumonia (CAP) in adults, defined as patients 18 years of age and older at the end of the report period. The initial ambulatory or emergency room episode of CAP after the first 60 days but before the last three days of the 12 month report period was identified; intervention measures were then applied to all eligible community acquired pneumonia episodes. A CAP episode was excluded if there was a claim identifying hospitalization or outpatient surgery with any diagnosis during the event. A CAP episode was also excluded if there was evidence of any pneumonia encounter during the time period 60 days through 1 day prior to the initial CAP encounter. Finally, patients were excluded from the community-acquired pneumonia condition if they had any of the following diagnoses: organ transplant, leukemia, cystic fibrosis, immunodeficiencies, HIV/AIDS, malignant neoplasm of the pulmonary system, and pulmonary tuberculosis.

Disease Management

R-1 9000002
Patient(s) with a diagnosis of community-acquired bacterial pneumonia who were treated with a recommended antibiotic.

Appropriate antibiotic therapy should be prescribed to patients with CAP (1,2). A macrolide or doxycycline is recommended for previously healthy patients with CAP and no risk factors for drug-resistant Streptococcus pneumoniae (1). A respiratory fluoroquinolone or a β-lactam plus a macrolide is recommended for outpatients with comorbidities such as chronic heart, lung, or renal disease, outpatients who have taken antimicrobials in the last three months, or outpatients otherwise at risk for drug resistance (1). Since claims data do not accurately identify simultaneous use of a β-lactam and macrolide, a patient was considered compliant if there was evidence of a claim from either drug class. In summary, patients were adherent to this measure if they filled a prescription for amoxicillin, amoxicillin/clavulanate, cefpodoxime, cefuroxime, levofloxacin, moxifloxacin, ceftriaxone, gemifloxacin, erythromycin, azithromycin, clarithromycin, or doxycycline during the period of time beginning seven days prior to the episode start date and ending three days after the episode start date. Examples of patients who would not be adherent to this measure would include patients treated with cephalexin or trimethoprim-sulfamethoxazole monotherapy.

Adherence to this measure includes presence of a specific CPT category II code that indicates either appropriate empiric antibiotic therapy was prescribed or it was not prescribed due to medical, patient, or system reasons. This is consistent with the Centers for Medicare and Medicaid Services (CMS) logic for utilization of CPT category II codes (2).

This EBM Connect measure is consistent with a similar measure developed by CMS PRQI and the American Medical Association Physician Consortium for Performance Improvement (AMA/PCPI) (2,3). The corresponding AMA/PCPI and CMS PQRI
measure, endorsed by the National Quality Forum and the AQA alliance, has been enhanced by EBM Connect logic that includes the identification of medications based on pharmacy claims. In addition, this EBM Connect measure differs from the AMA PCPI and CMS specifications in that it uses episodic logic to identify the initial CAP encounter.

Patients were excluded from this measure if, from 21 days prior to the episode start date through three days after the episode start date, they had any of the following co-existing illnesses: bronchitis, bronchiectasis, pharyngitis, tonsillitis, adenoiditis, acute or chronic sinusitis, acute or chronic otitis media, or other ENT infections. Also, patients were excluded if they received an antibiotic during the time period 60 days prior to the initiating community-acquired bacterial pneumonia encounter through 11 days prior to the initiating encounter (increasing the likelihood of infection with resistant bacteria).


<table>
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<th>Care Pattern</th>
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<td><strong>CP-N 9000001</strong> Adult(s) with community-acquired bacterial pneumonia who have a CXR.</td>
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A CXR is recommended for diagnosis of pneumonia (1). In addition, a CXR can distinguish community-acquired bacterial pneumonia from other conditions (1). Patients are adherent to this measure if they have a claim for a CXR during the time period seven days prior to the episode start date through three days after the episode start date. They are also adherent to this measure if, during that same time period, they have a claim for a non-specific radiographic examination where the diagnosis is pneumonia.

Adherence to this measure includes presence of a specific CPT category II code without a modifier that indicates CXR results were documented and reviewed. Use of this CPT category II code with a modifier will generate a result flag assignment of “not applicable” (NA7) for this measure. This is consistent with the American Medical Association (AMA) logic for utilization of CPT category II codes (2).

This EBM Connect measure is consistent with a similar measure developed by the American Medical Association Physician Consortium for Performance Improvement (AMA/PCPI) (3). This AMA/PCPI measure has been enhanced by EBM Connect logic that includes the identification of a CXR based on administrative claims. In addition, this EBM Connect measure differs from the AMA PCPI specification in that it uses episodic logic to identify the initial CAP encounter.


Patient(s) with a diagnosis of community-acquired bacterial pneumonia who have vital signs documented and reviewed at the initiating pneumonia encounter.

Review and documentation of vital signs (blood pressure, heart rate, and temperature) is important in the management of patients with community-acquired bacterial pneumonia (1,2).

Adherence to this measure was defined by the presence of CPT category II codes that indicate vital signs were documented and reviewed at the initial CAP encounter. This is consistent with the American Medical Association (AMA) and Centers for Medicare and Medicaid Services (CMS) logic for utilization of CPT category II codes (1,3).

This EBM Connect measure is consistent with a similar measure developed by CMS PRQI and the American Medical Association Physician Consortium for Performance Improvement (AMA/PCPI) (1,2). The corresponding AMA/PCPI and CMS PQRI measure includes category II code logic (1,2). This EBM Connect measure differs from the AMA PCPI and CMS specifications in that it uses episodic logic to identify the initial CAP encounter.


Patient(s) with a diagnosis of community-acquired bacterial pneumonia who have oxygen saturation documented and reviewed at the initiating pneumonia encounter.

Review and documentation of oxygen saturation is important in the management of patients with community-acquired bacterial pneumonia. This measurement can help clinicians decide whether hospitalization is necessary (1,2).

Adherence to this measure includes presence of a specific CPT category II code that indicates oxygen saturation was documented and reviewed at the initial CAP encounter. This is consistent with the Centers for Medicare and Medicaid Services (CMS) logic for utilization of CPT category II codes (1).

This EBM Connect measure is consistent with a similar measure developed by CMS PRQI and the American Medical Association Physician Consortium for Performance
Improvement (AMA/PCPI) (1,2). The corresponding AMA/PCPI and CMS PQRI measure has been enhanced by EBM Connect logic that includes the identification of an oxygen saturation test based on administrative claims. In addition, this EBM Connect measure differs from the AMA PCPI and CMS specifications in that it uses episodic logic to identify the initial CAP encounter.


**Patient(s) with a diagnosis of community-acquired bacterial pneumonia who have mental status assessed at the initiating pneumonia encounter.**

Mental status assessment is important in the management of patients with community-acquired bacterial pneumonia. Mental status changes could alter the evaluation and management plan (1, 2).

Adherence to this measure was defined by the presence of CPT category II codes that indicate mental status was assessed at the initial CAP encounter. This is consistent with the American Medical Association (AMA) and Centers for Medicare and Medicaid Services (CMS) logic for utilization of CPT category II codes (1,3).

This EBM Connect measure is consistent with a similar measure developed by CMS PRQI and the American Medical Association Physician Consortium for Performance Improvement (AMA/PCPI) (1,2). The corresponding AMA/PCPI and CMS PQRI measure includes category II code logic (1,2). This EBM Connect measure differs from the AMA PCPI and CMS specifications in that it uses episodic logic to identify the initial CAP encounter.
