



Measure Information

This document contains the information submitted by measure developers/stewards, but is organized according to NQF's measure evaluation criteria and process. The item numbers refer to those in the submission form but may be in a slightly different order here. In general, the item numbers also reference the related criteria (e.g., item 1b.1 relates to subcriterion 1b).

Brief Measure Information

NQF #: 0096

Corresponding Measures:

De.2. Measure Title: Community-Acquired Bacterial Pneumonia (CAP): Empiric Antibiotic

Co.1.1. Measure Steward: AMA-convened Physician Consortium for Performance Improvement

De.3. Brief Description of Measure: Percentage of patients aged 18 years and older with a diagnosis of community-acquired bacterial pneumonia (CAP) with an appropriate empiric antibiotic prescribed

1b.1. Developer Rationale: Current diagnostic methods to determine CAP pathogens are limited. Guidelines state that infections with the overwhelming majority of CAP pathogens will be adequately treated by use of the recommended empirical regimens. Additionally, rapid and appropriate empirical antibiotic therapy is consistently associated with improved outcome (IDSA/ATS guideline)

S.4. Numerator Statement: Patients with appropriate empiric antibiotic prescribed

S.7. Denominator Statement: All patients aged 18 years and older with a diagnosis of community-acquired bacterial pneumonia (CAP)

S.10. Denominator Exclusions: The PCPI exception methodology uses three categories of reasons for which a patient may be removed from the denominator of an individual measure. These measure exception categories are not uniformly relevant across all measures; for each measure, there must be a clear rationale to permit an exception for a medical, patient, or system reason. For measure 'Community-Acquired Bacterial Pneumonia (CAP): Empiric Antibiotic', exceptions may include medical reason(s), patient reason(s) or system reason(s) for not prescribing appropriate empiric antibiotic. Although this methodology does not require the external reporting of more detailed exception data, the PCPI recommends that physicians document the specific reasons for exception in patients' medical records for purposes of optimal patient management and audit-readiness. The PCPI also advocates the systematic review and analysis of each physician's exceptions data to identify practice patterns and opportunities for quality improvement. Additional details by data source are as follows:

For Claims/Administrative Specifications:

Documentation of medical reason(s) for not prescribing appropriate empiric antibiotic

Documentation of patient reason(s) for not prescribing appropriate empiric antibiotic

Documentation of system reason(s) for not prescribing appropriate empiric antibiotic

De.1. Measure Type: Process

S.23. Data Source: Claims, Electronic Health Data, Registry Data

S.26. Level of Analysis: Clinician : Group/Practice, Clinician : Individual, Integrated Delivery System

IF Endorsement Maintenance – Original Endorsement Date: May 01, 2007 **Most Recent Endorsement Date:** Dec 07, 2012

IF this measure is included in a composite, NQF Composite#/title:

IF this measure is paired/grouped, NQF#/title:

De.4. IF PAIRED/GROUPED, what is the reason this measure must be reported with other measures to appropriately interpret results?

1. Evidence, Performance Gap, Priority – Importance to Measure and Report

Extent to which the specific measure focus is evidence-based, important to making significant gains in healthcare quality, and improving health outcomes for a specific high-priority (high-impact) aspect of healthcare where there is variation in or overall less-than-optimal performance. **Measures must be judged to meet all subcriteria to pass this criterion and be evaluated against the remaining criteria.**

1a. Evidence to Support the Measure Focus – See attached Evidence Submission Form 0096_Evidence_MSF5.0_Data.doc

1b. Performance Gap

Demonstration of quality problems and opportunity for improvement, i.e., data demonstrating:

- considerable variation, or overall less-than-optimal performance, in the quality of care across providers; and/or
- disparities in care across population groups.

1b.1. Briefly explain the rationale for this measure (e.g., the benefits or improvements in quality envisioned by use of this measure)

Current diagnostic methods to determine CAP pathogens are limited. Guidelines state that infections with the overwhelming majority of CAP pathogens will be adequately treated by use of the recommended empirical regimens. Additionally, rapid and appropriate empirical antibiotic therapy is consistently associated with improved outcome (IDSA/ATS guideline)

1b.2. Provide performance scores on the measure as specified (current and over time) at the specified level of analysis. (This is required for endorsement maintenance. Include mean, std dev, min, max, interquartile range, scores by decile. Describe the data source including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities included). This information also will be used to address the subcriterion on improvement (4b.1) under Usability and Use.

Current evidence suggests variation in the prescription of empiric antibiotic for patients with community-acquired bacterial pneumonia. In one retrospective cohort study of 631 patients, 357 (57%) received guideline-concordant empiric antibiotic therapy.(1)

In another study of 54,619 non-intensive care unit inpatients with CAP, 35,477 (65%) received initial guideline-concordant therapy. After adjustment for severity of illness and other confounders, guideline-concordant therapy was associated with improved health outcomes and diminished resource use in adults. These findings were linked to treatment with fluoroquinolone or macrolide agents.(2)

CMS Physician Quality Reporting Initiative/System:

This measure was used in the CMS Physician Quality Reporting Initiative/System (PQRI/S) in the 2007 through 2010 claims option as well as the registry and measure group options for 2009 and 2010. There is a gap in care as shown by this 2008 data; 22.52% of patients reported on did not meet the measure.(3)

10th percentile: 33.33 %
25th percentile: 66.67 %
50th percentile: 90.91 %
75th percentile: 100.00%
90th percentile: 100.00%

Exception rate: 0.79%

1b.3. If no or limited performance data on the measure as specified is reported in 1b2, then provide a summary of data from the literature that indicates opportunity for improvement or overall less than optimal performance on the specific focus of measurement.

1. Frei CR, Restrepo MI, Mortensen EM, Burgess DS. Impact of guideline-concordant empiric antibiotic therapy in community-acquired pneumonia. *Am J Med.* 2006;119:865-871.
2. McCabe C, Kirchner C, Zhang H, Daley J, Fisman DN. Guideline-concordant therapy and reduced mortality and length of stay in adults with community-acquired pneumonia. *Arch Intern Med.* 2009;169(16):1525-1531.
3. Confidential CMS PQRI 2008 Performance Information by Measure. Jan-Sept TAP file.

1b.4. Provide disparities data from the measure as specified (current and over time) by population group, e.g., by race/ethnicity, gender, age, insurance status, socioeconomic status, and/or disability. *(This is required for endorsement maintenance. Describe the data source including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities include.) This information also will be used to address the subcriterion on improvement (4b.1) under Usability and Use.*
Data support the existence of racial, gender and age disparities in CAP prevention, treatment and mortality.

Prevention

Vaccination to prevent pneumonia is associated with improved survival, decreased chance of respiratory failure or other complications, and decreased length of stay among hospitalized patients with community acquired pneumonia.(1)

According to the CDC, more than 34% of adults aged 65 and older reported not ever receiving a pneumococcal vaccination. Racial disparities exist in the receipt of pneumococcal vaccine. Whites have the highest rate of pneumococcal vaccination at 67.8% while Blacks and Hispanics have lower rates of 52.5% and 51.3%, respectively.(2)

Treatment

Community-acquired bacterial pneumonia disproportionately affects the elderly. Individuals aged 65 and over are hospitalized at a rate that is almost 6 times higher as that of individuals aged 45-64 and about 23 times higher than those aged 15-44.(3)

Mortality

According to the American Lung Association, there are racial and gender disparities in the mortality rate due to pneumonia and influenza. In 2006, Black men were approximately 16% more likely to die from pneumonia and influenza than White men.(3)

Males tend to have higher death rates due to pneumonia than females. In 2006, the age adjusted death rates for females and males were 15.5 and 21.2 per 100,000, respectively.(4)

1b.5. If no or limited data on disparities from the measure as specified is reported in 1b4, then provide a summary of data from the literature that addresses disparities in care on the specific focus of measurement. Include citations.

1. Fisman DN, Abrutyn E, Spaude KA, Kirchner C, Daley J. Prior pneumococcal vaccination is associated with reduced death, complications, and length of stay among hospitalized adults with community-acquired pneumonia. Clin Infect Dis. 2006;42(8):1093-1101.
2. Centers for Disease Control and Prevention. Vaccination coverage among U.S adults, 2007. National Immunization Survey. Centers for Disease Control and Prevention, US Dept of Health and Human Services; 2008.
3. American Lung Association. Trends in Pneumonia and Influenza Morbidity and Mortality. American Lung Association, 2010.
4. Hall MJ, DeFrances CJ, Williams SN, Golosinskiy A, Schwartzman A. National hospital discharge survey: 2007 summary. National health statistics reports. National Center for Health Statistics: Centers for Disease Control and Prevention. 2010. <http://www.cdc.gov/nchs/data/nhsr/nhsr029.pdf>. Accessed January 5, 2012.

1c. High Priority (previously referred to as High Impact)

The measure addresses:

- a specific national health goal/priority identified by DHHS or the National Priorities Partnership convened by NQF; OR
- a demonstrated high-priority (high-impact) aspect of healthcare (e.g., affects large numbers of patients and/or has a substantial impact for a smaller population; leading cause of morbidity/mortality; high resource use (current and/or future); severity of illness; and severity of patient/societal consequences of poor quality).

1c.1. Demonstrated high priority aspect of healthcare

Affects large numbers, A leading cause of morbidity/mortality, High resource use, Patient/societal consequences of poor quality, Severity of illness

1c.2. If Other:

1c.3. Provide epidemiologic or resource use data that demonstrates the measure addresses a high priority aspect of healthcare.

List citations in 1c.4.

Community-acquired pneumonia (CAP) is a common condition and a leading cause of morbidity and mortality. The bacterial agent streptococcus pneumoniae is the most common etiology of community-acquired pneumonia in outpatients and hospitalized

patients including those in the ICU.(1) Other bacterial causes of CAP include nontypeable *Haemophilus influenzae* and *Moraxella catarrhalis*, generally in patients who have underlying bronchopulmonary disease, and *S. aureus*, especially during an influenza outbreak.(1)

Pneumonia and Influenza are the eighth leading cause of mortality in the United States, together accounting for approximately 56,000 deaths in 2008.(2) More than 54,000 or 96% of these deaths are attributed solely to pneumonia.(2)

CAP has a significant economic impact. Estimates suggest that the annual cost of treating CAP in the United States is \$12.2 billion.(3) In 2007, CAP resulted in approximately 1.1 million hospitalizations and accounted for an estimated 4.5 million ambulatory care visits, including 32,000 visits to emergency departments.(4,5)

Approximately 10% of patients hospitalized for CAP are admitted to the intensive care unit.(6) CAP in the ICU is associated with a high mortality rate of about 30%.(7)

Additionally, CAP is one of the two most common reasons for potentially preventable hospitalizations, accounting for an estimated \$7.2 billion of all preventable hospitalizations.(8)

1c.4. Citations for data demonstrating high priority provided in 1a.3

1. Mandell LA, Wunderink RG, Anzueto A, et al. Infectious Diseases Society of America/American Thoracic Society Consensus guidelines on the management of community-acquired pneumonia in adults. Clin Infect Dis. 2007;44:S27-72.
2. Miniño AM, Xu JQ, Kochanek KD. Deaths: Preliminary Data for 2008. National Vital Statistics Reports. Vol 59. No 2. National Center for Health Statistics: Centers for Disease Control and Prevention. 2010. http://www.cdc.gov/nchs/data/nvsr/nvsr58/nvsr58_19.pdf. Accessed January 5, 2012.
3. Colice GL, Morley MA, Asche C, Birnbaum HG. Treatment costs of community-acquired pneumonia in an employed population. Chest 2004. <http://chestjournal.chestpubs.org/content/125/6/2140.full.html>. Accessed January 5, 2012.
4. Hall MJ, DeFrances CJ, Williams SN, Golosinskiy A, Schwartzman A. National hospital discharge survey: 2007 summary. National health statistics reports. National Center for Health Statistics: Centers for Disease Control and Prevention. 2010. <http://www.cdc.gov/nchs/data/nhsr/nhsr029.pdf>. Accessed January 5, 2012.
5. Schappert SM, Rechtsteiner EA. Ambulatory medical care utilization estimates for 2007. National health statistics reports. National Center for Health Statistics: Centers for Disease Control and Prevention. 2011.
6. Renaud B, Labarère J, Coma E, et al. Risk stratification of early admission to the intensive care unit of patients with no major criteria of severe community-acquired pneumonia: development of an international prediction rule. Crit Care Med. 2009. <http://ccforum.com/content/13/2/R54>. Accessed January 9, 2011.
7. Restrepo MI, Mortensen EM, Velez JA, Frei C, Anzueto A. A comparative study of community-acquired pneumonia patients admitted to the ward and the ICU. Chest. 2008; 133:610-617
8. Jiang HJ, Russo CA, Barrett ML. Nationwide Frequency and Costs of Potentially Preventable Hospitalizations, 2006. Healthcare Cost and Utilization Project: Agency for Healthcare Research and Quality, Rockville, MD; 2009. <http://www.hcup-us.ahrq.gov/reports/statbriefs/sb72.jsp>. Accessed January 5, 2012.

1c.5. If a PRO-PM (e.g. HRQoL/functional status, symptom/burden, experience with care, health-related behaviors), provide evidence that the target population values the measured PRO and finds it meaningful. (Describe how and from whom their input was obtained.)

2. Reliability and Validity—Scientific Acceptability of Measure Properties

Extent to which the measure, as specified, produces consistent (reliable) and credible (valid) results about the quality of care when implemented. **Measures must be judged to meet the subcriteria for both reliability and validity to pass this criterion and be evaluated against the remaining criteria.**

2a.1. Specifications The measure is well defined and precisely specified so it can be implemented consistently within and across organizations and allows for comparability. eMeasures should be specified in the Health Quality Measures Format (HQMF) and the Quality Data Model (QDM).

De.5. Subject/Topic Area (check all the areas that apply):

Respiratory, Respiratory : Pneumonia

De.6. Non-Condition Specific (check all the areas that apply):

S.1. Measure-specific Web Page (Provide a URL link to a web page specific for this measure that contains current detailed specifications including code lists, risk model details, and supplemental materials. Do not enter a URL linking to a home page or to general information.)

The updated specifications for this measure are submitted within this form. Additional measure information can be found at www.physicianconsortium.org

S.2a. If this is an eMeasure, HQMF specifications must be attached. Attach the zipped output from the eMeasure authoring tool (MAT) - if the MAT was not used, contact staff. (Use the specification fields in this online form for the plain-language description of the specifications)

[This is not an eMeasure](#) Attachment:

S.2b. Data Dictionary, Code Table, or Value Sets (and risk model codes and coefficients when applicable) must be attached. (Excel or csv file in the suggested format preferred - if not, contact staff)

[No data dictionary](#) Attachment:

S.3. For endorsement maintenance, please briefly describe any changes to the measure specifications since last endorsement date and explain the reasons.

S.4. Numerator Statement (Brief, narrative description of the measure focus or what is being measured about the target population, i.e., cases from the target population with the target process, condition, event, or outcome)

IF an OUTCOME MEASURE, state the outcome being measured. Calculation of the risk-adjusted outcome should be described in the calculation algorithm.

[Patients with appropriate empiric antibiotic prescribed](#)

S.5. Time Period for Data (What is the time period in which data will be aggregated for the measure, e.g., 12 mo, 3 years, look back to August for flu vaccination? Note if there are different time periods for the numerator and denominator.)

[once for each occurrence of community-acquired bacterial pneumonia during the measurement period](#)

S.6. Numerator Details (All information required to identify and calculate the cases from the target population with the target process, condition, event, or outcome such as definitions, specific data collection items/responses, code/value sets – Note: lists of individual codes with descriptors that exceed 1 page should be provided in an Excel or csv file in required format at S.2b)

IF an OUTCOME MEASURE, describe how the observed outcome is identified/counted. Calculation of the risk-adjusted outcome should be described in the calculation algorithm.

Numerator Instructions:

This measure is to be reported once for each occurrence of community-acquired bacterial pneumonia during the measurement period. Each unique occurrence is defined as a 45-day period from onset of community-acquired bacterial pneumonia.

Numerator Definitions:

Appropriate Empiric Antibiotic – Treatment of community-acquired bacterial pneumonia (CAP) should include any medication from one of the following four drug classes: Fluoroquinolones, Macrolides, Doxycycline, Beta Lactam with Macrolide or Doxycycline. (classes as defined by current ATS/IDSA guidelines; antibiotics within these classes and FDA-approved for outpatient CAP treatment may be considered).

Prescribed – Includes patients who are currently receiving medication(s) that follow the treatment plan recommended at an encounter during the reporting period, even if the prescription for that medication was ordered prior to the encounter.

For Claims/Administrative:

CPT Category II code: 4045F - Appropriate empiric antibiotic prescribed

S.7. Denominator Statement (Brief, narrative description of the target population being measured)

All patients aged 18 years and older with a diagnosis of community-acquired bacterial pneumonia (CAP)

S.8. Target Population Category (Check all the populations for which the measure is specified and tested if any):

Elderly

S.9. Denominator Details (All information required to identify and calculate the target population/denominator such as definitions, specific data collection items/responses, code/value sets – Note: lists of individual codes with descriptors that exceed 1 page should be provided in an Excel or csv file in required format at S.2b)

For Claims/Administrative:

DENOMINATOR 1: [Office/Outpatient Setting]

Patients aged $\geq$ 18 years

AND

Diagnosis for community-acquired bacterial pneumonia (ICD-9-CM) [for use 1/1/2015-9/30/2015]: 481, 482.0, 482.1, 482.2, 482.30, 482.31, 482.32, 482.39, 482.40, 482.41, 482.42, 482.49, 482.81, 482.82, 482.83, 482.84, 482.89, 482.9, 483.0, 483.1, 483.8, 485, 486

Diagnosis for community-acquired bacterial pneumonia (ICD-10-CM) [for use 10/01/2015-12/31/2015]: A48.1, J13, J14, J15.0, J15.1, J15.20, J15.211, J15.212, J15.29, J15.3, J15.4, J15.5, J15.6, J15.7, J15.8, J15.9, J16.0, J16.8, J18.0, J18.1, J18.8, J18.9

AND

Patient encounter during the reporting period (CPT): 99201, 99202, 99203, 99204, 99205, 99212, 99213, 99214, 99215, 99324, 99325, 99326, 99327, 99328, 99334, 99335, 99336, 99337, 99341, 99342, 99343, 99344, 99345, 99347, 99348, 99349, 99350

DENOMINATOR 2: [Emergency Department Setting]

Patients aged $\geq$ 18 years

AND

Diagnosis for community-acquired bacterial pneumonia (ICD-9-CM) [for use 1/1/2015-9/30/2015]: 481, 482.0, 482.1, 482.2, 482.30, 482.31, 482.32, 482.39, 482.40, 482.41, 482.42, 482.49, 482.81, 482.82, 482.83, 482.84, 482.89, 482.9, 483.0, 483.1, 483.8, 485, 486

Diagnosis for community-acquired bacterial pneumonia (ICD-10-CM) [for use 10/01/2015-12/31/2015]: A48.1, J13, J14, J15.0, J15.1, J15.20, J15.211, J15.212, J15.29, J15.3, J15.4, J15.5, J15.6, J15.7, J15.8, J15.9, J16.0, J16.8, J18.0, J18.1, J18.8, J18.9

AND

Patient encounter during the reporting period (CPT): 99218, 99219, 99220, 99281, 99282, 99283, 99284, 99285

OR

Patient encounter during the reporting period (CPT): 99291

WITH

Place of Service Modifier: 23

DENOMINATOR 3: [Inpatient Hospital Setting]

Patients aged $\geq$ 18 years on date of encounter

AND

Diagnosis for community-acquired bacterial pneumonia (ICD-9-CM) [for use 1/1/2015-9/30/2015]: 481, 482.0, 482.1, 482.2, 482.30, 482.31, 482.32, 482.39, 482.40, 482.41, 482.42, 482.49, 482.81, 482.82, 482.83, 482.84, 482.89, 482.9, 483.0, 483.1, 483.8, 485, 486

Diagnosis for community-acquired bacterial pneumonia (ICD-10-CM) [for use 10/01/2015-12/31/2015]: A48.1, J13, J14, J15.0, J15.1, J15.20, J15.211, J15.212, J15.29, J15.3, J15.4, J15.5, J15.6, J15.7, J15.8, J15.9, J16.0, J16.8, J18.0, J18.1, J18.8, J18.9

AND

Patient encounter during the reporting period (CPT): 99221, 99222, 99223

WITH

Principal Physician of Record Modifier: AI

S.10. Denominator Exclusions (Brief narrative description of exclusions from the target population)

The PCPI exception methodology uses three categories of reasons for which a patient may be removed from the denominator of an individual measure. These measure exception categories are not uniformly relevant across all measures; for each measure, there must be a clear rationale to permit an exception for a medical, patient, or system reason. For measure 'Community-Acquired Bacterial Pneumonia (CAP): Empiric Antibiotic', exceptions may include medical reason(s), patient reason(s) or system reason(s) for not prescribing appropriate empiric antibiotic. Although this methodology does not require the external reporting of more detailed exception data, the PCPI recommends that physicians document the specific reasons for exception in patients' medical records for

purposes of optimal patient management and audit-readiness. The PCPI also advocates the systematic review and analysis of each physician's exceptions data to identify practice patterns and opportunities for quality improvement. Additional details by data source are as follows:

For Claims/Administrative Specifications:

Documentation of medical reason(s) for not prescribing appropriate empiric antibiotic

Documentation of patient reason(s) for not prescribing appropriate empiric antibiotic

Documentation of system reason(s) for not prescribing appropriate empiric antibiotic

S.11. Denominator Exclusion Details (All information required to identify and calculate exclusions from the denominator such as definitions, specific data collection items/responses, code/value sets – Note: lists of individual codes with descriptors that exceed 1 page should be provided in an Excel or csv file in required format at S.2b)

For Claims/Administrative Specifications:

Documentation of medical reason(s) for not prescribing appropriate empiric antibiotic - Append modifier to CPT Category II code: 4045F-1P

Documentation of patient reason(s) for not prescribing appropriate empiric antibiotic - Append modifier to CPT Category II code: 4045F-2P

Documentation of system reason(s) for not prescribing appropriate empiric antibiotic - Append modifier to CPT Category II code: 4045F-3P

S.12. Stratification Details/Variables (All information required to stratify the measure results including the stratification variables, definitions, specific data collection items/responses, code/value sets – Note: lists of individual codes with descriptors that exceed 1 page should be provided in an Excel or csv file in required format with at S.2b)

We encourage the results of this measure to be stratified by race, ethnicity, primary language, and administrative sex.

S.13. Risk Adjustment Type (Select type. Provide specifications for risk stratification in S.12 and for statistical model in S.14-15)

No risk adjustment or risk stratification

If other:

S.14. Identify the statistical risk model method and variables (Name the statistical method - e.g., logistic regression and list all the risk factor variables. Note - risk model development and testing should be addressed with measure testing under Scientific Acceptability)

No Risk Adjustment or Risk Stratification

S.15. Detailed risk model specifications (must be in attached data dictionary/code list Excel or csv file. Also indicate if available at measure-specific URL identified in S.1.)

Note: Risk model details (including coefficients, equations, codes with descriptors, definitions), should be provided on a separate worksheet in the suggested format in the Excel or csv file with data dictionary/code lists at S.2b.

S.15a. Detailed risk model specifications (if not provided in excel or csv file at S.2b)

S.16. Type of score:

Rate/proportion

If other:

S.17. Interpretation of Score (Classifies interpretation of score according to whether better quality is associated with a higher score, a lower score, a score falling within a defined interval, or a passing score)

Better quality = Higher score

S.18. Calculation Algorithm/Measure Logic (Describe the calculation of the measure score as an ordered sequence of steps including

identifying the target population; exclusions; cases meeting the target process, condition, event, or outcome; aggregating data; risk adjustment; etc.)

To calculate performance rates:

- 1) Find the patients who meet the initial patient population (ie, the general group of patients that a set of performance measures is designed to address).
- 2) From the patients within the initial patient population criteria, find the patients who qualify for the denominator (ie, the specific group of patients for inclusion in a specific performance measure based on defined criteria). Note: in some cases the initial patient population and denominator are identical.
- 3) From the patients within the denominator, find the patients who qualify for the Numerator (ie, the group of patients in the denominator for whom a process or outcome of care occurs). Validate that the number of patients in the numerator is less than or equal to the number of patients in the denominator
- 4) From the patients who did not meet the numerator criteria, determine if the physician has documented that the patient meets any criteria for exception when exceptions have been specified [for this measure: medical reason(s), patient reason(s), or system reason(s)]. If the patient meets any exception criteria, they should be removed from the denominator for performance calculation. --Although the exception cases are removed from the denominator population for the performance calculation, the exception rate (ie, percentage with valid exceptions) should be calculated and reported along with performance rates to track variations in care and highlight possible areas of focus for QI.

If the patient does not meet the numerator and a valid exception is not present, this case represents a quality failure.

S.19. Calculation Algorithm/Measure Logic Diagram URL or Attachment (You also may provide a diagram of the Calculation Algorithm/Measure Logic described above at measure-specific Web page URL identified in S.1 OR in attached appendix at A.1)

S.20. Sampling (If measure is based on a sample, provide instructions for obtaining the sample and guidance on minimum sample size.)

IF a PRO-PM, identify whether (and how) proxy responses are allowed.

Not applicable. The measure does not require sampling or a survey

S.21. Survey/Patient-reported data (If measure is based on a survey, provide instructions for conducting the survey and guidance on minimum response rate.)

IF a PRO-PM, specify calculation of response rates to be reported with performance measure results.

S.22. Missing data (specify how missing data are handled, e.g., imputation, delete case.)

Required for Composites and PRO-PMs.

S.23. Data Source (Check ONLY the sources for which the measure is SPECIFIED AND TESTED).

If other, please describe in S.24.

Claims, Electronic Health Data, Registry Data

S.24. Data Source or Collection Instrument (Identify the specific data source/data collection instrument e.g. name of database, clinical registry, collection instrument, etc.)

IF a PRO-PM, identify the specific PROM(s); and standard methods, modes, and languages of administration.

Not applicable

S.25. Data Source or Collection Instrument (available at measure-specific Web page URL identified in S.1 OR in attached appendix at A.1)

S.26. Level of Analysis (Check ONLY the levels of analysis for which the measure is SPECIFIED AND TESTED)

Clinician : Group/Practice, Clinician : Individual, Integrated Delivery System

S.27. Care Setting (Check ONLY the settings for which the measure is SPECIFIED AND TESTED)

Home Care, Inpatient/Hospital, Other, Outpatient Services

If other: Emergency Department, 'Domiciliary, Rest Home or Custodial Care Services'

S.28. COMPOSITE Performance Measure - Additional Specifications (*Use this section as needed for aggregation and weighting rules, or calculation of individual performance measures if not individually endorsed.*)

2a. Reliability – See attached Measure Testing Submission Form

2b. Validity – See attached Measure Testing Submission Form

0096_MeasureTesting_MS5.0_Data.doc

3. Feasibility

Extent to which the specifications including measure logic, require data that are readily available or could be captured without undue burden and can be implemented for performance measurement.

3a. Byproduct of Care Processes

For clinical measures, the required data elements are routinely generated and used during care delivery (e.g., blood pressure, lab test, diagnosis, medication order).

3a.1. Data Elements Generated as Byproduct of Care Processes.

generated by and used by healthcare personnel during the provision of care, e.g., blood pressure, lab value, medical condition

If other:

3b. Electronic Sources

The required data elements are available in electronic health records or other electronic sources. If the required data are not in electronic health records or existing electronic sources, a credible, near-term path to electronic collection is specified.

3b.1. To what extent are the specified data elements available electronically in defined fields? (*i.e., data elements that are needed to compute the performance measure score are in defined, computer-readable fields*)

ALL data elements are in defined fields in electronic health records (EHRs)

3b.2. If ALL the data elements needed to compute the performance measure score are not from electronic sources, specify a credible, near-term path to electronic capture, OR provide a rationale for using other than electronic sources.

3b.3. If this is an eMeasure, provide a summary of the feasibility assessment in an attached file or make available at a measure-specific URL.

Attachment:

3c. Data Collection Strategy

Demonstration that the data collection strategy (e.g., source, timing, frequency, sampling, patient confidentiality, costs associated with fees/licensing of proprietary measures) can be implemented (e.g., already in operational use, or testing demonstrates that it is ready to put into operational use). For eMeasures, a feasibility assessment addresses the data elements and measure logic and demonstrates the eMeasure can be implemented or feasibility concerns can be adequately addressed.

3c.1. Describe what you have learned/modified as a result of testing and/or operational use of the measure regarding data collection, availability of data, missing data, timing and frequency of data collection, sampling, patient confidentiality, time and cost of data collection, other feasibility/implementation issues.

IF a PRO-PM, consider implications for both individuals providing PROM data (patients, service recipients, respondents) and those whose performance is being measured.

This measure was found to be reliable and feasible for implementation.

3c.2. Describe any fees, licensing, or other requirements to use any aspect of the measure as specified (*e.g., value/code set, risk model, programming code, algorithm*).

4. Usability and Use

Extent to which potential audiences (e.g., consumers, purchasers, providers, policy makers) are using or could use performance results for both accountability and performance improvement to achieve the goal of high-quality, efficient healthcare for individuals or populations.

4a. Accountability and Transparency

Performance results are used in at least one accountability application within three years after initial endorsement and are publicly reported within six years after initial endorsement (or the data on performance results are available). If not in use at the time of initial endorsement, then a credible plan for implementation within the specified timeframes is provided.

4.1. Current and Planned Use

NQF-endorsed measures are expected to be used in at least one accountability application within 3 years and publicly reported within 6 years of initial endorsement in addition to performance improvement.

Planned	Current Use (for current use provide URL)
Public Reporting	
Professional Certification or Recognition Program	
Quality Improvement (Internal to the specific organization)	

4a.1. For each CURRENT use, checked above, provide:

- Name of program and sponsor
- Purpose
- Geographic area and number and percentage of accountable entities and patients included

4a.2. If not currently publicly reported OR used in at least one other accountability application (e.g., payment program, certification, licensing) what are the reasons? (e.g., Do policies or actions of the developer/steward or accountable entities restrict access to performance results or impede implementation?)

4a.3. If not currently publicly reported OR used in at least one other accountability application, provide a credible plan for implementation within the expected timeframes -- any accountability application within 3 years and publicly reported within 6 years of initial endorsement. (Credible plan includes the specific program, purpose, intended audience, and timeline for implementing the measure within the specified timeframes. A plan for accountability applications addresses mechanisms for data aggregation and reporting.)

4b. Improvement

Progress toward achieving the goal of high-quality, efficient healthcare for individuals or populations is demonstrated. If not in use for performance improvement at the time of initial endorsement, then a credible rationale describes how the performance results could be used to further the goal of high-quality, efficient healthcare for individuals or populations.

4b.1. Progress on Improvement. (Not required for initial endorsement unless available.)

Performance results on this measure (current and over time) should be provided in 1b.2 and 1b.4. Discuss:

- Progress (trends in performance results, number and percentage of people receiving high-quality healthcare)
- Geographic area and number and percentage of accountable entities and patients included

4b.2. If no improvement was demonstrated, what are the reasons? If not in use for performance improvement at the time of initial endorsement, provide a credible rationale that describes how the performance results could be used to further the goal of

high-quality, efficient healthcare for individuals or populations.

4c. Unintended Consequences

The benefits of the performance measure in facilitating progress toward achieving high-quality, efficient healthcare for individuals or populations outweigh evidence of unintended negative consequences to individuals or populations (if such evidence exists).

4c.1. Were any unintended negative consequences to individuals or populations identified during testing; OR has evidence of unintended negative consequences to individuals or populations been reported since implementation? If so, identify the negative unintended consequences and describe how benefits outweigh them or actions taken to mitigate them.

We are not aware of any unintended consequences related to this measurement.

5. Comparison to Related or Competing Measures

If a measure meets the above criteria and there are endorsed or new related measures (either the same measure focus or the same target population) or competing measures (both the same measure focus and the same target population), the measures are compared to address harmonization and/or selection of the best measure.

5. Relation to Other NQF-endorsed Measures

Are there related measures (conceptually, either same measure focus or target population) or competing measures (conceptually both the same measure focus and same target population)? If yes, list the NQF # and title of all related and/or competing measures.
Yes

5.1a. List of related or competing measures (selected from NQF-endorsed measures)

0147 : Initial antibiotic selection for community-acquired pneumonia (CAP) in immunocompetent patients

5.1b. If related or competing measures are not NQF endorsed please indicate measure title and steward.

5a. Harmonization

The measure specifications are harmonized with related measures;

OR

The differences in specifications are justified

5a.1. If this measure conceptually addresses EITHER the same measure focus OR the same target population as NQF-endorsed measure(s):

Are the measure specifications completely harmonized?

No

5a.2. If the measure specifications are not completely harmonized, identify the differences, rationale, and impact on interpretability and data collection burden.

Measure #0147 is related to #0096. However, the level of analysis differs; measure #0147 is specified at the facility level and measure #0096 at the individual level. Additionally, measure #0147 relates to the receipt of antibiotic treatment during a hospitalization whereas measure #0096 includes patients with an emergency room discharge diagnosis of community-acquired bacterial pneumonia. Furthermore, we have developed and will maintain specifications for multiple data sources, including Electronic Health Records (EHRs) and Claims-Based Reporting. Our specifications for EHRs are developed in accordance with the terminology standards (eg, SNOMED, RxNorm, LOINC) named in the Meaningful Use Program (CMS EHR Incentive Program).

5b. Competing Measures

The measure is superior to competing measures (e.g., is a more valid or efficient way to measure);

OR

Multiple measures are justified.

5b.1. If this measure conceptually addresses both the same measure focus and the same target population as NQF-endorsed measure(s):

Describe why this measure is superior to competing measures (e.g., a more valid or efficient way to measure quality); OR provide

a rationale for the additive value of endorsing an additional measure. (Provide analyses when possible.)

Appendix

A.1 Supplemental materials may be provided in an appendix. All supplemental materials (such as data collection instrument or methodology reports) should be organized in one file with a table of contents or bookmarks. If material pertains to a specific submission form number, that should be indicated. Requested information should be provided in the submission form and required attachments. There is no guarantee that supplemental materials will be reviewed.

Attachment:

Contact Information

Co.1 Measure Steward (Intellectual Property Owner): AMA-convened Physician Consortium for Performance Improvement

Co.2 Point of Contact: Samantha, Tierney, Samantha.Tierney@ama-assn.org, 312-464-5524-

Co.3 Measure Developer if different from Measure Steward: AMA

Co.4 Point of Contact: Elvia, Chavarria, elvia.chavarria@ama-assn.org, 312-464-5709-

Additional Information

Ad.1 Workgroup/Expert Panel involved in measure development

Provide a list of sponsoring organizations and workgroup/panel members' names and organizations. Describe the members' role in measure development.

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Eric C. Schneider, MD, MSc (Co-Chair)

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PCPI measures are developed through cross-specialty, multi-disciplinary work groups. All medical specialties and other health care professional disciplines participating in patient care for the clinical condition or topic under study are invited to be equal contributors to the measure development process. In addition, the PCPI strives to include on its work groups individuals representing the perspectives of patients, consumers, private health plans, and employers. This broad-based approach to measure development ensures buy-in on the measures from all stakeholders and minimizes bias toward any individual specialty or stakeholder group. All work groups have at least two co-chairs who have relevant clinical and/or measure development expertise and who are responsible for ensuring that consensus is achieved and that all perspectives are voiced.

Measure Developer/Steward Updates and Ongoing Maintenance

Ad.2 Year the measure was first released: 2006

Ad.3 Month and Year of most recent revision: 12, 2011

Ad.4 What is your frequency for review/update of this measure? Coding/specification updates occur annually

Ad.5 When is the next scheduled review/update for this measure? 2012

Ad.6 Copyright statement: Physician Performance Measures (Measures) and related data specifications, developed by the American Medical Association (AMA) in collaboration with the Physician Consortium for Performance Improvement (the Consortium) and the National Committee for Quality Assurance (NCQA) pursuant to government sponsorship under subcontract 6205-05-054 with Mathematica Policy Research, Inc. under contract 500-00-0033 with Centers for Medicare & Medicaid Services.

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Ad.7 Disclaimers: See copyright statement above.

Ad.8 Additional Information/Comments: