

Quality ID #111 : Pneumococcal Vaccination Status for Older Adults – National Quality Strategy
Domain: Community/Population Health

2018 OPTIONS FOR INDIVIDUAL MEASURES:
REGISTRY ONLY

MEASURE TYPE:
Process

DESCRIPTION:
Percentage of patients 65 years of age and older who have ever received a pneumococcal vaccine

INSTRUCTIONS:
This measure is to be submitted a minimum of **once per performance period** for patients seen during the performance period. There is no diagnosis associated with this measure. Performance for this measure is not limited to the performance period. This measure may be submitted by eligible clinicians who perform the quality actions described in the measure based on services provided and the measure-specific denominator coding.

Measure Submission:
The listed denominator criteria is used to identify the intended patient population. The numerator options included in this specification are used to submit the quality actions allowed by the measure. The quality-data codes listed do not need to be submitted for registry-based submissions; however, these codes may be submitted for those registries that utilize claims data.

DENOMINATOR:
Patients 65 years of age and older with a visit during the measurement period

***DENOMINATOR NOTE:** This measure assesses whether patients 65 years of age or older have received one or more pneumococcal vaccinations.*

Denominator Criteria (Eligible Cases):
Patients aged ≥ 65 years on date of encounter

AND

Patient encounter during the performance period (CPT or HCPCS): 99201, 99202, 99203, 99204, 99205, 99212, 99213, 99214, 99215, 99341, 99342, 99343, 99344, 99345, 99347, 99348, 99349, 99350, G0402, G0438, G0439

AND NOT

DENOMINATOR EXCLUSION:

Patient received hospice services any time during the measurement period: G9707

NUMERATOR:
Patients who have **ever** received a pneumococcal vaccination

***NUMERATOR NOTE:** While the measure provides credit for adults 65 years of age and older who have ever received either the PCV13 or PPSV23 vaccine (or both), according to ACIP recommendations, patients should receive both vaccines. The order and timing of the vaccinations depends on certain patient characteristics, and are described in more detail in the ACIP recommendations.*

Numerator Options:
Performance Met:

Pneumococcal vaccine administered or previously received (**4040F**)

OR

Performance Not Met:

Pneumococcal vaccine was not administered or previously received, reason not otherwise specified
(4040F with 8P)

RATIONALE:

Pneumonia is a common cause of illness and death in the elderly and persons with certain underlying conditions such as heart failure, diabetes, cystic fibrosis, asthma, sickle cell anemia, or chronic obstructive pulmonary disease (NHLBI, 2011). In 1998, an estimated 3,400 adults aged > 65 years died as a result of invasive pneumococcal disease (IPD) (CDC, 2003).

Among the 91.5 million US adults aged > 50 years, 29,500 cases of IPD, 502,600 cases of nonbacteremic pneumococcal pneumonia and 25,400 pneumococcal-related deaths are estimated to occur yearly; annual direct and indirect costs are estimated to total \$3.7 billion and \$1.8 billion, respectively. Pneumococcal disease remains a substantial burden among older US adults, despite increased coverage with 23-valent pneumococcal polysaccharide vaccine, (PPV23) and indirect benefits afforded by PCV7 vaccination of young children (Weycker, et al., 2011).

Vaccination has been found to be effective against bacteremic cases (OR: 0.34; 95% CI: 0.27–0.66) as well as nonbacteremic cases (OR: 0.58; 95% CI: 0.39–0.86). Vaccine effectiveness was highest against bacteremic infections caused by vaccine types (OR: 0.24; 95% CI: 0.09–0.66) (Vila-Corcoles, et al., 2009).

CLINICAL RECOMMENDATION STATEMENTS:

In 2014, the Advisory Committee on Immunization Practices (ACIP) began recommending a dose of 13-valent pneumococcal conjugate vaccine (PCV13) be followed by a dose of 23-valent pneumococcal polysaccharide vaccine (PPSV23) 6-12 months later in adults aged 65 and older who have not previously received a pneumococcal vaccination, and in persons over the age of two years who are considered to be at higher risk for pneumococcal disease due to an underlying condition. The two vaccines should not be coadministered and intervals for administration of the two vaccines vary slightly depending on the age, risk group, and history of vaccination (Kobayashi, 2015).

In 2015, ACIP updated its recommendation and changed the interval between PCV13 and PPSV23, from 6-12 months to at least one year for immunocompetent adults aged ≥ 65 years who have not previously received pneumococcal vaccine. For immunocompromised vaccine-naïve adults, the minimum acceptable interval between PCV13 and PPSV23 is 8 weeks. Both immunocompetent and immunocompromised adults aged ≥ 65 years who have previously received a dose of PPSV23 when over the age of 65 should receive a dose of PCV13 at least one year after PPSV23 (≥ 1 year). Immunocompetent and immunocompromised adults aged ≥ 65 who have previously received a dose of PPSV23 when under the age of 65, should also receive a dose of PCV13 at least one year after PPSV23 (≥ 1 year) and then another dose of PPSV23 at least one year after PCV13. It is recommended that for those that have this alternative three-dose schedule (2 PPSV23 and 1 PCV13), the three doses should be spread over a time period of five or more years (Kobayashi, 2015).

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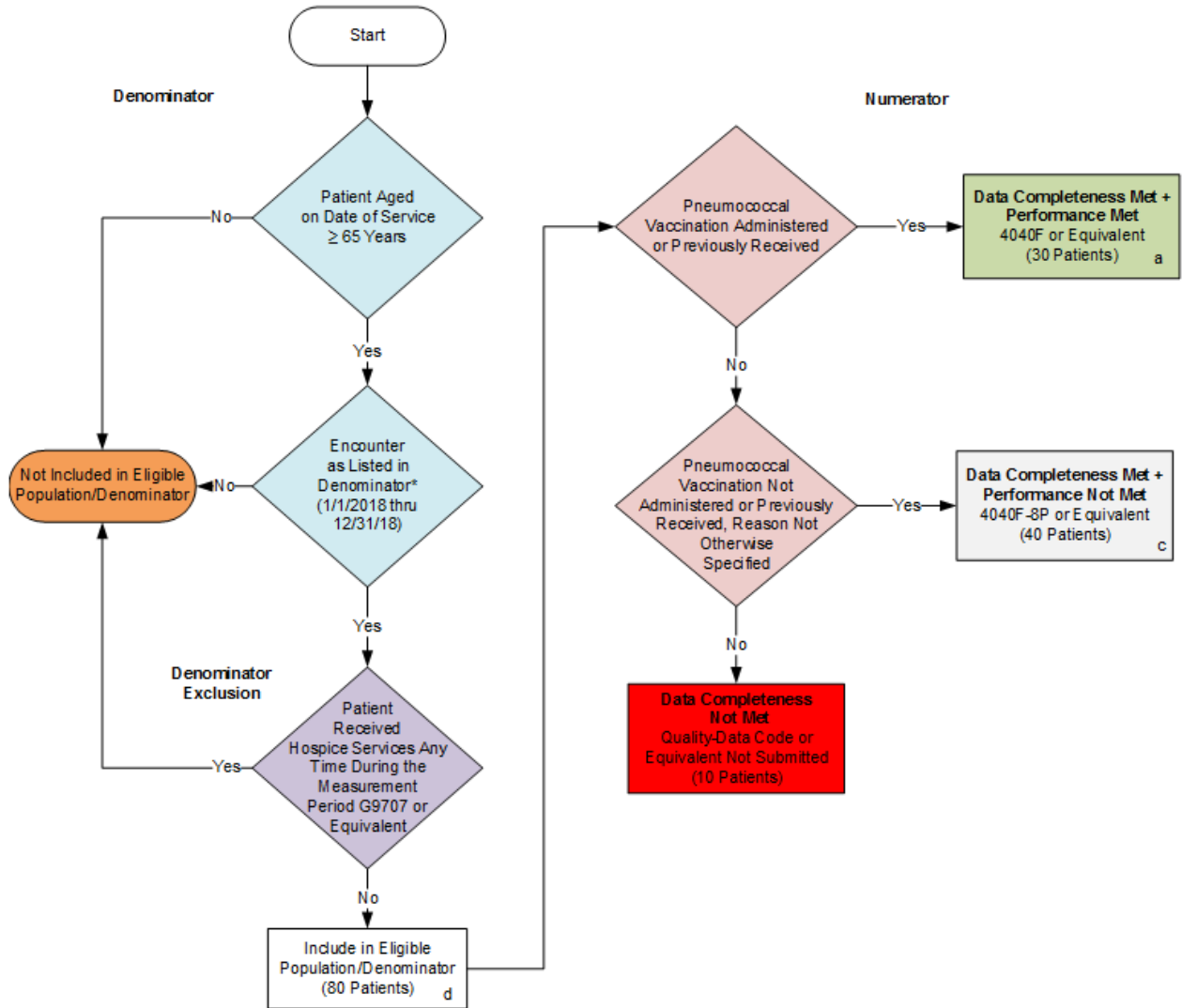
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**2018 Registry Flow for Quality ID #111 NQF #0043:
Pneumococcal Vaccination Status for Older Adults**



SAMPLE CALCULATIONS:

Data Completeness=

$$\frac{\text{Performance Met (a=30 patients) + Performance Not Met (c=40 patients)}}{\text{Eligible Population / Denominator (d=80 patients)}} = \frac{70 \text{ patients}}{80 \text{ patients}} = 87.50\%$$

Performance Rate=

$$\frac{\text{Performance Met (a=30 patients)}}{\text{Data Completeness Numerator (70 patients)}} = \frac{30 \text{ patients}}{70 \text{ patients}} = 42.86\%$$

* See the posted Measure Specification for specific coding and instructions to submit this measure.
 NOTE: Submission Frequency: Patient-process

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 The measure diagrams were developed by CMS as a supplemental resource to be used in conjunction with the measure specifications. They should not be used alone or as a substitution for the measure specification.

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**2018 Registry Flow For Quality ID
#111 NQF #0043: Pneumococcal Vaccination Status for Older Adults**

Please refer to the specific section of the specification to identify the denominator and numerator information for use in submitting this Individual Specification. This flow is for registry data submission.

1. Start with Denominator
2. Check Patient Age:
 - a. If the Age is greater than or equal to 65 years of age on Date of Service and equals No during the Measurement Period, do not include in Eligible Patient Population. Stop Processing.
 - b. If the Age is greater than or equal to 65 years of age on Date of Service and equals Yes during the Measurement Period, proceed to Check Encounter Performed.
3. Check Encounter Performed:
 - a. If Encounter as Listed in the Denominator equals No, do not include in Eligible Patient Population. Stop Processing.
 - b. If Encounter as Listed in the Denominator equals Yes, proceed to Check Patient Received Hospice Services Any Time During the Measurement Period.
4. Check Patient Received Hospice Services Any Time During the Measurement Period:
 - a. If Patient Received Hospice Services Any Time During the Measurement Period equals No, include in the Eligible Population.
 - b. If Patient Received Hospice Services Any Time During the Measurement Period equals Yes, do not include in Eligible Patient Population. Stop Processing.
5. Denominator Population:
 - a. Denominator Population is all Eligible Patients in the Denominator. Denominator is represented as Denominator in the Sample Calculation listed at the end of this document. Letter d equals 80 patients in the Sample Calculation.
6. Start Numerator
7. Check Pneumonia Vaccination Administered or Previously Received:
 - a. If Pneumonia Vaccination Administered or Previously Received equals Yes, include in Data Completeness Met and Performance Met.
 - b. Data Completeness Met and Performance Met letter is represented as Data Completeness and Performance Rate in the Sample Calculation listed at the end of this document. Letter a equals 30 patients in the Sample Calculation.
 - c. If Pneumonia Vaccination Administered or Previously Received equals No, proceed to Pneumonia Vaccination Not Administered or Previously Received, Reason Not Otherwise Specified.
8. Check Pneumonia Vaccination Not Administered or Previously Received, Reason Not Otherwise Specified:
 - a. If Pneumonia Vaccination Not Administered or Previously Received, Reason Not Otherwise Specified equals Yes, include in Data Completeness Met and Performance Not Met.

- b. Data Completeness Met and Performance Not Met letter is represented as Data Completeness in the Sample Calculation listed at the end of this document. Letter c equals 40 patients in the Sample Calculation.
 - c. If Pneumonia Vaccination Not Administered or Previously Received, Reason Not Otherwise Specified equals No, proceed to Data Completeness Not Met.
9. Check Data Completeness Not Met:
- a. If Data Completeness Not Met equals No, Quality Data Code or equivalent not submitted. 10 patients have been subtracted from the Data Completeness Numerator in the Sample Calculation.

SAMPLE CALCULATIONS:

Data Completeness=

$$\frac{\text{Performance Met (a=30 patients)} + \text{Performance Not Met (c=40 patients)}}{\text{Eligible Population / Denominator (d=80 patients)}} = \frac{70 \text{ patients}}{80 \text{ patients}} = 87.50\%$$

Performance Rate=

$$\frac{\text{Performance Met (a=30 patients)}}{\text{Data Completeness Numerator (70 patients)}} = \frac{30 \text{ patients}}{70 \text{ patients}} = 42.86\%$$