

**Quality ID #111: Pneumococcal Vaccination Status for Older Adults**  
– National Quality Strategy Domain: Community/Population Health  
– Meaningful Measure Area: Preventive Care

**2021 COLLECTION TYPE:**

**MIPS CLINICAL QUALITY MEASURES (CQMS)**

**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 Merit-based Incentive Payment System (MIPS) eligible clinicians who perform the quality actions described in the measure based on services provided and the measure-specific denominator coding.

**NOTE:** Patient encounters for this measure conducted via telehealth (e.g., encounters coded with GQ, GT, 95, or POS 02 modifiers) are allowable.

**Measure Submission Type:**

Measure data may be submitted by individual MIPS eligible clinicians, groups, or third party intermediaries. The listed denominator criteria are used to identify the intended patient population. The numerator options included in this specification are used to submit the quality actions as allowed by the measure. The quality-data codes listed do not need to be submitted by MIPS eligible clinicians, groups, or third party intermediaries that utilize this modality for submissions; however, these codes may be submitted for those third party intermediaries that utilize Medicare Part B claims data. For more information regarding Application Programming Interface (API), please refer to the Quality Payment Program (QPP) website.

**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 NOTE:** \*Signifies that this CPT Category I code is a non-covered service under the Medicare Part B Physician Fee Schedule (PFS). These non-covered services should be counted in the denominator population for MIPS CQMs.

**Denominator Criteria (Eligible Cases):**

Patients aged ≥ 65 years on date of encounter

**AND**

**Patient encounter during the performance period (CPT or HCPCS):** 99202, 99203, 99204, 99205, 99212, 99213, 99214, 99215, 99304, 99305, 99306, 99307, 99308, 99309, 99310, 99315, 99316, 99324, 99325, 99326, 99327, 99328, 99334, 99335, 99336, 99337, 99341, 99342, 99343, 99344, 99345, 99347, 99348, 99349, 99350, 99385\*, 99386\*, 99387\*, 99395\*, 99396\*, 99397\*, 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 before the end of the measurement period

***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. The major clinical syndromes of pneumococcal disease include pneumonia, bacteremia and meningitis, with pneumonia being the most common (Centers for Disease Control and Prevention [CDC], 2015a). Pneumonia symptoms generally include fever, chills, pleuritic chest pain, cough with sputum, dyspnea, tachypnea, hypoxia tachycardia, malaise and weakness. There is an estimated 400,000 cases of pneumonia in the U.S. each year and a 5 percent-7 percent mortality rate, although it may be higher among older adults and adults in nursing homes (CDC, 2015b; Janssens & Krause, 2004).

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).

Pneumococcal vaccines have been shown to be highly effective in preventing invasive pneumococcal disease. When comparing costs, outcomes and quality adjusted life years, immunization with the two recommended pneumococcal vaccines was found to be more economically efficient than no vaccination, with an incremental cost-effectiveness ratio of \$25,841 per quality-adjusted life year gained (Chen et al., 2014).

**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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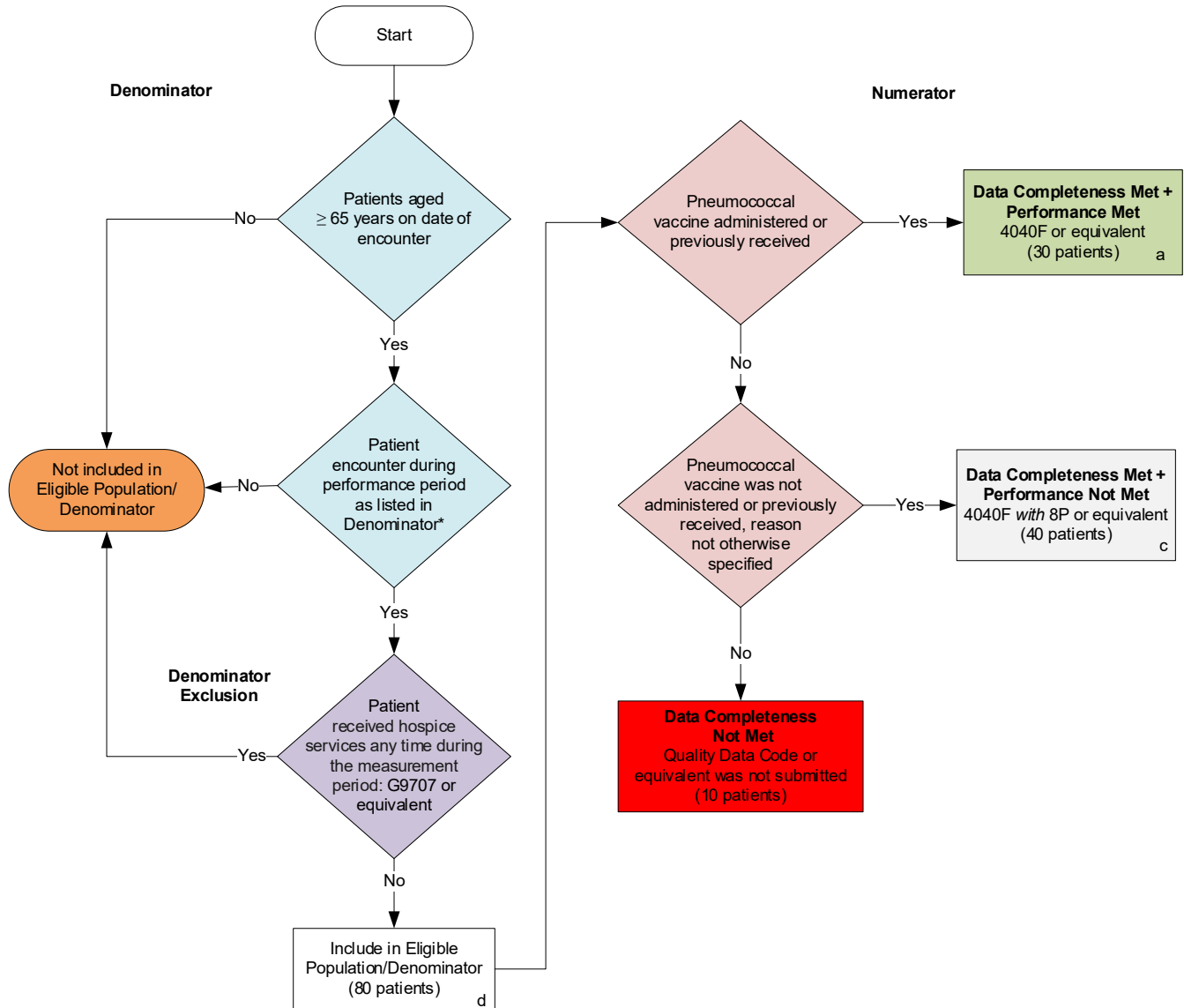
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## 2021 Clinical Quality Measure Flow for Quality ID #111: Pneumococcal Vaccination Status for Older Adults

*Disclaimer: Refer to the measure specification for specific coding and instructions to submit this measure.*



### 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=**

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

\* See the posted measure specification for specific coding and instructions to submit this measure.

NOTE: Submission Frequency: Patient-Process.

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v5

**2021 Clinical Quality Measure Flow Narrative for Quality ID #111:  
Pneumococcal Vaccination Status for Older Adults**

**Disclaimer:** Refer to the measure specification for specific coding and instructions to submit this measure.

1. Start with Denominator
2. Check *Patients aged greater than or equal to 65 years on date of encounter*:
  - a. If *Patients aged greater than or equal to 65 years on date of encounter* equals No, do not include in *Eligible Population/Denominator*. Stop processing.
  - b. If *Patients aged greater than or equal to 65 years on date of encounter* equals Yes, proceed to check *Patient encounter during performance period as listed in Denominator\**.
3. Check *Patient encounter during performance period as listed in Denominator\**:
  - a. If *Patient encounter during performance period as listed in Denominator\** equals No, do not include in *Eligible Population/Denominator*. Stop processing.
  - b. If *Patient encounter during the performance period as listed in Denominator\** equals Yes, 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 Yes, do not include in *Eligible Population/Denominator*. Stop processing.
  - b. If *Patient received hospice services any time during the measurement period* equals No, include in *Eligible Population/Denominator*.
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 *Pneumococcal vaccine administered or previously received*:
  - a. If *Pneumococcal vaccine administered or previously received* equals Yes, include in *Data Completeness Met and Performance Met*.
    - *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.
  - b. If *Pneumococcal vaccine administered or previously received* equals No, proceed to check *Pneumococcal vaccine was not administered or previously received, reason not otherwise specified*.
8. Check *Pneumococcal vaccine was not administered or previously received, reason not otherwise specified*:
  - a. If *Pneumococcal vaccine was not administered or previously received, reason not otherwise specified* equals Yes, include in *Data Completeness Met and Performance Not Met*.

- *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.
- b. If *Pneumococcal vaccine was not administered or previously received, reason not otherwise specified* equals No, proceed to check *Data Completeness Not Met*.
9. Check *Data Completeness Not Met*:
- a. If *Data Completeness Not Met*, the Quality Data Code was not submitted. 10 patients have been subtracted from the Data Completeness Numerator in the Sample Calculation.

**Sample Calculations:**

Data Completeness equals Performance Met (a equals 30 patients) plus Performance Not Met (c equals 40 patients) divided by Eligible Population/Denominator (d equals 80 patients). All equals 70 patients divided by 80 patients. All equals 87.50 percent.

Performance Rate equals Performance Met (a equals 30 patients) divided by Data Completeness Numerator (70 patients). All equals 30 patients divided by 70 patients. All equals 42.86 percent.

\*See the posted measure specification for specific coding and instructions to submit this measure.

NOTE: Submission Frequency: Patient-process

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.