Quality ID #111: Pneumococcal Vaccination Status for Older Adults

2023 COLLECTION TYPE:
MIPS CLINICAL QUALITY MEASURES (CQMS) – MIPS VALUE PATHWAYS (MVP) REPORTING ONLY

MEASURE TYPE:
Process

DESCRIPTION:
Percentage of patients 66 years of age and older who have 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. This measure specification is only available for MIPS Value Pathways (MVP) reporting and is not available for traditional MIPS reporting.*

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 66 years of age and older with a visit during the measurement period.

Definitions:

Active Chemotherapy during the Measurement Period (Denominator Exclusion) --
The following codes would be sufficient to define the Denominator Exclusion of "Active Chemotherapy":

- Chemotherapy Encounter (ICD-10-CM): Z51.0, Z51.11, Z51.12
- Chemotherapy Procedure (CPT or HCPCS): 96401, 96402, 96405, 96406, 96409, 96413, 96416, 96420, 96422, 96425, 96440, 96450, 96521, 96522, 96523, 96542, 96549

Bone Marrow Transplant during the Measurement Period (Denominator Exclusion) --
The following codes would be sufficient to define the Denominator Exclusion of "Bone Marrow Transplant" (ICD-10-PCS): 30233AZ, 30233G0, 30233G2, 30233G3, 30233G4, 30233X0, 30233X2, 30233X3, 30233X4, 30233Y0, 30233Y2, 30233Y3, 30233Y4, 30243AZ, 30243G0, 30243G2, 30243G3, 30243G4, 30243X0, 30243X2, 30243X3, 30243X4, 30243Y0, 30243Y2, 30243Y3, 30243Y4

History of Immunocompromising Conditions, Cochlear Implants, Anatomic or Functional Asplenia, Sickle Cell Anemia & HB-S Disease or Cerebrospinal Fluid Leaks Any Time during the Patient's History prior to or during the Measurement Period (Denominator Exclusion) –
The following codes would be sufficient to define the Denominator Exclusion of "History of Immunocompromising

Conditions":

- Anatomic or Functional Asplenia (ICD-10-CM): Q89.01
- Cerebrospinal Fluid Leak (ICD-10-CM): G96.0, G96.00, G96.01, G96.02, G96.08, G96.09, G97.0
- Cochlear Implant (CPT): 69930
- Cochlear Implant Device (HCPCS): L8614, L8619, L8627, L8628
- Cochlear Implant Diagnosis (ICD-10-CM): Z96.20, Z96.21
- Immunocompromising Conditions (ICD-10-CM): B20, B59, B97.35, C80.2, C88.8, C94.40, C94.41, C94.42, C94.6, D46.22, D47.1, D47.9, D47.Z1, D47.Z9, D61.09, D61.810, D61.811, D61.818, D70.0, D70.1, D70.2, D70.4, D70.8, D70.9, D71, D72.0, D72.810, D72.818, D72.819, D73.81, D75.81, D76.1, D76.2, D76.3, D80.0, D80.1, D80.2, D80.3, D80.4, D80.5, D80.6, D80.7, D80.8, D80.9, D81.0, D81.1, D81.2, D81.4, D81.6, D81.7, D81.89, D81.9, D82.0, D82.1, D82.2, D82.3, D82.4, D82.8, D82.9, D83.0, D83.1, D83.2, D83.8, D83.9, D84.0, D84.1, D84.8, D84.81, D84.821, D84.822, D84.89, D84.9, D89.3, D89.810, D89.811, D89.812, D89.813, D89.82, D89.89, D89.9, E40, E41, E42, E43, I12.0, I13.11, I13.2, K91.2, M35.9, N18.5, N18.6, T86.00, T86.01, T86.02, T86.03, T86.09, T86.10, T86.11, T86.12, T86.13, T86.19, T86.20, T86.21, T86.22, T86.23, T86.290, T86.298, T86.30, T86.31, T86.32, T86.33, T86.39, T86.40, T86.41, T86.42, T86.43, T86.49, T86.5, T86.810, T86.811, T86.812, T86.818, T86.819, T86.830, T86.831, T86.832, T86.838, T86.839, T86.850, T86.851, T86.852, T86.858, T86.859, T86.890, T86.891, T86.892, T86.898, T86.899, T86.90, T86.91, T86.92, T86.93, T86.99, Z21, Z48.21, Z48.22, Z48.23, Z48.24, Z48.280, Z48.290, Z48.298, Z49.01, Z49.02, Z49.31, Z94.0, Z94.1, Z94.2, Z94.3, Z94.4, Z94.81, Z94.82, Z94.83, Z94.84, Z94.89, Z99.2
- Sickle Cell Anemia and HB-S Disease (ICD-10-CM): D57.00, D57.01, D57.02, D57.1, D57.20, D57.211, D57.212, D57.219, D57.40, D57.411, D57.412, D57.419, D57.80, D57.811, D57.812, D57.819

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 ≥ 66 years on date of encounter
AND
Patient encounter during the performance period (CPT or HCPCS): 90945, 90947, 90960, 90961, 90962, 90966, 90970, 99202, 99203, 99204, 99205, 99212, 99213, 99214, 99215, 99242*, 99243*, 99244*, 99245*, 99304, 99305, 99306, 99307, 99308, 99309, 99310, 99315, 99316, 99341, 99342, 99344, 99345, 99347, 99348, 99349, 99350, 99387*, 99397*, 99401*, 99402*, 99403*, 99404*, 99411*, 99412*, 99429*, 99512*, G0438, G0439
AND NOT
DENOMINATOR EXCLUSIONS:
Patient had anaphylaxis due to the pneumococcal vaccine any time during or before the measurement period: M1155
OR
Patient received hospice services any time during the measurement period: G9707
OR
Patient received active chemotherapy any time during the measurement period: M1156
OR
Patient received bone marrow transplant any time during the measurement period: M1157
OR
Patient had history of immunocompromising conditions prior to or during the measurement period: M1158

NUMERATOR:
Patients who were administered any pneumococcal conjugate vaccine or polysaccharide vaccine on or after their 60th birthday and before the end of the measurement period

NUMERATOR NOTE: *The measure provides credit for adults 66 years of age and older who have received any pneumococcal vaccine on or after the patient's 60th birthday.*

Patient reported vaccine receipt, when recorded in the medical record, is acceptable for meeting the numerator.

Numerator Options:

Performance Met:	Patient received any pneumococcal conjugate or polysaccharide vaccine on or after their 60th birthday and before the end of the measurement period **(G9991)**
OR	
Performance Not Met:	Patient did not receive any pneumococcal conjugate or polysaccharide vaccine on or after their 60th birthday and before the end of the measurement period **(G9990)**

RATIONALE:

Pneumococcal disease is a common cause of illness and death in older adults and in persons with certain underlying conditions. The major clinical syndromes of pneumococcal disease include pneumonia, bacteremia and meningitis, with pneumonia being the most common (CDC 2015a). Pneumonia symptoms generally include fever, chills, pleuritic chest pain, cough with sputum, dyspnea, tachypnea, hypoxia tachycardia, malaise and weakness. There are an estimated 400,000 cases of pneumonia in the U.S. each year and a 5%–7% mortality rate, although it may be higher among older adults and adults in nursing homes (CDC 2015b; Janssens and Krause 2004).

Pneumococcal infections result in significant health care costs each year. Geriatric patients with pneumonia require hospitalization in nearly 90 percent of cases, and their average length of stay is twice that of younger adults (Janssens and Krause 2004). Pneumonia in the older adult population is associated with high acute-care costs and an overall impact on total direct medical costs and mortality during and after an acute episode (Thomas et al. 2012). Total medical costs for Medicare beneficiaries during and one year following a hospitalization for pneumonia were found to be $15,682 higher than matched beneficiaries without pneumonia (Thomas et al. 2012). It was estimated that in 2010, the total annual excess cost of hospital-treated pneumonia in the fee-for-service Medicare population was approximately $7 billion (Thomas et al. 2012).

Pneumococcal vaccines have been shown to be highly effective in preventing invasive pneumococcal disease. Studies show that at least one dose of pneumococcal polysaccharide vaccine protects between 50-85 in 100 healthy adults against invasive pneumococcal disease (CDC 2019). When comparing costs, outcomes and quality adjusted life years, immunization with 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:

Adults aged >=65 years who have not previously received PCV or whose previous vaccination history is unknown should receive 1 dose of PCV (either PCV20 or PCV15). Adults aged 19–64 years with certain underlying medical conditions or other risk factors who have not previously received PCV or whose previous vaccination history is unknown should receive 1 dose of PCV (either PCV20 or PCV15).

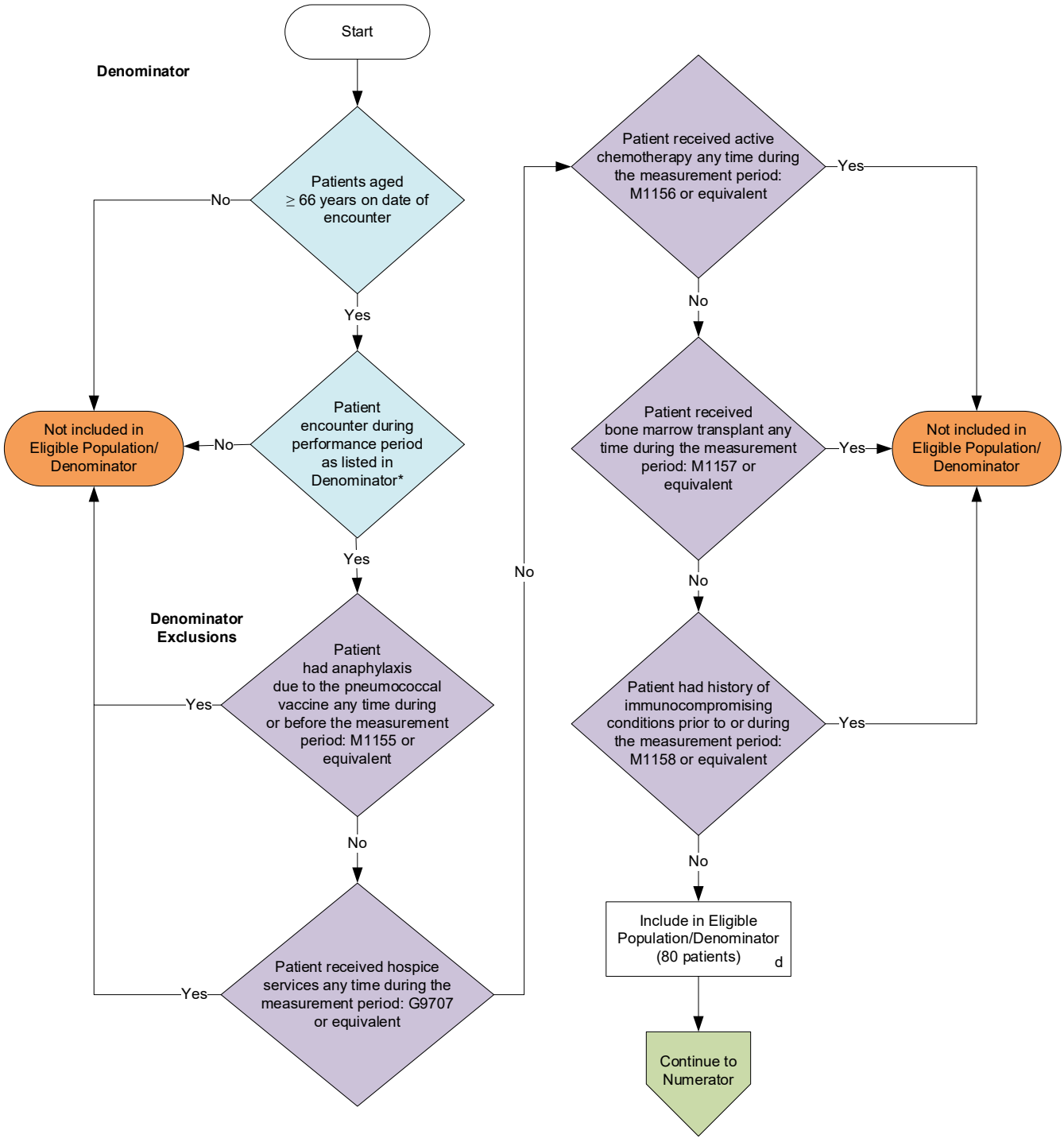
Dosing schedule for PCV15: When PCV15 is used, it should be followed by a dose of PPSV23. The recommended interval between administration of PCV15 and PPSV23 is >=1 year. A minimum interval of 8 weeks can be considered for adults with an immunocompromising condition, cochlear implant, or cerebrospinal fluid leak to minimize the risk for IPD caused by serotypes unique to PPSV23 in these vulnerable groups.

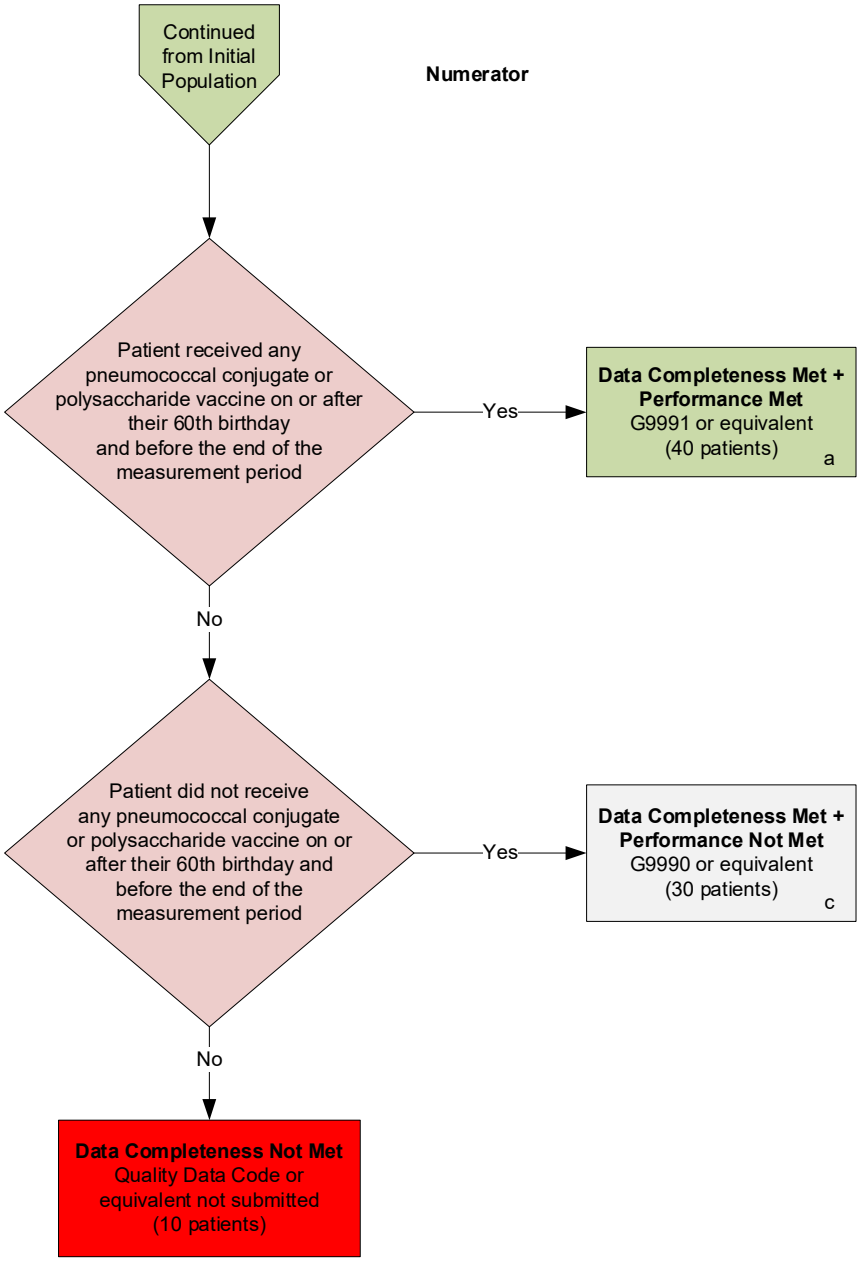
Adults with previous PPSV23 only: Adults who have only received PPSV23 may receive a PCV (either PCV20 or PCV15) >=1 year after their last PPSV23 dose. When PCV15 is used in those with history of PPSV23 receipt, it need not be followed by another dose of PPSV23.

Adults with previous PCV13: The incremental public health benefits of providing PCV15 or PCV20 to adults who have received PCV13 only or both PCV13 and PPSV23 have not been evaluated. These adults should complete the previously recommended PPSV23 series (Kobayashi et al., 2022).Kobayashi M, Farrar JL, Gierke R, et al. Use of 15-Valent Pneumococcal Conjugate Vaccine and 20-Valent Pneumococcal Conjugate Vaccine Among U.S. Adults: Updated Recommendations of the Advisory Committee on Immunization Practices — United States, 2022. MMWR Morb Mortal Wkly Rep 2022;71:109–117. DOI: http://dx.doi.org/10.15585/mmwr.mm7104a1external icon

2023 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=
Performance Met (a=40 patients) + Performance Not Met (c=30 patients) = 70 patients = **87.50%**
Eligible Population / Denominator (d=80 patients) = 80 patients

Performance Rate=
Performance Met (a=40 patients) = 40 patients = **57.14%**
Data Completeness Numerator (70 patients) = 70 patients

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

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2023 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 66 years on date of encounter*:
    a. If *Patients aged greater than or equal to 66 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 66 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, proceed to check *Patient had anaphylaxis due to the pneumococcal vaccine any time during or before the measurement period*.
4. Check *Patient had anaphylaxis due to the pneumococcal vaccine any time during or before the measurement period*:
    a. If *Patient had anaphylaxis due to the pneumococcal vaccine any time during or before the measurement period* equals Yes, do not include in *Eligible Population/Denominator*. Stop processing.
    b. If *Patient had anaphylaxis due to the pneumococcal vaccine any time during or before the measurement period* equals No, proceed to check *Patient received hospice services any time during the measurement period*.
5. 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, proceed to check *Patient received active chemotherapy any time during the measurement period*.
6. Check *Patient received active chemotherapy any time during the measurement period*:
    a. If *Patient received active chemotherapy any time during the measurement period* equals Yes, do not include in *Eligible Population/Denominator*. Stop processing.
    b. If *Patient received active chemotherapy any time during the measurement period* equals No, proceed to check *Patients received bone marrow transplant any time during the measurement period*.
7. Check *Patients received bone marrow transplant any time during the measurement period*:
    a. If *Patients received bone marrow transplant any time during the measurement period* equals Yes, do not include in *Eligible Population/Denominator*. Stop processing.
    b. If *Patients received bone marrow transplant any time during the measurement period* equals No, proceed to

check *Patient had history of immunocompromising conditions prior to or during the measurement period*.

8. Check *Patient had history of immunocompromising conditions prior to or during the measurement period*:

    a. If *Patient had history of immunocompromising conditions prior to or during the measurement period* equals Yes, do not include in *Eligible Population/Denominator*. Stop processing.

    b. If *Patient had history of immunocompromising conditions prior to or during the measurement period* equals No, include in *Eligible Population/Denominator*.

9. 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.

10. Start Numerator

11. Check *Patient received any pneumococcal conjugate or polysaccharide vaccine on or after their 60th birthday and before the end of the measurement period*:

    a. If *Patient received any pneumococcal conjugate or polysaccharide vaccine on or after their 60th birthday and before the end of the measurement period* 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 40 patients in the Sample Calculation.

    b. If *Patient received any pneumococcal conjugate or polysaccharide vaccine on or after their 60th birthday and before the end of the measurement period* equals No, proceed to check *Patient did not receive any pneumococcal conjugate or polysaccharide vaccine on or after their 60th birthday and before the end of the measurement period*.

12. Check *Patient did not receive any pneumococcal conjugate or polysaccharide vaccine on or after their 60th birthday and before the end of the measurement period*:

    a. If *Patient did not receive any pneumococcal conjugate or polysaccharide vaccine on or after their 60th birthday and before the end of the measurement period* 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 30 patients in the Sample Calculation.

    b. If *Patient did not receive any pneumococcal conjugate or polysaccharide vaccine on or after their 60th birthday and before the end of the measurement period* equals No, proceed to check *Data Completeness Not Met.*

13. 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 40 patients) plus Performance Not Met (c equals 30 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 40 patients) divided by Data Completeness Numerator (70 patients). All equals 40 patients divided by 70 patients. All equals 57.14 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.