Quality ID #394: Immunizations for Adolescents

2025 COLLECTION TYPE:
MIPS CLINICAL QUALITY MEASURES (CQMS)

MEASURE TYPE:
Process

DESCRIPTION:
The percentage of adolescents 13 years of age who had one dose of meningococcal vaccine (serogroups A, C, W, Y), one tetanus, diphtheria toxoids and acellular pertussis (Tdap) vaccine, and have completed the Human Papillomavirus (HPV) vaccine series by their 13th birthday.

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.

This measure will be calculated with 4 performance rates:

1) Patients who had one dose of meningococcal vaccine (serogroups A, C, W, Y), on or between the patient's 11th and 13th birthdays
2) Patients who had one tetanus, diphtheria toxoids and acellular pertussis vaccine (Tdap) on or between the patient's 10th and 13th birthdays
3) Patients who have completed the HPV vaccine series with different dates of service on or between the patient's 9th and 13th birthdays
4) All patients who are compliant for Meningococcal (serogroups A, C, W, Y), Tdap and HPV during the specified timeframes

For accountability reporting in the CMS MIPS program, the rate for Submission Criteria 4 is used for performance.

NOTE: Patient encounters for this measure conducted via telehealth (including but not limited to encounters coded with GQ, GT, POS 02, POS 10) are allowable. Please note that effective January 1, 2025, while a measure may be denoted as telehealth eligible, specific denominator codes within the encounter may no longer be eligible due to changes outlined in the CY 2024 PFS Final Rule List of Medicare Telehealth Services.

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 (SUBMISSION CRITERIA FOR ALL RATES):
Adolescents who turn 13 years of age during the measurement period

DENOMINATOR NOTE: The same denominator is used for all rates.

Denominator Criteria (Eligible Cases):

Patients who turn 13 years of age during the measurement period
AND
Patient encounter during the performance period (CPT or HCPCS): 98000, 98001, 98002, 98003, 98004, 98005, 98006, 98007, 98008, 98009, 98010, 98011, 98012, 98013, 98014, 98015, 98016, 99202, 99203, 99204, 99205, 99211, 99212, 99213, 99214, 99215, 99341, 99342, 99344, 99345, 99347, 99348, 99349, 99350, G0402
AND NOT
DENOMINATOR EXCLUSION:
Patients who use hospice services any time during the measurement period: G9761

NUMERATOR (SUBMISSION CRITERIA 1):
Adolescents who had one dose of meningococcal vaccine (serogroups A, C, W, Y), on or between the patient's 11th and 13th birthdays

Numerator Options:

Performance Met:	Patient had one dose of meningococcal vaccine (serogroups A, C, W, Y) on or between the patient's 11th and 13th birthdays (G9414)
OR	
Denominator Exception:	Patient had anaphylaxis due to the meningococcal vaccine any time on or before the patient's 13th birthday (M1160)
OR	
Performance Not Met:	Patient did not have one dose of meningococcal vaccine (serogroups A, C, W, Y), on or between the patient's 11th and 13th birthdays (G9415)

NUMERATOR (SUBMISSION CRITERIA 2):
Adolescents who had one tetanus, diphtheria toxoids and acellular pertussis vaccine (Tdap) on or between the patient's 10th and 13th birthdays

Numerator Options:

Performance Met:	Patient had one tetanus, diphtheria toxoids and acellular pertussis vaccine (Tdap) on or between the patient's 10th and 13th birthdays (G9416)
OR	
Denominator Exception:	Patient had anaphylaxis due to the tetanus, diphtheria or pertussis vaccine any time on or before the patient's 13th birthday (M1161)
OR	
Denominator Exception:	Patient had encephalitis due to the tetanus, diphtheria or pertussis vaccine any time on or before the patient's 13th birthday (M1162)
OR	
Performance Not Met:	Patient did not have one tetanus, diphtheria toxoids and acellular pertussis vaccine (Tdap) on or between the patient's 10th and 13th birthdays (G9417)

NUMERATOR (SUBMISSION CRITERIA 3):
Adolescents who completed the HPV vaccine series on or between the patient's 9th and 13th birthdays

Numerator Options:

	Performance Met:	Patient had at least two HPV vaccines (with at least 146 days between the two) OR three HPV vaccines on or between the patient's 9th and 13th birthdays (G9762)
OR		
	Denominator Exception:	Patient had anaphylaxis due to the HPV vaccine any time on or before the patient's 13th birthday (M1163)
OR		
	Performance Not Met:	Patient did not have at least two HPV vaccines (with at least 146 days between the two) OR three HPV vaccines on or between the patient's 9th and 13th birthdays (G9763)

NUMERATOR (SUBMISSION CRITERIA 4):
Adolescents who are numerator compliant for Rates 1, 2 and 3

RATIONALE:
Vaccines are a safe and effective way to protect adolescents against potential deadly diseases, including meningococcal meningitis, pertussis (whooping cough) and human papillomavirus. These are serious diseases that can cause breathing difficulties, heart problems, nerve damage, pneumonia, seizures and cancer. Adolescent vaccinations also help protect against disease in populations that lack immunity, such as infants, the elderly and individuals with chronic conditions (National Foundation for Infectious Diseases, 2023). This measure follows the Centers for Disease Control and Prevention (CDC) Advisory Committee on Immunization Practices (ACIP) guidelines for immunizations (Meites, Kempe, Markowitz, 2016; Liang et al., 2018; Mbaeyi et al., 2020).

References:
National Foundation for Infectious Diseases. AdolescentVaccination.org. 2013. 10 Reasons to be Vaccinated. http://adolescentvaccination.org/10-reasons

Meites, E., A. Kempe, L.E. Markowitz. 2016. "Use of a 2-Dose Schedule for Human Papillomavirus Vaccination—Updated Recommendations of the Advisory Committee on Immunization Practices." MMWR Morb Mortal Wkly Rep 65:1405–08. DOI: http://dx.doi.org/10.15585/mmwr.mm6549a5.

Liang, J.L., Tiwari, T., Moro, P., Messonnier, N.E., Reingold, A., Sawyer, M., Clark, T.A. 2018. "Prevention of Pertussis, Tetanus, and Diphtheria with Vaccines in the United States: Recommendations of the Advisory Committee on Immunization Practices (ACIP)." MMWR Recomm Rep 67(2):1-44. https://doi.org/10.15585/mmwr.rr6702a1

Mbaeyi, S.A., Bozio, C.H., Duffy, J., et al. 2020. "Meningococcal Vaccination: Recommendations of the Advisory Committee on Immunization Practices, United States, 2020." MMWR Recomm Rep69(RR-9): 1-41. http://dx.doi.org/10.15585/mmwr.rr6909a1

CLINICAL RECOMMENDATION STATEMENTS:
The Advisory Committee on Immunization Practices (ACIP) recommends routine HPV vaccination for adolescents at age 11 or 12 years; vaccination may be given starting at age 9 years. In a two-dose schedule of HPV vaccine, the minimum interval between the first and second doses is 5 months. Persons who initiated vaccination with 9vHPV, 4vHPV or 2vHPV before their 15th birthday and received 2 doses of any HPV vaccine at the recommended dosing schedule (0, 6–12 months), or received three doses of any HPV vaccine at the recommended dosing schedule (0, 1–2, 6 months), are considered adequately vaccinated (Meites, Kempe, and Markowitz 2016).

ACIP recommends a single dose of vaccine be administered at age 11 or 12 years (Liang et al. 2018).

ACIP recommends routine vaccination with a quadrivalent meningococcal conjugate vaccine for adolescents aged 11 or 12 years, with a booster dose at age 16 years (Mbaeyi et al. 2020).

References:

Meites, E., A. Kempe, L.E. Markowitz. 2016. “Use of a 2-Dose Schedule for Human Papillomavirus Vaccination—Updated Recommendations of the Advisory Committee on Immunization Practices.” MMWR Morb Mortal Wkly Rep 65:1405–08. DOI: 10.15585/mmwr.mm6549a5.

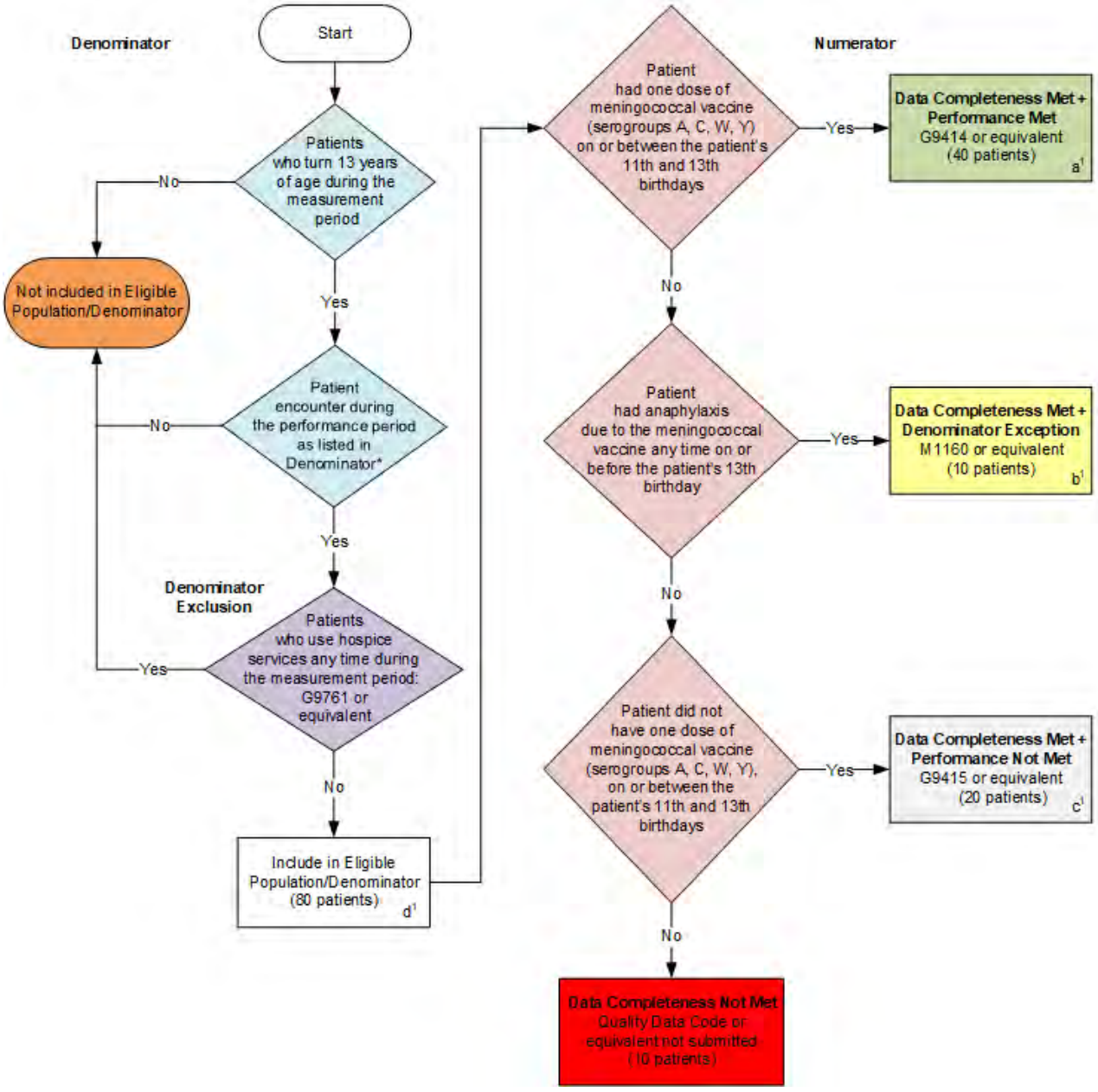
Liang, J.L., T. Tiwari, P. Moro, N.E. Messonnier, A. Reingold, M. Sawyer, T.A. Clark. 2018. “Prevention of Pertussis, Tetanus, and Diphtheria with Vaccines in the United States: Recommendations of the Advisory Committee on Immunization Practices (ACIP).” MMWR Morb Mortal Wkly Rep 67(2):1–44. DOI: 10.15585/mmwr.rr6702a1.

Mbaeyi, S.A., C.H. Bozio, J. Duffy, et al. 2020. “Meningococcal Vaccination: Recommendations of the Advisory Committee on Immunization Practices, United States, 2020.” MMWR Recomm Rep 69(No. RR-9):1–41. DOI: http://dx.doi.org/10.15585/mmwr.rr6909a1.

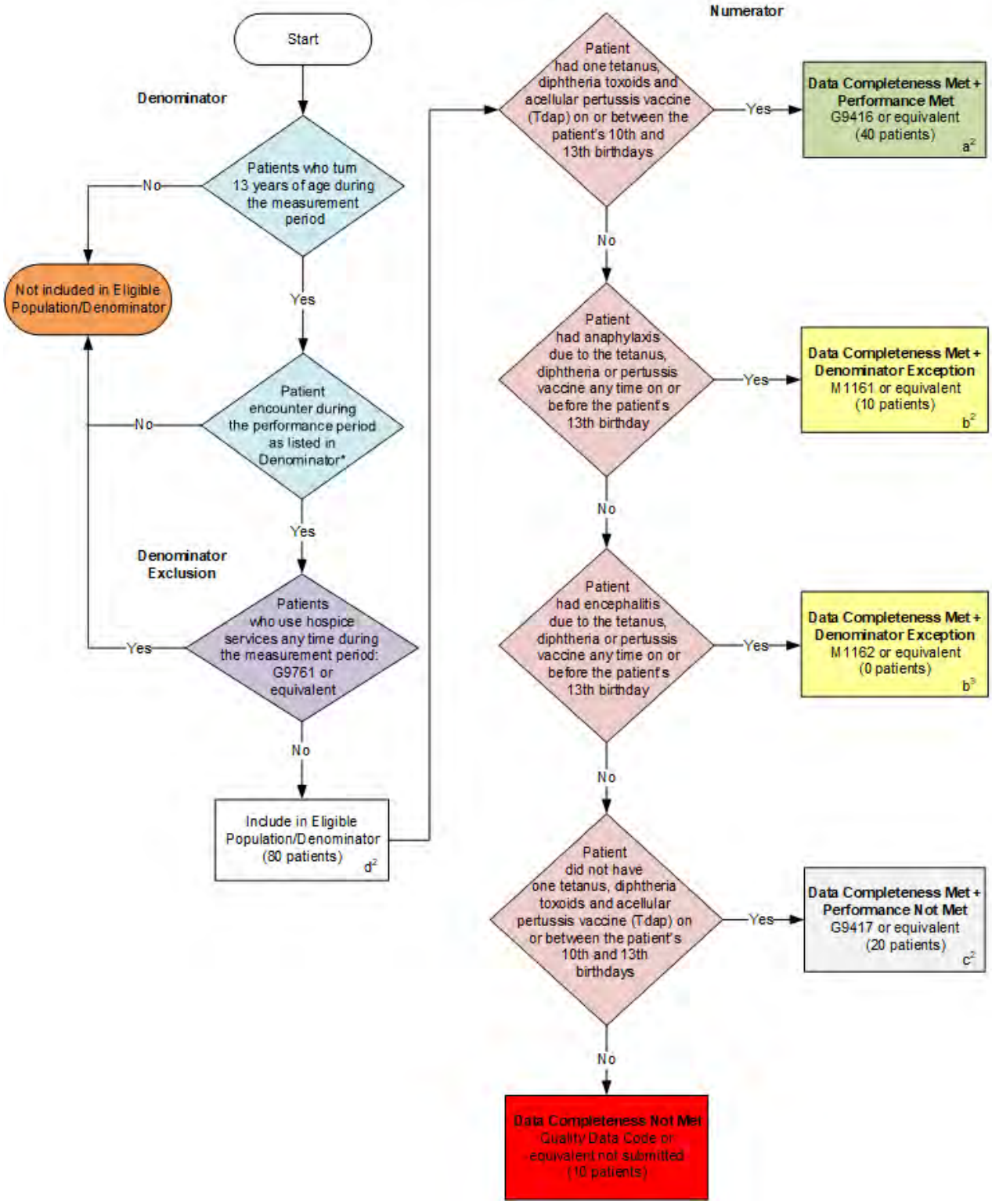
2025 Clinical Quality Measure Flow for Quality ID #394: Immunizations for Adolescents Submission Criteria One

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

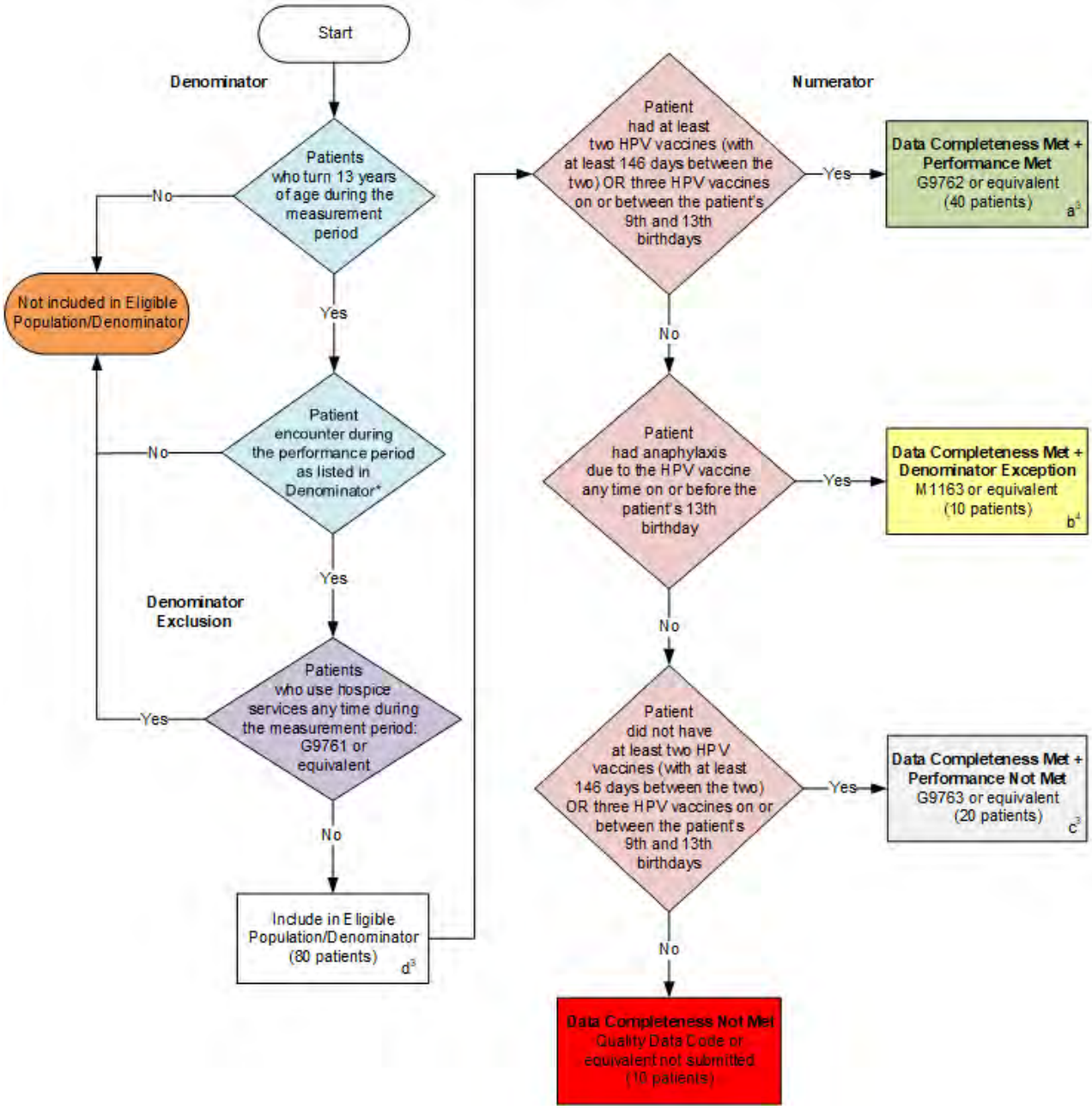
Multiple Performance Rates



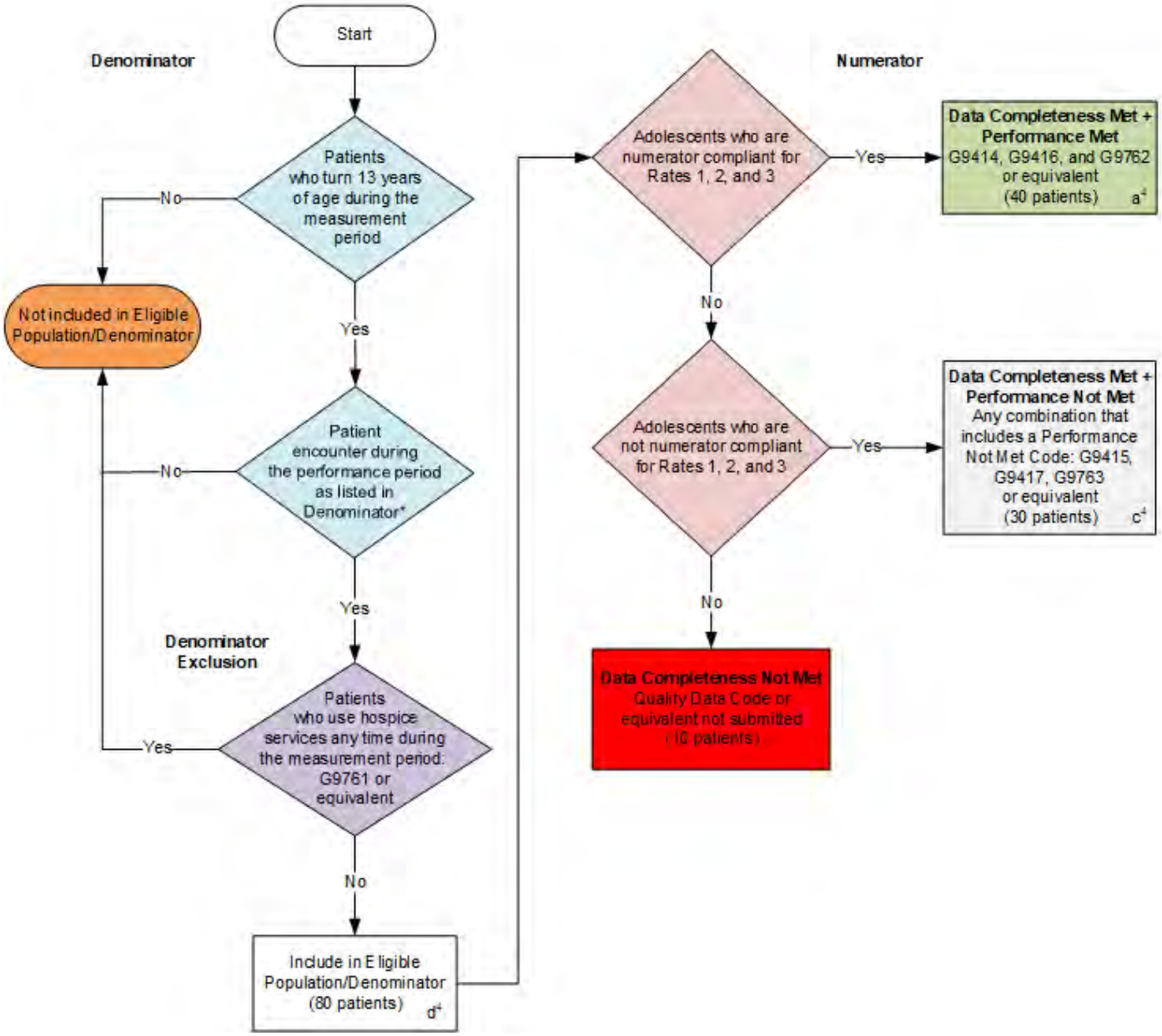
Submission Criteria Two



Submission Criteria Three



Submission Criteria Four



SAMPLE CALCULATIONS: SUBMISSION CRITERIA ONE

Data Completeness=

Performance Met (a^1=40 patients) + Denominator Exception (b^1=10 patients) + Performance Not Met (c^1=20 patients) / Eligible Population / Denominator (d^1=80 patients) = 70 patients / 80 patients = **87.50%**

Performance Rate=

Performance Met (a^1=40 patients) / Data Completeness Numerator (70 patients) – Denominator Exception (b^1=10 patients) = 40 patients / 60 patients = **66.67%**

SAMPLE CALCULATIONS: SUBMISSION CRITERIA TWO

Data Completeness=

Performance Met (a^2=40 patients) + Denominator Exceptions (b^2+b^3=10 patients) + Performance Not Met (c^2=20 patients) / Eligible Population / Denominator (d^2=80 patients) = 70 patients / 80 patients = **87.50%**

Performance Rate=

Performance Met (a^2=40 patients) / Data Completeness Numerator (70 patients) – Denominator Exceptions (b^2+b^3=10 patients) = 40 patients / 60 patients = **66.67%**

SAMPLE CALCULATIONS: SUBMISSION CRITERIA THREE

Data Completeness=

Performance Met (a^3=40 patients) + Denominator Exception (b^4=10 patients) + Performance Not Met (c^3=20 patients) / Eligible Population / Denominator (d^3=80 patients) = 70 patients / 80 patients = **87.50%**

Performance Rate=

Performance Met (a^3=40 patients) / Data Completeness Numerator (70 patients) – Denominator Exception (b^4=10 patients) = 40 patients / 60 patients = **66.67%**

SAMPLE CALCULATIONS: SUBMISSION CRITERIA FOUR

Data Completeness=

Performance Met (a^4=40 patients) + Performance Not Met (c^4=30 patients) / Eligible Population / Denominator (d^4=80 patients) = 70 patients / 80 patients = **87.50%**

Performance Rate=

Performance Met (a^4=40 patients) / Data Completeness Numerator (70 patients) = 60 patients / 70 patients = **85.71%**

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

NOTE : Submission Frequency: Patient-Process

2025 Clinical Quality Measure Flow Narrative for Quality ID #394: Immunization for Adolescents

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

Multiple Performance Rates

Submission Criteria One:

1. Start with Denominator
2. Check *Patients who turn 13 years of age during the measurement period*:
    a. If *Patients who turn 13 years of age during the measurement period* equals No, do not include in *Eligible Population/Denominator*. Stop processing.
    b. If *Patients who turn 13 years of age during the measurement period* equals Yes, proceed to check *Patient encounter during the performance period as listed in Denominator**.
3. Check *Patient encounter during the performance period as listed in Denominator**:
    a. If *Patient encounter during the 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 *Patients who use hospice services any time during the measurement period*.
4. Check *Patients who use hospice services any time during the measurement period*:
    a. If *Patients who use hospice services any time during the measurement period* equals Yes, do not include in *Eligible Population/Denominator*. Stop processing.
    b. If *Patients who use hospice services any time during the measurement period* equals No, include in *Eligible Population/Denominator*.
5. Denominator Population:
    - 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^1 equals 80 patients in the Sample Calculation.
6. Start Numerator
7. Check *Patient had one dose of meningococcal vaccine (serogroups A, C, W, Y) on or between the patient's 11th and 13th birthdays*:
    a. If *Patient had one dose of meningococcal vaccine (serogroups A, C, W, Y) on or between the patient's 11th and 13th birthdays* 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^1 equals 50 patients in the Sample Calculation.
    b. If *Patient had one dose of meningococcal vaccine (serogroups A, C, W, Y) on or between the patient's 11th and 13th birthdays* equals No, proceed to check *Patient had anaphylaxis due to the meningococcal vaccine any time on or before the patient's 13th birthday*.

8. Check *Patient had anaphylaxis due to the meningococcal vaccine any time on or before the patient's 13th birthday*:

    a. If *Patient had anaphylaxis due to the meningococcal vaccine any time on or before the patient's 13th birthday* equals Yes, include in *Data Completeness Met and Denominator Exception*.

        - *Data Completeness Met and Denominator Exception* letter is represented as Data Completeness and Performance Rate in the Sample Calculation listed at the end of this document. Letter b^1 equals 10 patients in the Sample Calculation.

    b. If *Patient had anaphylaxis due to the meningococcal vaccine any time on or before the patient's 13th birthday* equals No, proceed to check *Patient did not have one dose of meningococcal vaccine (serogroups A, C, W, Y) on or between the patient's 11th and 13th birthdays*.

9. Check *Patient did not have one dose of meningococcal vaccine (serogroups A, C, W, Y) on or between the patient's 11th and 13th birthdays*:

    a. If *Patient did not have one dose of meningococcal vaccine (serogroups A, C, W, Y) on or between the patient's 11th and 13th birthdays* equals Yes, include in the *Data Completeness Met and Performance Not Met*.

        - *Data Completeness Met and Performance Not Met* letter is represented as Data Completeness Rate in the Sample Calculation listed at the end of this document. Letter c^1 equals 10 patients in the Sample Calculation.

    b. If *Patient did not have one dose of meningococcal vaccine (serogroups A, C, W, Y) on or between the patient's 11th and 13th birthdays* equals No, proceed to check *Data Completeness Not Met*.

10. Check *Data Completeness Not Met*:

    a. If *Data Completeness Not Met*, the Quality Data Code or equivalent was not submitted. 10 patients have been subtracted from the Data Completeness Numerator in the Sample Calculation.

Sample Calculations: Submission Criteria One:

Data Completeness equals Performance Met (a^1 equals 50 patients) plus Denominator Exception (b^1 equals 10 patients) plus Performance Not Met (c^1 equals 10 patients) divided by Eligible Population/Denominator (d^1 equals 80 patients). All equals 70 patients divided by 80 patients. All equals 87.50 percent.

Performance Rate equals Performance Met (a^1 equals 50 patients) divided by Data Completeness Numerator (70 patients) minus Denominator Exception (b^1 equals 10 patients). All equals 50 patients divided by 60 patients. All equals 83.33 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.

Submission Criteria Two:

1. Start with Denominator

2. Check *Patients who turn 13 years of age during the measurement period*:

    a. If *Patients who turn 13 years of age during the measurement period* equals No, do not include in *Eligible*

Population/Denominator. Stop processing.

b. If *Patients who turn 13 years of age during the measurement period* equals Yes, proceed to check *Patient encounter during the performance period as listed in Denominator**.

3. Check *Patient encounter during the performance period as listed in Denominator**:

   a. If *Patient encounter during the 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 *Patients who use hospice services any time during the measurement period*.

4. Check *Patients who use hospice services any time during the measurement period*:

   a. If *Patients who use hospice services any time during the measurement period* equals Yes, do not include in *Eligible Population/Denominator*. Stop processing.

   b. If *Patients who use hospice services any time during the measurement period* equals No, include in *Eligible Population/Denominator*.

5. Denominator Population:

   - 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^2 equals 80 patients in the Sample Calculation.

6. Start Numerator

7. Check *Patient had one tetanus, diphtheria toxoids and acellular pertussis vaccine (Tdap) on or between the patient's 10th and 13th birthdays*:

   a. If *Patient had one tetanus, diphtheria toxoids and acellular pertussis vaccine (Tdap) on or between the patient's 10th and 13th birthdays* 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^2 equals 40 patients in the Sample Calculation.

   b. If *Patient had one tetanus, diphtheria toxoids and acellular pertussis vaccine (Tdap) on or between the patient's 10th and 13th birthdays* equals No, proceed to check *Patient had anaphylaxis due to the tetanus, diphtheria or pertussis vaccine any time on or before the patient's 13th birthday*.

8. Check *Patient had anaphylaxis due to the tetanus, diphtheria or pertussis vaccine any time on or before the patient's 13th birthday*:

   a. If *Patient had anaphylaxis due to the tetanus, diphtheria or pertussis vaccine any time on or before the patient's 13th birthday* equals Yes, include in *Data Completeness Met and Denominator Exception*.

      - *Data Completeness Met and Denominator Exception* letter is represented as Data Completeness and Performance Rate in the Sample Calculation listed at the end of this document. Letter b^2 equals 10 patients in the Sample Calculation.

   b. If *Patient had anaphylaxis due to the tetanus, diphtheria or pertussis vaccine any time on or before the patient's 13th birthday* equals No, proceed to check *Patient had encephalitis due to the tetanus, diphtheria or pertussis vaccine any time on or before the patient's 13th birthday*.

9. Check *Patient had encephalitis due to the tetanus, diphtheria or pertussis vaccine any time on or before the patient's 13th birthday*:

    a. If *Patient had encephalitis due to the tetanus, diphtheria or pertussis vaccine any time on or before the patient's 13th birthday* equals Yes, include in *Data Completeness Met and Denominator Exception*.

        - *Data Completeness Met and Denominator Exception* letter is represented as Data Completeness and Performance Rate in the Sample Calculation listed at the end of this document. Letter b^3 equals 10 patients in the Sample Calculation.

    b. If *Patient had encephalitis due to the tetanus, diphtheria or pertussis vaccine any time on or before the patient's 13th birthday* equals No, proceed to check *Patient did not have one tetanus, diphtheria toxoids and acellular pertussis vaccine on or between the patient's 10th and 13th birthdays*.

10. Check *Patient did not have one tetanus, diphtheria toxoids and acellular pertussis vaccine on or between the patient's 10th and 13th birthdays*:

    a. If *Patient did not have one tetanus, diphtheria toxoids and acellular pertussis vaccine on or between the patient's 10th and 13th birthdays* equals Yes, include in the *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^2 equals 10 patients in the Sample Calculation.

    b. If *Patient did not have one tetanus, diphtheria toxoids and acellular pertussis vaccine on or between the patient's 10th and 13th birthdays* equals No, proceed to check *Data Completeness Not Met*.

11. Check *Data Completeness Not Met*:

    - If *Data Completeness Not Met*, the Quality Data Code or equivalent was not submitted. 10 patients have been subtracted from the Data Completeness Numerator in the Sample Calculation.

Sample Calculations: Submission Criteria Two:

Data Completeness equals Performance Met (a^2 equals 40 patients) plus Denominator Exceptions ($b^2 + b^3$ equals 20 patients) plus Performance Not Met (c^2 equals 10 patients) divided by Eligible Population/Denominator (d^2 equals 80 patients). All equals 70 patients divided by 80 patients. All equals 87.50 percent.

Performance Rate equals Performance Met (a^2 equals 40 patients) divided by Data Completeness Numerator (70 patients) minus Denominator Exceptions ($b^2 + b^3$ equals 20 patients). All equals 40 patients divided by 50 patients. All equals 80.00%.

*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.

Submission Criteria Three:

1. Start with Denominator

2. Check *Patients who turn 13 years of age during the measurement period*:

    a. If *Patients who turn 13 years of age during the measurement period* equals No, do not include in *Eligible Population/Denominator*. Stop processing.

    b. If *Patients who turn 13 years of age during the measurement period* equals Yes, proceed to check *Patient encounter during the performance period as listed in Denominator**.

3. Check *Patient encounter during the performance period as listed in Denominator**:

    a. If *Patient encounter during the 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 *Patients who use hospice services any time during the measurement period*.

4. Check *Patients who use hospice services any time during the measurement period*:

    a. If *Patients who use hospice services any time during the measurement period* equals Yes, do not include in *Eligible Population/Denominator*. Stop processing.

    b. If *Patients who use hospice services any time during the measurement period* equals No, include in *Eligible Population/Denominator*.

5. Denominator Population:

    - 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^3 equals 80 patients in the Sample Calculation.

6. Start Numerator

7. Check *Patient had at least two HPV vaccines (with at least 146 days between the two) OR three HPV vaccines on or between the patient's 9th and 13th birthdays*:

    a. If *Patient had at least two HPV vaccines (with at least 146 days between the two) OR three HPV vaccines on or between the patient's 9th and 13th birthdays* 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^3 equals 50 patients in the Sample Calculation.

    b. If *Patient had at least two HPV vaccines (with at least 146 days between the two) OR three HPV vaccines on or between the patient's 9th and 13th birthdays* equals No, proceed to check *Patient had anaphylaxis due to the HPV vaccine any time on or before the patient's 13th birthday*.

8. Check *Patient had anaphylaxis due to the HPV vaccine any time on or before the patient's 13th birthday*:

    a. If *Patient had anaphylaxis due to the HPV vaccine any time on or before the patient's 13th birthday* equals Yes, include in *Data Completeness Met and Denominator Exception*.

        - *Data Completeness Met and Denominator Exception* letter is represented as Data Completeness and Performance Rate in the Sample Calculation listed at the end of this document. Letter b^4 equals 10 patients in the Sample Calculation.

b. If *Patient had anaphylaxis due to the HPV vaccine any time on or before the patient's 13th birthday* equals No, proceed to check *Patient did not have at least two HPV vaccines (with at least 146 days between the two) OR three HPV vaccines on or between the patient's 9th and 13th birthdays*.

9. Check *Patient did not have at least two HPV vaccines (with at least 146 days between the two) OR three HPV vaccines on or between the patient's 9th and 13th birthdays*:

    a. If *Patient did not have at least two HPV vaccines (with at least 146 days between the two) OR three HPV vaccines on or between the patient's 9th and 13th birthdays* equals Yes, include in the *Data Completeness Met and Performance Not Met.*

        - *Data Completeness Met and Performance Not Met* letter is represented as Data Completeness Rate in the Sample Calculation listed at the end of this document. Letter c^3 equals 10 patients in the Sample Calculation.

    b. If *Patient did not have at least two HPV vaccines (with at least 146 days between the two) OR three HPV vaccines on or between the patient's 9th and 13th birthdays* equals No, proceed to check *Data Completeness Not Me*t.

10. Check *Data Completeness Not Met*:

    a. If *Data Completeness Not Met*, the Quality Data Code or equivalent was not submitted. 10 patients have been subtracted from the Data Completeness Numerator in the Sample Calculation.

Sample Calculations: Submission Criteria Three:

Data Completeness equals Performance Met (a^3 equals 50 patients) plus Denominator Exception (b^4 equals 10 patients) plus Performance Not Met (c^3 equals 10 patients) divided by Eligible Population/Denominator (d^3 equals 80 patients). All equals 70 patients divided by 80 patients. All equals 87.50 percent.

Performance Rate equals Performance Met (a^3 equals 50 patients) divided by Data Completeness Numerator (70 patients) minus Denominator Exception (b^4 equals 10 patients). All equals 50 patients divided by 60 patients. All equals 83.33 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.

Submission Criteria Four:

1. Start with Denominator

2. Check *Patients who turn 13 years of age during the measurement period*:

    a. If *Patients who turn 13 years of age during the measurement period* equals No, do not include in *Eligible Population/Denominator*. Stop processing.

    b. If *Patients who turn 13 years of age during the measurement period* equals Yes, proceed to check *Patient encounter during the performance period as listed in Denominator**.

3. Check *Patient encounter during the performance period as listed in Denominator**:

a. If *Patient encounter during the 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 *Patients who use hospice services any time during the measurement period*.

4. Check *Patients who use hospice services any time during the measurement period*:

    a. If *Patients who use hospice services any time during the measurement period* equals Yes, do not include in *Eligible Population/Denominator*. Stop processing.

    b. If *Patients who use hospice services any time during the measurement period* equals No, include in *Eligible Population/Denominator*.

5. Denominator Population:

    - 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^4 equals 80 patients in the Sample Calculation.

6. Start Numerator

7. Check *Adolescents who are numerator compliant for Rates 1, 2, and 3*:

    a. If *Adolescents who are numerator compliant for Rates 1, 2, and 3* equals Yes, include in the *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^4 equals 60 patients in the Sample Calculation.

    b. If *Adolescents who are numerator compliant for Rates 1, 2, and 3* equals No, proceed to check *Adolescents who are not numerator compliant for Rates 1, 2, and 3*.

8. Check *Adolescents who are not numerator compliant for Rates 1, 2, and 3*:

    a. If *Adolescents who are not numerator compliant for Rates 1, 2, and 3* equals Yes, include in the *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^4 equals 10 patients in the Sample Calculation.

    b. If *Adolescents who are not numerator compliant for Rates 1, 2, and 3* 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 or equivalent was not submitted. 10 patients have been subtracted from the Data Completeness Numerator in the Sample Calculation.

<u>Sample Calculations: Submission Criteria Four:</u>

Data Completeness equals Performance Met (a^4 equals 60 patients) plus Performance Not Met (c^4 equals 10 patients) divided by Eligible Population/Denominator (d^4 equals 80 patients). All equals 70 patients divided by 80 patients. All equals

87.50 percent.

Performance Rate equals Performance Met (a^4 equals 60 patients) divided by Data Completeness Numerator (70 patients). All equals 60 patients divided by 70 patients. All equals 85.71 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.