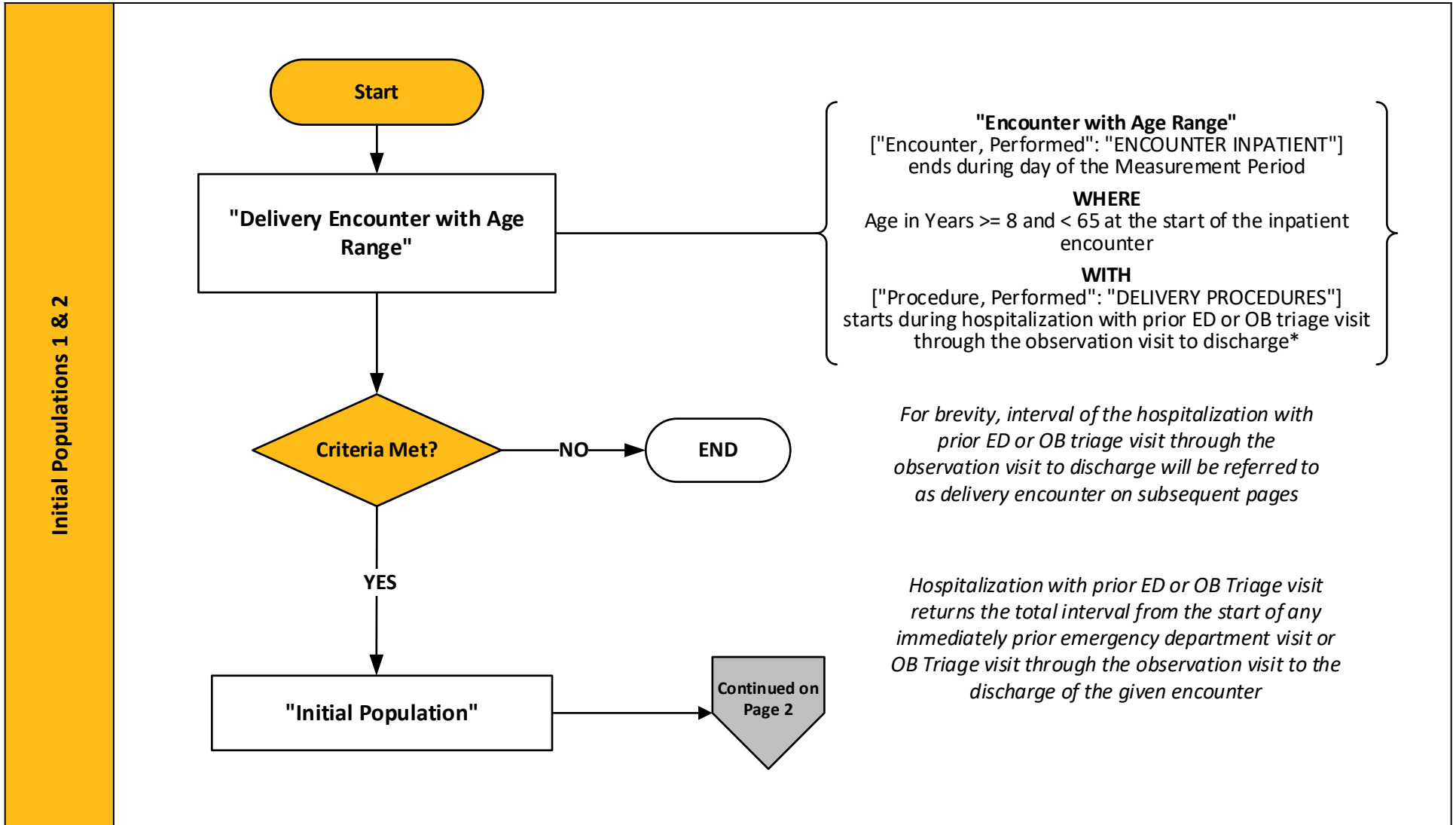# 2025 eCQM Flow – **CMS1028v3: Severe Obstetric Complications (PC-07)***

This flow diagram represents an overview of population criteria requirements. Please refer to the eCQM measure specification for a complete list of definitions, direct reference codes, data or timing elements included in this measure and required for submission.

Measure Flow Diagram

Initial Populations 1 & 2

Start

"Delivery Encounter with Age Range"

Criteria Met? — NO → END

YES

"Initial Population"

Continued on Page 2

"Encounter with Age Range"
["Encounter, Performed": "ENCOUNTER INPATIENT"] ends during day of the Measurement Period
WHERE
Age in Years >= 8 and < 65 at the start of the inpatient encounter
WITH
["Procedure, Performed": "DELIVERY PROCEDURES"] starts during hospitalization with prior ED or OB triage visit through the observation visit to discharge*

For brevity, interval of the hospitalization with prior ED or OB triage visit through the observation visit to discharge will be referred to as delivery encounter on subsequent pages

Hospitalization with prior ED or OB Triage visit returns the total interval from the start of any immediately prior emergency department visit or OB Triage visit through the observation visit to the discharge of the given encounter

2025 eCQM Flow – **CMS1028v3: Severe Obstetric Complications (PC-07)***

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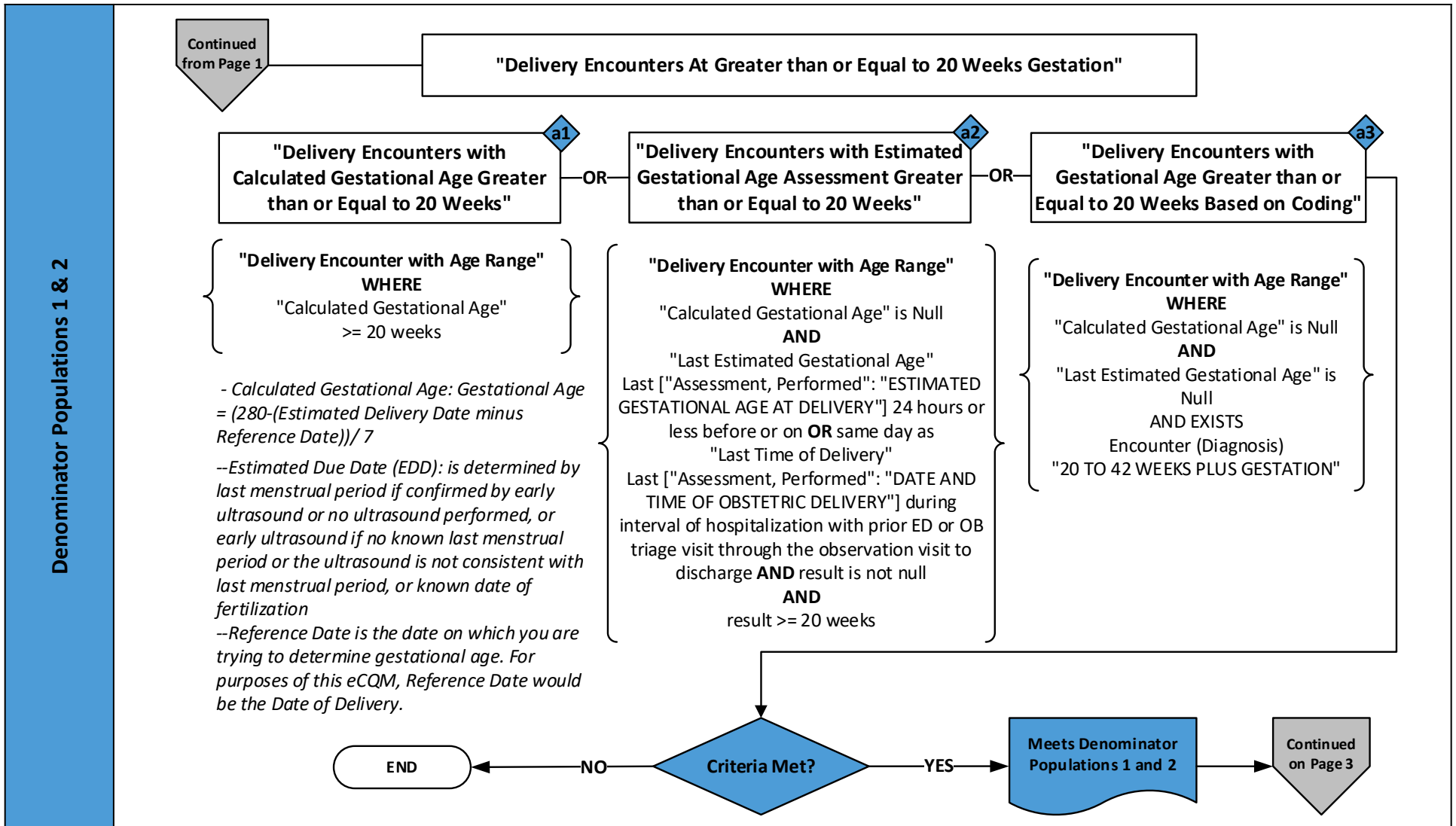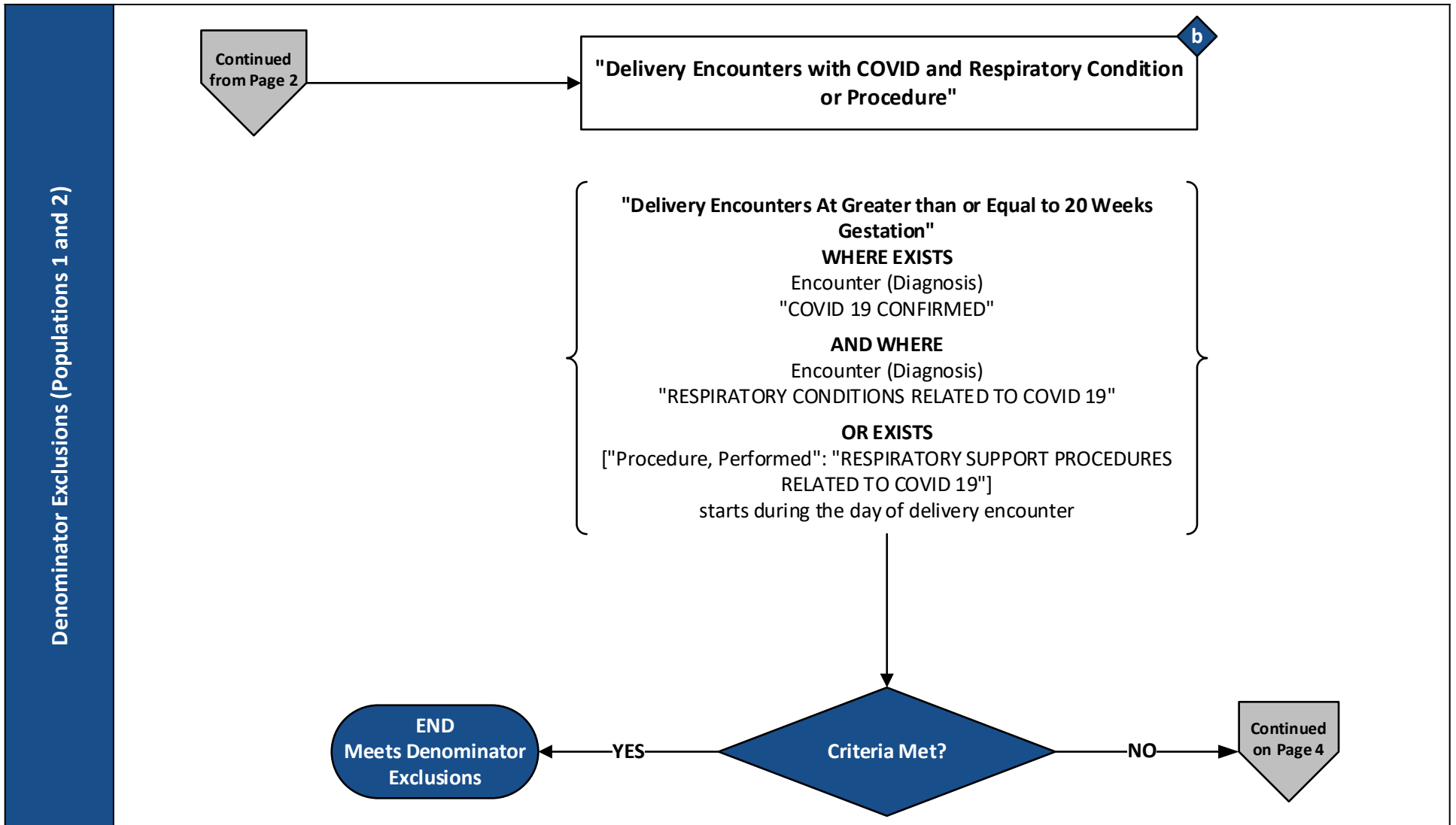
Measure Flow Diagram (Continued)

Denominator Populations 1 & 2

Continued from Page 1

"Delivery Encounters At Greater than or Equal to 20 Weeks Gestation"

a1 "Delivery Encounters with Calculated Gestational Age Greater than or Equal to 20 Weeks"

—OR—

a2 "Delivery Encounters with Estimated Gestational Age Assessment Greater than or Equal to 20 Weeks"

—OR—

a3 "Delivery Encounters with Gestational Age Greater than or Equal to 20 Weeks Based on Coding"

"Delivery Encounter with Age Range"
WHERE
"Calculated Gestational Age"
>= 20 weeks

- *Calculated Gestational Age: Gestational Age = (280-(Estimated Delivery Date minus Reference Date))/ 7*

--Estimated Due Date (EDD): is determined by last menstrual period if confirmed by early ultrasound or no ultrasound performed, or early ultrasound if no known last menstrual period or the ultrasound is not consistent with last menstrual period, or known date of fertilization
--Reference Date is the date on which you are trying to determine gestational age. For purposes of this eCQM, Reference Date would be the Date of Delivery.

"Delivery Encounter with Age Range"
WHERE
"Calculated Gestational Age" is Null
AND
"Last Estimated Gestational Age"
Last ["Assessment, Performed": "ESTIMATED GESTATIONAL AGE AT DELIVERY"] 24 hours or less before or on **OR** same day as "Last Time of Delivery"
Last ["Assessment, Performed": "DATE AND TIME OF OBSTETRIC DELIVERY"] during interval of hospitalization with prior ED or OB triage visit through the observation visit to discharge **AND** result is not null
AND
result >= 20 weeks

"Delivery Encounter with Age Range"
WHERE
"Calculated Gestational Age" is Null
AND
"Last Estimated Gestational Age" is Null
AND EXISTS
Encounter (Diagnosis)
"20 TO 42 WEEKS PLUS GESTATION"

Criteria Met?

NO → END

YES → **Meets Denominator Populations 1 and 2** → Continued on Page 3

2025 eCQM Flow – **CMS1028v3: Severe Obstetric Complications (PC-07)***

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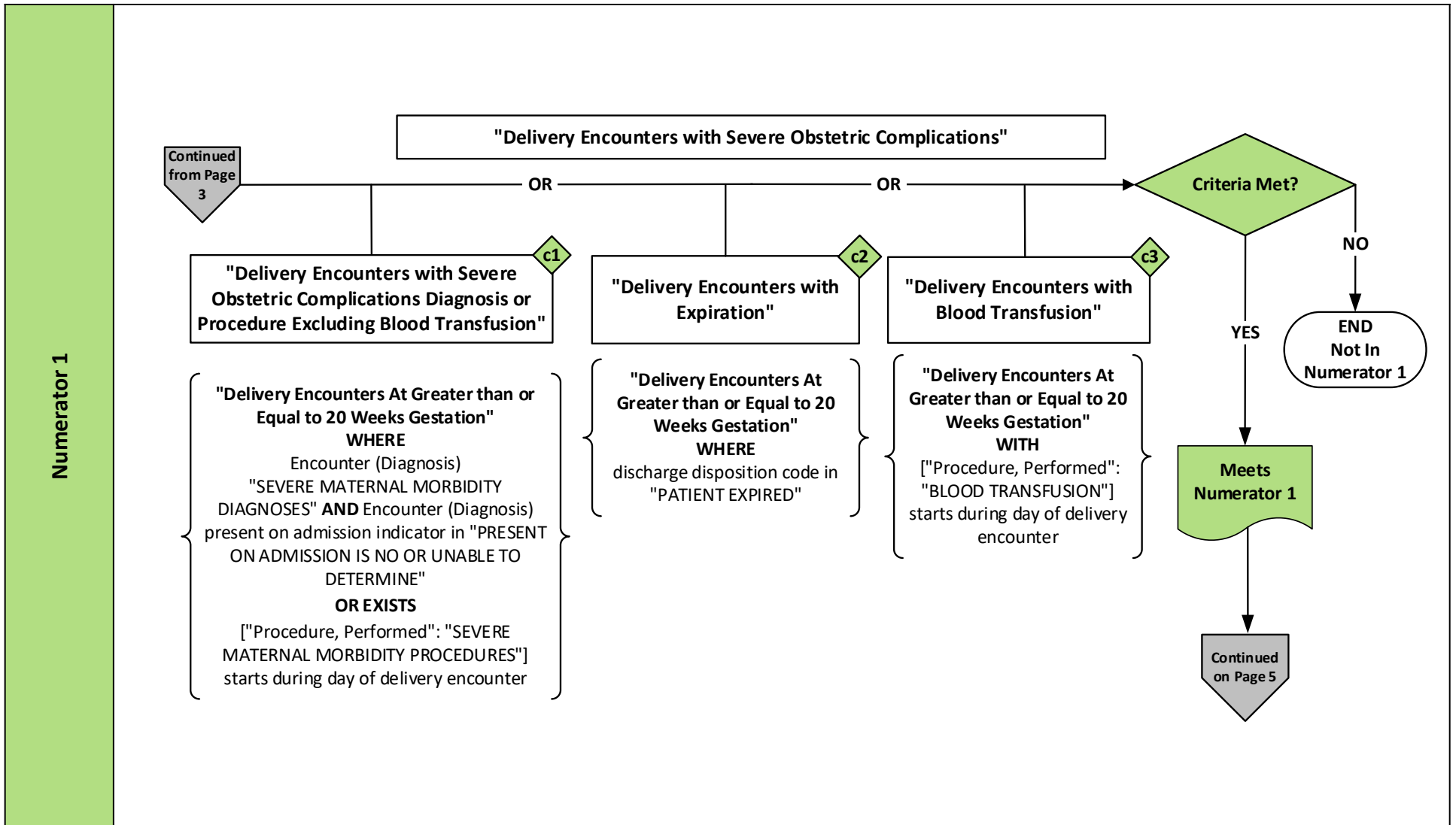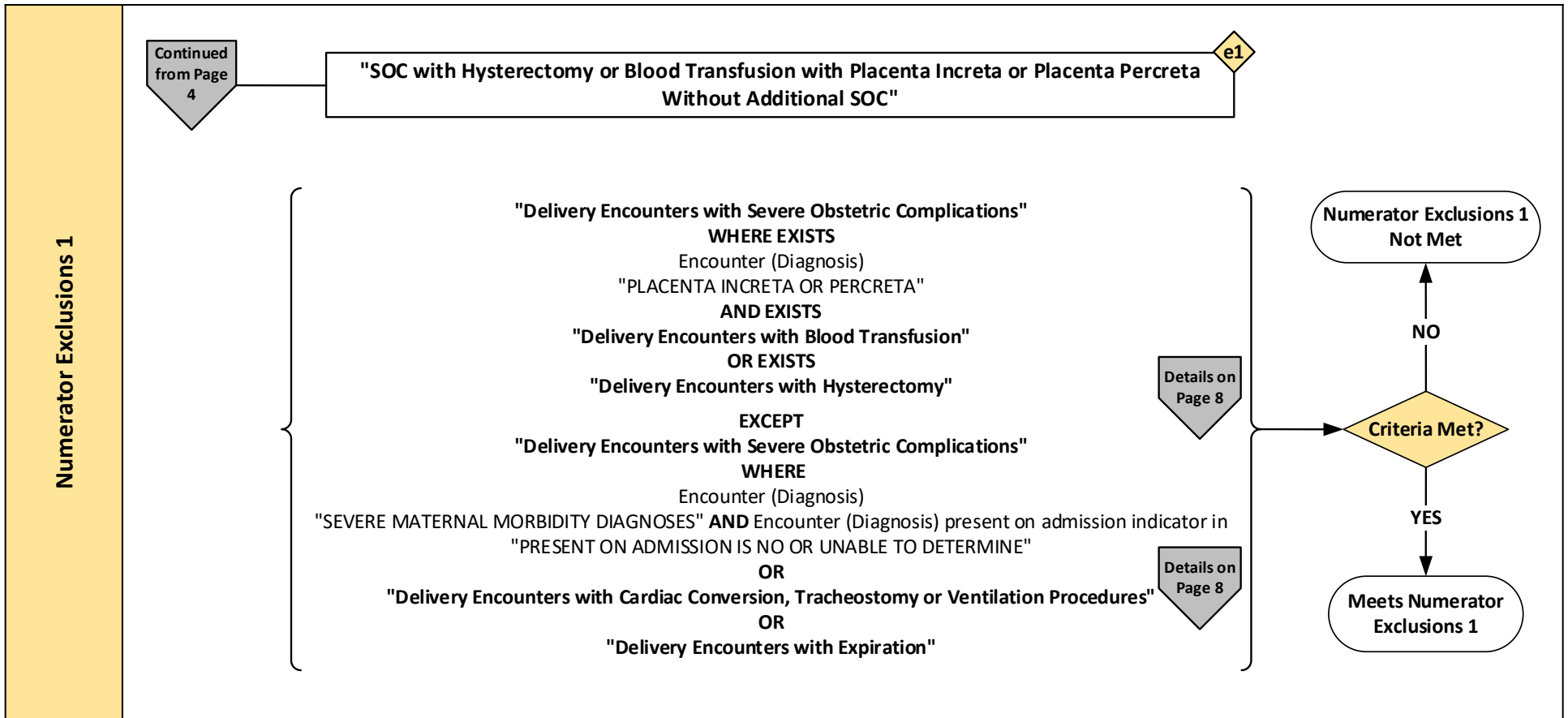
Measure Flow Diagram (Continued)

Denominator Exclusions (Populations 1 and 2)

Continued from Page 2

"Delivery Encounters with COVID and Respiratory Condition or Procedure" — b

"Delivery Encounters At Greater than or Equal to 20 Weeks Gestation"
WHERE EXISTS
Encounter (Diagnosis)
"COVID 19 CONFIRMED"

AND WHERE
Encounter (Diagnosis)
"RESPIRATORY CONDITIONS RELATED TO COVID 19"

OR EXISTS
["Procedure, Performed": "RESPIRATORY SUPPORT PROCEDURES RELATED TO COVID 19"]
starts during the day of delivery encounter

Criteria Met?

END Meets Denominator Exclusions ◄—YES

NO—► Continued on Page 4

2025 eCQM Flow – **CMS1028v3: Severe Obstetric Complications (PC-07)***

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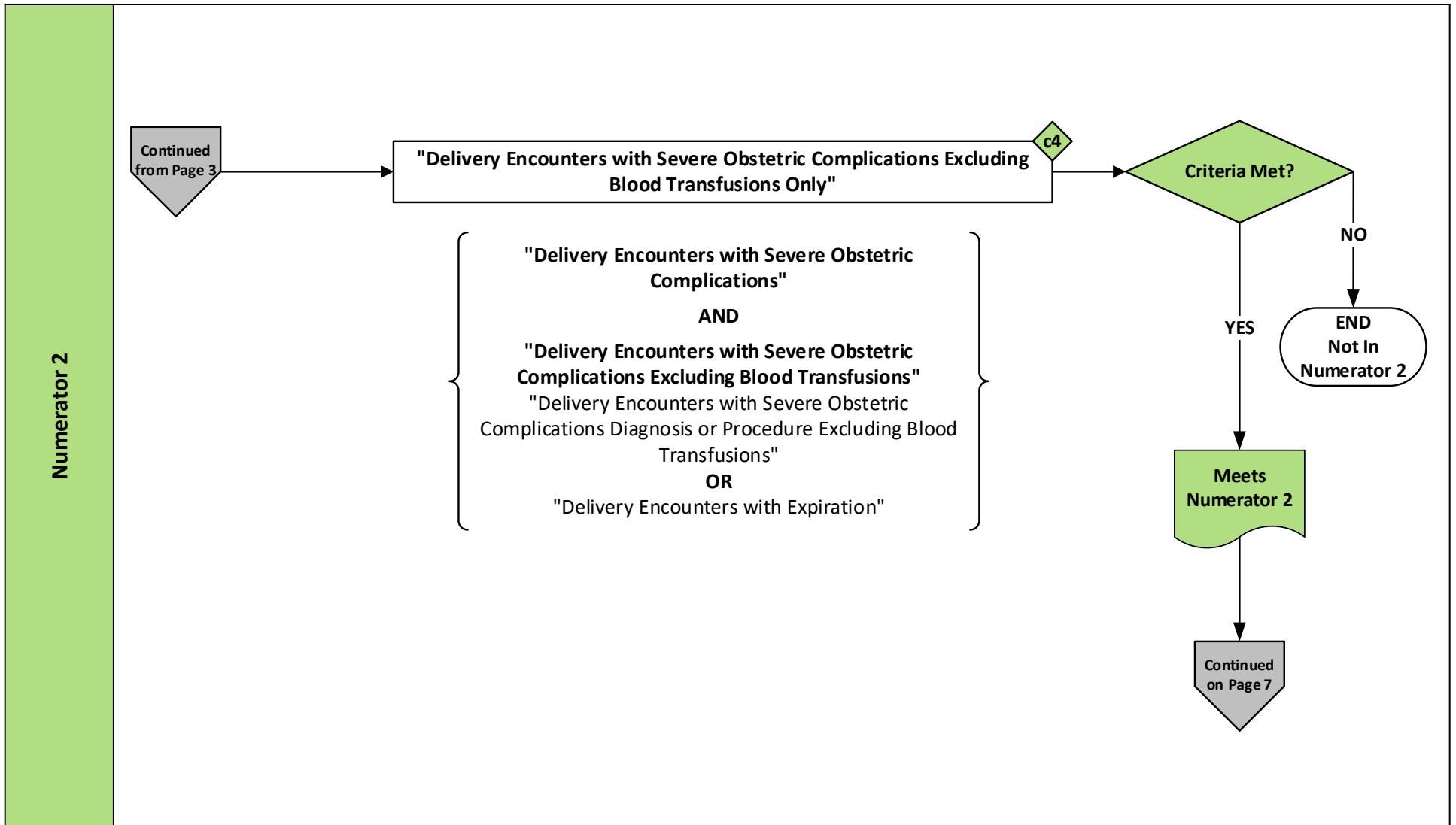
Measure Flow Diagram (Continued)

Numerator 1

Continued from Page 3

"Delivery Encounters with Severe Obstetric Complications"

OR — OR

Criteria Met?

NO

"Delivery Encounters with Severe Obstetric Complications Diagnosis or Procedure Excluding Blood Transfusion" c1

"Delivery Encounters with Expiration" c2

"Delivery Encounters with Blood Transfusion" c3

YES

END Not In Numerator 1

"Delivery Encounters At Greater than or Equal to 20 Weeks Gestation"
WHERE
Encounter (Diagnosis) "SEVERE MATERNAL MORBIDITY DIAGNOSES" **AND** Encounter (Diagnosis) present on admission indicator in "PRESENT ON ADMISSION IS NO OR UNABLE TO DETERMINE"
OR EXISTS
["Procedure, Performed": "SEVERE MATERNAL MORBIDITY PROCEDURES"] starts during day of delivery encounter

"Delivery Encounters At Greater than or Equal to 20 Weeks Gestation"
WHERE
discharge disposition code in "PATIENT EXPIRED"

"Delivery Encounters At Greater than or Equal to 20 Weeks Gestation"
WITH
["Procedure, Performed": "BLOOD TRANSFUSION"] starts during day of delivery encounter

Meets Numerator 1

Continued on Page 5

2025 eCQM Flow – **CMS1028v3: Severe Obstetric Complications (PC-07)***

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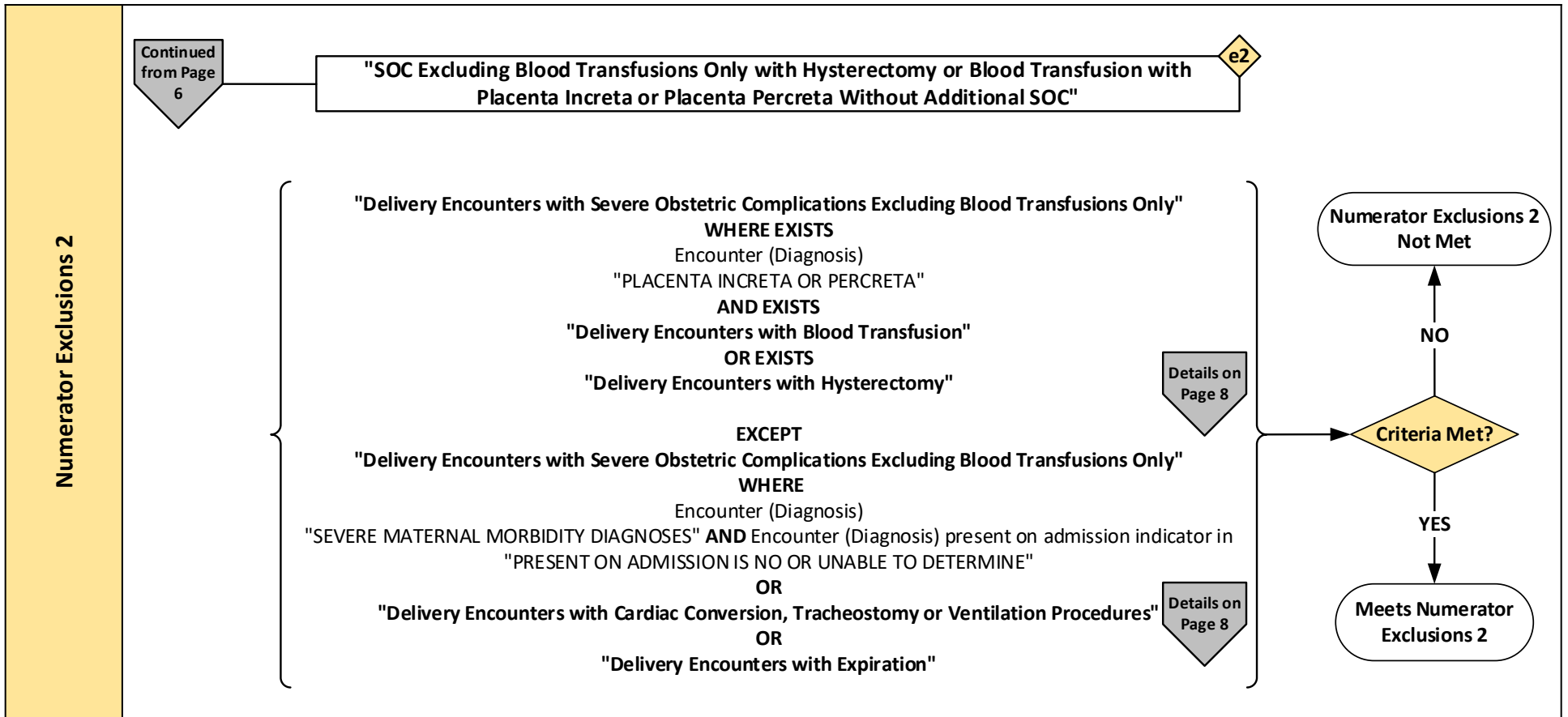
Measure Flow Diagram (Continued)

Numerator Exclusions 1

Continued from Page 4

"SOC with Hysterectomy or Blood Transfusion with Placenta Increta or Placenta Percreta Without Additional SOC"   e1

"Delivery Encounters with Severe Obstetric Complications"
WHERE EXISTS
Encounter (Diagnosis)
"PLACENTA INCRETA OR PERCRETA"
AND EXISTS
"Delivery Encounters with Blood Transfusion"
OR EXISTS
"Delivery Encounters with Hysterectomy"

EXCEPT
"Delivery Encounters with Severe Obstetric Complications"
WHERE
Encounter (Diagnosis)
"SEVERE MATERNAL MORBIDITY DIAGNOSES" AND Encounter (Diagnosis) present on admission indicator in
"PRESENT ON ADMISSION IS NO OR UNABLE TO DETERMINE"
OR
"Delivery Encounters with Cardiac Conversion, Tracheostomy or Ventilation Procedures"
OR
"Delivery Encounters with Expiration"

Details on Page 8

Details on Page 8

Criteria Met?

NO → **Numerator Exclusions 1 Not Met**

YES → **Meets Numerator Exclusions 1**

Sample Calculation

$$\text{Performance Rate} = \frac{(\text{Numerator } (c_1 + c_2 + c_3 = 60) - \text{Numerator Exclusions } (e_1 = 20))}{(\text{Denominator } (a_1 + a_2 + a_3 = 100) - \text{Denominator Exclusions } (b = 20))} * 10{,}000 = 5{,}000 \text{ per } 10{,}000 \text{ delivery hospitalizations}$$

2025 eCQM Flow – **CMS1028v3: Severe Obstetric Complications (PC-07)***

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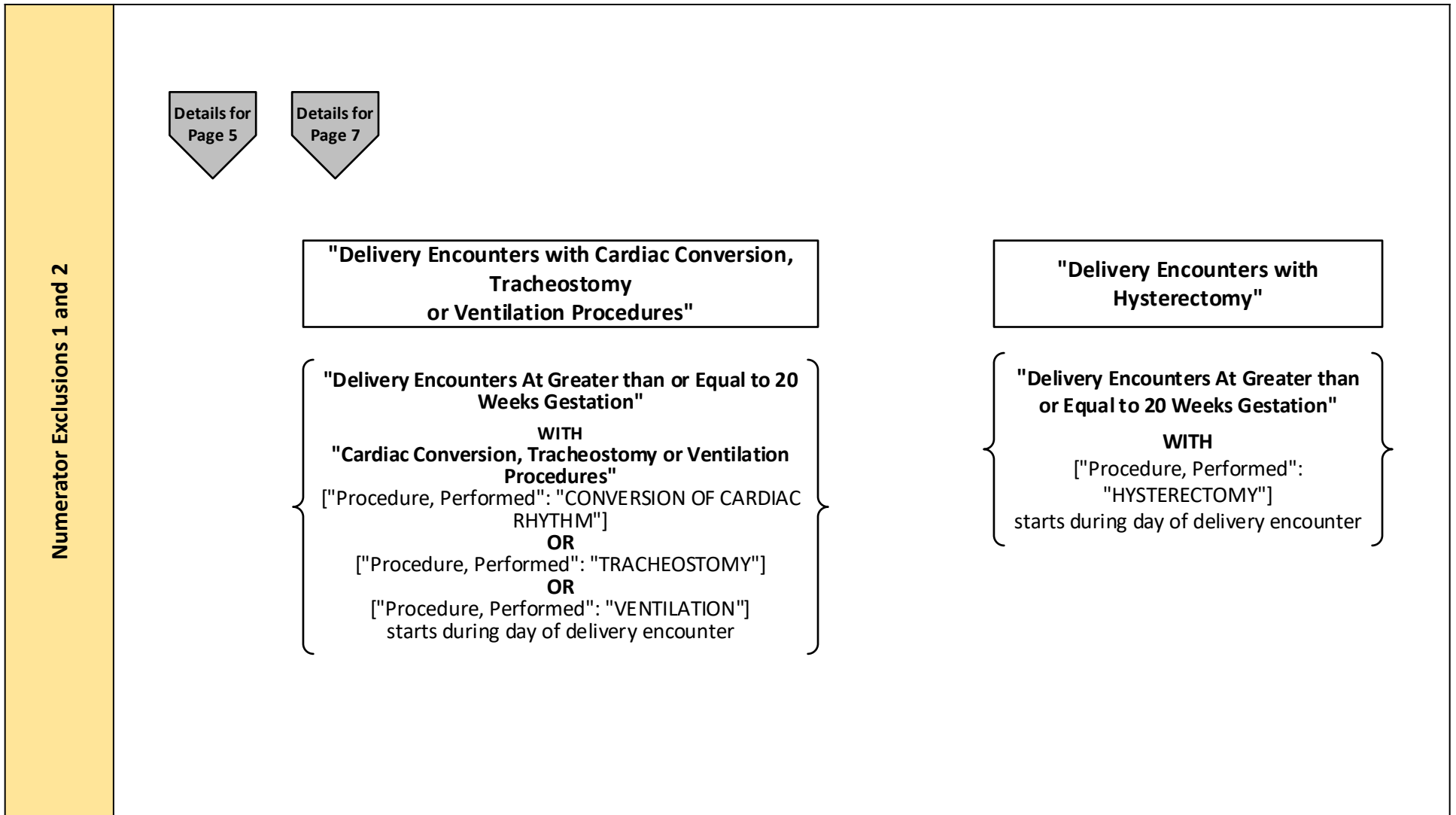
Measure Flow Diagram (Continued)

Numerator 2

Continued from Page 3 →

"Delivery Encounters with Severe Obstetric Complications Excluding Blood Transfusions Only" — c4

{
"Delivery Encounters with Severe Obstetric Complications"

AND

"Delivery Encounters with Severe Obstetric Complications Excluding Blood Transfusions"
"Delivery Encounters with Severe Obstetric Complications Diagnosis or Procedure Excluding Blood Transfusions"
OR
"Delivery Encounters with Expiration"
}

Criteria Met?

NO → **END Not In Numerator 2**

YES → **Meets Numerator 2**

2025 eCQM Flow – **CMS1028v3: Severe Obstetric Complications (PC-07)***

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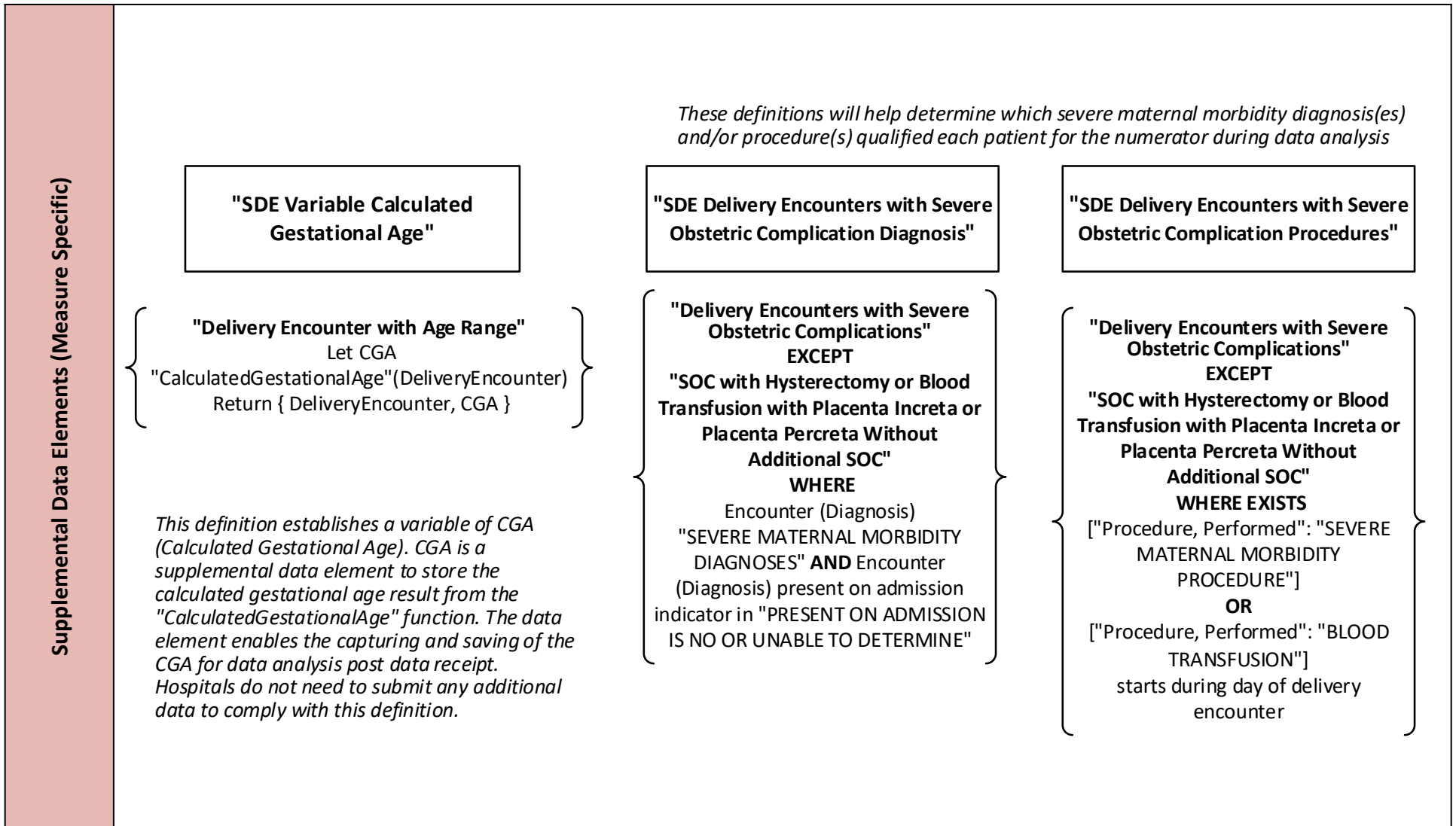
Measure Flow Diagram (Continued)

Numerator Exclusions 2

Continued from Page 6

e2

"SOC Excluding Blood Transfusions Only with Hysterectomy or Blood Transfusion with Placenta Increta or Placenta Percreta Without Additional SOC"

"Delivery Encounters with Severe Obstetric Complications Excluding Blood Transfusions Only"
WHERE EXISTS
Encounter (Diagnosis)
"PLACENTA INCRETA OR PERCRETA"
AND EXISTS
"Delivery Encounters with Blood Transfusion"
OR EXISTS
"Delivery Encounters with Hysterectomy"

EXCEPT
"Delivery Encounters with Severe Obstetric Complications Excluding Blood Transfusions Only"
WHERE
Encounter (Diagnosis)
"SEVERE MATERNAL MORBIDITY DIAGNOSES" **AND** Encounter (Diagnosis) present on admission indicator in "PRESENT ON ADMISSION IS NO OR UNABLE TO DETERMINE"
OR
"Delivery Encounters with Cardiac Conversion, Tracheostomy or Ventilation Procedures"
OR
"Delivery Encounters with Expiration"

Details on Page 8

Details on Page 8

Criteria Met?

NO → Numerator Exclusions 2 Not Met

YES → Meets Numerator Exclusions 2

Sample Calculation

Performance Rate = $\dfrac{\text{(Numerator (c4 = 40) – Numerator Exclusions (e2 = 20))}}{\text{(Denominator (a1 + a2 + a3 = 100) – Denominator Exclusions (b = 20))}}$ * 10,000 = 2,500 per 10,000 delivery hospitalizations

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Measure Flow Diagram (Continued)

Numerator Exclusions 1 and 2

Details for Page 5

Details for Page 7

"Delivery Encounters with Cardiac Conversion, Tracheostomy or Ventilation Procedures"

"Delivery Encounters with Hysterectomy"

"Delivery Encounters At Greater than or Equal to 20 Weeks Gestation"
WITH
"Cardiac Conversion, Tracheostomy or Ventilation Procedures"
["Procedure, Performed": "CONVERSION OF CARDIAC RHYTHM"]
OR
["Procedure, Performed": "TRACHEOSTOMY"]
OR
["Procedure, Performed": "VENTILATION"]
starts during day of delivery encounter

"Delivery Encounters At Greater than or Equal to 20 Weeks Gestation"
WITH
["Procedure, Performed": "HYSTERECTOMY"]
starts during day of delivery encounter

2025 eCQM Flow – **CMS1028v3: Severe Obstetric Complications (PC-07)***

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Measure Flow Diagram (Continued)

Supplemental Data Elements (Measure Specific)

These definitions will help determine which severe maternal morbidity diagnosis(es) and/or procedure(s) qualified each patient for the numerator during data analysis

"SDE Variable Calculated Gestational Age"

"SDE Delivery Encounters with Severe Obstetric Complication Diagnosis"

"SDE Delivery Encounters with Severe Obstetric Complication Procedures"

"Delivery Encounter with Age Range"
Let CGA
"CalculatedGestationalAge"(DeliveryEncounter)
Return { DeliveryEncounter, CGA }

"Delivery Encounters with Severe Obstetric Complications"
EXCEPT
"SOC with Hysterectomy or Blood Transfusion with Placenta Increta or Placenta Percreta Without Additional SOC"
WHERE
Encounter (Diagnosis) "SEVERE MATERNAL MORBIDITY DIAGNOSES" **AND** Encounter (Diagnosis) present on admission indicator in "PRESENT ON ADMISSION IS NO OR UNABLE TO DETERMINE"

"Delivery Encounters with Severe Obstetric Complications"
EXCEPT
"SOC with Hysterectomy or Blood Transfusion with Placenta Increta or Placenta Percreta Without Additional SOC"
WHERE EXISTS
["Procedure, Performed": "SEVERE MATERNAL MORBIDITY PROCEDURE"]
OR
["Procedure, Performed": "BLOOD TRANSFUSION"]
starts during day of delivery encounter

This definition establishes a variable of CGA (Calculated Gestational Age). CGA is a supplemental data element to store the calculated gestational age result from the "CalculatedGestationalAge" function. The data element enables the capturing and saving of the CGA for data analysis post data receipt. Hospitals do not need to submit any additional data to comply with this definition.

2025 eCQM Flow – **CMS1028v3: Severe Obstetric Complications (PC-07)***

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Measure Flow Narrative

The measure flow diagram on the preceding pages illustrates the steps to determine the population criteria for this measure.

Measure Description	This measure identifies patients with severe obstetric complications that occur during the inpatient delivery hospitalization
Initial Population	Inpatient hospitalizations for patients age >= 8 years and < 65 admitted to the hospital for inpatient acute care who undergo a delivery procedure with a discharge date that ends during the measurement period
Denominator	Inpatient hospitalizations for patients delivering stillborn or live birth with >= 20 weeks, 0 days gestation completed
Denominator Exclusions	Inpatient hospitalizations for patients with confirmed diagnosis of COVID with COVID-related respiratory condition or patients with confirmed diagnosis of COVID with COVID-related respiratory procedure during the encounter
Numerators	Two numerator populations are defined for this measure: 1. All Severe Obstetric Complications (SOC) 2. SOC excluding encounters where blood transfusion was the only SOC Inpatient hospitalizations for patients with severe obstetric complications (not present on admission that occur during the current delivery encounter) including the following: Severe maternal morbidity diagnoses; Severe maternal morbidity procedures; Discharge disposition of expired
Numerator Exclusions	Inpatient hospitalizations with blood transfusion or hysterectomy with a diagnosis of placenta percreta or placenta increta and no additional severe obstetrical complications

2025 eCQM Flow – **CMS1028v3: Severe Obstetric Complications (PC-07)***

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Measure Flow Narrative (Continued)
The measure flow diagram on the preceding pages illustrates the steps to determine the population criteria for this measure.

Risk Adjustment

Pre-existing conditions and variables must be present on admission:

- *Anemia (includes sickle cell disease)*
- *Asthma*
- *Autoimmune Disease*
- *Bariatric Surgery*
- *Bleeding Disorder*
- *Cardiac Disease*
- *Gastrointestinal Disease*
- *Gestational Diabetes*
- *HIV*
- *Economic Housing Instability*
- *Hypertension*
- *Maternal Age (derived from birthdate)*
- *Mental Health Disorder*
- *Morbid Obesity*
- *Multiple Pregnancy*
- *Neuromuscular Disease*
- *Other Pre-eclampsia*
- *Placenta Previa*
- *Placental Abruption*
- *Placental Accreta Spectrum*
- *Pre-existing Diabetes*
- *Preterm Birth*
- *Previous Cesarean*
- *Pulmonary Hypertension*
- *Renal Disease*
- *Severe Pre-eclampsia*
- *Substance Abuse*
- *Thyrotoxicosis*
- *Long-term Anticoagulant Use*
- *Obstetric VTE*

Additional variables used for risk adjustment include Lab and Physical Exam Results. Report the first resulted value 24 hours prior to start of encounter and before time of delivery in UCUM units specified:

- *Heart rate: (beats)/min*
- *Systolic blood pressure: mm[Hg]*
- *White blood cell count: 10*3/ul.*
- *Hematocrit: %*

The Severe Obstetric Complications Risk Adjustment Methodology Report is available on the eCQI Resource Center (https://ecqi.healthit.gov).

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Measure Flow Narrative (Continued)
The measure flow diagram on the preceding pages illustrates the steps to determine the population criteria for this measure.

Supplemental Data Elements (Measure Specific)	For every patient evaluated by this measure also identify payer, race, ethnicity, sex, variable calculated gestational age, SOC diagnosis details, and SOC procedure details