

# Expert to Expert Webinar

## Reporting Year 2025 Annual Updates

- PC-02 (CMS334v6)
- PC-07 (CMS1028v13)

January 9, 2025

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# Webinar Audio and Functionality

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# New to eCQMs?

Today's content is highly technical and requires a baseline understanding of eCQM logic and concepts

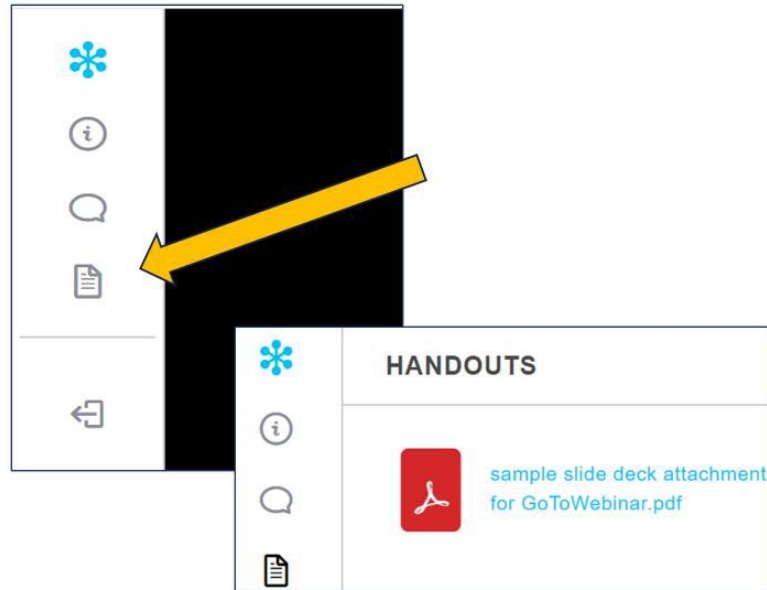
Visit this section of the eCQI Resource Center:

["Get Started with eCQMs"](https://ecqi.healthit.gov/ecqms?qt-tabs_ecqm=tools-resources)

([https://ecqi.healthit.gov/ecqms?qt-tabs\\_ecqm=tools-resources](https://ecqi.healthit.gov/ecqms?qt-tabs_ecqm=tools-resources))



# Access the Slides



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- On left side of your screen, click the icon that depicts a document
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Slides will also be available via this link within 2 weeks of the webinar:  
<https://www.jointcommission.org/measurement/quality-measurement-webinars-and-videos/expert-to-expert-webinars>

# Webinar approved for 1.5 Continuing Education (CE) Credits for these entities



- Accreditation Council for Continuing Medical Education (PRA Category 1.5 credits)
  - American Nurses Credentialing Center
  - American College of Healthcare Executives (1.5 Qualifying Education Hours)
  - California Board of Registered Nursing
-

# CE Requirements



- 1) Individually register for this webinar
- 2) Participate for the entire broadcast
- 3) Complete a post-program evaluation/attestation

For more information on The Joint Commission's continuing education policies, visit this link  
<https://www.jointcommission.org/resources/continuing-education-credit-information/>



# CE Survey and Certificate

**After webinar, survey can be accessed in two ways:**

- 1) QR code on final slide
- 2) Link within participant follow-up email



Complete CE survey and **SUBMIT.**

Certificate will appear onscreen. **Print or download PDF Certificate.**

**Complete certificate by adding your name and credentials.**



# Participant Learning Objectives

Locate measure specifications, value sets, measure flow diagrams and technical release notes on the eCQI Resource Center.

Facilitate your organization's implementation of the PC-02 and PC-07 eCQM annual updates for the 2025 calendar year.

Utilize answers regarding common issues/questions regarding the PC-02 and PC-07 eCQMs to inform 2025 eCQM use/implementation.

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# Topics Not Covered in this Program

**Basic eCQM concepts**

**Topics related to chart abstracted measures**

**Process improvement efforts related to this measure**

**eCQM validation**

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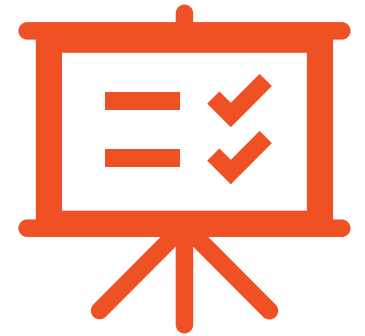
# Disclosure Statement

All staff and speakers have disclosed that they do not have any conflicts of interest. For example, financial arrangements, affiliations with, or ownership of organizations that provide grants, consultancies, honoraria, travel, or other benefits that would impact the presentation of today's webinar content.

- Susan Funk, MPH, LSSGB, Associate Project Director, Engagement in Quality Improvement Programs (EQIP)
- Melissa Breth, DNP, RN, NI-BC, Associate Project Director, Clinical Quality Informatics
- Raquel Belarmino, MSN, RN, Associate Project Director, Clinical Quality Informatics
- Kelley Franklin, MSN, RN, Associate Project Director, Clinical Quality Measures
- Valery A. Danilack, MPH, PhD, Associate Research Scientist, Yale School of Medicine, Yale/YNHH Center for Outcomes Research and Evaluation (CORE)

# Webinar Agenda

- Highlight how to access eCQM resources on
- the eCQI Resource Center
- Review the PC-02 and PC-07 eCQMs annual updates for Reporting Year 2025
- Review the measure flow/algorithm
- Review FAQs
- Facilitated Audience Q&A Segment



# eCQM Resources on the eCQI Resource Center



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# eCQI Resource Center

<https://ecqi.healthit.gov>

The screenshot shows the eCQI Resource Center website. The header includes the eCQI Resource Center logo and navigation links: eCQMs (Electronic Clinical Quality Measures), dQMs (Digital Quality Measures), Resources (Standards, Tools, & Resources), About (eCQI, CDS, FAQs, Engage), and Log in (Manage Your Account). A search bar is located below the navigation links. The main content area features a large blue banner with the text "Electronic Clinical Quality Improvement (eCQI) Resource Center" and "Transforming eCQI through collaboration, education, and standards". Below the banner are two orange buttons: "Eligible Clinician eCQMs" and "Eligible Hospital / Critical Access Hospital eCQMs". To the right of the banner is a "Featured News & Events" section. The first event is dated "Jun 04, 2024" and titled "Now Available: EH FHIR eCQM Draft Measure Packages for 2025 Reporting/Perfo...". The second event is dated "Jun 27, 2024 @ 4:00pm EDT" and titled "Cooking with Clinical Quality Language (CQL) Webinar".

## Download and/or View Specifications

- “Human Readable” html
- Value Sets 
  - **Value Set Authority Center (VSAC)**
- Data Elements
- eCQM Flow (PDF)
  - **(process flow diagrams)**
- Technical Release Notes (TRNs) (Excel)
- Jira Issue Tracker tickets 

eCQI Resource Center Navigational video short available via this page:  
<https://www.jointcommission.org/measurement/quality-measurement-webinars-and-videos/expert-to-expert-webinars/>

# ePC-02 Cesarean Birth

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# ePC-02 Rationale

- Measure focuses on cesarean birth in patients with first-time deliveries with a single full-term baby in the head down position or Nulliparous Term Singleton Vertex (NTSV)
- The NTSV population accounts for a large majority of the variable portion of the Cesarean Birth rate and is the area most affected by subjectivity





## ePC-02 Rationale (2)

- Increased risk of severe maternal morbidity (SMM) for cesarean delivery compared to vaginal delivery
  - Physician factors may be the driver for the difference in NTSV rates
  - First birth labor induction and early labor admissions cause variation among hospitals
  - Some hospitals still have rates above 30 percent
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# ePC-02 Measure Changes from 2024 to 2025 - Clinical

Measure Components	2024 Reporting Year	2025 Reporting Year
Endorsed By	National Quality Forum	<del>National Quality Forum.</del> <u>CMS Consensus Based Entity</u>
Denominator Exclusions	Inpatient hospitalizations for patients with abnormal presentation, placenta previa, placenta accreta or vasa previa during the encounter	Inpatient hospitalizations for patients with any of the following conditions during the encounter: <ul style="list-style-type: none"> <li>- abnormal presentation</li> <li>- <u>active genital herpes</u></li> <li>- placenta previa</li> <li>- vasa previa</li> <li>- placenta accreta <u>spectrum</u></li> </ul>

# ePC-02 Measure Specifications

Description: Nulliparous patients with a term, singleton baby in a vertex position delivered by cesarean birth

Initial Population	Denominator	Denominator Exclusion	Numerator
Inpatient hospitalization	Inpatient hospitalization	Inpatient hospitalization	Inpatient hospitalization
Age: $\geq 8$ and $< 65$ years	Nulliparous patients	Abnormal presentation, <u>genital herpes</u> , placenta previa, vasa previa, placenta accreta <u>spectrum</u> during the encounter	Delivery by cesarean section
Delivery procedure with a discharge date that ends during measurement period	Delivery of a live term singleton newborn $\geq 37$ weeks gestation		

# ★ ePC-02 Measure Changes from 2024 to 2025 - Technical

Measure Components	2024 Reporting Year	2025 Reporting Year
Libraries/Functions	MATGlobalCommonFunctions PCMaternal	MATGlobalCommonFunctions <u>QDM</u> PCMaternal <u>QDM</u>
Value Set	Payor	Payor <u>Type</u>
Value Set	Placenta Previa or Accreta or Vasa Previa	<u>Placenta Accreta Spectrum Previa or Vasa Previa</u>
Value Set	N/A	<u>Genital Herpes</u>
Value Set	N/A	Multiple value sets with code additions/deletions due to terminology updates. See eCQM value sets and Technical Release Notes for more details.



# ePC-02 Measure Changes from 2024 to 2025 - Technical

Measure Components	2024 Reporting Year	2025 Reporting Year
Functions	<p><b>PCMaternal.LastEstimatedGestationalAge</b></p> <p>Last(["Assessment, Performed": "Estimated Gestational Age at Delivery"] EstimatedGestationalAge</p> <p>where</p> <p>Global."EarliestOf"(EstimatedGestationalAge.relevantDatetime, EstimatedGestationalAge.relevantPeriod)24 hours or less before or on "LastTimeOfDelivery"(Encounter)</p> <p>and EstimatedGestationalAge.result is not null</p> <p>sort by Global."EarliestOf"(relevantDatetime, relevantPeriod)</p> <p>).result as Quantity</p>	<p><b>PCMaternal.LastEstimatedGestationalAge</b></p> <p>Last(["Assessment, Performed": "Estimated Gestational Age at Delivery"] EstimatedGestationalAge</p> <p><del>where</del>let EGATiming:</p> <p>Global."EarliestOf"(EstimatedGestationalAge.relevantDatetime, EstimatedGestationalAge.relevantPeriod)<b>24 hours or less before or on "LastTimeOfDelivery"(Encounter)</b></p> <p><u>where(EGATiming 24 hours or less before or on "LastTimeOfDelivery"(Encounter) and EstimatedGestationalAge.result is not null )</u></p> <p><u>or(EGATiming same day as "LastTimeOfDelivery"(Encounter)</u></p> <p><u>and EGATiming during "HospitalizationWithEDOBTriageObservation"(Encounter) and EstimatedGestationalAge.result is not null )</u></p> <p>sort by Global."EarliestOf"(relevantDatetime, relevantPeriod)).result as Quantity</p>



# ePC-02 Measure Changes from 2024 to 2025 - Technical

Measure Components	2024 Reporting Year	2025 Reporting Year
Definitions	<p><b>PCMaternal.Encounter with Age Range</b> ["Encounter, Performed": "Encounter Inpatient"] EncounterInpatient where AgeInYearsAt(date from start of EncounterInpatient.relevantPeriod)&gt;= 8 and AgeInYearsAt(date from start of EncounterInpatient.relevantPeriod)&lt; 65 and EncounterInpatient.relevantPeriod ends during day of "Measurement Period"</p>	<p><b>PCMaternal.Encounter with Age Range</b> <del>["Encounter, Performed": "Encounter Inpatient"]</del> <del>EncounterInpatient</del> <u>Global."Inpatient Encounter" InpatientEncounter</u> where AgeInYearsAt(date from start of <del>EncounterInpatient</del><u>InpatientEncounter</u>.relevantPeriod) &gt;= 8 and AgeInYearsAt(date from start of <del>EncounterInpatient</del><u>InpatientEncounter</u>.relevantPeriod) &lt; 65 <del>and EncounterInpatient.relevantPeriod ends during day of</del> <del>"Measurement Period"</del></p>
Definitions	<p><b>PCMaternal.Delivery Encounter with Age Range</b>  "Encounter with Age Range" EncounterWithAge with ["Procedure, Performed": "Delivery Procedures"] DeliveryProcedure such that Global."NormalizeInterval" ( DeliveryProcedure.relevantDatetime, DeliveryProcedure.relevantPeriod ) starts during day of "HospitalizationWithEDOBTriageObservation"(Encounter WithAge)</p>	<p><b>PCMaternal.Delivery Encounter with Age Range</b>  "Encounter with Age Range" EncounterWithAge with ["Procedure, Performed": "Delivery Procedures"] DeliveryProcedure such that Global."NormalizeInterval" ( DeliveryProcedure.relevantDatetime, DeliveryProcedure.relevantPeriod ) starts during <span style="border: 1px solid red; padding: 0 2px;">day of</span> "HospitalizationWithEDOBTriageObservation"(EncounterWithAge)</p>

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# ePC-02 Measure Changes from 2024 to 2025 - Technical

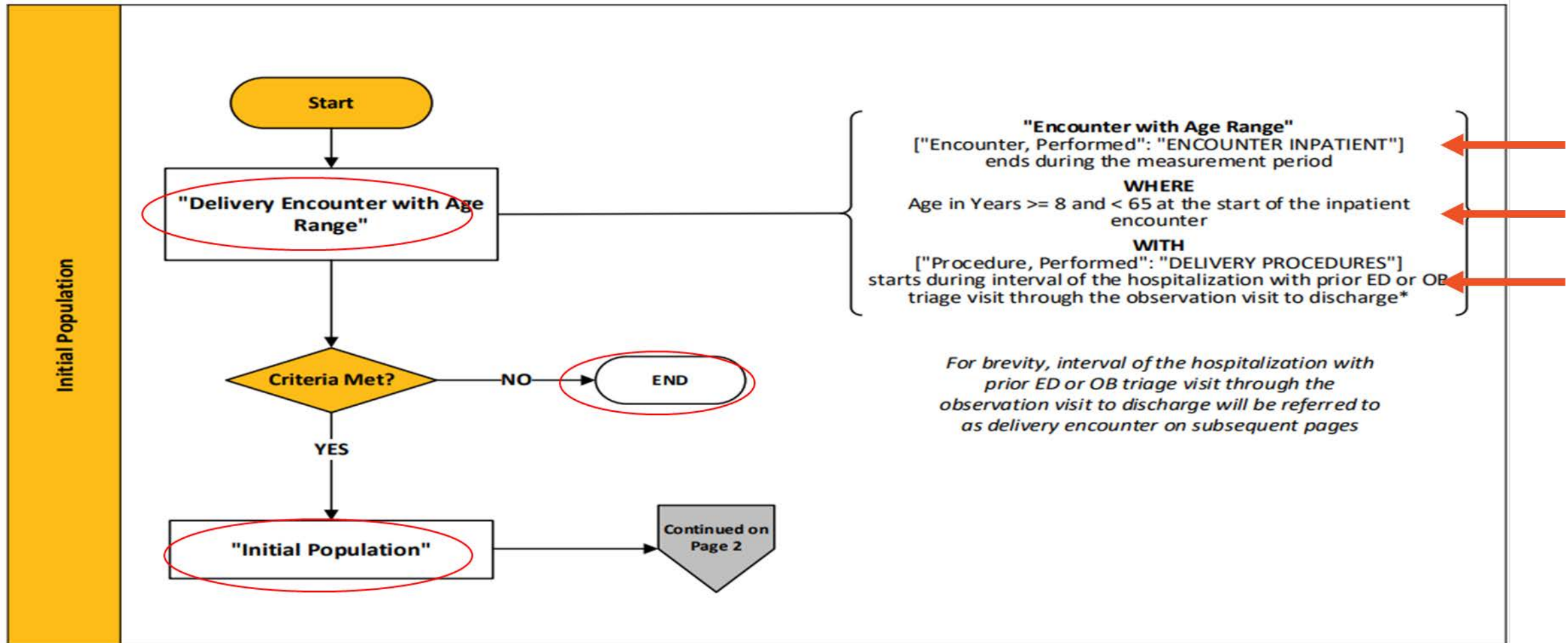
Measure Components	2024 Reporting Year	2025 Reporting Year
Definitions	<b>Encounter with Abnormal Presentation</b> “Singleton Delivery Encounters at 37 Plus Weeks Gravida 1 Parity 0, No Previous Births” Qualifying Encounter let LastAbnormalPresentation: Last(["Assessment, Performed": "Abnormal Presentation"]) AbnormalPresentation where Global."EarliestOf"(AbnormalPresentation.relevantDatetime, AbnormalPresentation.relevantPeriod)before or on PCMaternal."LastTimeOfDelivery"(QualifyingEncounter) sort by Global."EarliestOf"(relevantDatetime, relevantPeriod) ) where exists ( QualifyingEncounter.diagnoses EncounterDiagnosis where EncounterDiagnosis.code in "Abnormal Presentation" ) or Global."EarliestOf" ( LastAbnormalPresentation.relevantDatetime, LastAbnormalPresentation.relevantPeriod ) during QualifyingEncounter.relevantPeriod	<b>Encounter with Abnormal Presentation</b> <i>Updated to better align with measure intent by specifying that the delivery encounter addressed includes the hospitalization with emergency department and/or obstetric triage encounters if each transition occurs within one hour or less.</i>
		<b>Encounter with Abnormal Presentation</b> <i>Modified definition to improved readability.</i>



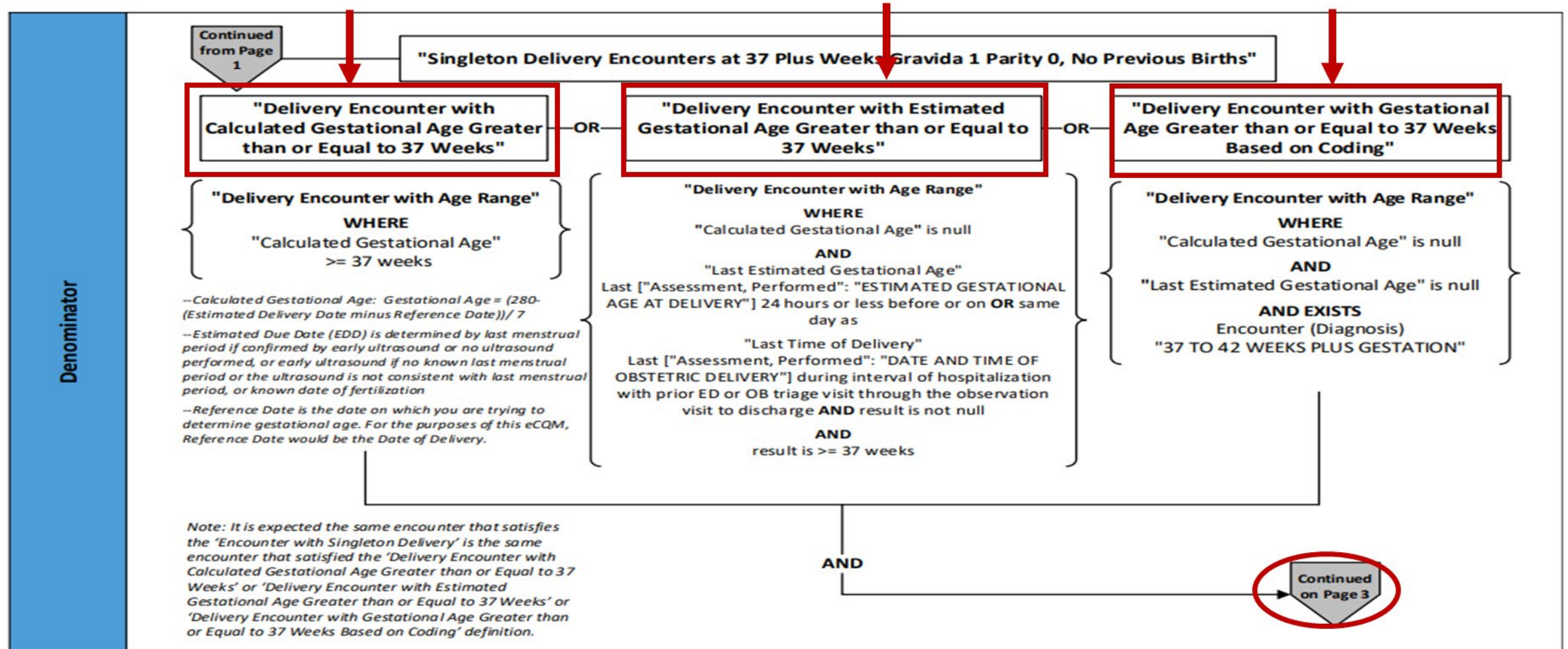
# **CMS334 PC-02 Cesarean Birth Measure Flow**

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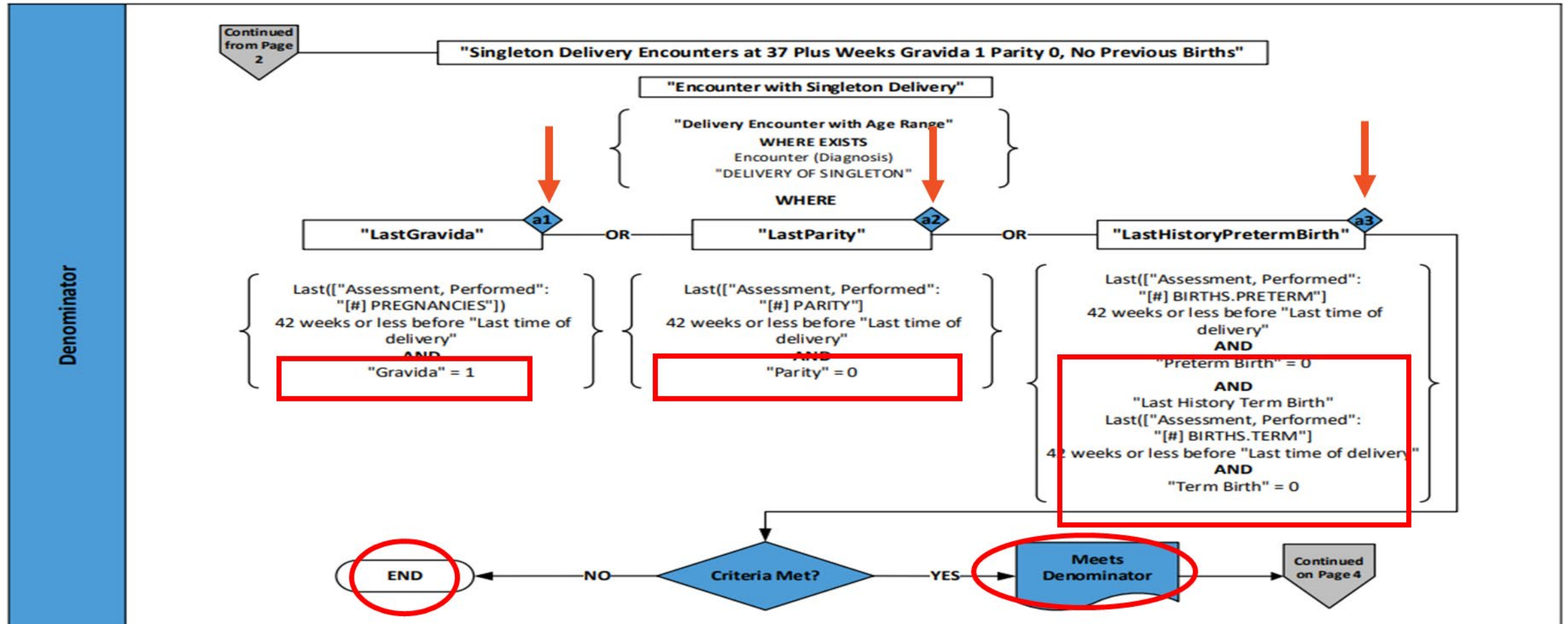
# ePC-02 Measure Flow Diagram



# ePC-02 Measure Flow Diagram (2)

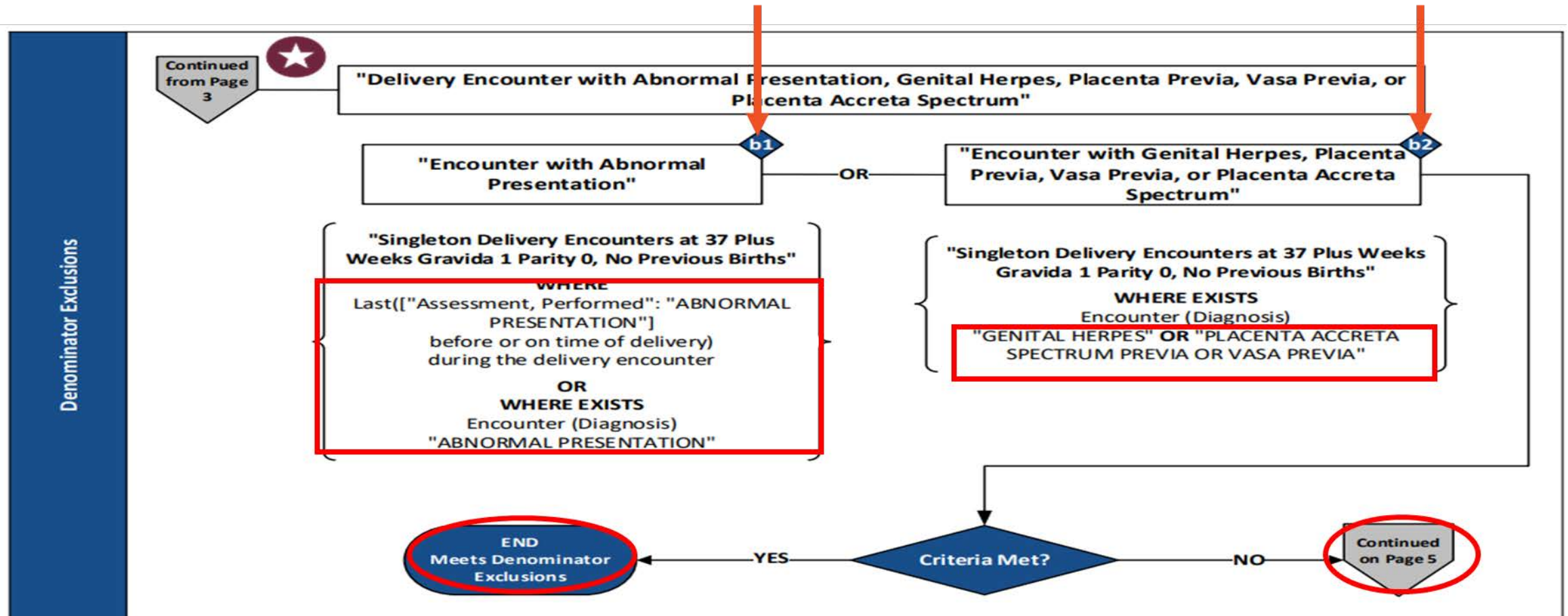


# ePC-02 Measure Flow Diagram (3)

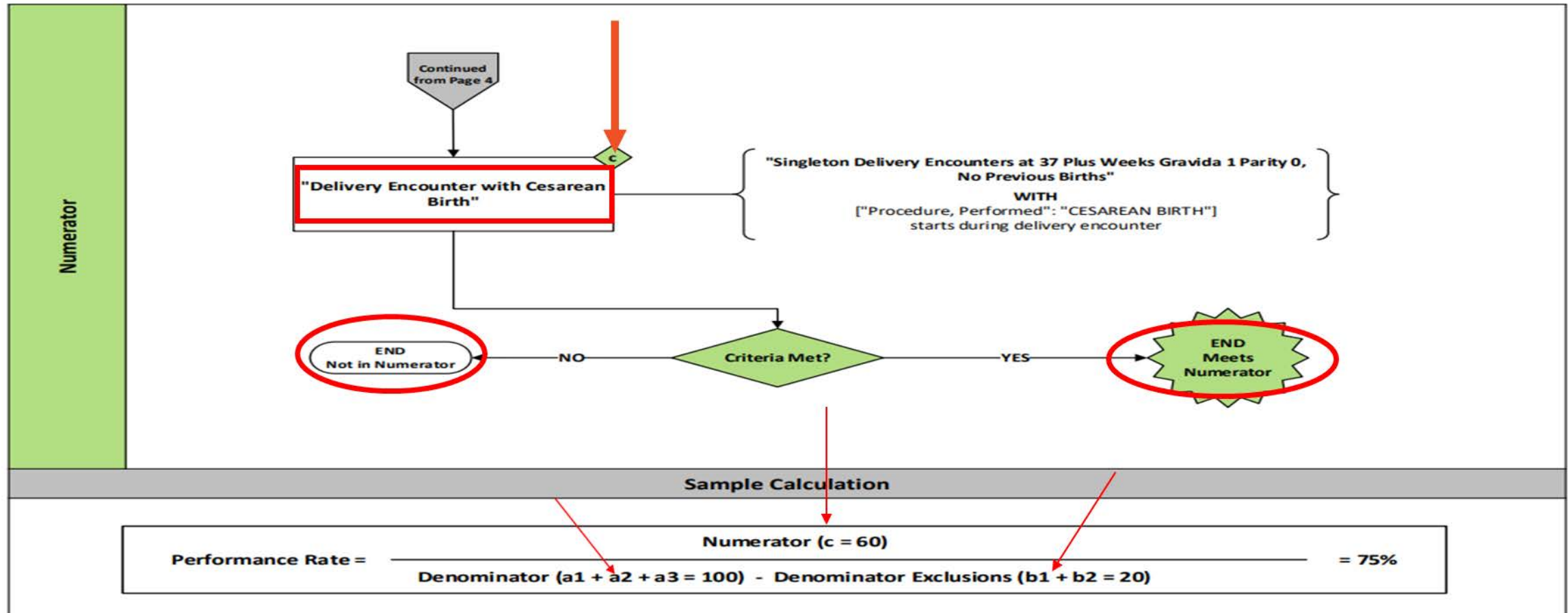




# ePC-02 Measure Flow Diagram (4)



# ePC-02 Measure Flow Diagram (5)



# ePC-02 Initial Population

## PCMaternal."Delivery Encounter with Age Range"

### ★ PCMaternal.Delivery Encounter with Age Range

"Encounter with Age Range" EncounterWithAge  
 with ["Procedure, Performed": "Delivery Procedures"] DeliveryProcedure  
 such that Global."NormalizeInterval" (DeliveryProcedure.relevantDatetime,  
 DeliveryProcedure.relevantPeriod ) starts during day of  
 "HospitalizationWithEDOBTriageObservation"(EncounterWithAge)

### ★ PCMaternal.Encounter with Age Range

~~["Encounter, Performed": "Encounter Inpatient"] EncounterInpatient~~  
Global. "Inpatient Encounter" Inpatient Encounter  
 where AgeInYearsAt(date from start of EncounterInpatientInpatientEncounter.relevantPeriod)>= 8  
 and AgeInYearsAt(date from start of EncounterInpatientInpatientEncounter.relevantPeriod)< 65  
~~and EncounterInpatient.relevantPeriod ends during day of "Measurement Period"~~



# ePC-02 Denominator

## Singleton Delivery Encounters at 37 Plus Weeks Gravida 1 Parity 0, No Previous Births

( "Delivery Encounter with Gestational Age Greater than or Equal to 37 Weeks" intersect "Encounter with Singleton Delivery" ) SingletonEncounterGE37Weeks  
 where ( ( "LastGravida"(SingletonEncounterGE37Weeks)= 1 )  
     or ( "LastParity"(SingletonEncounterGE37Weeks)= 0 )  
     or ( ( "LastHistoryPretermBirth"(SingletonEncounterGE37Weeks)= 0 )  
         and ( "LastHistoryTermBirth"(SingletonEncounterGE37Weeks)= 0 )))

# ePC-02 Denominator (2)

## Delivery Encounter with Gestational Age Greater than or Equal to 37 Weeks

"Delivery Encounter with Calculated Gestational Age Greater than or Equal to 37 Weeks"

union

"Delivery Encounter with Estimated Gestational Age Greater than or Equal to 37 Weeks"

union

"Delivery Encounter with Gestational Age Greater than or Equal to 37 Weeks Based on Coding"



## ePC-02 Denominator (3)

### Delivery Encounter with Calculated Gestational Age Greater than or Equal to 37 Weeks

PCMaternal."Delivery Encounter with Age Range" DeliveryEncounter  
where PCMaternal."CalculatedGestationalAge" ( DeliveryEncounter )  $\geq 37$

**PCMaternal.CalculatedGestationalAge( Encounter "Encounter, Performed" )**  
( 280 - ( difference in days between "LastTimeOfDelivery"(Encounter)  
and "LastEstimatedDeliveryDate"(Encounter)) ) div 7

# ePC-02 Denominator (4)

## PCMaternal.LastTimeOfDelivery(Encounter "Encounter, Performed")

Last(["Assessment, Performed": "Date and time of obstetric delivery"]  
TimeOfDelivery  
where Global."EarliestOf"(TimeOfDelivery.relevantDatetime,  
TimeOfDelivery.relevantPeriod)during  
"HospitalizationWithEDOBTriageObservation"(Encounter)  
and TimeOfDelivery.result as DateTime during  
"HospitalizationWithEDOBTriageObservation"(Encounter)  
sort by Global."EarliestOf"(relevantDatetime, relevantPeriod)).  
result as DateTime

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# ePC-02 Frequently Asked Question



## Question:

The LastTimeOfDelivery function uses the EarliestOf function. Why is this when we are trying to identify the last time of delivery documented?

## Answer:

The “last” and “EarliestOf” operators may seem contradictory in this logic.

If both are present, we choose the earliest of the relevant date/time or the relevant start period of the assessment. Then all of the "earliest of" dates are sorted and the “Last” one is chosen.



# ePC-02 Denominator (5)

## PCMaternal.LastEstimatedDeliveryDate (Encounter "Encounter, Performed")

Last(["Assessment, Performed": "Delivery date Estimated"] EstimatedDateOfDelivery  
where Global."EarliestOf"(EstimatedDateOfDelivery.relevantDatetime,  
EstimatedDateOfDelivery.relevantPeriod)42 weeks or less before or on  
"LastTimeOfDelivery"(Encounter)  
and EstimatedDateOfDelivery.result is not null  
sort by Global."EarliestOf"(relevantDatetime, relevantPeriod)  
)result as DateTime

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# ePC-02 Denominator (6)

## Delivery Encounter with Calculated Gestational Age Greater than or Equal to 37 Weeks

PCMaternal."Delivery Encounter with Age Range" DeliveryEncounter  
where PCMaternal."CalculatedGestationalAge" ( DeliveryEncounter )  $\geq 37$

## PCMaternal.CalculatedGestationalAge(Encounter "Encounter, Performed")

( 280 - ( difference in days between "LastTimeOfDelivery"(Encounter)  
and "LastEstimatedDeliveryDate"(Encounter)) ) div 7



# ePC-02 Denominator (7)

## Delivery Encounter with Estimated Gestational Age Greater than or Equal to 37 Weeks

PCMaternal."Delivery Encounter with Age Range" DeliveryEncounter  
where PCMaternal."CalculatedGestationalAge" ( DeliveryEncounter ) is null  
and PCMaternal."LastEstimatedGestationalAge" ( DeliveryEncounter )  $\geq$  37 weeks

# ePC-02 Denominator (8)

## ★ PCMaternal.LastEstimatedGestationalAge(Encounter "Encounter, Performed")

Last(["Assessment, Performed": "Estimated Gestational Age at Delivery"] EstimatedGestationalAge  
~~where~~ let EGATiming: Global."EarliestOf"(EstimatedGestationalAge.relevantDatetime,  
 EstimatedGestationalAge.relevantPeriod)~~24 hours or less before or on "LastTimeOfDelivery"(Encounter)~~  
where(EGATiming 24 hours or less before or on "LastTimeOfDelivery"(Encounter)  
and EstimatedGestationalAge.result is not null  
 )  
or(EGATiming same day as "LastTimeOfDelivery"(Encounter)  
and EGATiming during "HospitalizationWithEDOBTriageObservation"(Encounter)  
and EstimatedGestationalAge.result is not null)  
 \_\_\_\_\_)  
 sort by Global."EarliestOf" (relevantDatetime, relevantPeriod)  
 ).result as Quantity

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## ePC-02 Denominator (9)

### Delivery Encounter with Estimated Gestational Age Greater than or Equal to 37 Weeks

PCMaternal."Delivery Encounter with Age Range" DeliveryEncounter  
where PCMaternal."CalculatedGestationalAge" ( DeliveryEncounter )  
is null  
and ( PCMaternal."LastEstimatedGestationalAge" ( DeliveryEncounter ) >= 37  
weeks

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# ePC-02 Denominator (10)

## Delivery Encounter with Gestational Age Greater than or Equal to 37 Weeks Based on Coding

PCMaternal."Delivery Encounter with Age Range" DeliveryEncounter  
let CGA: PCMaternal."CalculatedGestationalAge" ( DeliveryEncounter)  
EGA: PCMaternal."LastEstimatedGestationalAge" ( DeliveryEncounter)  
where CGA is null  
and EGA is null  
and exists ( DeliveryEncounter.diagnoses EncounterDiagnoses  
where EncounterDiagnoses.code in "37 to 42 Plus Weeks Gestation")

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# ePC-02 Denominator (11)

## Delivery Encounter with Gestational Age Greater than or Equal to 37 Weeks

"Delivery Encounter with Calculated Gestational Age Greater than or Equal to 37 Weeks"

union

"Delivery Encounter with Estimated Gestational Age Greater than or Equal to 37 Weeks"

union

"Delivery Encounter with Gestational Age Greater than or Equal to 37 Weeks Based on Coding"

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# ePC-02 Denominator (12)

**Singleton Delivery Encounters at 37 Plus Weeks Gravida 1 Parity 0, No Previous Births**

( "Delivery Encounter with Gestational Age Greater than or Equal to 37 Weeks"

intersect "Encounter with Singleton Delivery" ) SingletonEncounterGE37Weeks

where ( ( "LastGravida"(SingletonEncounterGE37Weeks)= 1 )

or ( "LastParity"(SingletonEncounterGE37Weeks)= 0 )

or ( ( "LastHistoryPretermBirth"(SingletonEncounterGE37Weeks)= 0 )

and ( "LastHistoryTermBirth"(SingletonEncounterGE37Weeks)= 0 )

) )

## Encounter with Singleton Delivery

PCMaternal."Delivery Encounter with Age Range" DeliveryEncounter

where exists ( DeliveryEncounter.diagnoses EncounterDiagnoses

where EncounterDiagnoses.code in "Delivery of Singleton")

# ePC-02 Denominator (13)

## Singleton Delivery Encounters at 37 Plus Weeks Gravida 1 Parity 0, No Previous Births

( "Delivery Encounter with Gestational Age Greater than or Equal to 37 Weeks"  
 intersect "Encounter with Singleton Delivery" ) SingletonEncounterGE37Weeks  
 where ( ( "LastGravida"(SingletonEncounterGE37Weeks)= 1 )  
 or ( "LastParity"(SingletonEncounterGE37Weeks)= 0 )  
 or ( ( "LastHistoryPretermBirth"(SingletonEncounterGE37Weeks)= 0 )  
 and ( "LastHistoryTermBirth"(SingletonEncounterGE37Weeks)= 0 )))

### LastGravida(Encounter "Encounter, Performed")

Last(["Assessment, Performed": "[#] Pregnancies"] Gravida  
 where Global."EarliestOf" (Gravida.relevantDatetime, Gravida.relevantPeriod) 42 weeks or  
 less before PCMaternal."LastTimeOfDelivery"(Encounter)  
 and Gravida.result is not null  
 sort by Global."EarliestOf" (relevantDatetime, relevantPeriod)  
 ).result as Integer



# Frequently Asked Question

## Question:

Are nurses considered clinicians for documentation purposes concerning the elements “gravida, parity, preterm and term live births”?

## Answer:

Yes, nurses are considered clinicians and may document these elements.

However, to ensure accuracy in how system’s reports are generated, it is advisable to check with your IT department and EHR vendor.





## ★ ePC-02 Denominator Exclusions

Delivery Encounter with Abnormal Presentation, Genital Herpes, Placenta Previa, Vasa previa or Placenta Accreta ~~or Vasa Previa~~ Spectrum

"Encounter with Abnormal Presentation"  
union

"Encounter with Genital Herpes, Placenta Previa, Vasa Previa or Placenta Accreta ~~or Vasa Previa~~ Spectrum"

# ★ ePC-02 Denominator Exclusions (2)

## Encounter with Abnormal Presentation

"Singleton Delivery Encounters at 37 Plus Weeks Gravida 1 Parity 0, No Previous Births"

~~Qualifying Encounter~~ ThirtysevenWeeksPlusEncounter

let LastAbnormalPresentation: Last(["Assessment, Performed": "Abnormal Presentation"] AbnormalPresentation  
 where Global."EarliestOf"(AbnormalPresentation.relevantDatetime, AbnormalPresentation.relevantPeriod) before or on  
 PCMaternal."LastTimeOfDelivery"(~~Qualifying Encounter~~ ThirtysevenWeeksPlusEncounter)  
 sort by Global."EarliestOf"(relevantDatetime, relevantPeriod))

~~where exists ( Qualifying Encounter diagnoses EncounterDiagnosis  
 where EncounterDiagnosis.code in "Abnormal Presentation")~~

~~or where~~ Global."EarliestOf" ( LastAbnormalPresentation.relevantDatetime, LastAbnormalPresentation.relevantPeriod  
 ) during

~~Qualifying Encounter.relevantPeriod~~ PCMaternal."HospitalizationWithEDOB Triage Observation"  
 ( ThirtysevenWeeksPlusEncounter)

or exists(ThirtysevenWeeksPlusEncounter.diagnoses EncounterDiagnoses  
 where EncounterDiagnoses.code in "Abnormal Presentation")

# Frequently Asked Question



## Question:

When and where must the assessment of abnormal presentation be performed to meet the denominator exclusion for a qualifying encounter?

## Answer:

The assessment of abnormal presentation must be performed during any of the following qualifying encounters: an Emergency Department (ED) visit, OB Triage visit, observation visit, or inpatient admission. This assessment must occur before or at the time of delivery. The function “PCMaternal.HospitalizationWithEDOBTriage” includes the entire interval from the start of any immediately prior ED visit or OB Triage visit through the observation visit to the discharge of the given encounter. Therefore, any assessment of abnormal presentation within this interval meets the criteria for the denominator exclusion.

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## ★ ePC-02 Denominator Exclusions (3)

Encounter with Genital Herpes, Placenta Previa, Vasa Previa or Placenta Accreta ~~or Vasa Previa~~ Spectrum

Singleton Delivery Encounters at 37 Plus Weeks Gravida 1 Parity 0, No Previous Births"

~~Qualifying Encounter~~ ThirtysevenWeeksPlusEncounter

~~where exists Qualifying Encounter.diagnoses EncounterDiagnosis~~

where ~~EncounterDiagnosis~~ exists (

ThirtysevenWeeksPlusEncounter.diagnoses EncounterDiagnoses

where EncounterDiagnoses.code in "Placenta Accreta Spectrum Previa or ~~Accreta or~~ Vasa Previa"

or EncounterDiagnoses.code in "Genital Herpes")

# ePC-02 Numerator

## ★ “Delivery Encounter with Cesarean Birth”

"Singleton Delivery Encounters at 37 Plus Weeks Gravida 1 Parity 0, No Previous Births" ~~Qualifying Encounter~~ ThirtysevenWeeksPlusEncounter

with ["Procedure, Performed": "Cesarean Birth"] CSection

such that Global."NormalizeInterval" ( CSection.relevantDatetime, CSection.relevantPeriod ) during

PCMaternal."HospitalizationWithEDOBTriageObservation"

(~~Qualifying Encounter~~ ThirtysevenWeeksPlusEncounter )

# ePC-07

## Severe Obstetric Complications

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# ePC-07 Background

- TJC developed ePC-07 in collaboration with:
  - ❖ Yale New Haven Health Services Corporation-Center for Outcomes Research and Evaluation (CORE)
  - ❖ Expert advisor, Dr. Elliott Main, Professor of Obstetrics and Gynecology, Stanford University School of Medicine and Former Medical Director, California Maternal Quality Care Collaborative (CMQCC)
- Risk-adjusted outcome measure





# ePC-07 Rationale

- USA experiences higher rates of maternal morbidity and mortality than other developed countries
- Severe Maternal Morbidity (SMM) –
  - “unexpected outcomes of labor and delivery that result in significant short or long-term consequences to a woman’s health” (ACOG & SMFM)
- 65.8% of pregnancy-related deaths are preventable
- Large variability in Severe Maternal Morbidity rates across hospitals in the US
- Racial and ethnic disparities in maternal health outcomes
- Health effects to mother:
  - Higher costs
  - Longer lengths of stay

# ePC-07 Severe Maternal Morbidity & Mortality

- SMM defined by the Centers for Disease Control and Prevention (CDC) –
  - 21 indicators defined by ICD10 diagnosis and procedure codes.
- ePC-07 → modified version of CDC's SMM with Present on Admission (POA) codes to identify SMM that is not POA
- ePC-07 Goal: Assess prevalence of SMM **AND** mortality
  - Specifications modeled after CDC's SMM indicators, *plus* maternal mortality.
  - May reference the CDC indicators of morbidity as "SMM," but the measure outcome that includes morbidity and mortality, is referred to as Severe Obstetric Complications (SOC)

$$\text{SOC} = \text{SMM} + \text{Mortality}$$

# ePC-o7 Risk Adjustment: Overview

Risk adjustment:

- Is performed to account for patient characteristics and/or comorbidities associated with the outcome that may differ across hospitals
  - Accounts for case mix differences between hospitals
  - Is achieved through the development of risk model(s), typically multivariable regression models
-

# ePC-07 Risk Adjustment

- Candidate risk variables were identified through:
  - Literature review
  - Hospital Core Clinical Data Elements
  - Input from clinicians, patients, and other experts
- Only conditions or comorbidities present on admission were included in risk adjustment

## ePC-07 Risk Adjustment (2)

- Two risk models were developed, one for each measure outcome:
  - Any SOC and
  - SOC excluding blood transfusion-only encounters
- Due to very low prevalence, a few risk variables were paired:
  - HIV was combined with autoimmune disease,
  - Obstetric VTE was combined with long-term anticoagulant medication use

# ePC-07 Risk Adjustment: Social Determinants of Health

- Economic/housing instability is included as a risk factor
  - Related to outcome
  - Available in EHR
- The Severe Obstetric Complications Risk Adjustment Methodology Report is available on the eCQI Resource Center (<https://ecqi.healthit.gov>).

## ePC-o7 Stratification

- A note: race/ethnicity and insurance type were not considered for risk adjustment
- Measure score to be stratified by race/ethnicity and insurance type after measure submission
- Illumination of outcome disparities would be most informative and impactful in incentivizing improvements in the quality and equity of maternal care



## ePC-07 Key Points

- Value sets are used to group each category of SMM Diagnosis Codes
  - Review all numerator cases to determine quality improvement opportunities and coding documentation
- Risk adjustment does not exclude cases
- Rate are reported per 10,000 delivery hospitalizations

# ePC-07 Measure Specifications

Description: Patients with severe obstetric complications which occur during the inpatient delivery hospitalization.

Initial Population	Denominator	Denominator Exclusion
Inpatient hospitalization	Inpatient hospitalization	Inpatient hospitalization
Age: >= 8 and < 65 years	Delivery of stillborn or live birth	Patients with confirmed COVID diagnosis with: <ul style="list-style-type: none"><li>COVID-related respiratory condition or</li><li>COVID-related respiratory procedure</li></ul>
Delivery procedure with a discharge date that ends during measurement period	>= 20 weeks, 0 days gestation completed	

## Numerator 1 – Delivery Encounters with Severe Obstetric Complications

Numerator 1		
<div>1. Severe Maternal Morbidity (SMM) Diagnoses*:</div> <div>Cardiac</div> <ul style="list-style-type: none"> <li>Acute heart failure**</li> <li>Acute myocardial infarction</li> <li>Aortic aneurysm</li> <li>Cardiac arrest/ventricular fibrillation</li> <li>Heart failure/arrest during procedure or surgery</li> </ul> <div>Hemorrhage</div> <ul style="list-style-type: none"> <li>Disseminated intravascular coagulation</li> <li>Shock</li> </ul> <div>Renal</div> <ul style="list-style-type: none"> <li>Acute renal failure</li> </ul>	<div>Respiratory</div> <ul style="list-style-type: none"> <li>Adult respiratory distress syndrome</li> <li>Pulmonary edema**</li> </ul> <div>Sepsis</div> <div>Other OB</div> <ul style="list-style-type: none"> <li>Air and thrombotic embolism</li> <li>Amniotic fluid embolism</li> <li>Eclampsia</li> <li>Severe anesthesia complications</li> </ul> <div>Other Medical</div> <ul style="list-style-type: none"> <li>Puerperal cerebrovascular disorder</li> <li>Sickle cell disease with crisis</li> </ul>	<div>2. Severe Maternal Morbidity (SMM) Procedures:</div> <ul style="list-style-type: none"> <li>Blood transfusion</li> <li>Conversion of cardiac rhythm</li> <li>Hysterectomy</li> <li>Temporary tracheostomy</li> <li>Ventilation</li> </ul> <div>*Only SMM conditions which are NOT present on admission are included in the numerators</div> <div>**CDC groups acute heart failure and pulmonary edema together as one SMM indicator; hence, a total of 21 indicators as opposed to the 22 listed here.</div> <div>3. Discharge Disposition of Expired</div>

## Numerator 2 – Delivery Encounters with Severe Obstetric Complications Excluding Blood Transfusions Only

Numerator 1		
<div> <b>1. Severe Maternal Morbidity</b> </div> <div> <div>Cardiac</div> <ul style="list-style-type: none"> <li>Acute heart failure**</li> <li>Acute myocardial infarction</li> <li>Aortic aneurysm</li> <li>Cardiac arrest/ventricular fibrillation</li> <li>Heart failure/arrest during procedure or surgery</li> </ul> <div>Hemorrhage</div> <ul style="list-style-type: none"> <li>Disseminated intravascular coagulation</li> <li>Shock</li> </ul> <div>Renal</div> <ul style="list-style-type: none"> <li>Acute renal failure</li> </ul> </div>	<div> <b>(SMM) Diagnoses*:</b> </div> <div> <div>Respiratory</div> <ul style="list-style-type: none"> <li>Adult respiratory distress syndrome</li> <li>Pulmonary edema**</li> </ul> <div>Sepsis</div> <div>Other OB</div> <ul style="list-style-type: none"> <li>Air and thrombotic embolism</li> <li>Amniotic fluid embolism</li> <li>Eclampsia</li> <li>Severe anesthesia complications</li> </ul> <div>Other Medical</div> <ul style="list-style-type: none"> <li>Puerperal cerebrovascular disorder</li> <li>Sickle cell disease with crisis</li> </ul> </div>	<div> <b>2. Severe Maternal Morbidity (SMM) Procedures:</b> </div> <div> <ul style="list-style-type: none"> <li>Blood transfusion</li> <li>Conversion of cardiac rhythm</li> <li>Hysterectomy</li> <li>Temporary tracheostomy</li> <li>Ventilation</li> </ul> <p>*Only SMM conditions which are NOT present on admission are included in the numerators</p> <p>**CDC groups acute heart failure and pulmonary edema together as one SMM indicator; hence, a total of 21 indicators as opposed to the 22 listed here.</p> </div>
		<div> <b>3. Discharge Disposition of Expired</b> </div>

# ePC-o7 Measure Specifications – Numerator Exclusion

Description: Patients in the numerator with blood transfusion or hysterectomy with a diagnosis of placenta percreta or placenta increta and no additional severe obstetrical complications.

<u>Numerator Exclusion 1</u>	<u>Numerator Exclusion 2</u>
<u>Inpatient hospitalizations with SOC</u>	<u>Inpatient hospitalizations with SOC - excluding blood transfusions only</u>
<u>Patients with blood Transfusion or hysterectomy</u>	<u>Patients with blood Transfusion or hysterectomy</u>
<u>with a diagnosis of placenta percreta or placenta increta</u>	<u>with a diagnosis of placenta percreta or placenta increta</u>

# ePC-07 Risk Adjustment Using Pre-existing Conditions

<ul style="list-style-type: none"> <li>• Anemia</li> <li>• Asthma</li> <li>• Autoimmune Disease</li> <li>• Bariatric Surgery</li> <li>• Bleeding Disorder</li> <li>• Cardiac Disease</li> <li>• Gastrointestinal Disease</li> <li>• Gestational Diabetes</li> <li>• HIV</li> <li>• Housing Instability</li> <li>• Hypertension</li> <li>• Maternal Age</li> <li>• Mental Health Disorder</li> <li>• Morbid Obesity</li> <li>• Multiple Pregnancy</li> </ul>	<ul style="list-style-type: none"> <li>• Neuromuscular Disease</li> <li>• Other Pre-eclampsia</li> <li>• Placenta Previa</li> <li>• Placental Abruptio</li> <li>• Placental Accreta Spectrum</li> <li>• Pre-existing Diabetes</li> <li>• Preterm Birth</li> <li>• Previous Cesarean</li> <li>• Pulmonary Hypertension</li> <li>• Renal Disease</li> <li>• Severe Pre-eclampsia</li> <li>• Substance Abuse</li> <li>• Thyrotoxicosis</li> <li>• Long-term Anticoagulant Use</li> <li>• Obstetric VTE</li> </ul>	<p>First resulted value 24 hours prior to start of encounter and before time of delivery:</p> <ul style="list-style-type: none"> <li>• Heart Rate</li> <li>• Systolic Blood Pressure</li> <li>• White Blood Cell Count</li> <li>• Hematocrit</li> </ul>
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# ePC-o7 Measure Changes from 2024 to 2025 – Clinical

Measure Components	Reporting Year 2024	Reporting Year 2025
Consensus-Based Entity (CBE) Number / Endorsed by	<del>NQF</del> Number	<u>CBE</u> Number
Risk Adjustment	Anemia	Anemia ( <u>includes sickle cell disease</u> )
Risk Adjustment	Housing Instability	<u>Economic Housing Instability</u>





# ePC-o7 Measure Changes from 2024 to 2025 – Technical

Measure Components	Reporting Year 2024	Reporting Year 2025
Libraries/Functions	MATGlobalCommonFunctions PCMaternal	MATGlobalCommonFunctions <u>QDM</u> PCMaternal <u>QDM</u>
Terminology	Valueset “Payer”	Valueset “Payer <u>Type</u> ”
Terminology	N/A	Multiple value sets with code additions/deletions due to terminology updates. See eCQM value sets and Technical Release Notes for more details.
Definitions	N/A	<b><u>Global.Inpatient Encounter</u></b> <u>    [“Encounter, Performed”: “Encounter Inpatient”]</u> <u>EncounterInpatient</u> <u>    where EncounterInpatient.relevantPeriod ends during day</u> <u>of “Measurement Period”</u>

# ★ ePC-o7 Measure Changes from 2024 to 2025 – Technical (2)

Measure Components	Reporting Year 2024	Reporting Year 2025
Definitions	N/A	<b><u>Risk Variable Maternal Age</u></b> <u>“Delivery Encounters At Greater than or Equal to 20 Week Gestation”</u> <u>TwentyWeeksPlusEncounter</u> <u>let MaternalAge: AgeInYearsAt(date from start of</u> <u>TwentyWeeksPlusEncounter.relevantPeriod)</u> <u>Return { TwentyWeekPlusEncounter,MaternalAge }</u>
Functions	N/A	<b><u>FirstLabTestWithEncounterId...</u></b> <b><u>FirstPhysicalExamWithEncounterId...</u></b> Added “Lab. <u>result is not null</u> ” and “Exam. <u>result is not null</u> ”, respectively
Functions	<b><u>PCMaternal.LastEstimatedGestationalAge</u></b>	<b><u>PCMaternal.LastEstimatedGestationalAge</u></b> ... <u>where(EGATiming24 hours or less before or on</u> <u>“LastTimeOfDelivery”(Encounter)...</u>



# ePC-07 Measure Changes from 2024 to 2025 – Technical (3)

Measure Components	2024 Reporting Year	2025 Reporting Year
Functions	N/A	<u>POAIsNoOrUTD(Encounter “Encounter, Performed”)</u> <u>Encounter.diagnoses EncounterDiagnoses</u> <u>where EncounterDiagnoses.presentOnAdmission in</u> <u>“Present on Admission is No or Unable To Determine”</u> <u>return EncounterDiagnoses.code</u>
Functions	N/A	<u>POAIsYesOrExempt(Encounter “Encounter, Performed”)</u> <u>Encounter.diagnoses EncounterDiagnoses</u> <u>where EncounterDiagnoses.presentOnAdmission in</u> <u>“Present on Admission is Yes or Exempt”</u> <u>return EncounterDiagnoses.code</u>
Definitions	N/A	<u>SDE SOC Diagnoses Detail</u> <u>SDE SOC Procedure Detail</u>

# ePC-07 Measure Changes from 2024 to 2025 - Technical

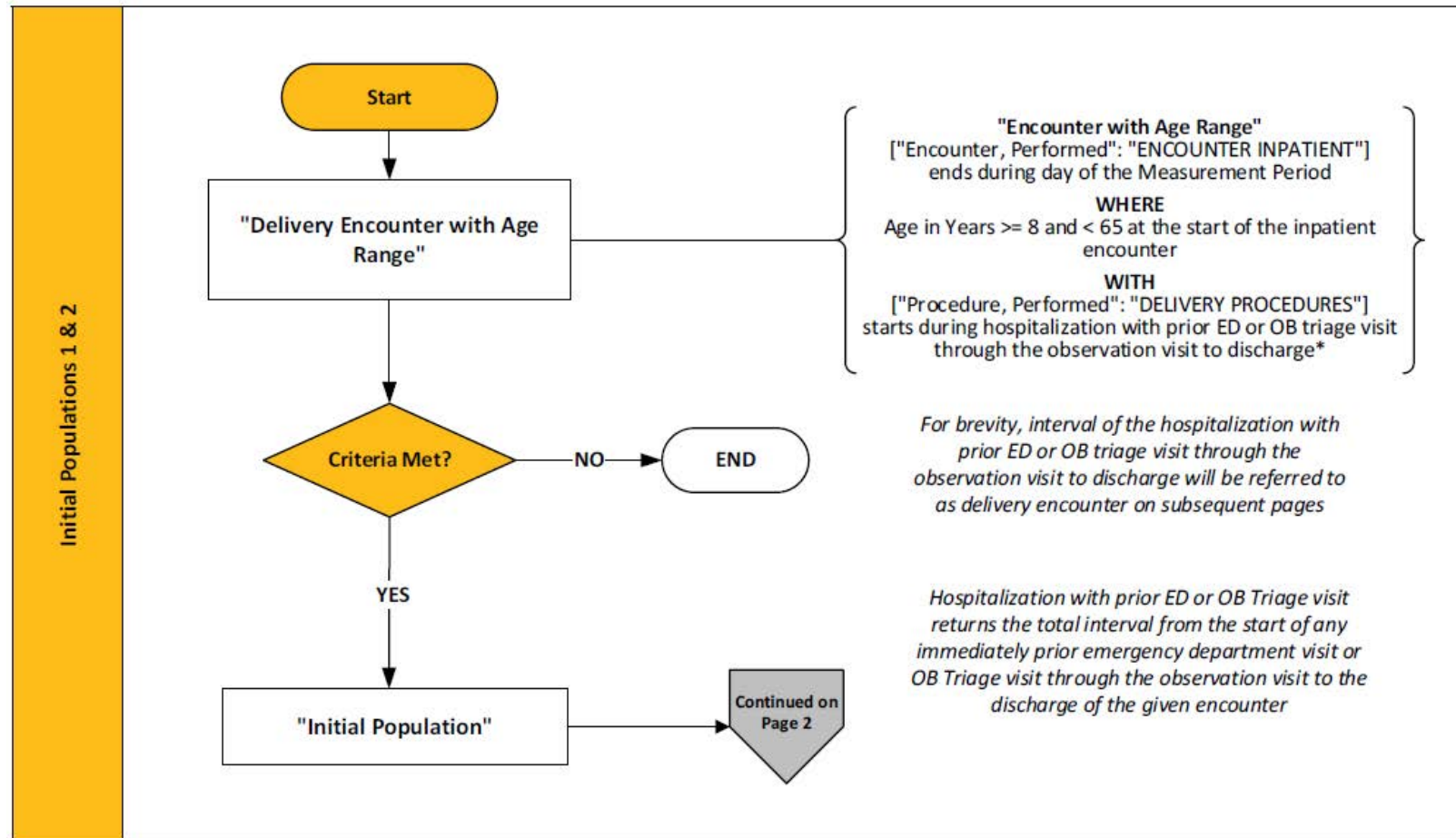
Measure Components	2024 Reporting Year	2025 Reporting Year
Stratification → Numerator 2	<p>Stratum1: Delivery hospitalizations with severe obstetric complications excluding hospitalizations where transfusion was the only severe obstetric complication.</p> <p>Population Criteria 2 Numerator: N/A</p>	<p><del>Stratum1: Delivery hospitalizations with severe obstetric complications excluding hospitalizations where transfusion was the only severe obstetric complication.</del></p> <p><u>Population Criteria 2 Numerator:</u>  <u>“Delivery Encounters with Severe Obstetric Complications Excluding Blood Transfusions Only”</u></p>
Numerator Exclusion	N/A	<p><u>“SOC with Hysterectomy or Blood Transfusion with Placenta Increta or Placenta Percreta Without Additional SOC”</u></p>

# **CMS1028**

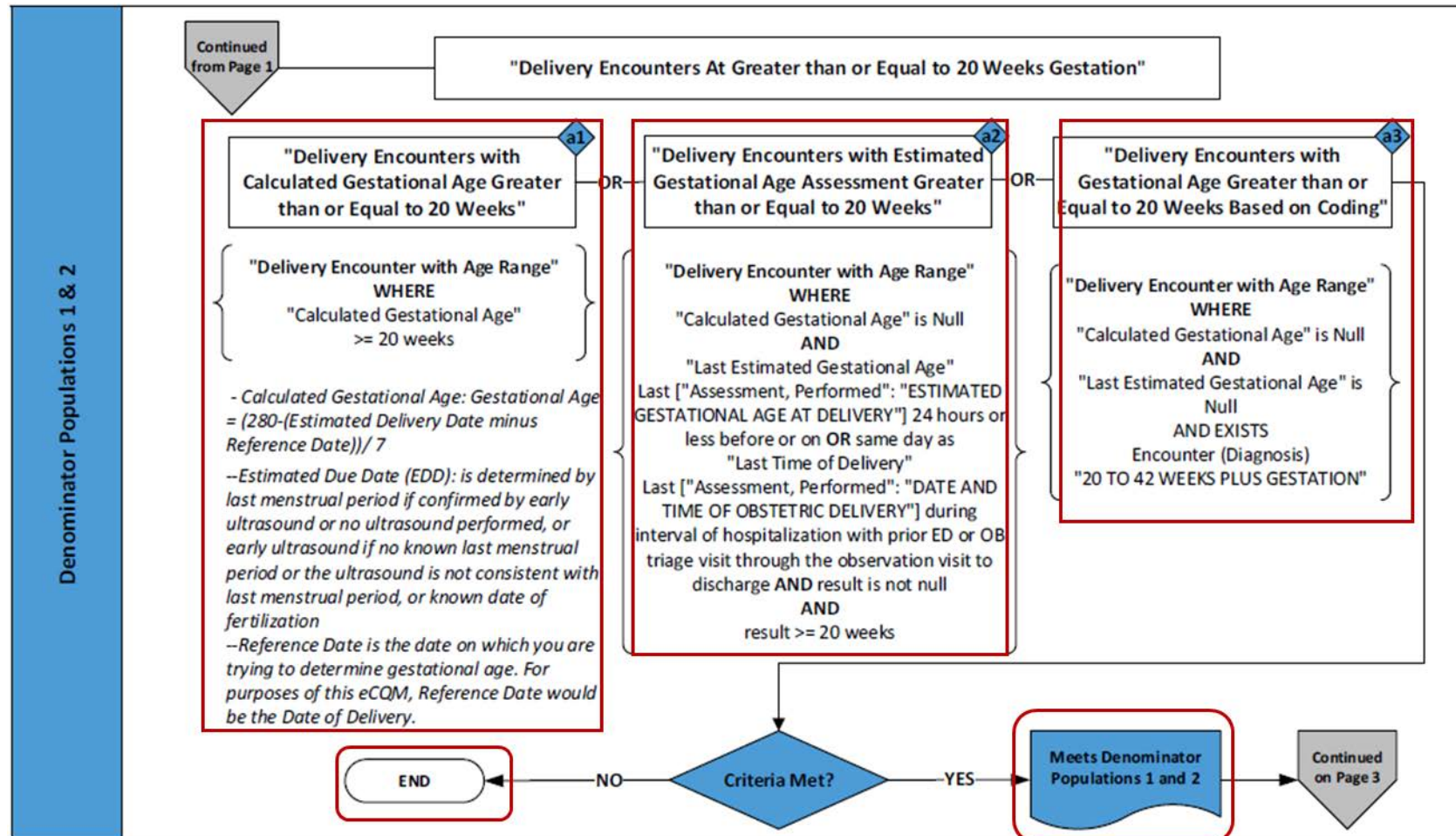
## **PC-07 Severe Obstetric Complications Measure Flow**

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# ePC-07 Measure Flow – Initial Population

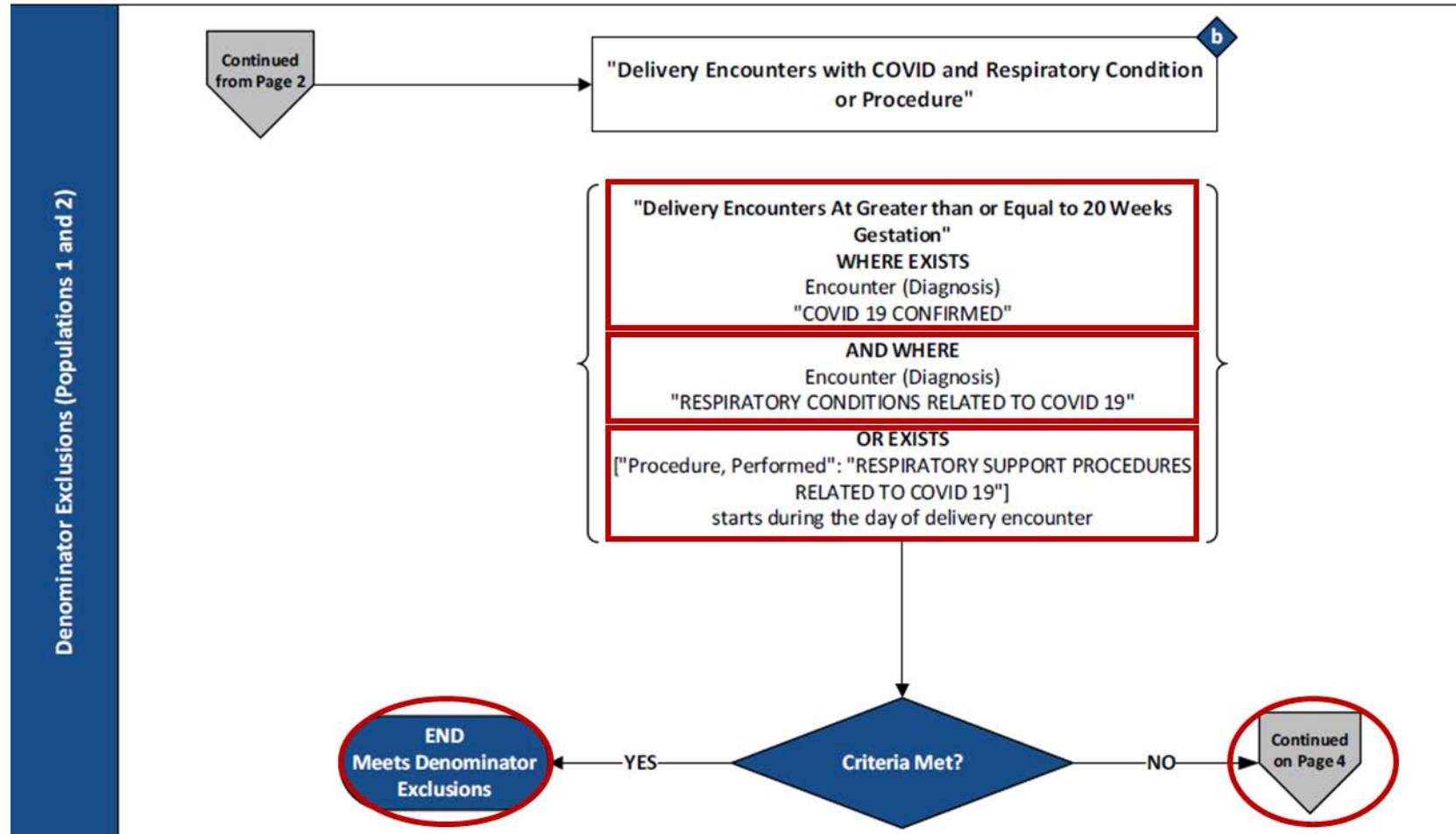


# ePC-o7 Measure Flow – Denominator Populations



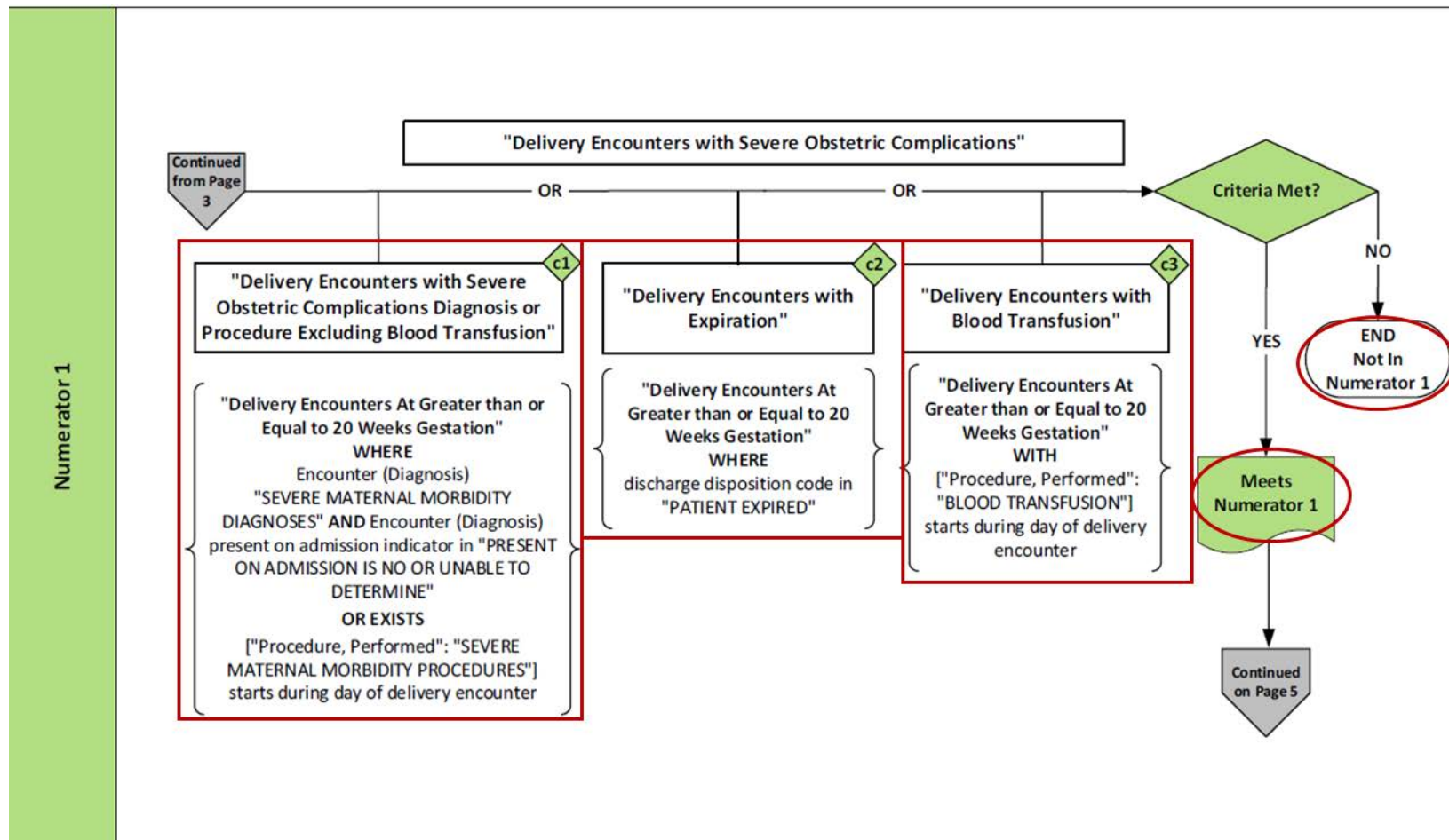


# ePC-o7 Measure Flow – Denominator Exclusions

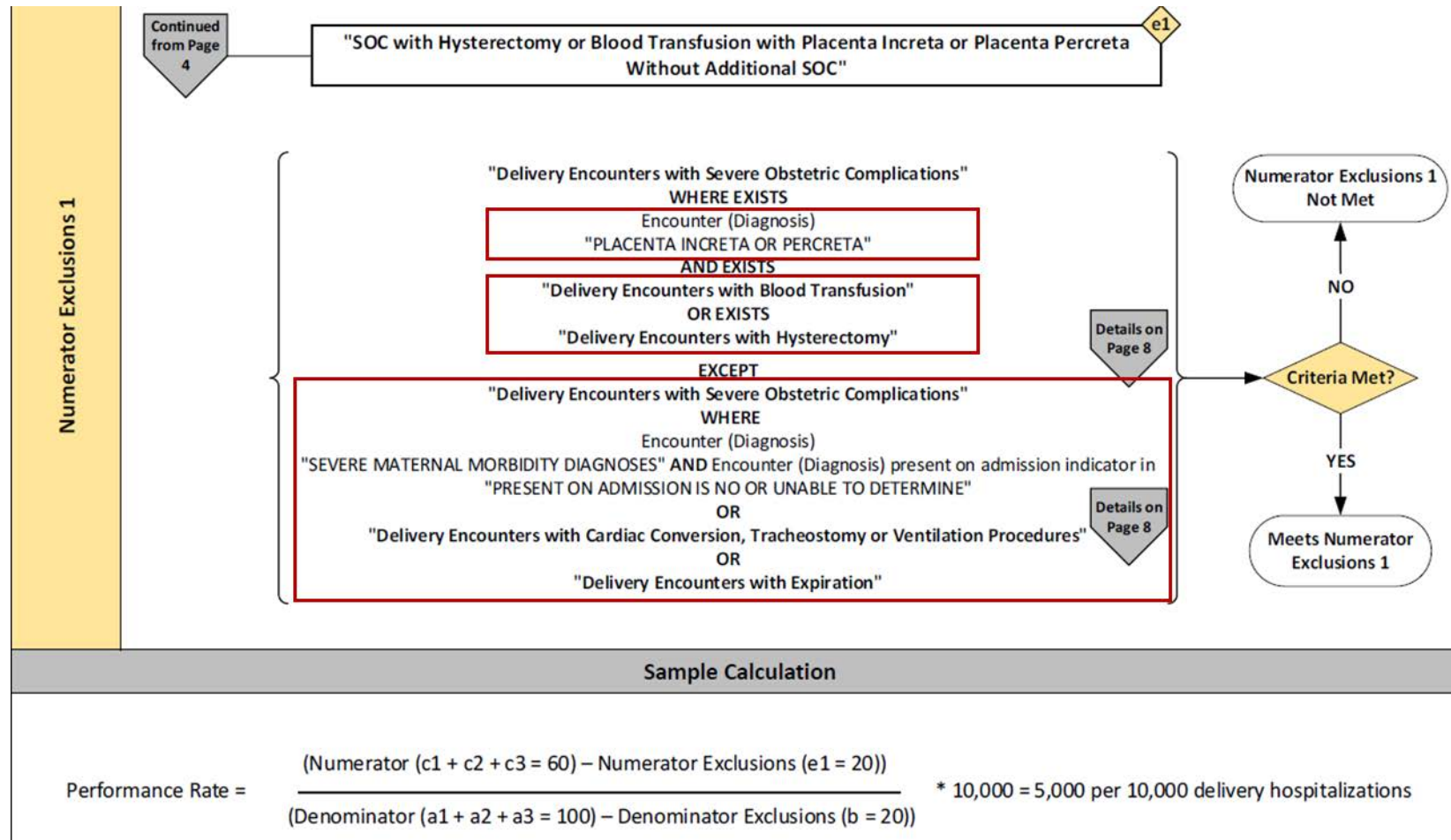




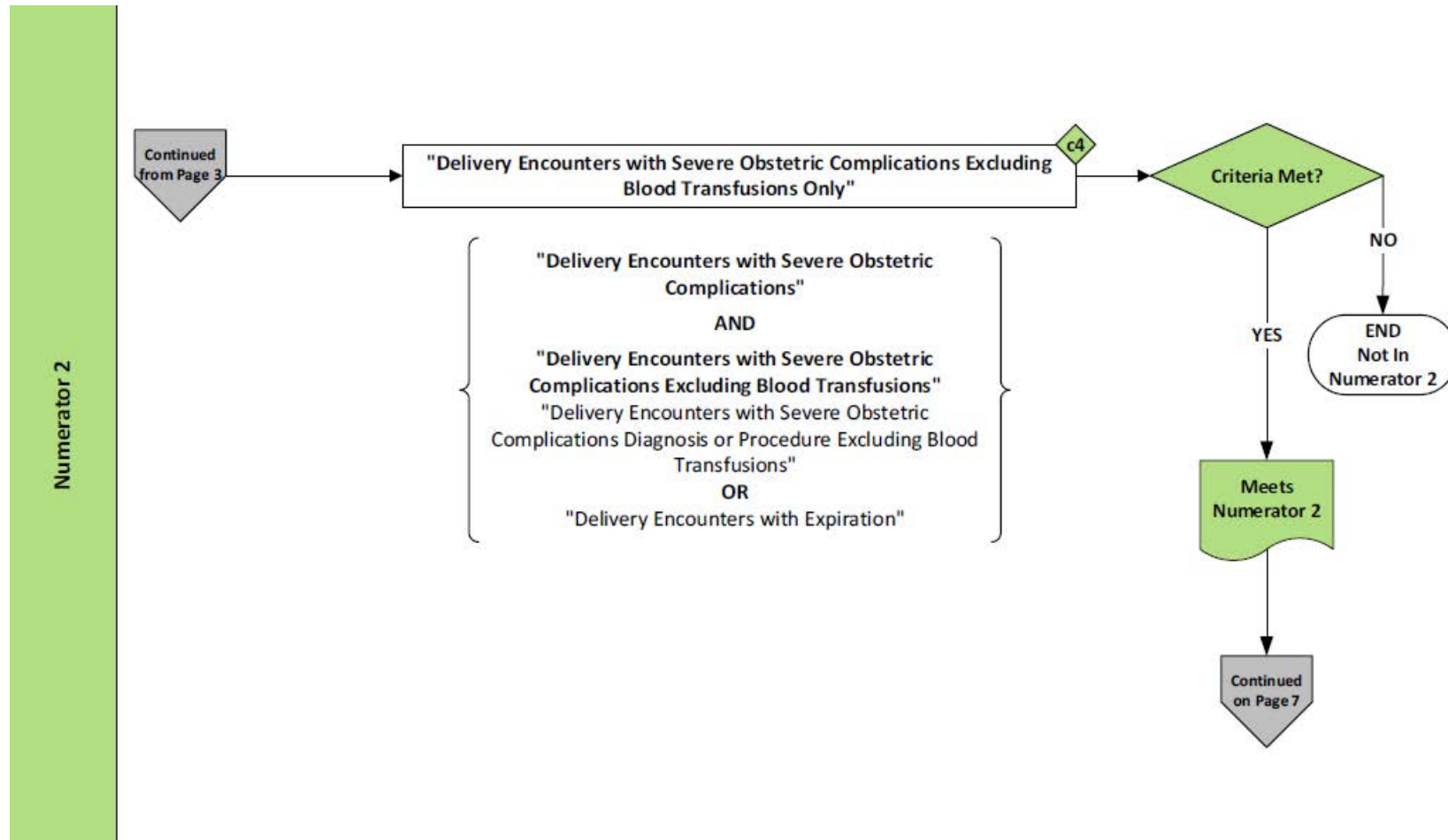
# ePC-07 Measure Flow – Numerator 1



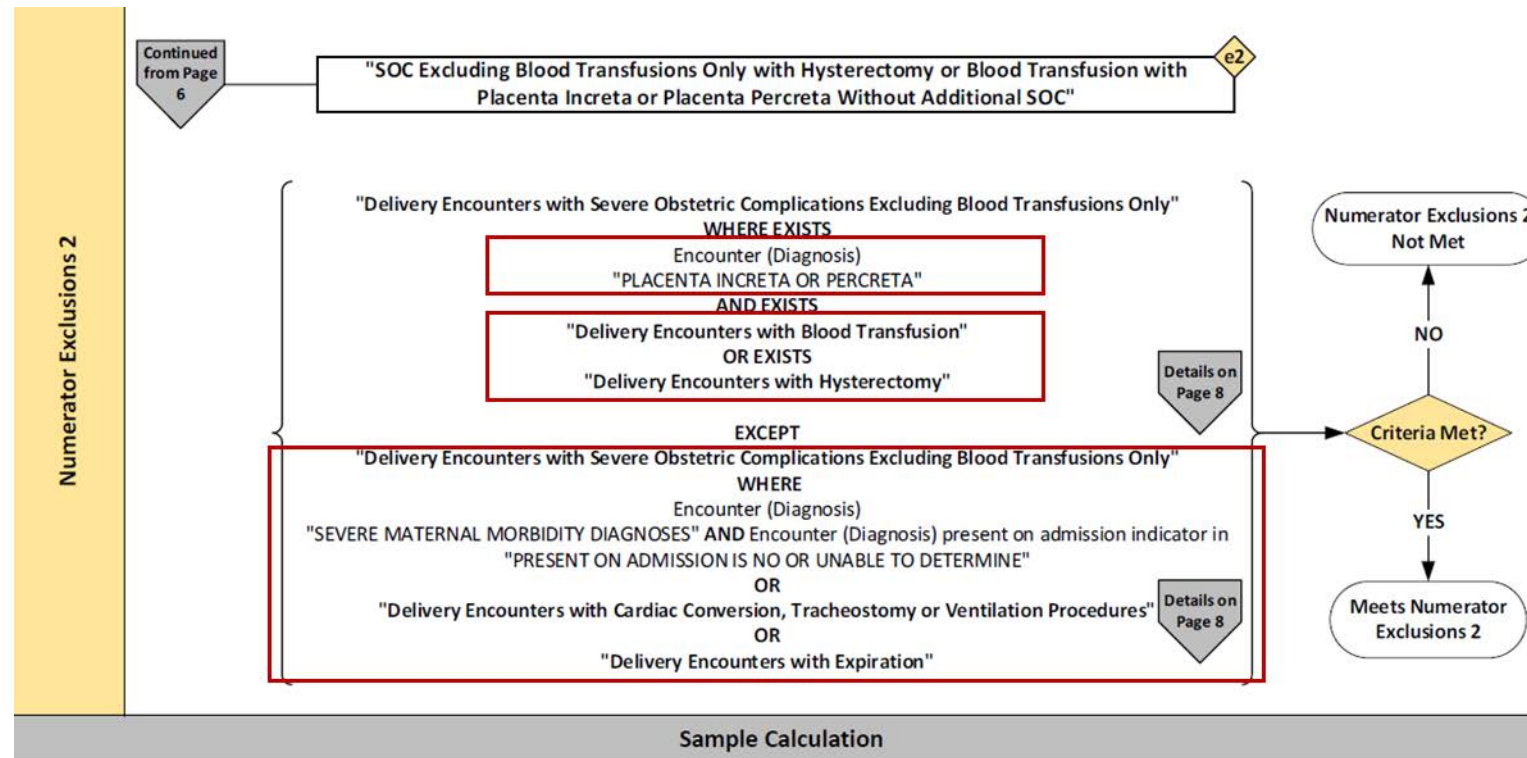
# ★ ePC-o7 Measure Flow – Numerator Exclusions 1



# ★ ePC-07 Measure Flow – Numerator 2



# ★ ePC-07 Measure Flow – Numerator Exclusions 2



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

# ePC-07 Initial Population

## PCMaternal."Delivery Encounter with Age Range"

### ★ PCMaternal.Delivery Encounter with Age Range

"Encounter with Age Range" EncounterWithAge  
 with ["Procedure, Performed": "Delivery Procedures"] DeliveryProcedure  
 such that Global."NormalizeInterval" (DeliveryProcedure.relevantDatetime,  
 DeliveryProcedure.relevantPeriod )  
 starts during ~~day of~~ "HospitalizationWithEDOBTriageObservation"(EncounterWithAge)

### ★ PCMaternal.Encounter with Age Range

~~["Encounter, Performed": "Encounter Inpatient"] EncounterInpatient~~  
Global."Inpatient Encounter" InpatientEncounter  
 where AgeInYearsAt(date from start of ~~EncounterInpatient~~InpatientEncounter.relevantPeriod)>= 8  
 and AgeInYearsAt(date from start of EncounterInpatient.relevantPeriod)< 65  
~~and EncounterInpatient.relevantPeriod ends during day of "Measurement Period"~~

# ePC-07 Denominator

## **“Delivery Encounters At Greater than or Equal to 20 Weeks Gestation”**

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

union

"Delivery Encounter with Estimated Gestational Age Greater than or Equal to 20 Weeks"

union

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

---



# ePC-07 Denominator Exclusions

## ★ “Delivery Encounters with COVID and Respiratory Condition or Procedure”

"Delivery Encounters At Greater than or Equal to 20 Weeks Gestation" TwentyWeeksPlusEncounter  
 where exists ( TwentyWeeksPlusEncounter.diagnoses EncounterDiagnoses  
 where EncounterDiagnoses.code in "COVID 19 Confirmed")  
 and ( exists ( TwentyWeeksPlusEncounter.diagnoses EncounterDiagnoses  
 where EncounterDiagnoses.code in "Respiratory Conditions Related to COVID 19"  
 or exists ( ["Procedure, Performed": "Respiratory Support Procedures Related to COVID 19"]  
EncounterProceduresCOVIDRespiratoryProcedure  
 where Global."NormalizeInterval" (   
EncounterProceduresCOVIDRespiratoryProcedure.relevantDatetime,  
EncounterProceduresCOVIDRespiratoryProcedure.relevantPeriod ) starts during day of  
 PCMaternal."HospitalizationWithEDOBTriageObservation"  
 ( TwentyWeeksPlusEncounter ))))

# ePC-07 Numerator 1

## "Delivery Encounters with Severe Obstetric Complications"

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

union

"Delivery Encounters with Expiration"

union

"Delivery Encounters with Blood Transfusion"





# ePC-07 Numerator 1 (2)

## ★ “Delivery Encounters with Severe Obstetric Complications Diagnosis or Procedure Excluding Blood Transfusion”

"Delivery Encounters At Greater than or Equal to 20 Weeks Gestation" TwentyWeeksPlusEncounter where ~~exists~~ "POIsNoOrUTD"( TwentyWeeksPlusEncounter.~~diagnoses~~ EncounterDiagnoses ~~where~~ EncounterDiagnoses).code in "Severe Maternal Morbidity Diagnoses"

~~and EncounterDiagnoses.presentOnAdmissionIndicator in "Present on Admission = is No or Unable To Determine")~~

or exists ( ["Procedure, Performed": "Severe Maternal Morbidity Procedures"] ~~Encounter~~ SMMProcedures where Global."NormalizeInterval" ( ~~Encounter~~ SMMProcedures.relevantDatetime, ~~Encounter~~ SMMProcedures.relevantPeriod ) starts during day of "PCMaternal."HospitalizationWithEDOBTriageObservation" ( TwentyWeeksPlusEncounter ))

# ePC-07 Numerator 1 (3)

## “Delivery Encounters with Expiration”

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

where TwentyWeeksPlusEncounter.dischargeDisposition in "Patient Expired"

# ePC-07 Numerator 1 (4)

## “Delivery Encounters with Blood Transfusion”

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

with ["Procedure, Performed": "Blood Transfusion"] BloodTransfusion

such that Global."NormalizeInterval" (BloodTransfusion.relevantDatetime,  
BloodTransfusion.relevantPeriod ) starts during day of  
PCMaternal."HospitalizationWithEDOBTriageObservation"

( TwentyWeeksPlusEncounter )

# ★ ePC-07 Numerator Exclusions 1

## “SOC with Hysterectomy or Blood Transfusion with Placenta Increta or Placenta Percreta Without Additional SOC”

(“Delivery Encounters with Severe Obstetric Complications” SOC Encounter  
where exists (SOC Encounter.diagnoses EncounterDiagnoses  
where EncounterDiagnoses.code in “Placenta Increta or Percreta”)  
and ( exists “Delivery Encounters with Blood Transfusion”  
or exists “Delivery Encounters with Hysterectomy” ) )

except ( ( “Delivery Encounters with Severe Obstetric Complications” SOC Encounter  
where ( “POAIsNoOrUTD”(SOC Encounter).code in “Severe Maternal Morbidity Diagnoses” ) )  
union “Delivery Encounters with Cardiac Conversion, Tracheostomy or Ventilation Procedures”  
union “Delivery Encounters with Expiration”

# ePC-07 Numerator Exclusions 1 (2)

**“SOC with Hysterectomy or Blood Transfusion with Placenta Increta or Placenta Percreta Without Additional SOC”**

“Delivery Encounters with Severe Obstetric Complications”  
SOC Encounter

where exists (SOC Encounter.diagnoses EncounterDiagnoses  
where EncounterDiagnoses.code in “Placenta Increta or  
Percreta”)  
and ( exists “Delivery Encounters with Blood Transfusion”  
or exists “Delivery Encounters with Hysterectomy” ) )

except ( ( “Delivery Encounters with Severe Obstetric  
Complications” SOC Encounter

where ( “POAIsNoOrUTD”(SOC Encounter).code in “Severe  
Maternal Morbidity Diagnoses” ) )

union “Delivery Encounters with Cardiac Conversion,  
Tracheostomy or Ventilation Procedures”

union “Delivery Encounters with Expiration”

**“Delivery Encounters with Blood Transfusion”**

“Delivery Encounters At Greater than or Equal to 20 Weeks  
Gestation” TwentyWeeksPlusEncounter

with [“Procedure, Performed”: “Blood Transfusion”]  
BloodTransfusion

such that Global.”NormalizeInterval“  
(BloodTransfusion.relevantDatetime,  
BloodTransfusion.relevantPeriod ) starts during day of  
PCMaternal.”HospitalizationWithEDOB TriageObservation”  
( TwentyWeeksPlusEncounter )

**“Delivery Encounters with Hysterectomy”**

“Delivery Encounters At Greater than or Equal to 20 Weeks  
Gestation” TwentyWeeksPlusEncounter

with [“Procedure, Performed”: “Hysterectomy”] Hysterectomy

such that Global.”NormalizeInterval“ (  
Hysterectomy.relevantDatetime, Hysterectomy.relevantPeriod )  
starts during day of PCMaternal.  
“HospitalizationWithEDOB TriageObservation”  
( TwentyWeeksPlusEncounter )

# ★ ePC-o7 Numerator Exclusions 1 (3)

## “SOC with Hysterectomy or Blood Transfusion with Placenta Increta or Placenta Percreta Without Additional SOC”

(“Delivery Encounters with Severe Obstetric Complications” SOC Encounter

where exists (SOC Encounter.diagnoses EncounterDiagnoses  
where EncounterDiagnoses.code in “Placenta Increta or  
Percreta”)

and ( exists “Delivery Encounters with Blood Transfusion”  
or exists “Delivery Encounters with Hysterectomy” ) )

except ( ( “Delivery Encounters with Severe Obstetric  
Complications” SOC Encounter

where ( “POAIsNoOrUTD”(SOC Encounter).code in “Severe  
Maternal Morbidity Diagnoses” ) )

union “Delivery Encounters with Cardiac Conversion,  
Tracheostomy or Ventilation Procedures”

union “Delivery Encounters with Expiration”

## “Delivery Encounters with Cardiac Conversion, Tracheostomy or Ventilation Procedures

“Delivery Encounters At Greater than or Equal to 20 Weeks  
Gestation” TwentyWeeksPlusEncounter

With “Cardiac Conversion, Tracheostomy or Ventilation  
Procedures” ConvTrachVentProcedures

such that Global.”NormalizeInterval”  
(ConvTrachVentProcedures.relevantPeriod ) starts during day of  
PCMaternal.”HospitalizationWithEDOB TriageObservation”  
(TwentyWeeksPlusEncounter )

## “Delivery Encounters with Expiration”

“Delivery Encounters At Greater than or Equal to 20 Weeks  
Gestation” TwentyWeeksPlusEncounter

where TwentyWeeksPlusEncounter.dischargeDisposition in  
“Patient Expired”

# ePC-07 Numerator 2

## “Delivery Encounters with Severe Obstetric Complications Excluding Blood Transfusions Only”

“Delivery Encounters with Severe Obstetric Complications”

intersect “Delivery Encounters with Severe Obstetric Complications Excluding Blood Transfusions”

“Delivery Encounters with Severe Obstetric Complications”

“Delivery Encounters with Severe Obstetric Complications Diagnosis or Procedure Excluding Blood Transfusion”

union “Delivery Encounters with Expiration”

union “Delivery Encounters with Blood Transfusion”

“Delivery Encounters with Severe Obstetric Complications Excluding Blood Transfusions”

“Delivery Encounters with Severe Obstetric Complications Diagnosis or Procedure Excluding Blood Transfusion”

union “Delivery Encounters with Expiration”

# ePC-07 Numerator Exclusions 2

**“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”  
SOCExcludingTransfusion

where exists (SOCExcludingTransfusion.diagnoses EncounterDiagnoses

where EncounterDiagnoses.code in “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”  
SOCExcludingTransfusion

where ( “POAIsNoOrUTD”(SOCExcludingTransfusion).code in “Severe Maternal Morbidity  
Diagnoses” ) )

union “Delivery Encounters with Cardiac Conversion, Tracheostomy or Ventilation Procedures”

union “Delivery Encounters with Expiration”



# ePC-07 Frequently Asked Question



**Question:** I understand PC07 is a risk adjusted measure. Would a patient with pre-existing conditions from the risk variable list, be excluded from the measure?

**Answer:** Risk adjustment does not exclude a case from the measure numerator or denominator. The only denominator exclusions are 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.

# ePC-07 Risk Adjustment Logic

## Risk Variable Anemia

“Delivery Encounters At Greater than or Equal to 20 Weeks Gestation”

TwentyWeeksPlusEncounter

where ~~exists~~( “POAIsYesOrExempt”(TwentyWeeksPlusEncounter.~~diagnoses~~  
~~EncounterDiagnoses~~

~~whereEncounterDiagnoses.~~\_code in “Anemia”

~~and EncounterDiagnoses.presentOnAdmissionIndicator in “Present On Admission is  
Yes or Exempt”)~~

# ePC-07 Risk Adjustment Logic (2)

## Risk Variable Preterm Birth

```
( PCMaternal."Delivery Encounter with Age Range" DeliveryEncounter
  let CGA: PCMaternal."CalculatedGestationalAge" ( DeliveryEncounter ),
  EGA: PCMaternal."LastEstimatedGestationalAge" ( DeliveryEncounter )
  where CGA in Interval[20, 36]
  or ( CGA is null
    and ( EGA >= 20 weeks
      and EGA <= 36 weeks)))

union ( PCMaternal."Delivery Encounter with Age Range" DeliveryEncounter
  let CGA: PCMaternal."CalculatedGestationalAge" ( DeliveryEncounter ),
  EGA: PCMaternal."LastEstimatedGestationalAge" ( DeliveryEncounter )
  where CGA is null
  and EGA is null
  and exists ( "POAIsYesOrExempt"(DeliveryEncounter.diagnoses EncounterDiagnoses
  where EncounterDiagnoses.code in "Preterm Birth"
  and EncounterDiagnoses.presentOnAdmissionIndicator in "Present On Admission is Yes or Exempt"))
```

# ePC-07 Risk Adjustment Logic (3)

## FirstLabTestWithEncounterId

```
"Delivery Encounters At Greater than or Equal to 20 Weeks Gestation" EncounterTwentyWeeksPlusEncounter
let FirstLab: First(LabList Lab
  where Lab.result is not null
    and Lab.resultDatetime during Interval[start of
PCMaternal."HospitalizationWithEDOBTriageObservation"(EncounterTwentyWeeksPlusEncounter)-1440 minutes,
PCMaternal."LastTimeOfDelivery"(EncounterTwentyWeeksPlusEncounter))
    sort by resultDatetime
)
return {
  EncounterId: EncounterTwentyWeeksPlusEncounter.id,
  FirstResult: FirstLab.result as Quantity,
  Timing: FirstLab.resultDatetime
}
```

# ePC-07 Risk Adjustment Logic (4)

## FirstPhysicalExamWithEncounterId

```
"Delivery Encounters At Greater than or Equal to 20 Weeks Gestation" EncounterTwentyWeeksPlusEncounter
let FirstExam: First(ExamList Exam
  where Exam.result is not null
    and Global."EarliestOf"(Exam.relevantDatetime, Exam.relevantPeriod)
during Interval[start of
PCMaternal."HospitalizationWithEDOBTriageObservation"(EncounterTwentyWeeksPlusEncounter) -1440 minutes,
PCMaternal."LastTimeOfDelivery"(EncounterTwentyWeeksPlusEncounter))
sort by Global."EarliestOf"(relevantDatetime, relevantPeriod) )
return {
  EncounterId: EncounterTwentyWeeksPlusEncounter.id,
  FirstResult: FirstExam.result as Quantity,
  Timing: Global."EarliestOf" ( FirstExam.relevantDatetime, FirstExam.relevantPeriod )
}
```

# ePC-07 Risk Adjustment Logic (5)

## Risk Variable Lab and Physical Exam Results

```
// First physical exams: Report heart rate as {beats}/min, systolic blood pressure as mm[Hg]
FirstHeartRate: "FirstPhysicalExamWithEncounterId"(["Physical Exam, Performed": "Heart
rate"]),
FirstSystolicBloodPressure: "FirstPhysicalExamWithEncounterId"(["Physical Exam, Performed":
"Systolic blood pressure"]),

// First lab tests: Report hematocrit as %, white blood cell count as 10*3/uL
FirstHematocritLab: "FirstLabTestWithEncounterId"(["Laboratory Test, Performed": "Hematocrit
lab testLab Test"]),
FirstWhiteBloodCellCount: "FirstLabTestWithEncounterId"(["Laboratory Test, Performed": "White
blood cells count lab testBlood Cells Count Lab Test"])]}
```

# ePC-07 Frequently Asked Question



## Question:

There are a lot of risk variables associated with ePC07. Do we need to map each one of these individually in our QRDA submission?

## Answer:

The risk variable definitions are included in the specifications, and risk variable data should be sent with eCQM data in the QRDA1 file.

No specific risk variable templates for the QRDA1 files.

# ePC-07 Frequently Asked Question



## Question:

The metadata for Supplemental Data Elements states, “For every patient evaluated by this measure also identify payer, race, ethnicity, sex, variable calculated gestational age, SOC diagnosis details, and SOC procedure details.”

How will the SOC diagnosis details and SOC procedure details be reflected in the QRDA?

## Answer:

You do not need to submit the actual SOCDxCategory and SOCProcedureCategory in QRDA file. These can be derived/calculated from diagnosis and encounter data provided in QRDA I on the receiving end.

---



# Resources

## eCQI Resource Center

### CMS EH Measures

<https://ecqi.healthit.gov/eligible-hospital/critical-access-hospital-eCQMs>

### Get Started with eCQMs

[https://ecqi.healthit.gov/ecqms?qt-tabs\\_ecqm=education](https://ecqi.healthit.gov/ecqms?qt-tabs_ecqm=education)

### Teach Me Clinical Quality Language (CQL) Video Series -

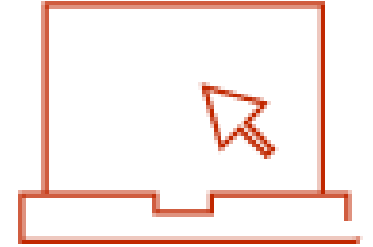
[https://ecqi.healthit.gov/cql?qt-tabs\\_cql=2](https://ecqi.healthit.gov/cql?qt-tabs_cql=2)

### Hospitalization with Observation -

[https://www.youtube.com/watch?v=3yqwOU2XcZM&ab\\_channel=CMSHHSgov](https://www.youtube.com/watch?v=3yqwOU2XcZM&ab_channel=CMSHHSgov)

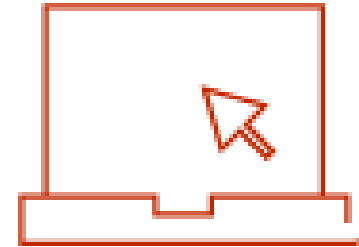
### What is a Value Set -

<https://register.gotowebinar.com/recording/4766956164118938369>



## Resources (2)

**Value Set Authority Center (VSAC) Support -**  
<https://www.nlm.nih.gov/vsac/support/index.html>



**Pioneers In Quality -** <https://www.jointcommission.org/measurement/pioneers-in-quality/>

**Expert to Expert -** <https://www.jointcommission.org/measurement/quality-measurement-webinars-and-videos/expert-to-expert-webinars/>

**ASTP/ONC Issue Tracking System -** <https://oncprojecttracking.healthit.gov/>

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# Live Q&A Segment



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<https://www.jointcommission.org/measurement/quality-measurement-webinars-and-videos/expert-to-expert-webinars/>



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The Joint Commission's Expert to Expert (EtoE) Webinar Series provides a deep-dive into measure intent, logic, and other clinical/technical aspects of electronic clinical quality measures (eCQMs) to assist hospitals and health systems in their efforts to improve eCQM data use for quality improvement. This series incorporates expertise from Joint Commission and other key stakeholders.

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Clicking the links for the follow-up documents may automatically download the PDF rather than open a new internet browser window.

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RESOURCE

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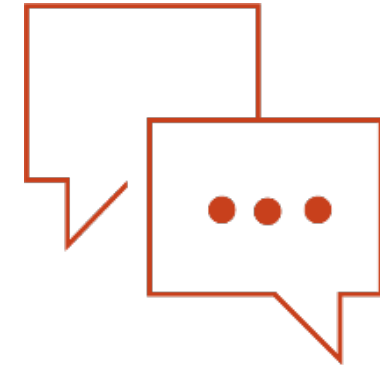
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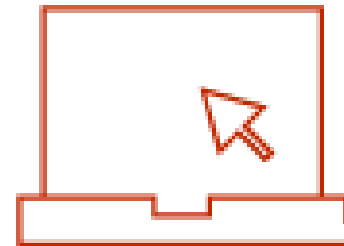
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# Acronyms

Acronym	
CBE	Consensus-Based Entity
CMS	Centers for Medicare& Medicaid Services
CY	Calendar Year
eCQM	Electronic Clinical Quality Measure
ED	Emergency Department
HER	Electronic Health Record
FY	Fiscal Year
GMCS	Global Malnutrition Composite Score
HIQR	Hospital Inpatient Quality Reporting
MD	Medical Doctor
MO	Measure Observation
NQF	National Quality Forum
RD/RDN	Registered Dietician/Registered Dietitian Nutritionist