

Pioneers in Quality Expert to Expert Webinar Series

ePC-07 Severe Obstetric Complications

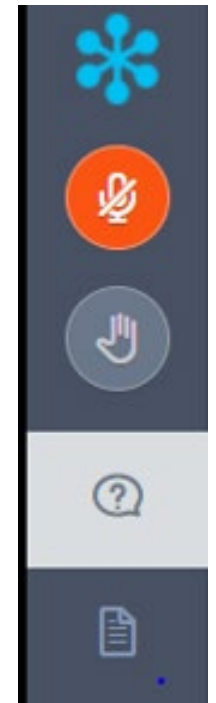
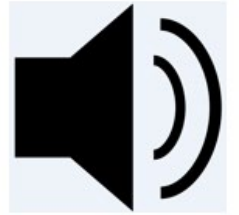
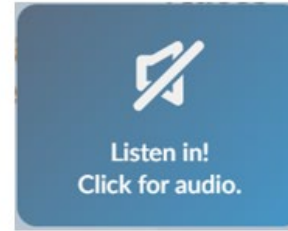
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3/8/2022

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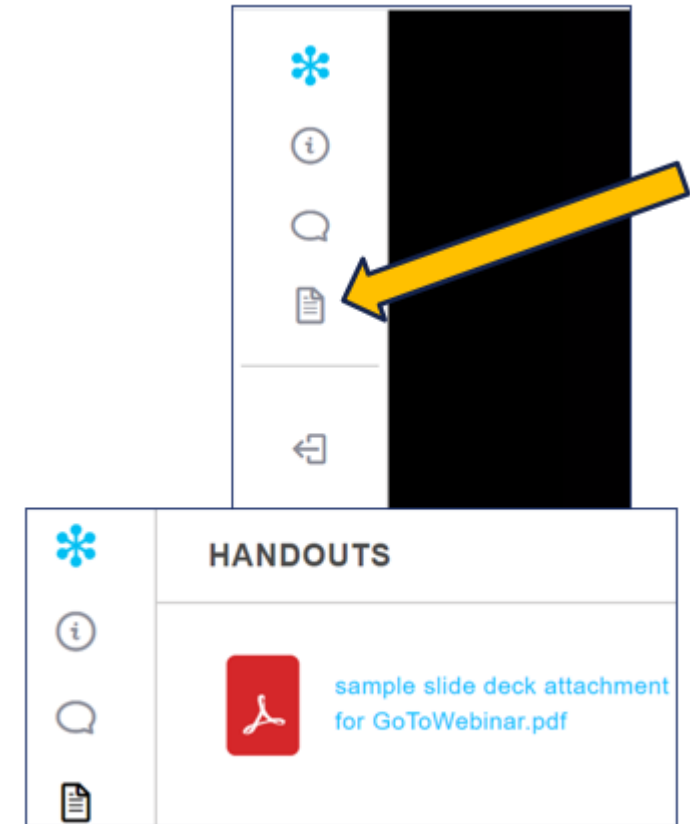
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Expert to Expert Webinar Series

2022 eCQM Annual Updates Webinars

- VTE Measures
- Stroke Measures
- PC-05 Exclusive Breast Milk Feeding
- ED-2 Median Admit Decision Time to ED Departure Time
- Safe Use of Opioids- Concurrent Prescribing
- Joint Commission-only ePC measures (On Demand until Mar 14)

2022 New Measure Review Webinars

- Hospital Harm - Severe Hypoglycemia
- Hospital Harm - Severe Hyperglycemia
- Joint Commission-only PC-07 Severe Obstetric Complications eCQM (Today)



Expert to Expert Series webpage: <https://www.jointcommission.org/measurement/pioneers-in-quality/pioneers-in-quality-expert-to-expert-series/>
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At the end of this webinar, participants should be able to:

1. Apply concepts about measure specifications and prepare to implement the Severe Obstetric Complications (ePC-07) eCQM
2. Locate eCQM resources to assist in quality improvement activities.

Pioneers in Quality Expert to Expert Webinar Agenda: ePC-07

- Describe broad changes made across all eCQMs for reporting year 2022
- Introduce ePC07
- Review technical specifications
- Facilitated audience Q&A segment

Disclosure Statement

These staff and speakers have disclosed that they do not have any financial arrangements or affiliations with corporate organizations that either provide educational grants to this program or may be referenced in this activity:

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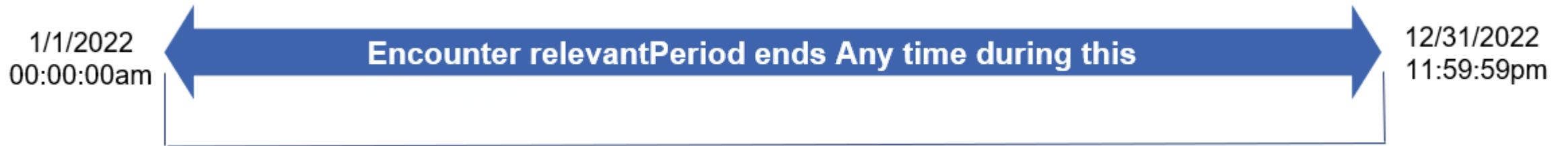
—Susan Yendro, RN, MSN, Associate Director, Measurement Coordination and Outreach, The Joint Commission

Technical Overview – Broad changes made across eCQMs Global Common Function Library Updates

Added 'day of' to Global.Inpatient Encounter definition

– Global.Inpatient Encounter

- ["Encounter, Performed": "Encounter Inpatient"] EncounterInpatient where "LengthInDays"(EncounterInpatient.relevantPeriod)<= 120 and EncounterInpatient.relevantPeriod ends during **day of** "Measurement Period"



- This change was needed to account for timezone offset normalization performed by some receiving systems.
- With 'day of', the comparison is performed to the day only, ignoring the time components, and no timezone offset normalization is performed.

What is UTC?

UTC represents Coordinated Universal Time

- UTC is the primary time standard by which the world regulates clocks and times.
- It is the current time at 0 degrees longitude (runs through Greenwich, England).
- Time zone offsets for the United States are displayed below:

Time Zone	Standard Time	Daylight Savings Time
Eastern	UTC – 05:00	UTC – 04:00
Central	UTC – 06:00	UTC – 05:00
Mountain	UTC – 07:00	UTC – 06:00
Pacific	UTC – 08:00	UTC – 07:00

- A discharge date/time of 2022-12-31 20:00:00 –0600 would convert to 2023-01-01 02:00:00 for measure calculation.
- **Without ‘day of’** → this case will NOT be within Measurement Period due to UTC applied and will unintentionally fall out of the Initial Population.
- **With ‘day of’** → this case will be within the Measurement Period due to time and UTC ignored and will satisfy the Initial Population as expected.

Global.NormalizeInterval() function

Global.NormalizeInterval (pointInTime DateTime, period Interval<DateTime>)

- if pointInTime is not null then Interval[pointInTime, pointInTime]
else if period is not null then period
else null as Interval<DateTime>
- **QDM data types have both a relevantDatetime and relevantPeriod -**
 - Assessment, Performed
 - Device, Applied
 - Diagnostic Study, Performed
 - Intervention, Performed
 - Laboratory Test, Performed
 - Medication, Active
 - Medication, Administered
 - Medication, Dispensed
 - Physical Exam, Performed
 - Procedure, Performed
 - Substance, Administered

Global.NormalizeInterval() function Cont.

Global.NormalizeInterval (pointInTime DateTime, period Interval<DateTime>)

- if pointInTime is not null then Interval[pointInTime, pointInTime]
else if period is not null then period
else null as Interval<DateTime>

– A case with Procedure Performed -

- When relevantDatetime 2022-01-10 08:00:00 is available in the patient data → The function returns

Interval[2022-01-10 08:00:00, 2022-01-10 08:00:00]

- When relevantPeriod is available in the patient data as starts @ 2022-01-10 08:00:00 and ends @ 2022-01-10 11:00:00 → The function returns

Interval[2022-01-10 08:00:00, 2022-01-10 11:00:00]

Global.EarliestOf() function

Global.EarliestOf(pointInTime DateTime, period Interval<DateTime>)

- Earliest(NormalizeInterval(pointInTime, period))

Global.Earliest(period Interval<DateTime>)

- if (HasStart(period)) then start of period
else
end of period

Global.HasStart(period Interval<DateTime>)

- not (start of period is null
or start of period = minimum DateTime)

Global.EarliestOf() function Cont.

Global.EarliestOf(pointInTime DateTime, period Interval<DateTime>)

- Earliest(NormalizeInterval(pointInTime, period))

– A case with Assessment Performed –

- When relevantDatetime 2022-01-10 08:00:00 is available →
Global.Earliest(Interval[2022-01-10 08:00:00, 2022-01-10 08:00:00]) → The function returns 2022-01-10 08:00:00
- When relevantPeriod is available as starts @ 2022-01-10 08:00:00 and ends @ 2022-01-10 11:00:00 →
Global.Earliest(Interval[2022-01-10 08:00:00, 2022-01-10 11:00:00]) → The function returns 2022-01-10 08:00:00
- When start of relevantPeriod is NOT available as starts @ Null and ends @ 2022-01-10 11:00:00 →
Global.Earliest(Interval[NULL, 2022-01-10 11:00:00]) → The function returns 2022-01-10 11:00:00

Global.LatestOf() function

Global.LatestOf(pointInTime DateTime, period Interval<DateTime>)

- Latest(NormalizeInterval(pointInTime, period))

Global.Latest(period Interval<DateTime>)

- if (HasEnd(period)) then end of period
else
start of period

Global.HasEnd(period Interval<DateTime>)

- not (end of period is null
or end of period = maximum DateTime)

ePC-07 Severe Obstetric Complications

Background

- USA experiences higher rates of maternal morbidity and mortality
- Rates have continued to trend upward
- Severe maternal morbidity (SMM) rates have increased from 49.5 to 139.7 per 10,000 deliveries in the U.S. from 1993 to 2017
- National interest to evaluate hospital performance and improve maternal morbidity and mortality rates
- Need to provide timely and accurate data
- Availability of EHR data presents an opportunity to measure maternal complication rates

The Joint Commission Takes Action

- Collaborated with Yale New Haven Health Services Corporation-Center for Outcomes Research and Evaluation (CORE)
- Partnered with experts in the field
- Patient work group engaged
- ePCo7 developed
 - Outcome based
 - Risk adjusted
- First hospital quality measure of maternal morbidity developed for national reporting

Severe Maternal Morbidity & Mortality

- Severe Maternal Morbidity (SMM) is defined as “unexpected outcomes of labor and delivery that result in significant short or long-term consequences to a woman’s health” (ACOG & SMFM)
- The CDC defines SMM by 21 indicators defined by ICD10 diagnoses and procedure codes.
- The goal of ePCo7 is to assess prevalence of SMM **AND** mortality
- Specifications are modeled after CDC’s SMM indicators with the addition of maternal mortality.
- At times, we may refer to the CDC indicators of morbidity as SMM, but the outcome of the measure, which includes morbidity and mortality, is referred to as Severe Obstetric Complications (SOC)

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

ePC-07 Severe Obstetric Complications

Description: Patients with severe obstetric complications which 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

ePC-07 Severe Obstetric Complications Numerator

Numerator

1. Severe Maternal Morbidity (SMM) Diagnoses:

Cardiac

- Acute heart failure*
- Acute myocardial infarction
- Aortic aneurysm
- Cardiac arrest/ventricular fibrillation
- Heart failure/arrest during procedure or surgery

Hemorrhage

- Disseminated intravascular coagulation
- Shock

Renal

- Acute renal failure

Respiratory

- Adult respiratory distress syndrome
- Pulmonary edema*

Sepsis

Other OB

- Air and thrombotic embolism
- Amniotic fluid embolism
- Eclampsia
- Severe anesthesia complications

Other Medical

- Puerperal cerebrovascular disorder
- Sickle cell disease with crisis

2. Severe Maternal Morbidity (SMM) Procedures:

- Blood transfusion
- Conversion of cardiac rhythm
- Hysterectomy
- Temporary tracheostomy
- Ventilation

* CDC groups acute heart failure and pulmonary edema as one SMM indicator and hence a total of 21 indicators as opposed to the 22 listed here.

3. Discharge Disposition of Expired

ePC-07 Severe Obstetric Complications

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

Stratification	<p>A subset of the numerator population will be stratified: Nontransfusion only severe obstetric complications (excluding cases where transfusion was the only severe obstetric complication)</p> <p>Please note: Stratification by race and ethnicity is still under development.</p>
Rate Aggregation	<p>Hospital-level measure scores are calculated as a risk-adjusted proportion of the number of delivery hospitalizations for women who experience a severe obstetric complication, as defined by the numerator, by the total number of delivery hospitalizations in the denominator during the measurement period. The hospital-level measure score will be reported as a rate per 10,000 delivery hospitalizations.</p>

ePC-07 Severe Obstetric Complications Risk Adjustment

This measure is risk adjusted using the following pre-existing conditions

Risk Adjustment	<ul style="list-style-type: none"> • Anemia • Asthma • Autoimmune Disease • Bariatric Surgery • Bleeding disorder • BMI • Cardiac Disease • Gastrointestinal Disease • Gestational Diabetes • HIV • Housing Instability • Hypertension • Maternal Age • Mental Health Disorder • Multiple Pregnancy 	<ul style="list-style-type: none"> • 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 	<p>First resulted value 24 hours prior to start of encounter and before time of delivery:</p> <ul style="list-style-type: none"> • Heart Rate • Systolic Blood Pressure • White Blood Cell Count • Hematocrit • Platelets (for future consideration)
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Initial Population – ePC-07

Inpatient hospitalizations for patients age ≥ 8 years and < 65 admitted to the hospital for inpatient acute care to undergo a delivery procedure that ends during the measurement period.

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 "HospitalizationWithEDOBTriageObservation"(EncounterWithAge)

PCMaternal.Encounter with Age Range

["Encounter, Performed": "Encounter Inpatient"] EncounterInpatient
with ["Patient Characteristic Birthdate": "Birth date"] BirthDate
such that Global."CalendarAgeInYearsAt"(BirthDate.birthDatetime, start of EncounterInpatient.relevantPeriod) ≥ 8
and Global."CalendarAgeInYearsAt"(BirthDate.birthDatetime, start of EncounterInpatient.relevantPeriod) < 65
and EncounterInpatient.relevantPeriod ends during day of "Measurement Period"

Initial Population – ePC-07

Inpatient hospitalizations for patients age ≥ 8 years and < 65 admitted to the hospital for inpatient acute care to undergo a delivery procedure that ends during the measurement period.

Initial Population: PCMaternal."Delivery Encounter with Age Range"

PCMaternal.HospitalizationWithEDOBTriageObservation(Encounter "Encounter, Performed")

Encounter Visit

```
let ObsVisit: Last(["Encounter, Performed": "Observation Services"] LastObs
  where LastObs.relevantPeriod ends 1 hour or less on or before start of Visit.relevantPeriod
  sort by
  end of relevantPeriod
```

),

```
VisitStart: Coalesce(start of ObsVisit.relevantPeriod, start of Visit.relevantPeriod),
```

```
EDOBTriageVisit: Last(["Encounter, Performed": "ED Visit and OB Triage"] LastEDOBTriage
```

```
  where LastEDOBTriage.relevantPeriod ends 1 hour or less on or before VisitStart
```

```
  sort by
```

```
  end of relevantPeriod
```

)

```
return Interval[Coalesce(start of EDOBTriageVisit.relevantPeriod, VisitStart),
```

```
end of Visit.relevantPeriod]
```

Initial Population – ePC-07

Inpatient hospitalizations for patients age ≥ 8 years and < 65 admitted to the hospital for inpatient acute care to undergo a delivery procedure that ends during the measurement period.

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 "HospitalizationWithEDOBTriageObservation"(EncounterWithAge)

Denominator— ePC-07

Inpatient hospitalizations for patients delivering stillborn or live birth with ≥ 20 weeks, 0 days gestation completed

Denominator: "Delivery Encounter Greater than or Equal to 20 Weeks Gestation Completed"

Delivery Encounter Greater than or Equal to 20 Weeks Gestation Completed

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

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

Denominator– ePC-07

Inpatient hospitalizations for patients delivering stillborn or live birth with ≥ 20 weeks, 0 days gestation completed

Denominator: "Delivery Encounter Greater than or Equal to 20 Weeks Gestation Completed"

Delivery Encounter Greater Than Or Equal To 20 Weeks Gestation Completed

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

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

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

PCMaternal."Delivery Encounter with Age Range" DeliveryEncounter
where PCMaternal."CalculatedGestationalAge" (DeliveryEncounter) ≥ 20

PCMaternal.CalculatedGestationalAge(Encounter "Encounter, Performed")

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

Denominator— ePC-07

Inpatient hospitalizations for patients delivering stillborn or live birth with ≥ 20 weeks, 0 days gestation completed

Denominator: "Delivery Encounter Greater than or Equal to 20 Weeks Gestation Completed"

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

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 as DateTime is not null
sort by Global."EarliestOf"(relevantDatetime, relevantPeriod)
) .result as DateTime

Denominator– ePC-07

Inpatient hospitalizations for patients delivering stillborn or live birth with ≥ 20 weeks, 0 days gestation completed

Denominator: "Delivery Encounter Greater than or Equal to 20 Weeks Gestation Completed"

Delivery Encounter Greater than or Equal to 20 Weeks Gestation Completed

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

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

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

PCMaternal."Delivery Encounter with Age Range" DeliveryEncounter

where PCMaternal."CalculatedGestationalAge" (DeliveryEncounter) is null

and (PCMaternal."LastEstimatedGestationalAge" (DeliveryEncounter) ≥ 20 weeks)

PCMaternal.LastEstimatedGestationalAge(Encounter "Encounter, Performed")

Last(["Assessment, Performed": "Estimated Gestational Age at Delivery"] EstimatedGestationalAge

where Global."EarliestOf"(EstimatedGestationalAge.relevantDatetime, EstimatedGestationalAge.relevantPeriod)24 hours or less before or on "LastTimeOfDelivery"(Encounter)

and EstimatedGestationalAge.result is not null

sort by Global."EarliestOf"(relevantDatetime, relevantPeriod)

).result as Quantity

Denominator Exclusions – ePC-07

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

Denominator Exclusions:

"Delivery Encounter Greater than or Equal to 20 Weeks Gestation Completed with COVID and Respiratory Condition or Procedure"

"Delivery Encounter Greater than or Equal to 20 Weeks Gestation Completed" TwentyWeeksPlusEncounter
where exists (TwentyWeeksPlusEncounter.diagnoses EncounterDiagnoses
where EncounterDiagnoses.code in "COVID 19 Confirmed")

and (exists (TwentyWeeksPlusEncounter.diagnoses EncounterDiagnoses
where EncounterDiagnoses.code in "COVID 19 Related Respiratory Conditions"
or exists (["Procedure, Performed": "COVID 19 Related Respiratory Procedures"] EncounterProcedures
where Global."NormalizeInterval" (EncounterProcedures.relevantDatetime, EncounterProcedures.relevantPeriod) starts
during day of "PCMaternal.HospitalizationWithEDOBTriageObservation"(TwentyWeeksPlusEncounter)))

Numerator – ePC-07

Inpatient hospitalizations for patients with severe obstetric complications including the following:

- Severe maternal morbidity diagnoses
- Severe maternal morbidity procedures
- Discharge disposition of expired

Numerator:

"Delivery Encounter Greater than or Equal to 20 Weeks Gestation Completed with Severe Obstetric Complications"

Delivery Encounter Greater than or Equal to 20 Weeks Gestation Completed with Severe Obstetric Complications

"Delivery Encounter Greater than or Equal to 20 Weeks Gestation Completed with Severe Obstetric Complications
Diagnosis or Procedure (Excluding Blood Transfusion)"

union "Delivery Encounter Greater than or Equal to 20 Weeks Gestation Completed with Expiration"

union "Delivery Encounter Greater than or Equal to 20 Weeks Gestation Completed with Blood Transfusion"

Numerator – ePC-07

Numerator:

"Delivery Encounter Greater than or Equal to 20 Weeks Gestation Completed with Severe Obstetric Complications"

Delivery Encounter Greater than or Equal to 20 Weeks Gestation Completed with Severe Obstetric Complications

"Delivery Encounter Greater than or Equal to 20 Weeks Gestation Completed with Severe Obstetric Complications Diagnosis or Procedure (Excluding Blood Transfusion)"

...

Delivery Encounter Greater than or Equal to 20 Weeks Gestation Completed with Severe Obstetric Complications Diagnosis or Procedure (Excluding Blood Transfusion)

"Delivery Encounter Greater than or Equal to 20 Weeks Gestation Completed" TwentyWeeksPlusEncounter
where exists (TwentyWeeksPlusEncounter.diagnoses EncounterDiagnoses
where EncounterDiagnoses.code in "Severe Maternal Morbidity Diagnoses"
and EncounterDiagnoses.presentOnAdmissionIndicator in "Present on Admission = No or Unable To Determine"
)
or exists (["Procedure, Performed": "Severe Maternal Morbidity Procedures"] EncounterProcedures
where Global."NormalizeInterval" (EncounterProcedures.relevantDatetime, EncounterProcedures.relevantPeriod) starts
during day of "PCMaternal.HospitalizationWithEDOBTriageObservation"(TwentyWeeksPlusEncounter)
)

Numerator – ePC-07

Inpatient hospitalizations for patients with severe obstetric complications including the following:

- Severe maternal morbidity diagnoses
- Severe maternal morbidity procedures
- Discharge disposition of expired

Numerator:

"Delivery Encounter Greater than or Equal to 20 Weeks Gestation Completed with Severe Obstetric Complications"

Delivery Encounter Greater than or Equal to 20 Weeks Gestation Completed with Severe Obstetric Complications

...
union "Delivery Encounter Greater than or Equal to 20 Weeks Gestation Completed with Expiration"

Delivery Encounter Greater than or Equal to 20 Weeks Gestation Completed with Expiration

"Delivery Encounter Greater than or Equal to 20 Weeks Gestation Completed" TwentyWeeksPlusEncounter
where TwentyWeeksPlusEncounter.dischargeDisposition in "Patient Expired"

Numerator – ePC-07

Inpatient hospitalizations for patients with severe obstetric complications including the following:

- Severe maternal morbidity diagnoses
- Severe maternal morbidity procedures
- Discharge disposition of expired

Numerator:

"Delivery Encounter Greater than or Equal to 20 Weeks Gestation Completed with Severe Obstetric Complications"

Delivery Encounter Greater than or Equal to 20 Weeks Gestation Completed with Severe Obstetric Complications

....

union **"Delivery Encounter Greater than or Equal to 20 Weeks Gestation Completed with Blood Transfusion"**

"Delivery Encounter Greater than or Equal to 20 Weeks Gestation Completed with Blood Transfusion"

"Delivery Encounter Greater than or Equal to 20 Weeks Gestation Completed" TwentyWeeksPlusEncounter
with ["Procedure, Performed": "Blood Transfusion"] BloodTransfusion

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

Stratification – ePCo7

A subset of the numerator population will be reported in Stratification: Nontransfusion only severe obstetric complications (excluding cases where transfusion was the only severe obstetric complication)

Stratification

“Stratification Encounter” intersect “Delivery Encounter Greater than or Equal to 20 Weeks Gestation Completed with Severe Obstetric Complications (Excluding Blood Transfusions)”

Stratification Encounter

"Numerator" except "Denominator Exclusion"

Delivery Encounter Greater than or Equal to 20 Weeks Gestation Completed with Severe Obstetric Complications (Excluding Blood Transfusions)

"Delivery Encounter Greater than or Equal to 20 Weeks Gestation Completed with Severe Obstetric Complications Diagnosis or Procedure (Excluding Blood Transfusion)"

union "Delivery Encounter Greater than or Equal to 20 Weeks Gestation Completed with Expiration"

Stratification – ePCo7

A subset of the numerator population will be reported in Stratification: Nontransfusion only severe obstetric complications (excluding cases where transfusion was the only severe obstetric complication)

Stratification

“Stratification Encounter” intersect “Delivery Encounter Greater than or Equal to 20 Weeks Gestation Completed with Severe Obstetric Complications (Excluding Blood Transfusions)”

Stratification Encounter

"Numerator" except "Denominator Exclusion"

Stratification – ePCo7

A subset of the numerator population will be reported in Stratification: Nontransfusion only severe obstetric complications (excluding cases where transfusion was the only severe obstetric complication)

Stratification

"Stratification Encounter" intersect "Delivery Encounter Greater than or Equal to 20 Weeks Gestation Completed with Severe Obstetric Complications (Excluding Blood Transfusions)"

Delivery Encounter Greater than or Equal to 20 Weeks Gestation Completed with Severe Obstetric Complications (Excluding Blood Transfusions)

"Delivery Encounter Greater than or Equal to 20 Weeks Gestation Completed with Severe Obstetric Complications Diagnosis or Procedure (Excluding Blood Transfusion)"

union

"Delivery Encounter Greater than or Equal to 20 Weeks Gestation Completed with Expiration"

Risk Adjustment – ePCo7

Risk adjustment is based on 30 pre-existing conditions, lab results or vital signs.

Risk Variable Anemia

```
"Delivery Encounter Greater than or Equal to 20 Weeks Gestation Completed" TwentyWeeksPlusEncounter  
where exists ( TwentyWeeksPlusEncounter.diagnoses EncounterDiagnoses  
  where EncounterDiagnoses.code in "Anemia"  
  and EncounterDiagnoses.presentOnAdmissionIndicator in "Present On Admission = Yes or Exempt"  
)
```

Risk Variable Anemia

```
"Delivery Encounter Greater than or Equal to 20 Weeks Gestation Completed" TwentyWeeksPlusEncounter  
where exists ( TwentyWeeksPlusEncounter.diagnoses EncounterDiagnoses  
  where EncounterDiagnoses.code in "Anemia"  
  and EncounterDiagnoses.presentOnAdmissionIndicator in "Present On Admission = Yes or Exempt"  
)
```

Risk Adjustment – ePCo7

Risk adjustment is based on 30 pre-existing conditions, lab results or vital signs.

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 ( DeliveryEncounter.diagnoses EncounterDiagnoses
      where EncounterDiagnoses.code in "Preterm Birth"
        and EncounterDiagnoses.presentOnAdmissionIndicator in "Present On Admission = Yes or Exempt"
    )
)
)
```

Risk Adjustment – ePCo7

Risk adjustment is based on the first resulted hematocrit, WBC or platelet result 24 hours prior to the start of the encounter and before the time of delivery

```
FirstLabTestWithEncounterId(LabList List<QDM.PositiveLaboratoryTestPerformed>)
```

```
"Delivery Encounter Greater than or Equal to 20 Weeks Gestation Completed" Encounter
```

```
let FirstLab: First(LabList Lab
```

```
  where Lab.resultDatetime during Interval[start of
```

```
"PCMaternal.HospitalizationWithEDOBTriageObservation"(Encounter)- 1440 minutes,
```

```
PCMaternal."LastTimeOfDelivery"(Encounter))
```

```
  sort by resultDatetime
```

```
)
```

```
return {
```

```
  EncounterId: Encounter.id,
```

```
  FirstResult: FirstLab.result as Quantity,
```

```
  Timing: FirstLab.resultDatetime
```

```
} )
```

Risk Adjustment – ePCo7

Risk adjustment is based on the first resulted heart rate or blood pressure 24 hours prior to the start of the encounter and before the time of delivery

```
FirstPhysicalExamWithEncounterId(ExamList List<QDM.PositivePhysicalExamPerformed>)  
"Delivery Encounter Greater than or Equal to 20 Weeks Gestation Completed" Encounter  
let FirstExam: First(ExamList Exam  
  where Global."EarliestOf"(Exam.relevantDatetime, Exam.relevantPeriod)during Interval[start of  
"PCMaternal.HospitalizationWithEDOBTriageObservation"(Encounter)- 1440 minutes,  
PCMaternal."LastTimeOfDelivery"(Encounter))  
  sort by Global."EarliestOf"(relevantDatetime, relevantPeriod)  
)  
return {  
  EncounterId: Encounter.id,  
  FirstResult: FirstExam.result as Quantity,  
  Timing: Global."EarliestOf" ( FirstExam.relevantDatetime, FirstExam.relevantPeriod )  
}
```

Risk Adjustment – ePCo7

Risk adjustment is based on the first resulted heart rate or blood pressure 24 hours prior to the start of the encounter and before the time of delivery

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 10³/uL, platelets as 10³/uL

FirstHematocritLab: "FirstLabTestWithEncounterId"(["Laboratory Test, Performed": "Hematocrit lab test"]),

FirstWhiteBloodCellCount: "FirstLabTestWithEncounterId"(["Laboratory Test, Performed": "White blood cells count lab test"]),

FirstPlateletLab: "FirstLabTestWithEncounterId"(["Laboratory Test, Performed": "Platelet count lab test"])

}

Quality Data Model (QDM)

- eCQM specifications use QDM version 5.5 for reporting year 2022
- MAT and Bonnie tools were on QDM 5.6 when ePCo7 was being developed
- ePCo7 uses QDM 5.6
- No impact on QRDA submission

Next Steps for ePCo7

- The measure was posted to TJC website in January 2022 for use in reporting year 2022
- Optional measure to meet TJC ORYX eCQM reporting requirements
- Submitted for NQF endorsement
- Submitted to CMS for the Measures Under Consideration list
 1. Hospital Inpatient Quality Reporting (IQR) Program
 2. Medicare and Medicaid Promoting Interoperability Program

Resources

Joint Commission Measure Specifications

<https://www.jointcommission.org/measurement/specification-manuals/electronic-clinical-quality-measures/>

eCQI Resource Center – EH Measures:

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

Pioneers In Quality

<https://www.jointcommission.org/measurement/pioneers-in-quality/>

Joint Commission eCQM Question Tracking System

<https://manual.jointcommission.org/Home/Questions/AskQuestion?t=1641562520>

CDC website for the detailed list of ICD-10-CM codes that do not require the use of a POA indicator

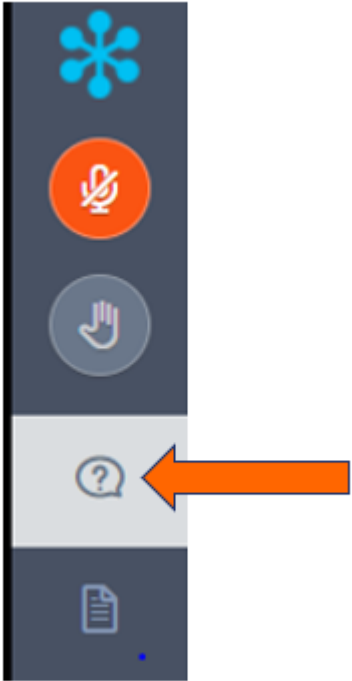
<https://www.cdc.gov/nchs/icd/icd10cm.htm>

Comparison of electronic versus manual abstraction for 2 standardized perinatal care measures

<https://academic.oup.com/jamia/advance-article-abstract/doi/10.1093/jamia/ocab276/6464069>

Question & Answer

Live Q&A Segment



- Please submit questions via the question pane
- Click the Question mark icon in the audience toolbar
- A panel will open for you to type and submit your question
- Include slide reference number when possible
- All questions not answered verbally during the live event will be addressed in a written follow-up Q&A document
- The follow-up document will be posted to the Joint Commission website several weeks after the live event

Webinar recording

All Expert to Expert webinar recording links, slides, transcripts, and Q&A documents can be accessed within several weeks of the live event on the Joint Commission's webpage via this link:

<https://www.jointcommission.org/measurement/pioneers-in-quality/pioneers-in-quality-expert-to-expert-series/>



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Measurement webinars

Coming Soon – On Demand Expert to Expert Webinars

- Live Webinar series began Dec 9 that incorporates expertise from The Joint Commission, Centers for Medicare & Medicaid Services, Mathematica, and Lantana to address the 2022 eCQM Annual Updates for: VTE, STK, PC, ED, and Safe Opioid Use measures.
- New measure review webinars for Hypoglycemia and Hyperglycemia eCQMs and Severe Obstetric Complications eCQM
- **For those that missed the LIVE webinars, we will re-release these sessions for On Demand CE credit starting in mid-March and continuing into April**



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



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