Obstetric Anesthesia Subcommittee Meeting

February 11, 2026

Agenda

Announcements

In the News

December Meeting Recap

Neuraxial Catheter Replacement (NCR-01-OB) Measure Update

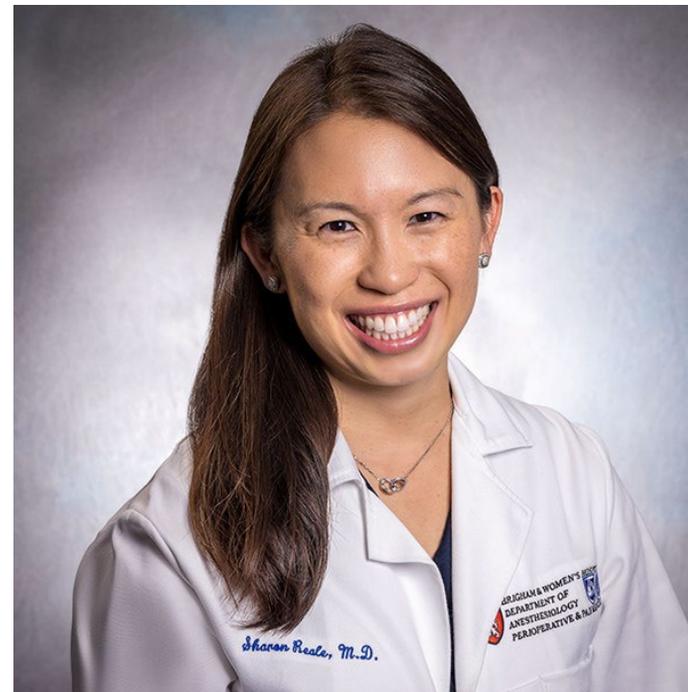New Measure Discussion: Unintended Dural Puncture (UDP-01-OB)

2026 Subcommittee Plans

Congratulations, Dr. Reale!

- Dr. Sharon Reale has accepted the role of OB Subcommittee Vice Chair!

- Dr. Reale serves as the Obstetric Anesthesia Fellowship Program Director for Brigham & Women's Hospital

- Thank you to all who applied for the Vice Chair position – impressive candidates!

Announcements

1. Upcoming Meeting Dates:
   – June 3rd, 1-2pm EST
   – September 16th, 1-2pm EST

2. OB Subcommittee is open to anyone interested.
   – Contact Kate (kjbucrek@med.umich.edu) to be added to invites.

In the News

Frequency and Management of Maternal Peripartum Cardiac Arrest: A Multicenter Retrospective Cohort Analysis

Furdyna, Michael J MD[1]; Mootz, Allison A MD[2]; Venkatachalam, Shakthi MBBS[1]; Mathis, Michael R MD[3]; Klumpner, Thomas T MD[3]; Fields, Kara G MS; Heydarpour, Mahyar PhD[1]; Mhyre, Jill M MD[4]; Bateman, Brian T MD, MSc[5]; Reale, Sharon C MD[1]; Multicenter Perioperative Outcomes Group Collaborators

Author Information⊙

Frequency & Management of Maternal Peripartum Cardiac Arrest: Study Results (2015–2022)

Multicenter Retrospective Cohort Analysis of 87 Arrests among 778,102 Deliveries

INCIDENCE & FREQUENCY

1 in 9,000
Deliveries (approx. 11.2 per 100,000)

TOP CAUSES (ETIOLOGY)

Hemorrhage (40.2%)

Amniotic Fluid Embolism (31.0%)

11.5% Anesthetic Complications

OUTCOMES (30-DAY)

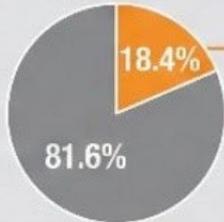**77.0%** ROSC Achieved

67.8% 30-Day Survival

GUIDELINE ADHERENCE

18.4%

Adherent/ Unverified 81.6%

Potential Deviation from Guidelines

KEY RISK FACTORS

- Age ≥ 40
- BMI ≥ 40
- Placenta Accreta Spectrum
- Ischemic Heart Disease

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December Meeting Recap

- Voted to pause development on the pregnancy trimester phenotype – will first investigate alternative approaches for capturing gestational age at time of delivery.

- Discussed PONV prophylaxis recommendations for cesarean delivery and voted to move forward with a new IONV/PONV measure specific to the obstetric population.
  - CD will be removed from PONV-5 (% adult patients with appropriate prophylaxis for PONV)
  - Glycopyrrolate will be considered an acceptable antiemetic for prophylaxis
  - Atropine and midazolam will not be considered appropriate prophylaxis

- Reviewed proposed specifications and preliminary data for a new measure examining neuraxial catheter replacement for childbirth.

MPOG

NCR-01-OB Neuraxial Catheter Replacement Measure Released!

- Departmental Only – Not available for feedback emails

- No provider attribution

- Emergency cases will be included

- Version 1 – Logic may need updates. Please review cases and provide feedback to improve accuracy.

MPOG

NCR-01-OB: Neuraxial Catheter Replacement for OB

Description: Percentage of patients undergoing neuraxial anesthesia for labor or cesarean delivery with evidence of neuraxial catheter replacement.

Threshold: <6%

Measure Time Period:

Obstetric Neuraxial Anesthesia Start to Obstetrics Delivery Date/Time*

   *If Obstetrics Delivery Date/Time is not available, will default to anesthesia end.

Success: Epidural anesthesia administered without evidence of a second epidural placement procedure for the same obstetric delivery.

NCR-01-OB Exclusion Criteria

Excludes:

- Cesarean hysterectomy (as determined by Obstetric Anesthesia Type value codes 4 & 8)

- Patients receiving neuraxial anesthesia for any procedure other than labor epidural or cesarean delivery

- Patients undergoing obstetric procedures without neuraxial anesthesia (value code 0), with spinal anesthesia (value code 3), or via unknown neuraxial type (value code 5), as determined by Anesthesia Technique: Neuraxial

- Obstetric cases with neuraxial start time documented after Obstetrics Delivery Date/Time

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NCR-01-OB Logic for determining Epidural Replacement

A case is flagged if multiple neuraxial procedures are documented for the same delivery, as determined by any of the following:

- **Same MPOG Case ID:**
  Two or more *neuraxial procedure notes** are recorded within the same MPOG Case ID, based on Obstetric Anesthesia Type codes **1, 2, 3, or 5.**

- **Separate MPOG Case IDs for the Same Delivery:**
  Two or more *neuraxial procedure notes** are recorded for the same patient under different MPOG Case IDs, based on Obstetric Anesthesia Type codes **6 or 7.**

*Procedure Note Assessment Logic:

- If one or more procedure notes <u>contain child notes</u>, restrict assessment **only** to procedure notes with child notes attached
  - Flag for 2 or more such notes **> 20 min apart**
- If procedure notes <u>do not contain child notes</u>, assess all procedure notes
  - Flag for 2 or more such notes **> 45 minutes apart.**

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Example Flagged Case

2 procedure notes with 'child notes' >20 minutes apart

Time	Mapped As	Value	Original Variable
Apr 22, 2025 18:47	Patient Identified	Pre-Induction Evaluation	Pre-Induction Evaluation
Apr 22, 2025 18:47	Anesthesia Start	Anesthesia Start	Anesthesia Start
Apr 22, 2025 18:47 *	**Epidural Catheter Placed**	Epidural	Epidural
Apr 22, 2025 19:24	Epidural Test Dose	Test Dose Epidural	Test Dose Epidural
Apr 22, 2025 19:30	Labor Epidural End	Epidural Placement Complete	Epidural Placement Complete
Apr 22, 2025 19:30	Free Text Note	Quick Note	Quick Note
Apr 23, 2025 06:30	Compliance- Intraop Handoff of Care Performed, Repo	Faculty Handoff	Faculty Handoff
Apr 23, 2025 09:57	Patient in Room	Patient in OR/Proc	Patient in OR/Proc
Apr 23, 2025 09:57	Labor Continued as C-Section	Epidural to C-Section	Epidural to C-Section
Apr 23, 2025 09:59	Device or Equipment (Misc)	Pressure Points Padded;Pressur	Checklist
Apr 23, 2025 10:01	Data Capture Start	Start Data Collection	Start Data Collection
Apr 23, 2025 10:03	Timed Event (Misc)	Mark Now	Mark Now
Apr 23, 2025 10:12	Free Text Note	Quick Note	Quick Note
Apr 23, 2025 10:23	Spinal/Epidural Performed	Spinal Injection	Spinal Injection
Apr 23, 2025 10:28 *	**Spinal/Epidural Technique**	CSE	CSE
Apr 23, 2025 10:34	Anesthesia Ready	Anes Ready	Anes Ready
Apr 23, 2025 10:34	Anesthesia Ready	Anes Ready	Anes Ready
Apr 23, 2025 10:44	Pre-Incision Timeout	Time-Out	Time-Out
Apr 23, 2025 10:47	Procedure Start	Skin Incision	Skin Incision
Apr 23, 2025 10:55	Uterine Incision	Uterine Incision	Uterine Incision
Apr 23, 2025 10:56	Neonate Delivered	[PHI] Delivered ([PHI])	Baby Delivered (Stork)
Apr 23, 2025 10:56	Neonate Delivered	[PHI] Delivered	Baby Delivered
Apr 23, 2025 11:36	Procedure End	Dressing Completed	Dressing Completed
Apr 23, 2025 11:42	Data Capture End	Stop Data Collection	Stop Data Collection
Apr 23, 2025 11:45	Patient Out of Room	Patient Out of OR/Proc	Patient Out of OR/Proc
Apr 23, 2025 11:50	Phase I Recovery Room In Date/Time	Patient in Recovery	Patient in Recovery
Apr 23, 2025 12:00	Anesthesia End	Anesthesia Stop	Anesthesia Stop
Apr 23, 2025 12:06	Device or Equipment (Misc)	Machine Checked;Patient Ident	Checklist
Apr 23, 2025 12:06	Anesthesia Machine Checked	Anesthesia apparatus checked;	Anesthesia Checklist
Apr 23, 2025 13:50	Phase I Recovery Room Out Date/Time	Patient out of Recovery/Criteria	Patient out of Recovery/Criter

Epidural Anesthesia Administered More Than Once		Yes	Flagged
Is Valid Case		Yes	Included
Obstetric Procedure		Yes	Included

Time	Mapped As	Value	Original Variable
12/14/2025 03:50:40	Epidural Catheter Placed	DPE	DPE

Intraop Note

Concept	Epidural anesthesia catheter placement note
Value	DPE
Observed Time	
Details	

Concept	Original Variable	Value
Unknown Concept	approach to block	Midline
Unknown Concept	needle type	[PHI]
Unknown Concept	Catheter Type	Arrow FlexBlock
Unknown Concept	instant of procedure	2025/12/14 02:58:00
Unknown Concept	Attending Presence	Attending physically present for procedure
Unknown Concept	patient position	Sitting
Unknown Concept	Patient Status	Awake
Unknown Concept	epidural location	lumbar
Unknown Concept	Block Method	catheter
Unknown Concept	epidural type	epidural type
Unknown Concept	needle 2 length (in)	5.000
Unknown Concept	medication group details	lidocaine-EPINEPHrine (XYLOCAINE MPF WITH EPINEPHrine) 1.5%-1:200000 injection - epidural 3 mL - 12/14/2025 3:04:00 AM 2 mL - 12/14/2025 3:07:00 AM
Unknown Concept	epidural	Yes
Unknown Concept	authorizing provider	[PHI], [PHI]
Unknown Concept	labor epidural	Yes

Example Child Notes

12/14/2025 05:01:33	Spinal/Epidural Technique	CSE	CSE

Intraop Note

Concept	Neuraxial technique - Combined Spinal / Epidural technique note
Value	CSE
Observed Time	
Details	

Concept	Original Variable	Value
Unknown Concept	epidural location	lumbar
Unknown Concept	needle length (in)	3.500
Unknown Concept	landmark technique	Yes
Unknown Concept	authorizing provider	[PHI], [PHI]
Unknown Concept	needle 2 gauge	25 G
Unknown Concept	Block Method	single-shot
Unknown Concept	block outcome	Dense block in appropriate fashion
Unknown Concept	performing provider	[PHI], [PHI]
Unknown Concept	patient position	Sitting
Unknown Concept	approach to block	Midline
Unknown Concept	procedure aborted	No
Unknown Concept	instant of procedure	2025/12/14 04:41:00
Unknown Concept	paresthesia	No
Unknown Concept	Attending Presence	Attending physically present for procedure
Unknown Concept	ease of block	Easy

Neuraxial Catheter Replacement (NCR-01-OB)
January - November 2025

UDP-01-OB: Unintended Dural Puncture

Description: Percentage of patients undergoing neuraxial epidural anesthesia for an obstetric procedure with evidence of an unintended dural puncture.

Excludes: Patients receiving neuraxial techniques for non-obstetric indications

Measure Time Period:

Neuraxial Anesthesia Start to 14 days after Neuraxial Anesthesia Start

Success: Neuraxial epidural anesthesia administered without evidence of unintended dural puncture.

Threshold: ≤ 2%

UDP-01-OB: Obstetric Procedures Included

All patients requiring neuraxial anesthesia for one of the following obstetric procedures:

- **Childbirth** (includes both labor epidurals and cesarean deliveries as determined by Obstetric Anesthesia Type value codes >0)

- **Postpartum Tubal Ligation**
  - Surgical CPT: 58600, 58605, 58611, 58615, 58661, 58670, 58671
  - Anesthesia CPT: 00851

- **External Cephalic Version**
  - Surgical CPT: 59412
  - Anesthesia CPT: 01958

- **Transvaginal Cerclage Placement**
  - Surgical CPT: 59320
  - Anesthesia CPT: 00948

UDP-01-OB: Neuraxial Techniques Included

- The following neuraxial procedures are considered for this measure:
  - Combined Spinal Epidural
  - Epidural
  - Caudal
  - Multiple (will likely include cases with spinal + epidural or unclear documentation)

- The following neuraxial procedures are NOT considered for this measure:
  - No neuraxial technique (value code 0)
  - Spinal (neuraxial value code 3)
  - Neuraxial – Unknown Type (neuraxial procedure performed but MPOG is unable to determine type, value code 5)

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UDP-01-OB Logic for determining UDP

Documentation of inadvertent dural puncture includes any of the following:

- Inadvertent dural puncture (ID: 50291) documented on the case
- Epidural Blood Patch (ID: 50507) documented on a subsequent case within 14 days after initial procedure
- A secondary case for Epidural Blood Patch (CPT: 62273) is found in MPOG within 336 hours (14 days) of neuraxial procedure start for the initial obstetric case where a neuraxial procedure was performed.
- ICD-10 codes:
  - G96.0 Cerebrospinal fluid leak, unspecified
  - G97.0 Cerebrospinal fluid leak from spinal puncture
  - G97.41 Accidental puncture or laceration of dura during a procedure
  - O74.5 Spinal and epidural anesthesia-induced headache during labor and delivery
  - O89.4 Spinal and epidural anesthesia-induced headache during the puerperium
- ICD-9 code: 349.31 Accidental puncture or laceration of dura during a procedure

Measure Denominator Discussion

- The measure denominator could be based upon the following:
  - **Neuraxial Procedures**: # of neuraxial placements (opportunities to cause DP)
  - **Obstetric Procedures**: # of total obstetric procedures requiring neuraxial anesthesia
  - **Delivery**: # of total deliveries (hospital-based metric; per patient rather than per procedure)
  - **Obstetric Encounter**: # 14-day obstetric encounters
- Recommend assessing UDP within a 14-day obstetric encounter
- Obstetric procedures with a neuraxial procedure performed more than 14 days later will be considered a new obstetric encounter.

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Measure Numerator Discussion

- Numerator = # unintended dural punctures (UDP)

- Problem:
  - We can't tell which neuraxial procedure resulted in an UDP when using CPT and ICD billing codes

- Potential Solution:
  - Rather than flagging all cases associated with the UDP, we propose assessing UDP within a 14-day 'obstetric encounter'

- Quality Measure Logic
  - Identify the first obstetric case with a documented neuraxial anesthesia procedure
  - Assess for evidence of an UDP based upon case documentation, CPT, or ICD codes within 14 days of that procedure
  - If evidence of UDP is found, assign it to the initial obstetric case
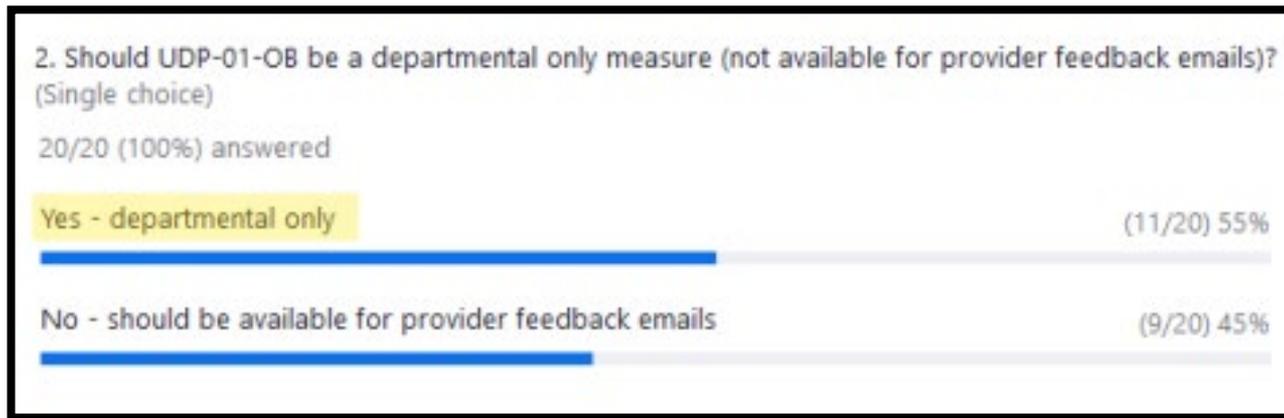 - This will categorize this 14-day obstetric encounter as having an UDP

September 2025 Meeting Recap:
Voted to 'flag' all associated cases

1. If there are multiple obstetric cases with neuraxial anesthesia within a 14-day window, should only the first case be flagged? (Single choice)

20/20 (100%) answered

Yes - only flag first case with neuraxial   (3/20) 15%

No - flag all cases   (9/20) 45%

Other - alternative method should be developed for flagging cases with multiple procedures within 14 days   (8/20) 40%

September 2025 Meeting Recap:
Voted for measure to be 'Departmental Only'
(Not available for provider feedback emails)

2. Should UDP-01-OB be a departmental only measure (not available for provider feedback emails)?
(Single choice)

20/20 (100%) answered

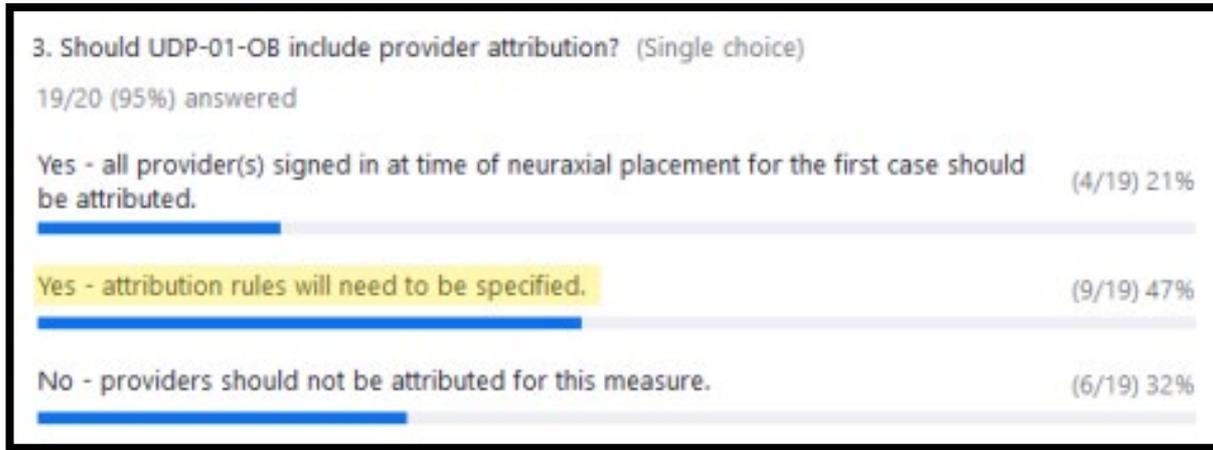Yes - departmental only   (11/20) 55%

No - should be available for provider feedback emails   (9/20) 45%

September 2025 Meeting Recap:

Voted to add provider attribution -
Attribution rules to be specified.

3. Should UDP-01-OB include provider attribution? (Single choice)

19/20 (95%) answered

Yes - all provider(s) signed in at time of neuraxial placement for the first case should be attributed.   (4/19) 21%

Yes - attribution rules will need to be specified.   (9/19) 47%

No - providers should not be attributed for this measure.   (6/19) 32%
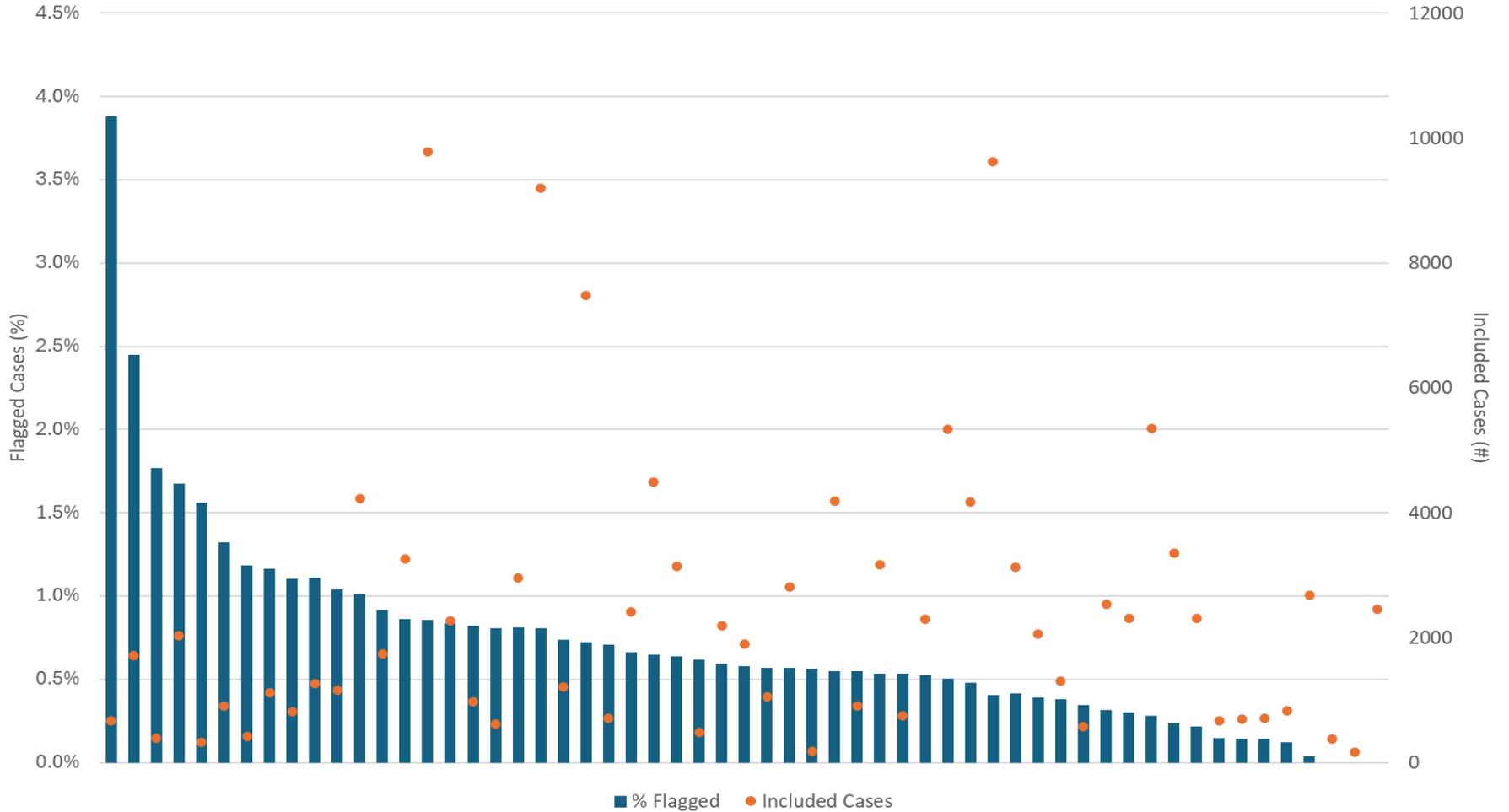
Case Flagging and Provider Attribution Discussion

- The committee voted to flag all cases:
  - We propose only flagging the first case
  - We can't accurately attribute UDP to a specific procedure
  - If we flag more than one case the rate will be falsely elevated

- The committee voted that this be a department only measure
  - This would be the plan
  - No individual provider feedback emails

- The committee voted to add provider attribution
  - We propose no provider attribution
  - We can't accurately determine which provider was associated with the UDP

- Recommendation: Departmental only measure focused on 14-day obstetric encounter, rather than per obstetric/anesthetic procedure rate

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Unintended Dural Puncture (UDP-01-OB)
February 2025 - December 2026

MPOG Sites with variable mapped to MPOG UDP Concept

50291 ▴	Inadvertent Dural Puncture	Intraoperative Events, Interventions, and Observations	13

American University of Beirut Medical Center
Cleveland Clinic - Florida
Cleveland Clinic - Main Campus
Cleveland Clinic - Ohio Regional
Columbia University Medical Center
Corewell Health East - Royal Oak
Corewell Health West
Dartmouth Health - All
Holland Hospital
Johns Hopkins Medicine
Nebraska Medicine
NYU Langone Medical Center
Oregon Health and Science University
Trinity - St. Joseph Oakland
Trinity - St. Marys Mercy Medical Center
UChicago Medicine
University of Arkansas for Medical Sciences
University of Maryland
University of Michigan Health - Ann Arbor
University of Michigan Health - West
University of North Carolina - Medical Center
University of Oklahoma Health Sciences Center
Vanderbilt University Medical Center
Yale New Haven Hospital

2026 Planning Discussion

- New Measures:
  - UDP-01-OB: Unintended Dural Puncture
  - PONV-06-OB: IONV/PONV Prophylaxis for Cesarean Deliveries
  - Other ideas?

- New Phenotypes:
  - Neuraxial Anesthesia Start Time
  - Gestational Age at time of Delivery
  - Other phenotypes needed for research or QI work?

- MPOG Research Project Presentations (Poll)

THANK YOU!

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MULTICENTER PERIOPERATIVE
OUTCOMES GROUP