ASPIRE Obstetric Anesthesia Subcommittee Meeting

May 14, 2025

Agenda

- Announcements
- February meeting recap
- PONV-05 Revision Update
- 2025 Measure Build Priorities
- Pregnancy Phenotype Updates

Announcements

Future Meeting Dates:

- MPOG OB Subcommittee
  - September 10, 2025, at 1pm EST
  - December 3, 2025, at 1pm EST

The OB Subcommittee is open to anyone, if interested in attending, please email Kate.

Welcome New Members!

- Emmarie Myers, MD – Cleveland Clinic

MPOG Obstetric Anesthesia Subcommittee is open to all individuals interested in improving obstetric care. Please reach out to Kate if interested in joining.

February Meeting Recap

- Provided an update on the Days From Delivery Phenotype
- OB Champion role discussion
- New Measure released in February: ABX-06-OB: Azithromycin Administration for Cesarean Deliveries
- Began discussion to determine OB Subcommittee 2025 Goals – will continue today

In the News: WOMAN-2 trial

Randomized Controlled Trial > Lancet. 2024 Oct 26;404(10463):1645-1656.

doi: 10.1016/S0140-6736(24)01749-5.

The effect of tranexamic acid on postpartum bleeding in women with moderate and severe anaemia (WOMAN-2): an international, randomised, double-blind, placebo-controlled trial

WOMAN-2 Trial Collaborators

PMID: 39461792 DOI: 10.1016/S0140-6736(24)01749-5

- 15,068 women enrolled. Intervention vs placebo after vaginal delivery of anterior shoulder. 1 GM TXA over 10 minutes within 15 minutes of cord clamping. 35 hospitals in 4 countries (Nigeria, Pakistan, Tanzania and Zambia)
- Primary outcome: PPH > 500 ml blood loss or sufficient EBL causing instability within 24 hours of delivery.
- Results: PPH occurred in 530 (7%) of 7579 women with TXA and 497 (6.6%) of 7487 women in the placebo group. (RR.1.05, 95% CI 0.94-1.19)

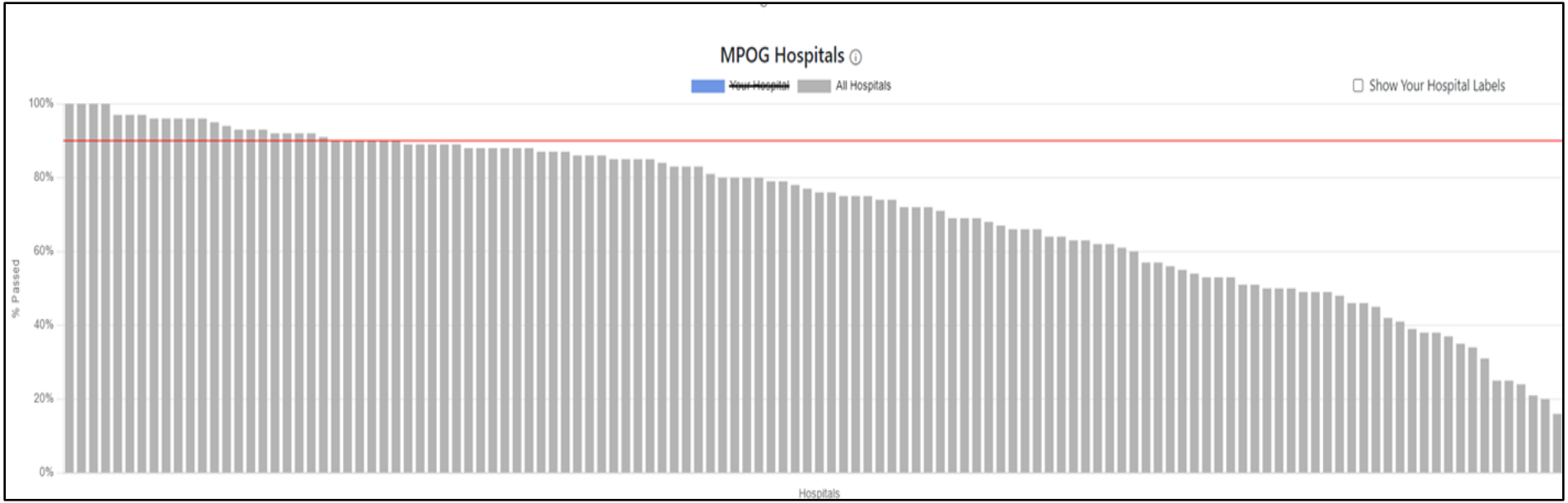
PONV-05 Revision Discussion

- PONV-05: Percentage of patients who had a procedure requiring general anesthesia OR cesarean delivery and received appropriate prophylaxis for postoperative nausea and vomiting.
  - Measure was reviewed in February 2025 by the Quality Committee.
  - Recommendation to add midazolam as an acceptable antiemetic for prophylaxis for adult patients undergoing general anesthesia [1]

[1] Au et al The Effect of Perioperative Benzodiazepine Administration on PONV; Systematic Review and Meta-Analysis of Randomised Control Trials. BJA 2024;132(3):469-482

PONV-05-OB

- Discussion: Would the subcommittee recommend adding midazolam as an acceptable prophylactic agent for PONV-05 for cesarean delivery patients?
- Current PONV-05 Score (all sites) filtered to obstetric surgical service = 75%



PONV-03 Outcome Measures

- PONV-03: Percentage of patients, regardless of age who undergo a procedure and have a nausea/emesis documented occurrence OR receive a rescue antiemetic in the immediate postoperative period.

- PONV-03-b: Percentage of patients, regardless of age who undergo a procedure and have a documented occurrence of nausea/emesis with or without receiving an anti-emetic in the immediate postoperative period.

Original Article

Treatment of postoperative nausea and vomiting after spinal anesthesia for cesarean delivery: A randomized, double-blinded comparison of midazolam, ondansetron, and a combination

Mitra Jabalameli, Azim Honarmand, Mohammadreza Safavi, Mohsen Chitsaz

Departments of Anesthesia, Anesthesiology and Critical Care Research Center, Isfahan University of Medical Sciences, Isfahan, Iran

- 132 patient for elective CD.
- Grp M: IV midazolam 30 mcg/kg
- Grp O: IV ondansetron 8 mg
- Grp MO: IV midazolam and ondansetron
- Pts received treatment if a pt had vomiting or VAS of nausea > 3 during surgery or after cord clamping. Incidence and severity of vomiting episodes were evaluated at 2 hrs, 6 hrs and 24hrs after study drug.

Jabalameli M, Honarmand A, Safavi M, Chitsaz M: Treatment of postoperative nausea and vomiting after spinal anesthesia for cesarean delivery: A randomized, double-blinded comparison of midazolam, ondansetron, and a combination. Adv Biomed Res 2012; 1:2

Results

- Incidence of nausea was significantly reduced in the MO grp compared to the other grps at 6 hours. P= 0.01
- No differences at 2 hrs and 24hrs.
- Comments:
  - Treatment of nausea rather than prophylactic treatment
  - OB anesthesiologist are hesitant to use midazolam due to amnestic effects
  - No difference in sedation in the study but what about amnesia?

Jabalameli M, Honarmand A, Safavi M, Chitsaz M: Treatment of postoperative nausea and vomiting after spinal anesthesia for cesarean delivery: A randomized, double-blinded comparison of midazolam, ondansetron, and a combination. Adv Biomed Res 2012; 1:2

PONV-05 Revision

Should midazolam be added as an acceptable prophylaxis antiemetic for patients undergoing cesarean delivery?

- 1 vote/site
- Continue as it/modify

MPOG OB Subcommittee 2025 Goals

New Measure Development Discussion

1. **Epidural replacement measure**: Proportion of patients that require a second neuraxial procedure prior to delivery
2. **Temperature measure**: Proportion of patients undergoing cesarean delivery with at least one core body temperature measured
3. **Pain Measure**: Two options for pain measures.
   - **Multimodal**: PAIN- Proportion of patients administered at least two non-opioid adjuncts preoperatively or intraoperatively (multimodal)
   - **Inadequate pain control**: Proportion of patients undergoing cesarean delivery with inadequate anesthesia (supplemental analgesia)
4. **Accidental dural puncture measure**: Proportion of patients receiving neuraxial labor analgesia with an unintentional dural puncture

Epidural Replacement Rate

- SOAP COE core metric for neuraxial labor analgesia
  - SOAP COE Application: "Describe your system used to track labor epidural replacement rates"
- Longstanding interest in this measure on the OB subcommittee
- Poorly functioning epidural catheters are associated with:
  - Increased parturient pain
  - Worse patient experience and satisfaction[1,2]
  - Greater risk of GETA for intrapartum CD[3]
  - GETA for CD increases maternal risk for SSI, VTE, and postoperative pain[4]
  - GETA is associated with a higher incidence of low (< 7) 5-min Apgar[5]

[1]Yurashevich M. Anaesthesia 2019;74(9):1112. [2]Tan D. BMC Anesthesiol. 2018;18(1):50. [3]Bauer ME. IJOA 2012;21(4):294. [4]Guglielminotti J. Anesthesiology 2019;130(6):912. [5]Palmer E. Anaesthesia 2018;73(7):825.

Epidural Replacement Rate

- What is the appropriate rate of replacement?
  - SOAP COE 3-6%
- Methods to capture replacement
  - Two neuraxial procedure notes in a single record or admission prior to delivery
  - Two timestamps for "neuraxial procedure start" or "end"
  - Medications administered?
  - Free text search is challenging
  - Other ideas?
- Questions:
  - How do you document neuraxial procedures?
  - For a CSE or DPE, do you document two procedure notes?
  - Should there be a time threshold between procedure notes?

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Epidural Replacement Discussion Summary (2.25)

How to capture?

- Two notes documented at most sites
- Built into procedure note with option to label as ‘replacement’ or ‘not replacement’
- Potentially include time threshold (20 min?) below which multiple procedure notes would be considered as a single neuraxial procedure or technique
- Use delivery time to decipher between replacement vs. second epidural placed for secondary procedure

Core Body Temperature

- Proportion of patients undergoing cesarean delivery with at least one core body temperature measured
  - SOAP COE measure
  - TEMP-02: Percentage of patients receiving GA that have at least one core body temperature documented
    - Measurement time period: "anesthesia start" to "out of room"
    - Excludes cases < 30 minutes
    - Threshold for success, > 90%
- Questions:
  - Modify to include all CD patients (NA+GA)?
  - Should we have a measure specific to cesarean delivery for patients undergoing GA?
  - Does this impact patient outcomes?
  - How do you measure temperature?

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Core Temperature Discussion Summary (2.25)

Summary of concerns raised:

- At some institutions, temperature is not routinely measured for CD performed under neuraxial anesthesia
- Question about correlation to outcomes
- Hypothermia for a long period of time is not good for patients, but cesarean delivery is typically a short procedure.
- This measure was suggested as it is currently a SOAP COE measure.

Multimodal Analgesia during CD

- Proportion of patients administered multimodal analgesia during cesarean delivery
  - SOAP COE measure
  - PAIN-02: % patients receiving at least one non-opioid adjunct between "preop start" and "anes end"
    - Non-opioid analgesics: APAP, NSAIDs, ketamine, clonidine [not dexmedetomidine], local infiltration, any regional block
    - Threshold for success, > 85%
- Questions:
  - Is the measure for success appropriate?
  - Should we include postoperative adjuncts, end +60 min?
  - Should surgeon placed local infiltration count?

Inadequate Anesthesia during Cesarean Delivery

- Untreated intraoperative pain is a significant problem & the #1 cause of litigation in OB anesthesia
- The incidence of intraoperative pain is ≥20%
- Potential measure:
  - Proportion of CD patients having intraoperative pain defined as:
    - Any dose of Ketamine, Nitrous Oxide, or Intraperitoneal Chloroprocaine
    - Propofol > 20 mg, Midazolam > 2 mg
    - Morphine > 10 mg, Fentanyl > 100 mcg, Hydromorphone > 1.5 mg
    - Other ideas?
  - Measurement time-period: "incision" to "surgery end"
- Questions:
  - Should this measure include intraoperative pain assessments?
  - Should we penalize sites that treat intraoperative pain?

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Incidence of Unintentional Dural Puncture

- SOAP COE core metric for neuraxial labor analgesia
  - SOAP COE Application: "A quality assurance review of all unintentional dural punctures and post-dural puncture headaches (PDPH) should be in place"
- Unintentional dural puncture is associated with:
  - Acute HA, backache, neck ache, auditory, and visual symptoms[1]
  - Acute dizziness, nausea and vomiting, neck and shoulder stiffness[1,2]
  - Persistent (> 6 weeks) HA, back ache, and neck ache[3,4,5,6,7]
  - Major neurologic complications including cerebral venous thrombosis, SDH, bacterial meningitis, and postpartum depression[8]

[1]Vilming ST. Cephalgia 1989;9:99. [2]Ljubisavljevic S. World Neurosurg 2020;133:e540. [3]Ranganathan P. J Clin Anesth 2015;27:201. [4]Ansari J. BJA 2021;127:600. [5]MacArthur C. BMJ 1993;306:883. [6]Webb C. Anesh Analg 2012;115:124. [7]PNiraj G. Anaesthesia 2021;76:1068. [8]Guglielminotti J. Anesth Analg 2019;129:1328.

Incidence of Unintentional Dural Puncture

- What is the appropriate rate of unintentional dural puncture
  - SOAP COE ≤ 2%
- The following proxies for dural puncture can be used
  - Free flow of CSF at time of placement
  - Blood patch within 1 week of neuraxial placement
- Measure would miss PDPH treated conservatively
- Seeking Volunteers:
  - Send 5-10 cases of confirmed accidental dural puncture to Kate
  - Send MPOG case IDs only, NO MRNs!
- Questions
  - Ideas for other proxies to identify accidental dural puncture?
  - How does your site document unintentional dural puncture?

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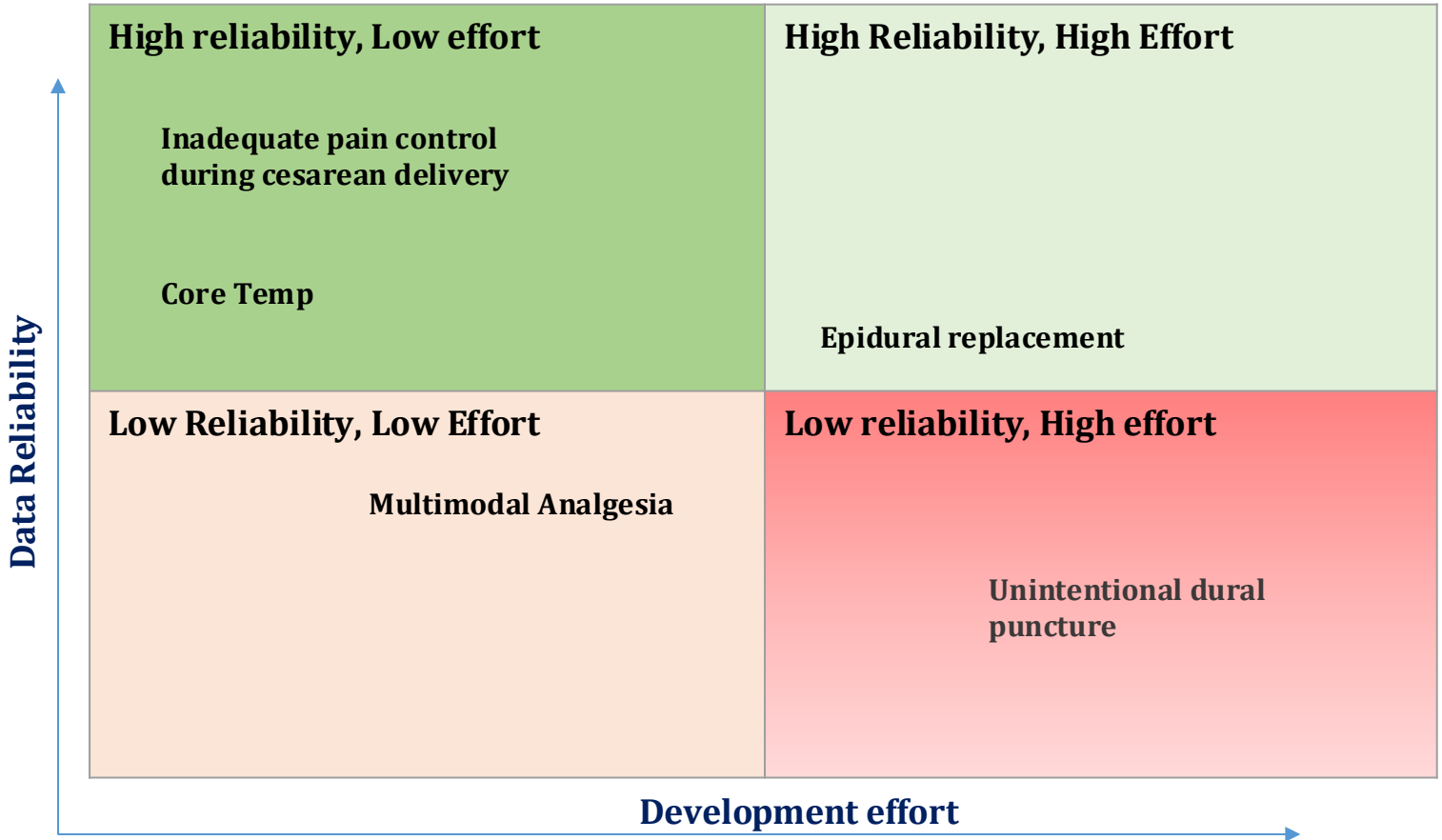
Measure build effort



2025 Measure Build Results

Please rank the following from 1 (low priority) to 5 (high priority) based on your site's interest.

Each ranking (1-5) should only be assigned once for the entire poll.

THANK YOU!

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MPOG MULTICENTER PERIOPERATIVE OUTCOMES GROUP