

Anesthesiology Performance Improvement and Reporting Exchange (ASPIRE)

Obstetric Subgroup Meeting Minutes – December 11, 2019

Attendees: P=Present; A=Absent; X=Expected Absence

A	Sharon Abramovitz, Weill Cornell	P	Angel Martino, Sparrow Health System
P	Ami Attali, Henry Ford- Detroit	A	Arvind Palanisamy, Washington University
A	Melissa Bauer, Michigan Medicine	A	Carlo Pancaro, Michigan Medicine
P	Dan Biggs, University of Oklahoma	A	Mohamed Tiouririne, University of Virginia
A	Traci Coffman, St. Joseph Mercy Ann Arbor	P	Brandon Togioka, OHSU
A	Eric Davies, St. Joseph Mercy Oakland	P	Joshua Younger, Henry Ford, Detroit
P	Ghislaine Echevarria, NYU Langone	P	Marie-Louise Meng, Duke
P	Ronald George, UCSF	P	Nirav Shah, MPOG Associate Director
A	Jenifer Henderson, St. Joseph Oakland	P	Kate Buehler, MPOG Clinical Program Manager
P	Rachel Kacmar, University of Colorado	P	Meridith Bailey, MPOG QI Coordinator
P	Joanna Kountanis, Michigan Medicine	P	Brooke Szymanski, MPOG QI Coordinator
P	Germaine Cuff, NYU	P	Ashraf Habib, Duke

Agenda & Notes

1. **Roll Call, Introductions & Background of ASPIRE measures**
2. **Review Minutes from last meeting in September 2017- Posted to the website for review:**
<https://mpog.org/files/Obstetrics%20Sub%20Group%20Meeting%20Minutes%209-20-2017.pdf>
 - Reviewed existing MPOG measures for applicability to obstetric anesthesia
 - *Modified exclusion criteria for TRAN 01/02; Exclude cases with:*
 - ICD 10 codes indicating postpartum hemorrhage
 - VS Changes (HR>110, BP≤85/45, O2 sat<95%) or EBL ≥1500cc for patients undergoing caesarean section (CPT: 01961, 01968, 019262, 01963, 01969)
 - Labor epidural cases.
 - In the future, account for ≥ 15% change in vital signs from baseline (MPOG still does not capture baseline VS reliably.)
 - *Modified success criteria for TEMP 01 to include fluid warming as an acceptable means warming for patients undergoing Caesarean Delivery.*
 - Did not add exclusion criteria for AKI 01 to exclude patients diagnosed with preeclampsia or eclampsia using ICD 10 codes: cases flagged for provider review
3. **ASPIRE Measures including Cesarean Delivery Cases (but excluding labor epidurals)**

AKI 01	PONV 02 (with inhalational GA only)
BP 01	PUL 01 (with GA-ETT only)
BP 02	PUL 02 (with GA-ETT only)
BP 03	PUL 03 (with GA-ETT only)
CARD 02	SUS 01 (with inhalational GA only)
CARD 03	TEMP 01

GLU 01	TEMP 02 (with GA only)
GLU 02	TOC 01
NMB 01 (with GA only)	TOC 03
NMB 02 (with GA only)	TRAN 01
PONV 01 (with inhalational GA only)	TRAN 02

See MPOG website for measure specifications: <https://mpog.org/quality/our-measures/>

4. **ASPIRE Measures including both Labor Epidurals & Cesarean Deliveries**

- Med 01
- FLUID 01-NC
- PONV 03

5. **ASPIRE Measures excluding all obstetric cases**

- TEMP 03
 - i. *Josh Younger, MD – Henry Ford Detroit:* Is active warming required if patients' temp is less than 36.0 degrees Celsius intraop? Yes- as part of the TEMP 01 measure. Cesarean deliveries are included for TEMP 01 but also allow for fluid warming as active warming. Cesarean deliveries and labor epidural cases are excluded from TEMP 03.
- TOC 02
- FLUID 01-C

6. **Current Cesarean Delivery Data in MPOG**

- 260,062 cesarean deliveries in MPOG database
- 1/22/2004-11/30/2019
- 52 Institutions represented
- Identified using anesthesia CPT codes: Most reliable way to identify procedures
 1. 01961: Anesthesia for cesarean delivery only
 2. 01968: Anesthesia for cesarean delivery following neuraxial labor analgesia/anesthesia
- Approximately 40,000 cases/year in the MPOG registry using 01961 and 01968. 35 sites currently submitting cesarean delivery data
- Plans to create a phenotype to identify labor epidural cases that converted to c-section. Likely missing many conversion cases in this analysis.

7. **Future Measure Build Discussion**

- Call for Measures: Survey Results (8 responses) – Top 3 measures that were the most popular among providers and considers data elements that MPOG can capture.
- **Measure #1: Prolonged hypotension before cesarean delivery**
 1. *Measure Time Period:*
 - Spinal placement time to delivery of neonate OR
 - Spinal placement time to procedure start (incision)
 2. *Hypotension Definition:*

- SBP < 90mmHg or <100mmHg; >20% decrease for pre-eclampsia patients
- 3. *Prolonged*: 5 or 10 minutes?
- 4. *Inclusions*: Patients undergoing anesthesia for cesarean section (CPT: 01968 & 01961); includes epidural, spinal, combined spinal epidural, & general anesthesia cases for cesarean section delivery
- 5. *Exclusions*: Emergency c-sections with diagnosis of placental abruption (O45*), Rupture of uterus (spontaneous) before onset of labor (O71.0), Newborn affected by intrauterine blood loss from ruptured cord (P50.1), Abnormal uterine or vaginal bleeding, unspecified (N93.9), Placenta previa with hemorrhage, third trimester (O44.13), Hemorrhage from placenta previa, antepartum condition or complication (641.13), Hemorrhage from placenta previa, delivered, with or without mention of antepartum condition (641.11)
- 6. *Provider Attribution*- Anesthesia providers signed in at:
 - Neuraxial- Spinal performed (50680), if not available then
 - AACD Procedure Start Date/Time (50006), if not available then
 - Obstetrics- Uterine Incision (50357), if not available then
 - Obstetrics- Delivery of Neonate (50358).
- 7. Discussion:
 - *Marie-Louise Meng – Duke*: How was decision made to use SBP vs. MAP? Interested in considering a MAP value in addition to SBP as it has become common practice to ignore DBP and is not necessarily best practice. Considerations are different in women with pre-eclampsia vs. non-hypertensive women.
 - *Joanna Kountanis – Michigan Medicine*– Standardized blood pressure target is not well defined in obstetrics. A Cochrane review revealed numerous ways to define hypotension but the majority of studies refer to SBP- see Table 1:
<https://www.cochranelibrary.com/cdsr/doi/10.1002/14651858.CD002251.pub3/full>
 - *Marie-Louise Meng – Duke*: Is there a way to look at hypotension that was treated?
 - *Nirav Shah, Michigan Medicine* – MPOG can look at the total vasopressor treatment dose (bolus and infusion). Also able to compile a list of interventions that if documented would flag as hypotension treatment. Need to identify a way to delineate labor epidural portion of the case from the cesarean section for conversion cases. This will be important for determining duration to ensure hypotension is measured intraoperatively and not in a labor room.
 - *Brandon Togioku, OHSU* – Comment on using medication administration to flag cases are intraop since it is rare to give 2% lidocaine, chlorprocaine, or heavy bupivacaine etc. in a labor room except for a few

circumstances (i.e. forcep utilization) however this may be an alternate marker that patient is in the OR and not a definitive marker.

- *Kate Buehler, Michigan Medicine* – Coordinating has discussed this and may use documentation of these medications as one way to determine conversion to cesarean delivery
- *Ronald George, UCSF* – We do most of forceps in labor rooms using these same medications- not necessarily indicative of a cesarean delivery unfortunately.

- **Measure #2: General Anesthesia Rate for Cesarean Delivery**

1. Percentage of cesarean delivery procedures converted to general anesthesia
2. *Measure Time Period:* Neuraxial Start to Neonate Delivery
3. *Inclusions:* Elective or Urgent C-Sections (CPT: 01961 & 01968) with neuraxial anesthesia (epidural, spinal, or CSE) with documentation of intubation, volatile gas, or NMB (indicating conversion to GA)
4. *Exclusions:*
 - Patients undergoing emergency cesarean section
 - Patients undergoing cesarean section with hysterectomy (CPT: 01969)?
 - Contraindications to regional anesthesia including...?
 - Documentation of patient request for general anesthesia?
5. *Proposal:* Informational only measure? No threshold/target
6. *Provider Attribution:* Anesthesia attending signed in at time of conversion to general anesthesia
7. Algorithm to determine responsible provider:
 - Placement of endotracheal tube, or supraglottic airway (LMA), if not available
 - Anesthesia Induction Start, if not available
 - Administration of first NMB dose, if not available,
 - Initiation of volatile gas
8. *Alternative:* Refrain from assigning attribution; institution rate only

- Discussion:

1. Is it possible to utilize the macro as a timestamp to when we transfer from epidural to c-section? This should indicate that we stopped the epidural and converted to the OR portion of the case.
 - *Nirav Shah, Michigan Medicine* – MPOG has a concept that Epic sites can map to. If a uterine incision is not documented or the ‘conversion to c-section’ concept is not used- difficult to indicate whether the patient was transferred to the operating room for delivery vs. c-section.
 - *Kate Buehler, Michigan Medicine* - MPOG is currently working on a phenotype to trigger the time epidurals are converted to c-section
2. *Dan Biggs, University of Oklahoma* – Institutions may see different rates of this depending on the number of high risk patients in their population.

- *Nirav Shah, Michigan Medicine* – Agree. This measure could allow institutions to track their epidural conversion rates over time and compare such rates across all institutions within MPOG.
- 3. *Angel Martino, Sparrow Health System* – Are labor epidural specific measures on the agenda for measure build or are we choosing to only focus on cases in the OR? Wet taps are of interest for labor epidural patients & would be important to measure.
 - *Nirav Shah, Michigan Medicine* – It is easier for MPOG to capture data intraoperatively. Wet tap data is also highly variable in MPOG. We do not capture data from labor rooms for most sites as this is nursing documentation (most sites submit anesthesia record data)
 - *Angel Martino* - There are diagnosis codes for women who deliver vaginally- could possibly use those to identify labor epidural cases.
 - **MPOG Coordinating Center to review vaginal delivery diagnosis codes**
- **Measure #3: Antibiotic Timing for cesarean delivery**
 1. *MPOG Registry Data*: 39,654 cesarean delivery (Oct 2018-Nov 2019)
 2. *Antibiotic Timing*: Percentage of cesarean deliveries with any antibiotic administered within 60 minutes before procedure start: 81.95% (past 12 months)
 3. *Antibiotic Selection*:
 - Cefazolin (75%), Cefazolin & Azithromycin (9%), Cefoxitin (1.15%), Azithromycin (1.04%), Cefoxitin & Azithromycin (0.20%), Ceftriaxone (0.08%), Cefuroxime (0%), Cefuroxime & Azithromycin (0%)
 4. Discussion
 - *Kate Buehler, MPOG Coordinating Center*- Does it make sense to start with antibiotic selection/timing measures as MPOG has this data and the build should be straightforward?
 - *All* - Interest in looking at administration rates of Azithromycin in combination with other antibiotics. Azithromycin is commonly administered in addition to another antibiotic for epidural to C-section conversion cases.
 - *Dan Biggs, University of Oklahoma* – 100% of OB patients receive azithromycin at OU.
 - *Angel Martino, Sparrow Health System* – In favor of focusing on this measure first since infection is one of the highest reasons for maternal morbidity. Measure should consider both antibiotic selection and timing.
 - *Nirav Shah, Michigan Medicine* – this measure may be somewhat descriptive in terms of simply displaying practice variation across sites.
 - *Angel Martino, Sparrow Health System* - Can MPOG compare Surgical Site Infection rates with antibiotic compliance?
 - *Nirav Shah, Michigan Medicine* – MPOG receives discharge diagnoses codes however, it is hard to separate out if it was a

pre-existing code or a new code that is specific to that encounter. The coordinating center needs to do some work to determine how relevant/accurate these codes are in identifying new SSI. Tying outcomes to these cases will most likely be a phase two component of this measure build.

- **Continue to Investigate other measures?**
 1. Non-opioid adjunct used for post cesarean delivery pain: 3.38/5.00
 2. First temperature in PACU for cesarean delivery: 3.13/5.00
 3. PONV in PACU for cesarean delivery: 3.13/5.00

- Other suggested topics from survey
 1. Rate of dural puncture during epidural placement
 2. Adjunctive azithromycin for non-elective cesarean deliveries (C/SOAP trial)
 3. TXA administration when EBL > specified amount (TBD)
 4. Transfusion rates
 5. Intraoperative Core Temperature Monitoring
 6. Intraoperative Active Warming
 7. Intraoperative sedation medication administration for cesarean delivery
 8. Rate of emergency c-sections after CSE with intrathecal opioids
 9. Rate of anemia prior to elective cesarean delivery
 10. Rate of success in neuraxial anesthesia in spinal fusion patients

- SOAP Centers of Excellence Criteria
 1. Generated by expert consensus & incorporate evidence-based recommendations
 2. Topics:
 - Personnel & Staffing: MPOG does not capture
 - Equipment, protocols, & policies: MPOG does not capture
 - Cesarean delivery management
 - Routine utilization of a pencil-point needle, 25 gauge or less for the provision of spinal anesthesia
 - Multimodal analgesia protocols (Non-opioid adjunct used for post cesarean section pain)
 - Strategies to prevent intraop maternal and fetal hypothermia (TEMP 01)
 - Appropriate antibiotic prophylaxis
 - Spinal hypotension prophylaxis and treatment
 - Nausea & Vomiting prophylaxis and treatment
 3. Labor Analgesia
 - Use of low-concentration local anesthetic solutions with neuraxial opioids
 4. MPOG does not capture
 - Recommendations & Guidelines implementation:

- QA & Patient Follow-up
- 8. 2020 Goals
 - Measure focus for 2020: No consensus on one measure of focus
 1. *Brandon Togioka, OHSU*– in favor of hypotension. OHSU does almost no GA conversion cases and focus more on early interventions to prevent this.
 2. *Joanna Kountanis, Michigan Medicine* – In favor of hypotension measure
 3. *Angel Martino, Sparrow Health System* – In favor of Antibiotic measure
 - Collaboration with other OB anesthesia groups (SOAP, ASA Task Force for Obstetric Anesthesia) – Didn't have enough time to discuss on call
 - Measure Build: Prioritize & determine 'ownership'
 1. Need volunteers to assist with measure build questions
 - Dan Biggs, University of Oklahoma
 - Ron George, UCSF
 2. Approval process
 - Potential Toolkit Topics? – Didn't have time to address during call.
- 9. Subcommittee Membership and Meeting Schedule
 - How often should this group meet?
 - Create Basecamp forum?
 1. All in agreement on this form of communication. MPOG to create Basecamp Forum in invite all members of subcommittee.
 2. MPOG interested in hosting an in person meeting to go over a few additional topics – potentially at one of the SOAP meetings.
 - 2020 Existing Meetings:
 1. Quality Committee Meetings (Webex)
 - February 24
 - April 27
 - June 22
 - August 24
 - October 26
 2. MPOG Collaborative Meetings (In-person)
 - March 27, Schoolcraft College, Livonia, MI
 - July 17, Henry Center East Lansing, MI
 - October 2, ASA-Washington DC

Meeting concluded at 3:00pm