Anesthesiology Performance Improvement and Reporting Exchange (ASPIRE)

Obstetric Anesthesia Subcommittee Meeting Minutes- May 22, 2024

Attendance

Henrietta Addo, MPOG	*Mary McKinney, Corewell Health*
Aymen Alian, Yale	*Rebecca Minehart, Brown*
Nicole Barrios, MPOG	*Katie O'Conor, Johns Hopkins*
Dan Biggs, OUHSC	*Diana O'Dell, MPOG*
Kate Buehler, MPOG	*Rebecca Pantis, MPOG*
Hannah Burcham, UT Southwestern	*Jack Peace, Temple*
Ruth Cassidy, MPOG	*Amy Poindexter, Holland Hospital*
Charity Corpus, Corewell Health	*Alison Premo, Corewell Health*
Rania Elkhateb, UAMS	*Laurence Ring, Columbia*
Kelly Fedoruk, Stanford	*Sandy Rozek, MPOG*
Kim Finch, Henry Ford	*Denise Schwerin, Bronson*
Ronald George, Toronto	*Nirav Shah (MPOG QI Director), MPOG*
Jackie Goatley, Michigan	*Frances Guida Smiatacz, MPOG*
Joshua Goldblatt, Henry Ford	*Kathleen Smith, UNC*
Jerri Heiter, Trinity Health	*Mellany Stanislaus, Johns Hopkins*
Wandana Joshi, Dartmouth	*Alexandra Taylor, Trinity Health*
Jeremy Juang, UCSF	*Brandon Togioka, OHSU*
Rachel Kacmar, Colorado	*Pamela Tyler, Corewell Health*
Tom Klumpner, Michigan	*Meridith Wade, MPOG*
Stephanie Lim, UCSF	*Christine Warrick, Utah*
Tiffany Malenfant, MPOG	*Jennifer Woodbury, UCSF*
Christine McKenzie, UNC	*Andrew Zittleman, MPOG*

Start: 1402

Minutes from the February meeting were approved- minutes and recording posted on the MPOG website for review.

Announcements

- Future Meeting Dates:
    - MPOG OB Subcommittee
        - September 25, 2024 @1pm EST
        - December 4, 2024 @ 1pm EST- moving to four subcommittee meetings a year.
    - MPOG Retreat
        - October 18th in Philadelphia, PA
- Vice-Chair to serve alongside Dr. Togioka on the MPOG OB Subcommittee.
        - If interested, please submit letter of interest to Dr. Togioka or Nicole.
- Patient pregnant phenotype- would like to start a workgroup to generate ideas to capture this population. Volunteers needed, please reach out to Dr. Togioka or Nicole if interested.

February Meeting Recap

- Thank you to Drs. Melinda Mitchell and Sharon Abramovitz for leading the measure reviews of GA-01 and GA-02. Subcommittee voted to continue this measure as is (no changes).
- Dr. Brendan Carvalho joined the subcommittee to discuss the Society for Obstetric Anesthesia and Perinatology (SOAP) and the process to apply to become a Center of Excellence (COE).

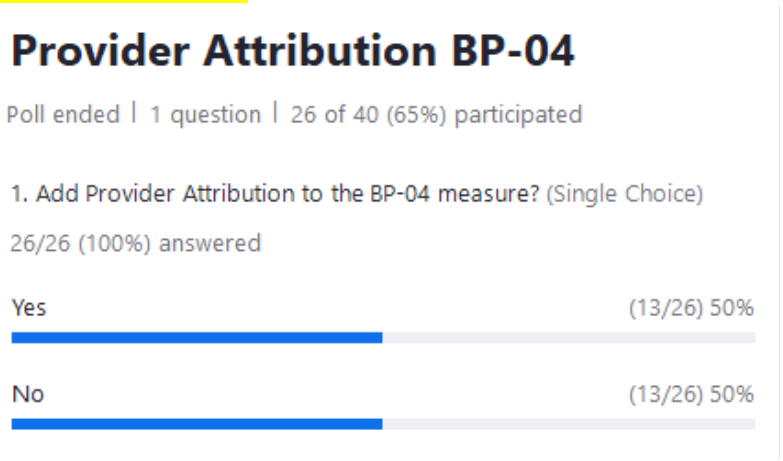
In the News

- Behavioral disorders after prenatal exposure to anesthesia for maternal surgery. *Pediatric Anesthesia*
- Background: Anesthetic medications cross the placenta prenatally during a period of brain vulnerability.
- Objective: Determine if prenatal exposure to anesthesia is associated with a diagnosis of disruptive or internalizing behavioral disorder (DIBD).
- Primary Endpoint: BIDB= ADHD, oppositional defiant disorder, bipolar, depression, anxiety
- Population: Nationwide sample of pregnant Medicaid women with live birth infants who underwent appendectomy or cholecystectomy between 1999-2013.
- Methods: Multivariate matching of each birthed child with 5 unexposed children.
- Results: 34,271 prenatally exposed children were matched with 171,355 controls. Using a Cox proportional hazards model, prenatally exposed children were 31% more likely than unexposed children to receive a diagnosis of DIBD. Prenatally exposed children were more likely to exhibit disruptive (32%), internalizing (36%), AHDH (32%), language disorder (16%), and autism (31%).

BP-04 Request to add Provider Attribution

1. BP-04: Percentage of cases with systolic blood pressure < 90 mmHg for ≤ 5 (cumulative) minutes.
2. Currently this is a departmental only measure - not available for provider feedback emails.
    a. Request from sites to be able to add to monthly provider emails.
3. Provider Attribution Discussion
    a. Provider signed in for at least 5 min of hypotension? Propose all roles for attribution?

BP-04 Revision Vote:



The subcommittee vote was split and needs majority vote to make a measure change.
Provider attribution will **not** be added to BP-04.

BMI Data

1. Recap from Nov Meeting -BMI cases and Cesarean Deliveries in MPOG
    a. According to the CDC, in 2020 31.8% of live births were cesarean deliveries.
    b. Charting in EHR is often of woman's current gestational weight.
    c. Subcommittee interested in examining % of MPOG cases with BMI > 40.
2. Literature Review: BMI & Cesarean Delivery
    a. Riveros-Perez et al. published a retrospective analysis in 2018 of 771 patients.
        i. Intraoperative blood loss was significantly higher in the morbidly obese category.
        ii. Approximately 100ml greater blood loss
    b. Creanga, Catalano, and Bateman studied Obesity in Pregnancy and published their findings in the New England Journal of Medicine in July 2022
        i. Obesity in pregnancy has been linked to labor complications, poor fetal outcomes such as congenital malformations, and postpartum complications including infection and hemorrhage.
        ii. Long-term outcomes were also assessed including hyperlipidemia, ischemic heart disease, and obstructive sleep apnea for mothers after delivery.

3. See presentation slides for blinded MPOG data shared with subcommittee regarding BMI variation across sites: BMI <40, BMI 40-50, and BMI>50
4. Additional Points of Interest for BMI
    a. Is the subcommittee interested in continuing to investigate this topic?
    b. Other data points that would be of interest?

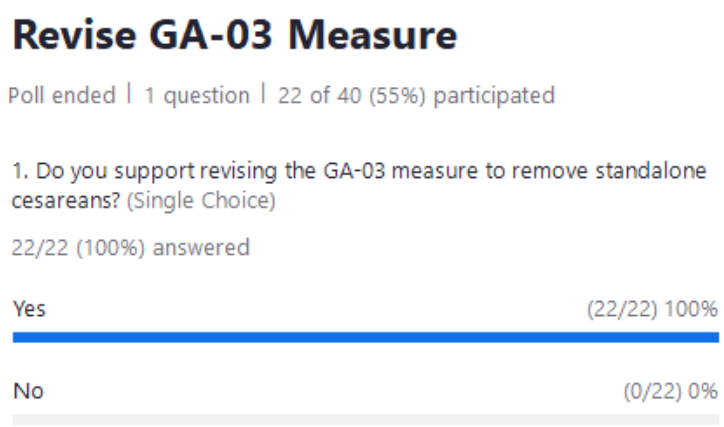
Revise GA-03 Measure

- Summary (voted to approve)
    - GA-01: All cesarean deliveries included.

    - GA-02: All cesarean deliveries in which a neuraxial block is documented prior to incision.
- Proposed revision: GA-03
    - Remove standalone cesarean deliveries (OBAT value = 2)
    - Goal: Assess for failure to convert labor epidural to surgical block
    - Numerator: Cesarean deliveries completed with epidural
    - Denominator: Intrapartum cesarean delivery with labor epidural
    - Flagged cases: Cesarean delivery completed under GETA
    - Include only cesarean deliveries in which an epidural is documented prior to incision.
- Exclusions
    - Standalone cesarean delivery (OBAT value = 2)
    - Epidural placed within 1 hour of incision.
    - Cesarean Hysterectomy

Brandon Togioka (MPOG OB Subcommittee Chair): This is to get a sense of epidural conversion failure rates for patients requiring cesarean delivery after a labor epidural. We're proposing to remove standalone cesarean deliveries and include only those with an epidural placed before they arrive to the operating room. Flagged cases for GA-03 would only be cesarean deliveries that had an epidural prior to conversion to cesarean delivery that required GA.

Subcommittee members voted to approve removing standalone cesareans from GA-03.



Measure Review

TEMP-05

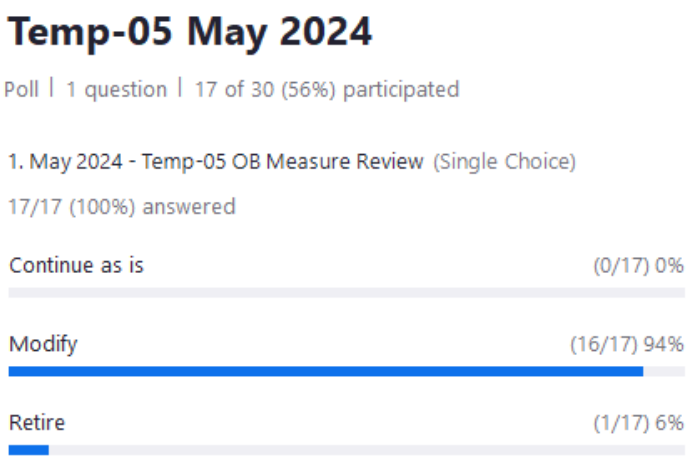
1. TEMP-05 Hypothermia in Cesarean Delivery
2. **Description**: *Percentage of patients undergoing cesarean delivery without a body temperature greater than or equal to 36 degrees Celsius (or 96.8 F) documented within the 30 minutes immediately before or 15 minutes after anesthesia end.*
   Measure Time Period: 30 Minutes before Anesthesia end to 15 minutes after.
   Inclusions: Cesarean Delivery cases: Obstetric Anesthesia Type Phenotype 1, 2, 4, 7, 8
   Exclusions: All other procedure types, specifically deliveries performed without cesarean section.

*No temp within measure period will be marked as flagged.
*Temperature documented within the postoperative vital sign note in the anesthetic record or temperatures documented and mapped to the temperature physiologic concepts are acceptable sources for this measure.
Provider Attribution: Provider present for longest duration of the case per staff role.
If two or more providers in the same class are signed in for the same duration, all providers signed in for the longest duration will be attributed.

a. Reviewers: Christine Warrick and Wandana Joshi

TEMP-05-OB Measure Review

Vote – Subcommittee voted to extend measure time to 30 minutes after anesthesia end (from 15 minutes).



Thank you to all the measure reviewers who helped review our OB measures over the past year. Please visit the measure reviewer page to see all providers who have reviewed MPOG measures in the past.

Our next measure review will be GA-03 in 2026.

Meeting End:
0203pm

Transcript

Announcements

Brandon Togioka (MPOG OB Subcommittee Chair): We are going to go through a few announcements. We will recap our last meeting and the speakers that we had. We are going to go through a few votes here for BP-O4 and GA-03, which would revise these quality metrics. There had been a request to look at

BMI data and potentially try to create quality metrics around the higher BMI patients. And then we are close to potentially implementing a new azithromycin measure. We'll jump into that at the end. We will ask the OB subcommittee members that are not submitting data right now to step out for the unblinded review of Temp-05.

Brandon Togioka (MPOG OB Subcommittee Chair): Briefly, we decided that because of the quantity of things that we are doing, we are going to try to ramp up research as well as align ourselves a little more closely with the center of excellence. We're to move to four committee meetings a year. Our next meeting will be September 25th, and we will schedule another one in December. If anyone has concerns, feel free to reach out. Previously, we've been meeting just three times a year, and it just didn't seem like enough to get through everything we need to. And the duration of time between is hard to remember what we previously did.

Brandon Togioka (MPOG OB Subcommittee Chair): I also want to invite everyone to come to the MPOG retreat. It is going to be the day before ASA in Philadelphia. I signed up in my institution to get out and it should be a wonderful opportunity to network and learn more about MPOG.

Brandon Togioka (MPOG OB Subcommittee Chair): Next announcement, as many of you know, I was originally signed up to be the Vice chair (of the OB Subcommittee), and then our Chair stepped down, and then I became Chair. We are going to reopen (a vice chair position). Anyone who is interested in being vice chair of this committee to kind of help with the creation of quality metrics and meeting agenda. Also, we are hoping to boost research. if that's your interest as well, this could be a good fit. Just feel free to email either myself or Nicole.

Brandon Togioka (MPOG OB Subcommittee Chair): We are looking at creating a pregnant patient phenotype which unbelievably, we don't have, and even though it seems like a very easy thing to do, it's a bit more complicated with this data. A few providers started to look at into this and we are going to create a work group because there is a need to have this phenotype to look at non-obstetric surgeries. So right now, looking at everything is based on the procedure type, which doesn't really work for non-obstetric surgeries that are for patients that are pregnant. If you're interested in this, please reach out. This will have big implications for being able to do research on pregnant patients, because right now it's a little bit challenged in what populations we can look at.

Brandon Togioka (MPOG OB Subcommittee Chair): From our February meeting recap, a big thank you to Dr. Melinda Mitchell and Dr. Sharon Abramovitz for leading the measure reviews for GA-01 and GA-02. As you may remember, we voted to continue these as is. We are going to be discussing GA-03 a little bit today. I don't think Dr. Carvalho is here, but big thank you to him for presenting to us about the SOAP Center of Excellence. I've been in discussions with Ruth Landau, and we're going to try to merge some of our future work with some of the measures that they need to assess center of excellence in different institutions.

Brandon Togioka (MPOG OB Subcommittee Chair): One thing we added a few meetings ago was just kind of a brief review of the literature, and we're finding studies that perhaps have been controversial, that many of you have heard of, or that patients are going to bring to you, or providers are going to bring to

you, and it's worth at least having a sense that this is out there. This was one when Nicole and I were looking through things that is worth talking about and it's gotten a bit of press. I think there are some challenges with it, but it's going to create some anxiety for sure. This study came out in spring of 2024. The goal here was to assess if anesthetic agents could potentially affect the developing brain in a negative way and increase the risk for neuropsychiatric deficits. The complaints with these studies in the past have been that they look at exposure to children. Actually, it's like the kid is having general anesthesia. How does that impact their risk for ADHD or autism, things like that. This study looked at it a little bit differently. This was in BJA. And what they looked at is moms that were having surgery for generally more benign procedures, appendectomies, and cholecystectomies. The idea here was these moms weren't having giant surgeries that meant they had massive co-morbid disease burden. Rather, this was a population of fairly healthy moms and potentially healthier babies.

Brandon Togioka (MPOG OB Subcommittee Chair): They looked at a nationwide sample of pregnant women in the Medicaid population, lower SES population, and they looked at those that underwent appendectomies and cholecystectomies from 1999 to 2013. Their primary endpoint was this disruptive or internalizing behavioral disorder, a composite outcome which included ADHD, oppositional defiant disorder, bipolar depression, or anxiety, all classified through billing, and CPT codes. They were kind of more severe disease. You could say with that definition and this large database, they were able to look at over 200,000 children. They matched each birth child with exposure to general anesthesia to five unexposed children and using a Cox proportional hazard model, they found that prenatal exposed children were 31% more likely than unexposed children to get this diagnosis of disruptive or internalizing behavioral disorder. One of the big limitations here is, even though the kids might not have been sicker in some of the earlier studies, they still are exposed to other factors associated with surgery, such as infection and inflammation, which could be the confounders driving this outcome. And it is obviously retrospective, so it has those inherent limitations. But I just wanted to make sure the group was aware of this. I'm sure you're going to hear about it a lot.

Brandon Togioka (MPOG OB Subcommittee Chair): Any thoughts or interactions anyone had with patients or providers that could help the group when we're addressing this particular study?

Brandon Togioka (MPOG OB Subcommittee Chair): No? Okay. I'll try not to talk too much. We'll go to the next one.

BP-04

Brandon Togioka (MPOG OB Subcommittee Chair): Okay, so this is BP-04. This is a blood pressure measure, and this will be a vote for the committee. BP-04 is the percentage of cases where there is a systolic blood pressure of less than 90 for less than or equal to 5 minutes. The goal is to have a high percentage on this one. Currently, we're looking at just at the departmental level, and we don't send the information to individual providers. But many people have said that this would be useful feedback for providers. The question here will be for the group. Is it okay to start sending this out to individual providers and to include it in the monthly emails that we get?

Discussion:

- *Nirav Shah (MPOG QI Director***)**: For the other BP measures, the non-OB BP measures, we defined attribution at the provider level in a way such that the provider would have to meet the entire duration of hypertension that would cause the case to be flagged. For example, BP-03 is a MAP of less than 65 for 15 cumulative minutes. Once a case was noted to have 15 minutes of potential hypotension, the case is flagged. Then you look at providers. In that scenario, it is possible that a case would be flagged, but a provider wouldn't. But it sounds like in this scenario, which I think is appropriate, a case could be flagged because it's 5 minutes, and if any provider was signed in for that duration, they would be flagged as well.

- *Rebecca Minehart (Brown*): I had a question if there are exceptions. So, for example, someone is hemorrhaging and comes into the operating room and is starting out hypotensive and needing resuscitation. Would that be counted against the provider? Are there exceptions to this?

- *Brandon Togioka (MPOG OB Subcommittee Chair):* Right now, we don't have those exceptions built in. It's a good point. It's something that we could discuss, although it makes it more challenging. The threshold wouldn't be 100% success either. But we can discuss it. It's not currently built in.

- *Laurence Ring (Columbia)*: I think after a delivery, systolic blood pressure of 90 could be appropriate for some number of patients.

- *Rebecca Minehart (Brown)*: It's just in the setting of a neuraxial anesthesia, which is okay. That's helpful.

- *Brandon Togioka (MPOG OB Subcommittee Chair):* We also don't have a threshold for success here yet. So that's one way we could potentially account for some of these cases where it could be reasonable. The first question is, do we push this forward for provider attribution? If we do, we could discuss the threshold for success, or we can even hold on that and just push it out and not have a threshold initially. But we probably need to figure out what's going to define provider attribution.

- *Brandon Togioka (MPOG OB Subcommittee Chair):* How does the group feel about if you're signed in for as little as 5 minutes, but the patient is hypotensive during that whole time, you should be flagged for that case? Or does that seem inappropriate?

- *Hannah Burcham (UT Southwestern*): Would it be possible to do possibly unaddressed hypotension? If you're trying to treat it, and you're just not able to get it up in that amount of time, that's one thing. But to leave it alone and not address it in that period.

- *Brandon Togioka (MPOG OB Subcommittee Chair):* Five minutes without documented vasopressor administration?

    - *Hannah Burcham (UT Southwestern*): Right. I'm just thinking of an alternative.

- *Brandon Togioka (MPOG OB Subcommittee Chair):* We could look at it that way. Dr. Joshi?

- *Wandana Joshi (Dartmouth)*: I know we get individual provider data for non-OB stuff. For the OR, a lot of complaints are, well, the nurse anesthetist never called me because of this hypotension, so they feel frustrated that they don't always have control over some of these parameters if they're not called.

- *Brandon Togioka (MPOG OB Subcommittee Chair):* It's a fair point. Who's actually in the room versus who's being analyzed.

- *Thomas Klumpner (University of Michigan)*: I tend to agree with that. I think there's value in looking at it overall and across institutions. I have a little pause about attributing it to an individual provider. I'm not saying we shouldn't, but we need to proceed cautiously. You don't want to discourage someone from helping in the middle of a hemorrhage. It's also hard to define managed versus unmanaged when looking at a case electronically.

- *Nirav Shah (MPOG QI Director)*: I want to make a point on provider attribution. It's enabling the provider to review the case. If there was hypotension, who would you want to inform afterward as part of practice reflection? This allows you to look back retrospectively and see if there was an opportunity to modify interactions. It's not about fault but enabling reflection and improvement.

- *Brandon Togioka (MPOG OB Subcommittee Chair):* It's a great point.

- *Joshua Goldblatt (Henry Ford Allegiance)*: I'm the quality nurse. Comparing this to our other BP metrics across ASPIRE, they all focus on MAP rather than systolic and have a longer period of hypotension. I'm not sure why this one deviates from that model, but in BP-06, they have an exclusion for a baseline MAP less than 60, which could be applied here.

- *Brandon Togioka (MPOG OB Subcommittee Chair):* Good suggestions from both of you. Thank you. Should we go ahead and vote and see where we are right now? We might need more discussion.

- *Nirav Shah (MPOG Quality Director)* via chat: the criteria for this measure (i.e., using systolic instead of mean) based on best available evidence and consensus for this specific case and patient population when this measure was first developed.

- *Brandon Togioka (MPOG OB Subcommittee Chair):* Alright, the votes show we are split 50/50. I think this means we don't move forward with this right now. Great discussion. Thank you all.

GA-03 Vote to Modify Measure

Brandon Togioka (MPOG OB Subcommittee Chair): Moving onto to GA-03. This is to get a sense of failure rates for institutions and providers regarding the use of labor epidurals for Cesarean delivery. We're

proposing to remove scheduled Cesarean deliveries and include only those with an epidural placed before the operating room. Failures would be those completed under GA. Any thoughts or questions? Vote- Majority of subcommittee members vote to approve removing standalone cesareans from GA-03.

BMI Data

Brandon Togioka (MPOG OB Subcommittee Chair): BMI data is next. Now we can review BMI data based on BMI category with cesarean deliveries. Limitation- weight is based off what is documented in patients' chart. This does highlight we have good amount pts with BMI greater than 40. this is one study that the greatest journal but basically showing that intraop blood loss is higher in patients and then the next slide it shows that high BMI. Question is do we need a quality metric to specifically look at this pop to protect them from some of these issues if there are meaningful intervention that we can provide?

Discussion:

- *Ron George (Mount Sinai T.O.)* via chat: Remind us when the BMI data is collected. i.e., gestation

- *Nicole Barrios (OB Subcommittee Lead):* We take what is documented in the anesthesia record recognizing it can be the patient's pregnancy weight.

- *Nirav Shah (MPOG QI Director***)**: The farthest it would go back is 30 days prior to the extract code, but usually around the time of the case.

- *Brandon Togioka (MPOG OB Subcommittee Chair)*: Dr. Minehart mentioned appropriate cefazolin dosage, and Dr. George asked about BMI data collection. Dr. Fedoruk, can you please comment more on how you document this at your institution?

- *Kelly Fedoruk (Stanford)*: Post op sat monitoring screening for OSA neuraxial opioids? We do pre anesthesia screening for OSA and if that category is met, patient's automatically have post-op order set selected if they end up having a cesarean or if they are scheduled to go in that would select for spo2 monitoring. I believe this is related to SOAP statement of about neuraxial opioid monitoring postop.

- *Brandon Togioka (MPOG OB Subcommittee Chair): Thank you for sharing. Great this is helpful. Okay- let's pivot. We are going to save the Antibiotic presentation for our next meeting. I want to make sure we give enough time to our measure reviewers. At this point, if you are not an active MPOG site please leave the call as we will be reviewing unblinded data.*

Unblinded TEMP-05 Review

Christine Warrick (University of Utah): Hello, can everyone hear me? Perfect. I'm Christine Warrick from the University of Utah, and Dr. Joshi and I worked on our MPOG TEMP-05-OB measure for review. We know from many studies that perioperative hypothermia contributes to post-op shivering, prolonged drug action, higher wound infection rates, increased hospital stay and cost, immune function

suppression, and specifically in OB, lower neonatal temperature at birth. This measure looks at the percentage of patients undergoing Cesarean delivery without a body temperature greater than or equal to 36°C documented within 30 minutes immediately before or 15 minutes after anesthesia end.

Wandana Joshi (Dartmouth): The idea here was to identify how well we are maintaining normothermia in our patients undergoing Cesarean deliveries. We looked at data from multiple institutions to see how often this temperature threshold is met.

Christine Warrick (University of Utah): The measure time period is 30 minutes before anesthesia end to 15 minutes after, and it includes all Cesarean delivery cases with all other procedure types excluded. No temperature within the measure period is marked as flagged, and the temperature documented within the post-op vital sign note in the anesthetic record where temperature is documented and mapped are the sources for this measure. The provider attribution for this is the provider present for the longest duration of the case per staff role.

Christine Warrick (University of Utah): The current state of this measure is that most of us are doing poorly. Many centers are above the 10% cutoff. We wanted to unblind this data just so we could see which centers are doing well on this measure and hopefully glean some evidence as to why some centers are able to collect this data better than others. Personally, for our center, it is collected immediately post-op in our PACU, but that is documented as a free text. So, the information that is collected by MPOG is from nursing flow sheets, and that's not always charted within the 15 minutes after anesthesia end time.

Discussion:

- *Brandon Togioka (MPOG OB Subcommittee Chair):* That's interesting, Christine. It seems like a big part of the problem is how the data is being recorded and whether it's captured within the specified time frame.

- *Christine Warrick (University of Utah):* Yes, absolutely. And there is some variability in what people are doing in the survey responses. Most patients are going to the recovery room, and the majority of centers are taking temperatures via oral temps, but there are some bladder, skin, and temporal or other temps being taken. Measures used for active warming include warm IV fluids and an underbody forced air warmer as the most popular, and most centers are collecting the temperature in the intra-op record.

- *Brandon Togioka (MPOG OB Subcommittee Chair):* That is a good point. The differences in data capture methods could affect the measure outcomes.

- *Wandana Joshi (Dartmouth):* I find sometimes the workflow for recovery room nurses is very different than for labor and delivery room nurses. I mean, at least, my institute is dramatically different. And that could affect some centers, too, in terms of their ability to capture that temperature. I feel many of our nurses are so focused on skin-to-skin and getting the breastfeeding, and so many other things that taking that temperature just seems like a very low priority.

- *Christine Warrick (University of Utah)*: Initially, when we took this survey data, we were hoping to glean that maybe temperatures documented in the intra-op record had better capture for this measure, and perhaps speaking to Dr. Joshi's point, patients who went somewhere besides the labor and delivery room had better temperature recording. Studies found there was benefit in active warming in preventing hypothermia. The study also looked at if intrathecal opioids were administered, since this can affect temperatures as well. The conclusion from the meta-analysis is that active warming prevents maternal hypothermia and shivering better than passive warming. Active warming has no significant effect on newborns and (looked at neonatal hypothermia and umbilical cord ph).

- *Thomas Klumpner (University of Michigan)*: We do not use forced air; we use warming blankets. We put a liter of IV fluid in the blanket warmer. We use warm blankets when the patient arrives, and then all the IV fluids we administer, we take a fresh bag out of that blanket warmer, and that is what we use as our active IV warming. We are not using anything more sophisticated than that. We record the temperature immediately on arrival to PACU and that gets pulled into MPOG.

- *Kate Buehler (MPOG Program Manager):* From a coordinating center perspective, there's a little bit of a caveat that we should probably share. There is a corresponding non-OB measure called Temp-03 that looks at this exact same time period and aligns well with the old SCIP measure. TEMP-03 was a pay-for-performance measure within the state of Michigan, which helped sites work on their TEMP-03 documentation. Specifically capturing their post-operative temperatures, and I have a feeling some of that spilled over into some of those OB practices because it was usually rolled out institution wide. I think some of this is the byproduct of that.

- *Josh Goldblatt (Henry Ford Allegiance):* We have been highly variable month to month, and part of that is due to our low volume. We only see about 25 cases per month. What we have found is consistent is that our primary failure method is that there was no temperature documented. We are in the process of rolling out the Zero flux monitoring in OB, which has its own set of challenges. The sticker on the temporal artery is supposed to be a near-core temperature. We have rolled it out system-wide, and so we're doing that in our main ORs. But we are trying to implement it in OB as well because we've had these occasions where arms are out, we're not able to record a temperature. I do not think there even is an oral thermometer in the OR, and so we've been completely dependent on the recovery nurses documenting, and they're really prompt with their handoff and getting vitals during that handoff period. But the recovery nurse does not always prioritize entering it or prioritize entering the time when they do back chart it. I am pessimistic about the Zero flux and the success that we will have there. Everyone’s sense is that laboring women do not want this thing on their face.

- *Thomas Klumpner (University of Michigan)*: Just to add, we do not really measure intra-op temperatures either. We rely a on that first temperature.

- *Brandon Togioka (MPOG OB Subcommittee Chair)***:** Well, thank you all. Dr. Warrick and Dr. Joshi, excellent, fantastic slides. Great summary. Thank you so much.

- *Brandon Togioka (MPOG OB Subcommittee Chair)***:** Let's conclude - if we could each vote on this measure. The vote is to either continue it as is, to modify it, or to completely retire it. If we vote to modify, we will extend the measure period by 15 minutes to 30 minutes after anesthesia end.

- *Christine Warrick (University of Utah):* I think it's important to consider the variability in data collection methods and see if there are ways we can standardize the process across institutions.

- *Nirav Shah (MPOG QI Director):* Agreed. Standardizing data collection methods could help improve the accuracy and reliability of this measure.

Wrap up:

Brandon Togioka (MPOG OB Subcommittee Chair) Alright, let's take the vote and see where we stand.

Looks like we will modify this to extend the measure end time by 15 minutes to 30 minutes after anesthesia end.

Thank you all for the great discussion and insights. We will see you again in September.
