Anesthesiology Performance Improvement and Reporting Exchange (ASPIRE)

Quality Committee Meeting Notes – Monday, January 22, 2024

Attendance:

Abess, Alex (Dartmouth)	Karamchandani, Kunal (UT Southwestern)
Abou Nafeh, Nancy (AUB)	Khan, Meraj (Henry Ford)
Addo, Henrietta (MPOG)	Kheterpal, Sachin (MPOG)
Agerson, Ashley (Spectrum)	Lacca, Tory (MPOG)
Anders, Megan (Maryland)	LaGorio, John (Trinity Muskegon)
Armstrong-Browder, Lavonda (Henry Ford)	Lalonde, Heather (Trinity Health)
Balfanz, Greg (North Carolina)	Liu, Linda (UCSF)
Barrios, Nicole (MPOG)	Liwo, Amandiy (UAB)
Bauza, Diego (Weill Cornell)	Lauer, Kathryn (Froedtert)
Beck, Graham (Michigan)	Lewandowski, Kristyn (Corewell)
Benitez, Julio (MyMichigan)	Lopacki, Kayla (Mercy Health - Muskegon)
Berndt, Brad (Bronson)	Lu-Boettcher, Eva (Wisconsin)
Biggs, Dan (Oklahoma)	Mathis, Mike (MPOG)
Boctor, Baher (Corewell)	Mack, Patricia (Weill Cornell)
Bollini, Mara (WUSTL)	Madoff, Lauren (Boston Children's)
Bourget, Marlene (Corewell)	Malenfant, Tiffany (MPOG)
Bow, Peter (Michigan)	McComb, Joe (Temple U)
Buehler, Kate (MPOG)	McKinney, Mary (Corewell Dearborn / Taylor)
Cain, James (University of Florida)	Milliken, Christopher (Sparrow)
Cassidy, Ruth (MPOG)	O'Conor, Katie (Johns Hopkins)
Castillo, Daniel (University of Florida)	O'Dell, Diana (MPOG)
Charette, Kristin (Dartmouth)	Ostarello, Claire (ASA)
Chopra, Ketan (Henry Ford - Detroit)	Owens, Wendy (MyMichigan - Midland)
Clark, David (MPOG)	Pace, Nathan (Utah)
Cohen, Bryan (Henry Ford - West Bloomfield)	Pantis, Rebecca (MPOG)
Coleman, Rob (MPOG)	Pardo, Nichole (Corewell)
Collins, Kathleen (St. Mary Mercy)	Parks, Dale (UAB)
Corpus, Charity (Corewell Royal Oak)	Paul, Jonathan (Columbia)
Cywinski, Jacek (Cleveland Clinic)	Penningon, Bethany (WUSTL)
Denchev, Krassimir (St Joseph Oakland)	PIlat, Marianne (Sparrow)
Dewhirst, Bill (Dartmouth)	Pimental, Marc Phillip (B&W)
Doney, Allison (MGH)	Poindexter, Amy (Holland)
Drennan, Emily (Utah)	Riggar, Ronnie (MPOG)
Dubovoy, Tim (Michigan)	Rozek, Sandy (MPOG)
Edelman, Tony (MPOG)	Ruiz, Joseph (MD Anderson)
Elkhateb, Rania (UAMS)	Saffary, Roya (Stanford)
Esmail, Tariq (Toronto)	Sakkab, Julie (AUB)

Everett, Lucy (MGH)	Schwerin, Denise (Bronson)
Finch, Kim (Henry Ford Detroit)	Shah, Nirav (MPOG)
Goatley, Jackie (Michigan)	Smiatacz, Frances Guida (MPOG)
Goldblatt, Josh (Henry Ford Allegiance)	Spanakis, Spiro (UMass)
Greenblatt, Lorile (U Penn)	Stam, Benjamin (UMHS West)
Gregory, Stephen (WUSTL)	Stewart, Alvin (UAMS)
Hall, Meredith (Bronson Battle Creek)	Tallarico, Roberta (UCSF)
Hardman, Bailor (UT Southwestern)	Toonstra, Rachel (Spectrum Health)
Harrison, Kelly (UAMS)	Tom, Simon (NYU Langone)
Harwood, Tim (Wake Forest)	Tyler, Pam (Corewell Farmington Hills)
Heiter, Jerri (St. Joseph A2)	Vaughn, Shelley (MPOG)
Henson, Patrick (Vanderbilt)	Vitale, Katherine (Trinity Health)
Janda, Allison (MPOG)	Wedeven, Chris (Holland)
Jewell, Elizabeth (MPOG)	Weinberg, Aaron (Weill Cornell)
Jiang, Silis (Weill Cornell)	Yuan, Yuan (MPOG)
Johnson, Rebecca (Spectrum & UMHS West)	Zhao, Xinyi (MPOG)
Kaper, Jon (Corewell Trenton)	Zittleman, Andrew (MPOG)

Agenda & Notes

Meeting Start: 1001

1) **Roll Call**: Via Zoom or contact us

2) **Minutes from November 27, 2023**

3) **Announcements**
   a) Featured Member January and February
      1) Denise Schwerin, RN – Bronson Healthcare
   b) Welcome our 2024 MPOG Outcomes Research Fellows
      1) Dr. Dieter Adelmann, University of California San Francisco
      2) Dr. Brian Reon, University of Virginia

4) **2024 Meetings**
   a) Friday, April 12, 2024: **MSQC/ASPIRE Collaborative Meeting, Schoolcraft College Vistatech Center, Livonia, MI**
   b) Friday, July 12, 2024: **ASPIRE Collaborative Meeting, Henry Executive Center, Lansing, MI**
   c) Friday, September 13, 2024: **ACQR Retreat, Henry Executive Center, Lansing, MI**
   d) Friday, October 18, 2024: **MPOG Retreat, Philadelphia, Pennsylvania**
   e) **Upcoming Events**

5) **Flowcharts for Quality Measures**
   a) Flowcharts are now available for most measures on the MPOG Measure Specification website
   b) Added to the Measure homepage and added as a link within each measure specification

6) **Central Data Processing: Current State**
   a) MPOG Coordinating Center processes uploaded data to provide QI measure performance and access to computed phenotypes for research and QI
   b) Currently, most ***recent*** data is prioritized to process first. For example, if a site uploads data from January – December 2022, then December 2022 will process first working backwards to January.
   c) Issue: There are significant delays in processing of "older" data as "new" data is continuously uploaded & prioritized

7) **Central Data Processing: Proposed Change**
   a) For the first 2 weeks of the month: will process data in the order it is uploaded.
   b) The week before provider feedback emails, will prioritize the previous month's data, to prevent any impact on our monthly provider feedback emails.

8) **What does this mean?**
   a) If you upload data to MPOG more frequently than listed in the MPOG 2024 Maintenance Schedule, then you may not see the most recent month's data in QI Reporting Tool or DataDirect the Monday after the upload.
   b) You ***will*** be able to see the most recent month's data in DataDirect and QI Reporting tool by the third Monday of each month.
   c) ***Benefit:*** Older data uploaded to the MPOG Coordinating Center will now be processed with fewer delays and be available in QI Reporting Tool and Data Direct more consistently

9) **Pediatric Subcommittee Updates**
   a) **Last Meeting:** Monday, December 4th, 2023
   b) Congratulations to our **new subcommittee leadership team**!
      1) Chair – Dr. Vikas O'Reilly-Shah (Seatle Children's)
      2) Vice Chair – Dr. Morgan Brown (Boston Children's)
   c) New **MPOG peds cardiac workshop** starting February 2024.
      1) If interested in joining or learning more, please complete his brief form: https://umich.qualtrics.com/jfe/form/SV_3DzhM5tU6mSZROK
   d) **PAIN-01 Measure Review** by Dr. Lisa Einhorn (Duke University). The subcommittee voted to modify the following measure criteria:
      1) Add performance threshold of 90%
      2) Exclude Block Only cases
      3) Exclude Myringotomy & Tube cases

4) Exclude cases that received no analgesia

e) **Next Meeting: March 2024**

10) Cardiac Subcommittee

a) Met: Friday, December 8th, 2023

b) Discussed **new antibiotic measure drafts** including: antibiotic timing (ABX-02), redosing (ABX-03), selection (ABX-04), and overall composite measures (ABX-05)

(i) Shared preliminary data for ABX-02 and ABX-03

(ii) Continuing to develop ABX-04 (antibiotic selection) and ABX-05 (composite) measures with input from pharmacists

(iii) Will notify the group once these measures are available on your dashboards

c) **Reviewed unblinded performance data** for glucose management measures (GLU-06, GLU-07 and GLU-08)

d) The recording, minutes, and slides, from the December 8th meeting are posted

e) New **MPOG peds cardiac workgroup** meeting February 13, 2024.

(i) If interested in joining or learning more, please complete this brief form: https://umich.qualtrics.com/jfe/form/SV_3DzhM5tU6mSZROK

f) **Next Meeting: April 2024**

11) OB Subcommittee Updates

a) Announcement:

1) Brandon Togioka, MD – New Chair OB Subcommittee!

2) Thank you to Monica Servin, MD for serving as OB Subcommittee Chair for the last 2 years. Wish her well as she moves on to private practice!

b) Meeting Summary (11/8/2023):

1) Reviewed BP-04 – Voted to continue as is

2) Discussed uterotonic agent use, blood loss and transfusions for cesarean delivery

c) **Next Meeting:** Wednesday, February 7, 2024, at 1pm EST.

12) Measure Review: MORT-01 – Dr. Kathryn Lauer, Medical College of Wisconsin/Froedtert Health

a) MORT-01 Performance across MPOG (Inverse)

1) January – December 2023 Performance range 0.4 - 1.4%

b) 30 Day In-Hospital Mortality Rate Vote

1) Vote: 1 vote/ site

2) Continue as is

3) Modify

4) Retire: Need > 50% to retire measure

c) Coordinating center will review all votes after meeting to ensure no duplication.

d) **Discussion:**

(i) **Kathryn Lauer (Reviewer) Recommendation:** It is an appropriate measure: It does give a measurable metric with variation. We know mortality does increase with ASA risk and emergency cases, however MPOG metric does not consider any of those. On the other hand, we also know that ASA status can be fraught with discrepancies and is not always

assigned appropriately. Risk adjustment may be something to add to this measure in the future. Additional consideration presented: Mortality is not captured if patients are not admitted, or if they have a death outside of the hospital.

(ii) **Nirav Shah (MPOG Quality Director):** I can provide some background on risk adjustment. Agree with you – risk adjustment with this measure makes sense. MPOG is slowly improving at developing models for risk adjustment for our measures. We are still working to automate the development and the processing of those models so that each time a new site joins, the model takes their data into consideration. AKI 01 is the first measure we plan to apply risk adjustment to and will incorporate into other MPOG measures as we refine this process over the next year.

(iii) **Josh Goldblatt (Henry Ford Health)**: I was just curious about hospice status. Not sure that is something we currently capture. I wonder if there is a way to specifically exclude palliative procedures and identify them because of their hospice status?

a. **Nirav Shah (MPOG Quality Director):** We don't currently capture this data in MPOG.

(iv) **Kunal Karamchandani (UT Southwestern)** *via chat*: Does this metric identify mortality if it happens at a different hospital?

a. **Nirav Shah (MPOG Quality Director)**: The answer is it doesn't. We are working to incorporate some new technology to be able to identify patients as they've gone from one hospital system to another to another even if we don't know their direct patient identifiers. This reports rates for 'within the same hospital' 30-day mortality currently.

b. **Kathryn Lauer (Medical College of Wisconsin/Froedtert Health):** However, it will capture it if you're within that enterprise, for example. We can see deaths within the same hospital system.

(v) **Megan Anders (University of Maryland) via chat:** Do we (or should we) provide a description of cautions/caveats when a specific measure is released, and/or requested for future research? For this one it seems like reminding people of the limitations around risk adjustment or other-hospital death might be appropriate

a. **Nirav Shah (MPOG Quality Director)**: We typically do in the measure spec and when we release it in the discussion, but sometimes especially if there's been a lot of verbal discussion at the QC meetings, it doesn't always make its way to the measure spec. I do agree, it's probably important to describe those limitations, especially for newer MPOG sites that haven't had a lot of exposure to a lot of the conversation.

(vi) **Mike Mathis (MPOG Research Director) via chat**: My overall take is that risk adjustment is challenging for low-incidence events like postop mortality; so much nuance that is hard to adequately capture. The usefulness of this measure in my mind therefore is not to compare providers/institutions against one another, but rather to create a list of cases for QI champion to manually review, and collect additional information from clinicians involved in potentially preventable mortalities, and use this info to locally refine QI processes. Risk adjustment factor is good if we can adequately capture... Goal of this measure is to capture a small list and enable local QI processes at their institutions.

(vii) **Kathryn Lauer (Medical College of Wisconsin/Froedtert Health)**: I think one other

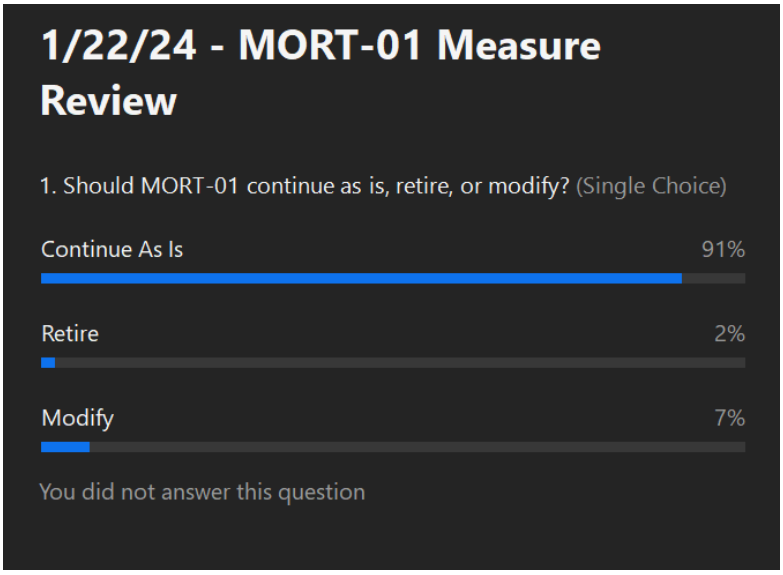
thought is using it as individual feedback, it may not be all that useful. I work at a trauma center, and we have a lot of people who come to the operating room and they're unlikely to survive. And so, it's not that shouldn't be utilized for anything outside of that. However, if you had someone that came up as a 5 E, that is understandable. It is in these broader terms seems like it has been a useful metric It has been a useful metric at least at this point. I think everyone is getting more sophisticated in terms of how we identify risk adjustment and what are going to be our key factors?

a. **Nirav Shah (MPOG Quality Director):** I agree regarding individual performance perspective - probably not a good idea for this measure. If there aren't too many cases identified each month, it would be ideal to follow-up with the provider who was on the case to let them know. Often times, anesthesia providers are not aware that their patient died days later, unless they find out from their surgical colleagues.
b. **Patrick Henson (Vanderbilt) via chat**: Agree with this view.

(viii) **Kunal Karamchandani (UT Southwestern) via chat**: Also, does it capture mortality only within the same admission of the surgical procedure or also the readmissions to the same hospital within the 30-day period.

a. **Nirav Shah (MPOG Quality Director):** Readmission to the same hospital will count as well because it's patient level information from an MPOG perspective. It's not case level. That's a great question. Any other comments or thoughts on this?

e) **Vote:**



f) **Next steps:**

1) **Continue measure as is**
2) **Add risk adjustment once available**

13) Measure Review: TEMP-03 – Dr. Simon Tom, NYU Langone

a) TEMP-03 Performance across MPOG (Inverse)
   1) January – December 2023 Performance range 0.4 - 42.2%
b) Perioperative Hypothermia Vote
   1) Vote: 1 vote/ site

2) Continue as is
3) Modify
4) Retire: Need > 50% to retire measure

c) Coordinating center will review all votes after meeting to ensure no duplication.

d) **Discussion:**

1) **Bob Boctor (Corewell East):** When this metric first came out a few years ago, there was an exclusion criterion that if an intraop warming device was used then that excluded the case. I assume that criteria is gone now?

(i) **Nirav Shah (MPOG Quality Director):** For TEMP 03, we don't have that exclusion criteria. We did, for example, when we were looking at active warming for cesarean delivery, we allowed forced air blanket, but for this measure we try to keep it as a purely outcome measure. The only exclusion that we have related to warming are if a case is marked as emergency or intentional hypothermia.

2) **Josh Goldblatt (Henry Ford Allegiance):** We just transitioned to Zero Flux and our performance for this measure took a dive. We were at 5% and now we are now at 15% with Zero Flux. What is not clear is the validity of that data. Are we capturing now hypothermia that we've always had but didn't know about or are we getting erroneous data from Zero Flux? I've been looking at the literature and it's not a clear answer. The question I have about the literature is that the study you cited is looking for any hypothermia throughout the case and this measure doesn't measure things that way – it only looks at temperatures at the end of the case. With our old method of measuring temperature, we had a lot of artifacts, so technically there is risk with looking at a longer period. There is risk for data integrity for looking for any hypothermia. Is that the process that literature supports? If so, what can we do about that? The Zero Flux has presented us with an interesting conundrum of figuring out the authenticity of where the real truth lies.

(i) **Nirav Shah (MPOG Quality Director):** Yes, that's super interesting. This measure looks for temperatures between 30 minutes before anesthesia end and 15 minutes after. I am curious to hear what you find as you investigate the accuracy of those temperatures. If you are using Zero Flux in the operating room but not in the PACU, then that first PACU temperature should be able to correct it but maybe not. So, I am interested to hear, as you investigate a little bit more, what you find that may be relevant across the broader group as well.

(ii) **Josh Goldblatt (Henry Ford Allegiance):** We used to have about 1/3 of our flagged cases due to no temperature in that period, and now we are at about 2% where there is no temperature. We have zero flux in PACU, and in general we are using zero flux in the OR and as our first reading in PACU. There are a lot of unanswered questions still. We are taking a close look at this metric and relying on it because we are focusing on reducing SSI and impacting our processes. So, this is a great metric for preventing SSI.

(iii) **Marc Pimentel (Brigham and Women's):** It was recommended we use zero flux thermometer since May of 2022. We also saw the same doubling of our hypothermia measure rate from 10-12% now we in the 20% range. We had no real change in the type of care being provided. We do use it preop, intraop, and postop into PACU. We had a lot of skepticism when the device was being used. The manufacturer of Zero flux

monitoring suggested that it is likely due to shunting of peripherals that's causes the perceived delay in temperature by general anesthesia resulting in hypothermia. Is there a way to adjust for performance or maybe among institutions just using this type of thermometry, can we benchmark against those to see how our performance? For a time, we did use the special warming gowans for a while and noticed some improvements but were unsure if the values are true since our benchmark is still at 10%.

(iv) **Nirav Shah (MPOG Quality Director):** If we think there is a difference between these zero flux thermometers and others and we need to adjust for that, we can investigate it. We will then need to know if a site uses it and ideally, we will know that through automated data. This is still an area of ongoing discussion.

(v) **Patrick Henson (Vanderbilt):** If our conventional methods are less accurate than we think they are, we are assessing that maybe the ZF monitors are less accurate, that is why we are struggling. I am wondering if the inverse could be true and what that means.

3) **Josh Goldblatt (Henry Ford Allegiance):** Is there a correlation between this metric and how it measures temperature with SSIs and how it is published in the literature?

(i) **Simon Tom (NYU Langone):** That's an interesting question and thanks for pointing out the difference between the way the study measured temperatures and how the measure is designed. The metric is more forgiving in that it allows you time to correct the initial hypothermia that takes place. Perhaps initial hypothermia is what is resulting in poor outcomes. Correction isn't sufficient, we should be prewarming patients to prevent initial hypothermia, so that' very interesting.

4) **Rania Elkhateb (University of Arkansas) via chat:** Is having one reading of 36 Celsius once enough to pass the measure?

(i) **Added after the meeting per Coordinating Center response:** Yes. One reading in the measure time period that is ≥36 degrees Celsius would pass the measure.

5) **Nathan Pace (University of Utah) via chat:** Population limits of agreement, which take into consideration the between-study heterogeneity and sampling error, were wide, spanning from - 0.93 to 0.98 °C. From a recent meta-analysis of Bair Hugger. "Use of this device may not be appropriate in situations where a difference in temperature of less than 1 °C is important to detect."

6) **Emily Drennan (University of Utah) via chat:** Our institution also focuses heavily on this for SSI bundle. We did a longitudinal project to improve our temp and it was not successful

e) **Vote:**

1) **Continue as is: 34/38 (89%)**
2) **Modify: 1/38 (2.6%)**
3) **Retire: 3/38 (7.8%)**

f) **Next steps:**

1) **Continue measure as is**

14) Measure Updates

a) **PAIN-02**

1) **Description:** Percentage of adult patients receiving at least one non-opioid adjunct preoperatively or intraoperatively

2) Current Exclusions:

(i) Age < 18 years

(ii) ASA 5 & 6

(iii) Patients who remained intubated

Procedures

- Open Cardiac procedures (determined by Procedure Type: Cardiac value code: 1)
- Obstetric Procedures (determined by Obstetric Anesthesia Type value codes > 0)
- Bronchoscopy
- Diagnostic Imaging Procedures
- Endoscopy Procedures
- ECT
- TEE/Cardioversions
- Intubation Only cases
- Other (CPT: 01990, 01991, 01992, 01999)
  - Rooms tagged as 'Other - offsite anesthesia'
  - Cases with procedure text 'ABR Testing' (without any additional procedures listed)
- Central Line Placement (CPT: 00532)
- Lumbar Puncture (CPT: 00635)
- Otoscopy (CPT: 00124)
- Eye Procedures (CPT: 00103, 00140, 00142, 00144, 00145, 00147, 00148)

3) Proposal: Exclude IR/INR cases from PAIN-02 measure

4) Discussion:

(i) **John LaGorio (Trinity Health Muskegon) via chat:** Support excluding IR.

(ii) **Joseph McComb (Temple) via chat:** I support excluding IR.

(iii) **Emily Drennan (University of Utah) via chat:** Agree to exclude IR.

(iv) **Kathryn Lauer (Medical College of Wisconsin/Froedtert) via chat:** I would agree with excluding IR also.

(v) **Kunal Karamchandani (UT Southwestern) via chat**: Agree with the group.

(vi) **Mark Pimentel (Brigham and Women's) via chat:** Ditto

(vii) **Patricia Mack (Weill Cornell):** I don't know if people have separate Neuro IRs as well, but I would like to exclude those too. I really want people in my department to feel like data is accurate.

(viii) **Nirav Shah (MPOG Quality Director):** The way in which we know these cases is through location mapping. The way that we would exclude these is if location mapping identifies these rooms as IR or Neuro IR. Relatively straightforward to implement on our end, but it depends on the location mapping and those room tags being identified. As an FYI, once we modify the measure and you're still seeing those cases as flagged, that is probably why.

(ix) **Patrick Henson (Vanderbilt):** with rooms that have shared use, will we still be able to exclude interventional cases there and include non-interventional cases?

a. **Nirav Shah (MPOG Quality Director):** This could be a problem as we plan to use location tags to apply this exclusion. A more sophisticated phenotype logic would be needed to include some cases performed in a room and exclude others. This current exclusion of using location tags could potentially exclude cases that are not performed under IR for dual-purpose rooms.

5) Next Steps:

(i) Exclude IR/INR cases from PAIN-02

Meeting Adjourned: 1101