Cardiac Anesthesia Subcommittee Minutes

June 30, 2025

2:00pm – 3:00pm EST

Zoom

Henrietta Addo, MPOG	Mike Mathis, MPOG
Tammy Atwood, Henry Ford	Michael McCaughan, Sparrow Health
Peter Bow, Michigan Medicine	Kam Mirizzi, MPOG
Amit Bardia, MGH	Judy Negele, Trinity Health
Kate Buehler, MPOG	Bethany Pennington, WUSTL
Ruth Cassidy, MPOG	Meg Rolfzen, Michigan Medicine
Ettore Crimi, Atrium Health	Joseph Sanders, Henry Ford
Anna Dubovoy, Michigan Medicine	Rob Schonberger, Yale
Tony Edelman, MPOG	Nirav Shah, MPOG
Jackie Goatley, Michigan Medicine	Frances Guida Smiatacz, MPOG
Ashan Grewal, University of Maryland	Rachel Steinhorn, MGH
Jayakar Guruswamy, Henry Ford	David Sturmer, Michigan Medicine
Jerri Heiter, Trinity Health	Rachel Stumpf, MPOG
Allison Janda, MPOG	Adbul Tabbara, Henry Ford
Mark Korenke, Michigan Medicine	Meridith Wade, MPOG
Kayla Lopacki, Trinity Health	Andrew Zittleman, MPOG
Tiffany Malenfant, MPOG	

Meeting Summary:

1. **Announcements**: Opening for a cardiac subcommittee vice-chair role (please reach out to Allison Janda (ajanda@med.umich.edu) and Nirav Shah (nirshah@med.umich.edu) if interested), seeking engagement from participants for measure reviews.

2. **ABX 03 Update**: Clarifications on the antibiotic redosing measure for cardiac procedures were discussed, focusing on cases where surgery ends before the re-dose is due but still within the window of success.

3. **BP 07 Cardiac Measure**: Proposed to focus on hypotension avoidance post-induction but pre-incision. The group discussed incorporating a treatment element and potentially excluding patients with baseline hypotension.

4. **Transfusion Measures**:

- **TRAN 05 Cardiac**: Monitoring of coagulation tests like TEG or ROTEM before transfusions. Discussed expanding to include various coagulation tests and the feasibility of mapping these tests across multiple sites.

- **TRAN 06 Cardiac**: The balanced transfusion measure (1:1:1 ratio) was considered less appropriate for cardiac patients and not pursued further.

5. **Future Measures**: Discussion deferred to the next meeting, with plans for an unblinded review of current measures.

The next meeting is scheduled for November, which includes unblinded reviews of measures and requires registration.

Meeting Start: 1401

1. **Agenda**
    a. Introduction & announcements
    b. Measures Updates:
        i. ABX-03-C: Antibiotic Re-dosing, Open Cardiac
    c. Preliminary Data for New Measure:
        i. BP-07-C: Hypothermia Avoidance, Induction, Open Cardiac (MAP < 55 mmHg)
        ii. TRAN-05-C: Coagulation Monitoring
        iii. TRAN-06-C: Balanced Transfusion
    d. Summary and Next Steps

2. **Introductions**
    a. ASPIRE Quality Team
        i. Allison Janda, MD – MPOG Cardiac Anesthesia Subcommittee Lead
        ii. Michael Mathis, MD – MPOG Director of Research
        iii. Henrietta Addo, MSN, RN – Quality Improvement Specialist

b. Cardiac Anesthesiology Representatives joining us from around the US!

3. Seeking Cardiac Subcommittee Vice-Chair

a. 2 – year term
b. Help shape direction of Cardiac Subcommittee
c. Measure performance review, new measure development, measure revision
d. Identify and participate in research opportunities
e. Work with Allison, Henrie, and the MPOG team
f. Be able to devote 2 – 4 hours per month to this role
g. Cardiac Subcommittee Vice-Chair Description: here
h. **Interested faculty should submit their interest** to MPOG QI Director (Nirav Shah) at nirshah@med.umich.edu and MPOG Cardiac Subcommittee Chair (Allison Janda) at ajanda@med.umich.edu

4. Measure Review Process

a. Review literature for given measure topic and provide review using MPOG Measure Review Template
b. Present review of literature and recommendations at Cardiac Subcommittee meetings
c. Reviewers' names will be added to measure specifications as well as MPOG Measure Reviewer website

5. Upcoming Cardiac-Focused Measure Reviews

Measure	Review Date	Reviewers
TEMP-06-C: Hypothermia Avoidance	March 2025	Mariya Geube, Cleveland Clinic
TEMP-07-C: Hyperthermia Avoidance	March 2025	Ashan Grewal, UMaryland
GLU-06-C: Hyperglycemia Management	June 2026	Josh Billings, Vanderbilt
GLU-07-C: Hypoglycemia Management	June 2026	Rob Schonberger, Yale
GLU-08-C: Hyperglycemia Treatment	June 2026	Josh Billings, Vanderbilt

a. Thank you in advance for ensuring MPOG Cardiac-specific measures remain relevant & consistent with published recommendations
b. Contact Allison with any questions: ajanda@med.umich.edu

6. Measure Updates:

1. ABX-03-C: Antibiotic Re-dosing, Open Cardiac
    i. Description: Percentage of adult patients undergoing open cardiac surgery with an antibiotic re-dose initiated within 3-4 hours after initial antibiotic administration (cephalosporins only)
    ii. Timing: 120 minutes prior to Anesthesia Start through Surgery End. If Surgery End is not available, then Anesthesia End.
    iii. Success Criteria: Documentation of cephalosporin re-dose within 165-255 minutes after each cephalosporin administration (max: 3 doses)

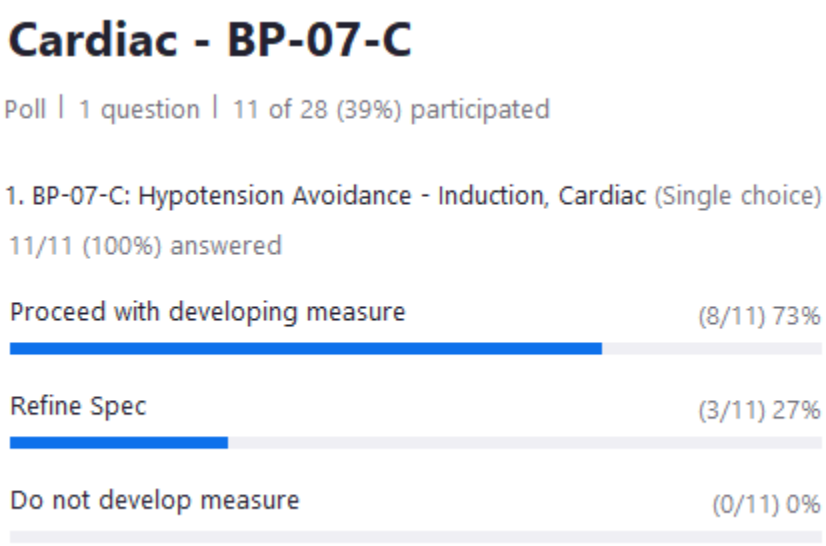
iv. Upcoming updates:
    1. Exclusion criteria: cases where surgery end time occurs before re-dose is due (less than 4 hours and 15 minutes after cephalosporin dose) AND no re-dose was administered

Preliminary Measures

1. BP-07-C: Hypotension Avoidance (MAP < 55 mmHg), Induction, Open Cardiac
    i. Description: Percentage of adult patients undergoing open cardiac procedures where hypotension (defined as MAP < 55 mmHg) was avoided during the induction period until surgery start
    ii. Timing: Anesthesia Start through Surgery Start
    iii. Inclusions: Adult patients undergoing open cardiac procedures (determined by Procedure Type: Cardiac value code:1)
    iv. Success criteria: MAP < 55 mmHg that does not exceed cumulative time of 5 minutes throughout induction period until surgery start
    v. Exclusions:
        i. Age < 18
        ii. ASA 6 including Organ Procurement (CPT:01990)
        iii. Non-cardiac, Transcatheter/Endovascular, EP/Cath, and Other Cardiac cases as defined by the Procedure Type: Cardiac phenotype (value codes: 0, 2, 3, and 4)
        iv. Lung transplants
    vi. Discussion:
        i. Any questions or comments with this specification?
            1. Any additions to the exclusion criteria?
            2. Expand threshold to 10 minutes instead of 5?
            3. *Anna Dubovoy (UMichigan):* Is it possible to flag only if low MAP was not treated?
            4. *Allison Janda (MPOG Cardiac Subcommittee Chair)*: We would need to define treatment in order to enable this for the measure.
            5. *Nirav Shah (MPOG Quality Director)*: If we can define treatment, we can still flag those cases but add the treatment modality as 'additional information' or details for the results.
            6. *Rachel Steinhorn (Mass General):* You mentioned that ASA 6 patients would be excluded but would we be able to identify the ASA 4 or 5 patients who are emergency cases.
            7. *Kate Buehler (MPOG Coordinating Center):* The dashboard currently allows for filtering based on ASA or emergency status for any measure.

8. *Rob Schonberger (Yale):* Consider adding BP-05 exclusion to BP-07 for Baseline MAP<60.
9. *Ashan Grewal (UMaryland):* Including emergent cases with the ability to exclude would be helpful.
10. *Rachel Steinhorn (Mass General):* Agreed, I think including the emergent cases is good data to have, but having the option to filter would be helpful.
11. *Allison Janda (MPOG Cardiac Subcommittee Chair):* What does the group think about adding the exclusion for Baseline MAP<60?
    a. *Ashan Grewal (UMaryland):* Would still want to see these cases included to know if we treated them appropriately and if MAP improved throughout the case.
    b. *Allison Janda (MPOG Cardiac Subcommittee Chair):* Can also modify the threshold to be <80% rather than say, <90% also.

ii. **VOTE:**

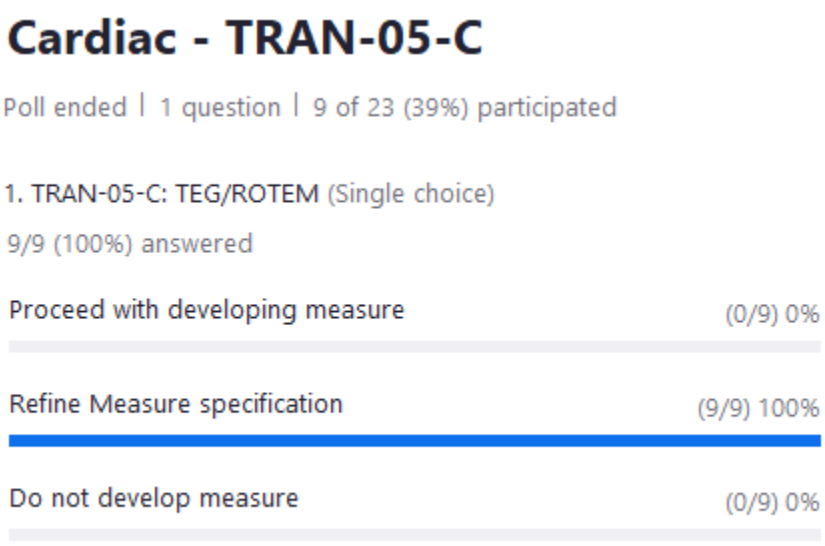


2. TRAN-07-C: Coagulation Monitoring
    i. Description: Percentage of adult patients undergoing open cardiac survey who received transfusion and had a TEG or ROTEM checked with administration of blood and/or blood components
    ii. Timing: Anesthesia Start through Anesthesia End
    iii. Inclusions: Adult patients undergoing open cardiac procedures (determined by Procedure Type: Cardiac value code:1)

iv. Success criteria: TEG or ROTEM checked with administration of blood and blood components
v. Exclusions:
    i. Age < 18
    ii. ASA including Organ Procurement (CPT:01990)
    iii. Patients who did not receive a transfusion
vi. Transfusion defined as:
    i. Packed Red Blood Cells
    ii. Whole Blood
    iii. Fresh Frozen Plasma
    iv. Cryoprecipitate
    v. Platelets
    vi. Categorized Note – Blood Products
    vii. Cases are excluded with only administration of autologous or salvaged blood
    viii. Cases are included if autologous or salvaged blood is administered with any of the above transfusions
vii. Discussion
    i. Any questions or comments with this specification?
        1. Any ROTEM/TEG between anesthesia start and end or on the day of surgery?
        2. Considerations for how these labs are charted across all sites
        3. *Anna Dubovoy (UMichigan):* Is there a specific threshold for number of PRBCs transfused before assessing for ROTEM/TEG?
        4. *Allison Janda (MPOG Cardiac Subcommittee Chair):* Great point! What should our threshold be?
        5. *Mike Mathis (MPOG Research Director):* How do we define if it's a discretionary transfusion vs. massive transfusion requiring ROTEM/TEG? Perhaps the cutoff is defined as <=3U PRBC = discretionary transfusion and >4U PRBC = massive transfusion? Any non-PRBC unit should require ROTEM/TEG assessed?
        6. *Anna Dubovoy (UMichigan):* Maybe it's okay to transfuse PRBC without ROTEM but it's not okay to do so when transfusing FFP or platelets?
        7. *Allison Janda (MPOG Cardiac Anesthesia Subcommittee Chair):* Do we consider whole blood as PRBC or would it be considered like platelets or FFP?

8. *Mike Mathis (MPOG Research Director):* Would recommend we do whatever we do for the other quality measures…if whole blood is considered as PRBC for those measures, do the same for this measure. Also, would recommend this be informational only.
9. *Ashan Grewal (UMaryland):* We may not be able to participate with this measure fully as we don't always have this lab data come into the EHR in an automated fashion. We use ROTEM routinely on every pump case, but it never makes it into Epic.

ii. Vote:



3. TRAN-06-C: Balanced Transfusion
    i. Description: Percentage of adult patients undergoing open cardiac surgery who received transfusion and a 1:1:1 ratio of blood products was administered
    ii. Timing: Anesthesia Start through Anesthesia End
    iii. Inclusions: Adult patients undergoing open cardiac procedures (determined by Procedure Type: Cardiac value code:1)
    iv. Success criteria: 1:1:1 ratio of blood cells to FFP to platelets were administered
    v. Questions/Concerns:
        i. Is a 1:1:1 ratio clinically superior to a laboratory-driven transfusion strategy?
        ii. *Rob Schonberger (Yale/MPOG Associate Research Director):* I think deviations make sense when they make sense

iii. *Allison Janda (MPOG Cardiac Subcommittee Chair):* I think this may make sense in the trauma population to assess the ratio of blood cells to FFP to platelets.
iv. *Mike Mathis (MPOG Research Director):* If you gave more than x number of red cells, did you check coagulation and then give some other product: platelets or FFP? Not sure it needs to be a 1:1:1 ratio exactly. Would lean towards the first measure with ROTEM/TEG testing.
v. *Allison Janda (MPOG Cardiac Subcommittee Chair):* Okay- looks like there are a lot of 'thumbs up' and people agreeing with you, Mike. Think we will just move forward without a vote on this – doesn't seem like there is a need to continue the build for this measure. We'll focus on the ROTEM/TEG evaluation measure instead.

Next Steps:

1. Open to all anesthesiologists or those interested in improving cardiothoracic measures
    a. Do not have to practice at an active MPOG institution
2. Meeting schedule:
    a. June 2025
    b. November 2025
3. Thank you for using the forum for discussion between meetings

Meeting adjourned: 1503