MPOG Cardiac Anesthesia Subcommittee Meeting
June 30th, 2025

Agenda

- Introduction & announcements

- Measure Update:
  - ABX-03: Antibiotic Re-dosing, Open Cardiac

- Preliminary Data for New Measure
  - BP-07-C: Hypotension Avoidance (MAP < 55 mmHg), Induction, Open Cardiac
  - TRAN-05-C: Coagulation Monitoring
  - TRAN-06-C: Balanced Transfusion

- Summary and next steps

Introductions

- **ASPIRE Quality Team**
  - **Allison Janda, MD** – MPOG Cardiac Anesthesia Subcommittee Chair
  - **Michael Mathis, MD** – MPOG Director of Research
  - **Henrietta Addo, MSN, RN** – MPOG Cardiac Subcommittee Facilitator

- Cardiac Anesthesiology Representatives joining us from around the US!

Seeking Cardiac Subcommittee Vice-Chair

- 2-year term
- Help shape direction of Cardiac Subcommittee
- Measure performance review, new measure development, measure revision
- Identify and participate in research opportunities
- Work with Allison, Henrie, and the MPOG team
- Be able to devote 2 - 4 hours per month to this role
- Cardiac Subcommittee Vice-Chair Description: here
- **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

Measure Review Process

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

Measure Reviewers

MPOG Measure Reviewers are clinical and quality improvement experts that critique our QI Measures. They review the best available evidence and current standards of care to ensure that our measures stay relevant.

Please select this link for additional detail on our measure review process.

Sharon Abramovitz MD
Associate Professor of Anesthesiology
Weill Cornell

GA-01-OB – *General Anesthesia During Cesarean Deliveries*
GA-02-OB – *General Anesthesia after Neuraxial in Cesarean Deliveries*

Michael Andrawes, MD
Program Director, Adult Cardiothoracic Anesthesiology Fellowship
Massachusetts General Hospital

CARD 02 – *Myocardial Infarction*
CARD 03 – *Myocardial Infarction, High Risk Patients*

Ben Andrew, MD
Assistant Professor of Anesthesiology
Duke University

PONV-04-Peds – PONV Prophylaxis: Pediatrics

Dan Biggs, MD
Associate Professor of Anesthesiology
University of Oklahoma

BP-04-OB – *SBP < 90 in Cesarean Deliveries*

Alex Bouwhuis, MD
Anesthesiologist
Holland Hospital

TOC 01 – *Intraoperative Transfer of Care*

Mike Burns, MD
Clinical Assistant Professor of Anesthesiology
University of Michigan

OME – *Opioid Equivalency*

Upcoming Cardiac-Focused Measure Reviews

Thank you, Dr. Geube and Dr. Grewal!

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

Thank you in advance for ensuring MPOG Cardiac-specific measures remain relevant & consistent with published recommendations!

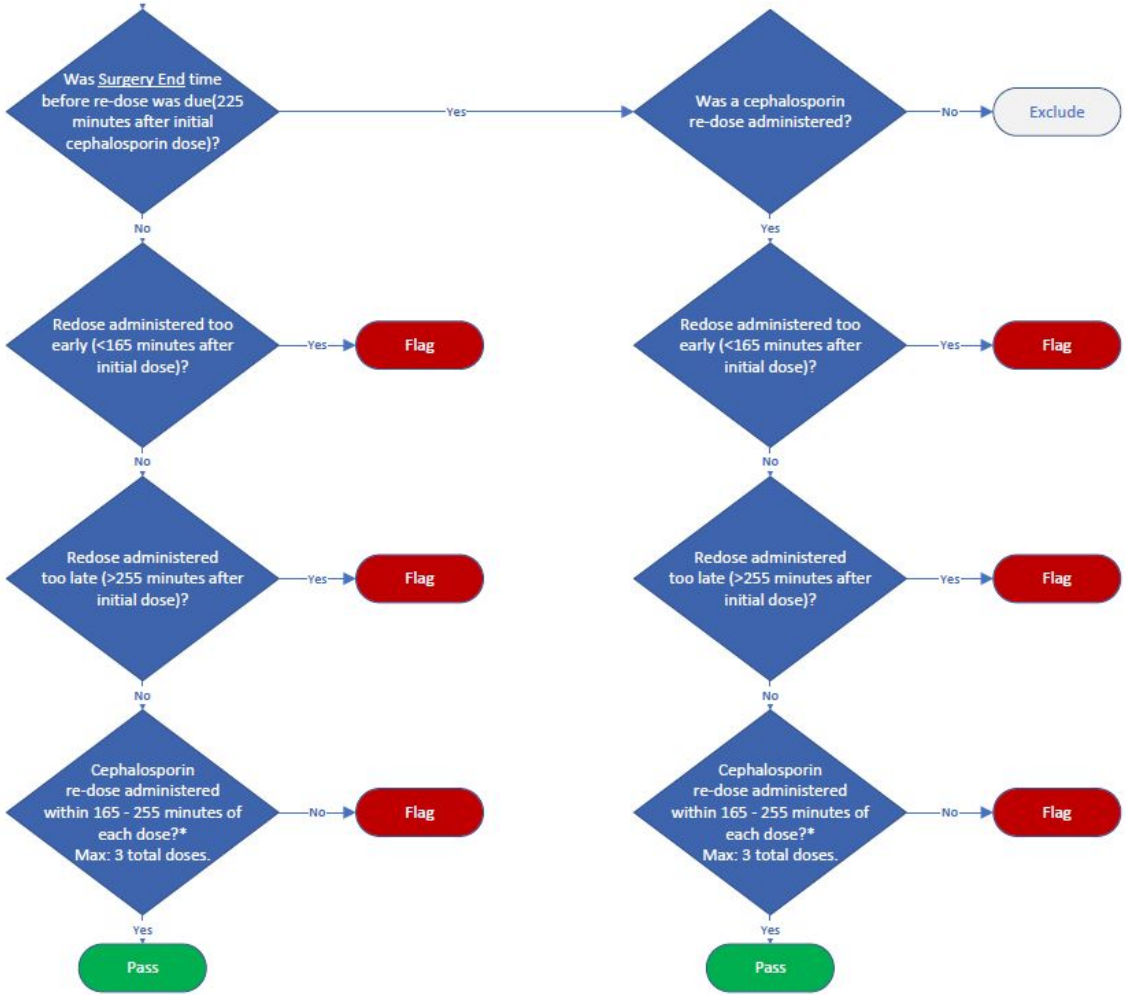
Contact Allison with any questions: ajanda@med.umich.edu

MPOG

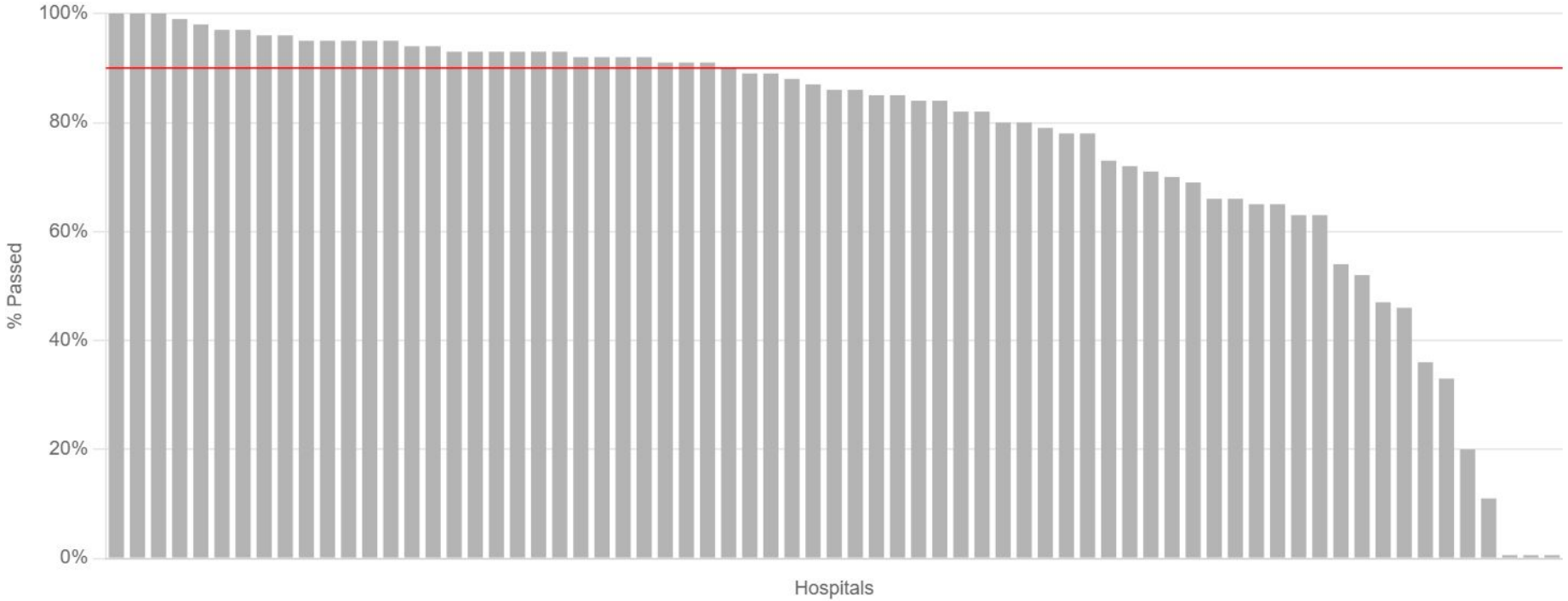
Measure Updates

ABX-03-C: Antibiotic Re-dosing, Open Cardiac Procedures

- **Description:**
  - Percentage of adult patients undergoing open cardiac procedure with an antibiotic redose initiated within four hours after initial antibiotic administration (cephalosporins only).
- **Timing:**
  - 120 minutes prior to Anesthesia Start through Surgery End. If Surgery End is not available, Anesthesia End
- **Success Criteria:**
  - Documentation of cephalosporin redose within 165-255 minutes after each cephalosporin administration
- **Upcoming update:**
  - **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**


Was Surgery End time before re-dose was due(225 minutes after initial cephalosporin dose)?
Yes
Was a cephalosporin re-dose administered?
No
Exclude
No
Yes
Redose administered too early (<165 minutes after initial dose)?
Yes
Flag
Redose administered too early (<165 minutes after initial dose)?
Yes
Flag
No
No
Redose administered too late (>255 minutes after initial dose)?
Yes
Flag
Redose administered too late (>255 minutes after initial dose)?
Yes
Flag
No
No
Cephalosporin re-dose administered within 165 - 255 minutes of each dose?* Max: 3 total doses.
No
Flag
Cephalosporin re-dose administered within 165 - 255 minutes of each dose?* Max: 3 total doses.
No
Flag
Yes
Yes
Pass
Pass

ABX-03-C Performance Across MPOG



Result Reasons

Result	Reason	Case Count
Passed	Re-dose(s) administered on time (within 4 hours after initial antibiotic administration)	18,781
Flagged	Antibiotic re-dose too early	1,918
Flagged	Antibiotic re-dose too late	1,379
Flagged	Antibiotic re-dose required but not administered	1,070
Excluded	Not an open cardiac case	3,090,093
Excluded	Age < 18 years	314,991
Excluded	Surgery end time occurs before redose is due (< 4 hrs and 15 minutes after initial cephalosporin dose)	4,983
Excluded	No cephalosporin administered	4,686
Excluded	Lung transplant	1,447
Excluded	ASA 6	731
Excluded	Scheduled antibiotics/documented infection	200
Excluded	Invalid case	87
Excluded	No initial cephalosporin dose	4
Total		**3,440,370**

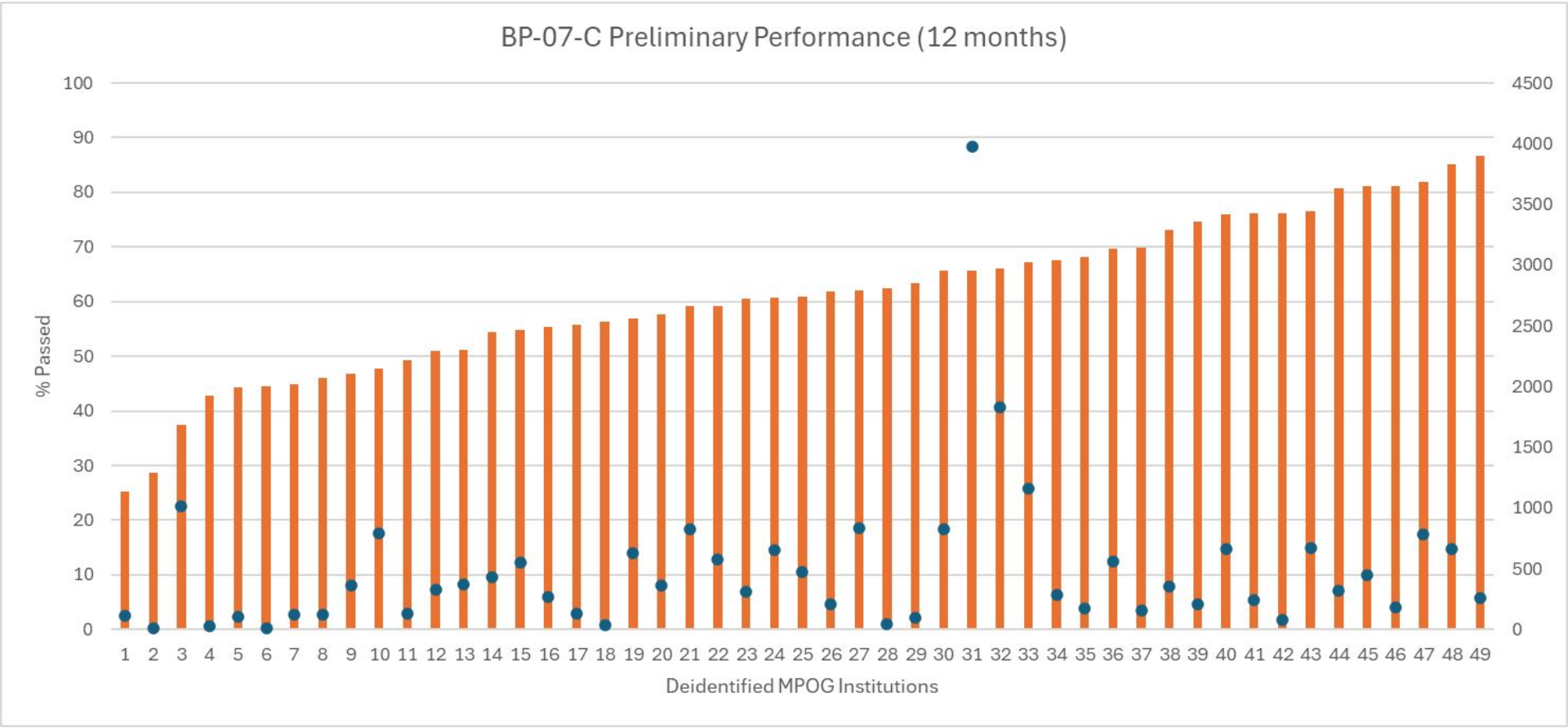
Preliminary Measures

BP-07-C: Hypotension Avoidance (MAP < 55 mmHg), Induction, Open Cardiac

- **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.
- **Timing:**
  - Anesthesia Start through Surgery Start
- **Inclusions:**
  - Adult patients undergoing open cardiac procedures (determined by Procedure Type: Cardiac value code: 1)
- **Success Criteria:**
  - **MAP < 55 mmHg that does not exceed cumulative time of 5 minutes throughout induction period until surgery start**

BP-07-C: Hypotension Avoidance (MAP < 55 mmHg), Induction, Open Cardiac

- **Exclusions:**
  - Age < 18
  - ASA 6 including Organ Procurement (CPT:01990)
  - 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)
  - Lung transplants


BP-07-C Preliminary Performance (12 months)
% Passed
100
90
80
70
60
50
40
30
20
10
0
4500
4000
3500
3000
2500
2000
1500
1000
500
0
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49
Deidentified MPOG Institutions

Discussion

- Any questions or comments with this specification?
  - Any additions to the exclusion criteria?
  - Expand threshold to 10 minutes instead of 5?

- Any concerns with moving forward with BP-07-C?

- Should we move this to a vote?
  - Yes
  - No

TRAN-05-C: Coagulation Monitoring

Description:

- Percentage of adult patients undergoing open cardiac surgery who received transfusion and had a TEG or ROTEM checked with administration of blood and/or blood components

Timing:

- Anesthesia Start through Anesthesia End

Inclusions:

- Adult patients undergoing open cardiac procedures (determined by Procedure Type: Cardiac value code: 1)

Success Criteria:

- **TEG or ROTEM checked with administration of blood and blood components**

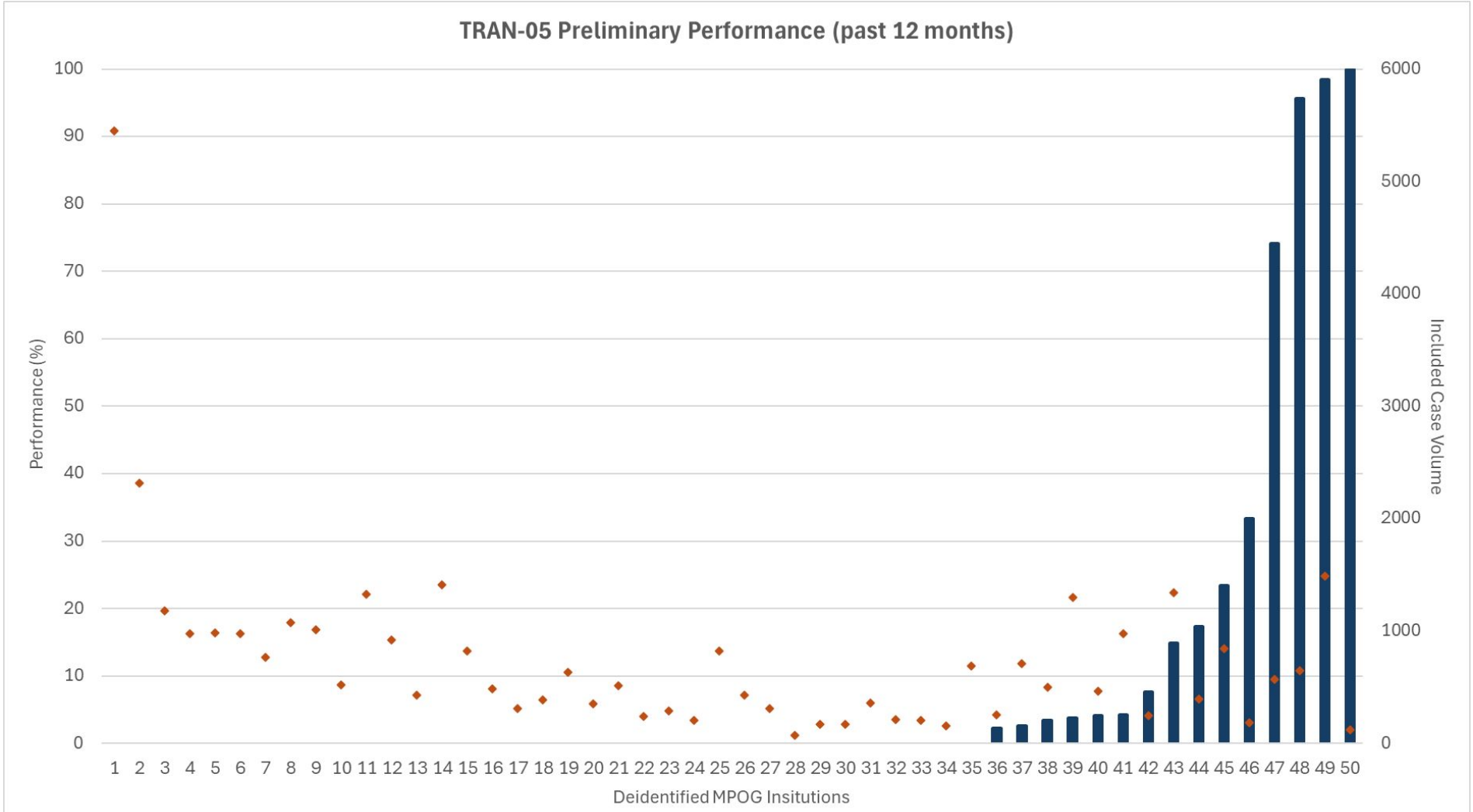
TRAN-05-C: Coagulation Monitoring

Exclusions:

- Age < 18
- ASA 6 including Organ Procurement (CPT:01990)
- Patients who did not receive a transfusion

Transfusion defined as:

- Packed Red Blood Cells
- Whole Blood
- Fresh Frozen Plasma
- Cryoprecipitate
- Platelets
- Categorized Note - Blood Products
- Cases are excluded with only administration of autologous or salvaged blood
- Cases are included if autologous or salvaged blood is administered with any of the above transfusions


TRAN-05 Preliminary Performance (past 12 months)
Performance (%)
Included Case Volume
Deidentified MPOG Insitutions
0
10
20
30
40
50
60
70
80
90
100
0
1000
2000
3000
4000
5000
6000
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50

Discussion

- Any questions or comments with this specification?
  - Any ROTEM/TEG between anesthesia start and end or on the day of surgery?
  - Considerations for how these labs are charted across all sites

- Any concerns with moving forward with TRAN-05-C?

- Vote?
  - Yes, publish this measure
  - No, give sites time to improve their mapping?

TRAN-06-C: Balanced Transfusion

Description:

- Percentage of adult patients undergoing open cardiac surgery who received transfusion and a 1:1:1 ratio of blood products was administered

Timing:

- Anesthesia Start through Anesthesia End

Inclusions:

- Adult patients undergoing open cardiac procedures (determined by Procedure Type: Cardiac value code: 1)

Success Criteria:

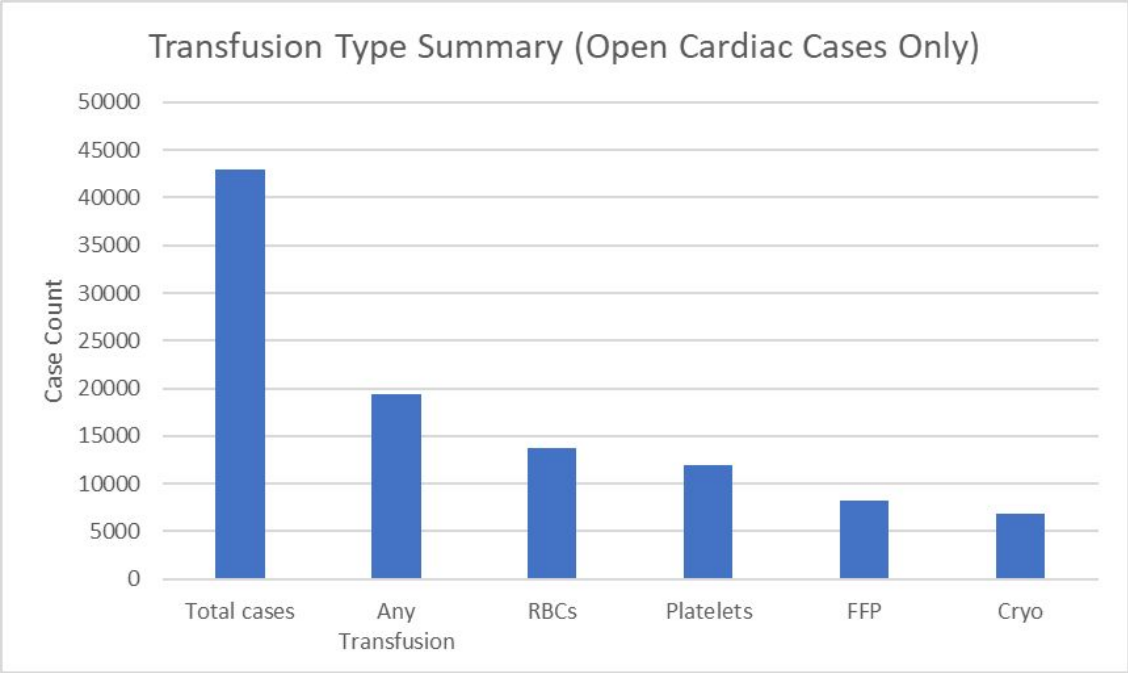
- **1:1:1 ratio of red blood cells to FFP to platelets were administered**

TRAN-06-C: Balanced Transfusion

Questions/Concerns:

- Is a 1:1:1 ratio clinically superior to a laboratory-driven transfusion strategy?

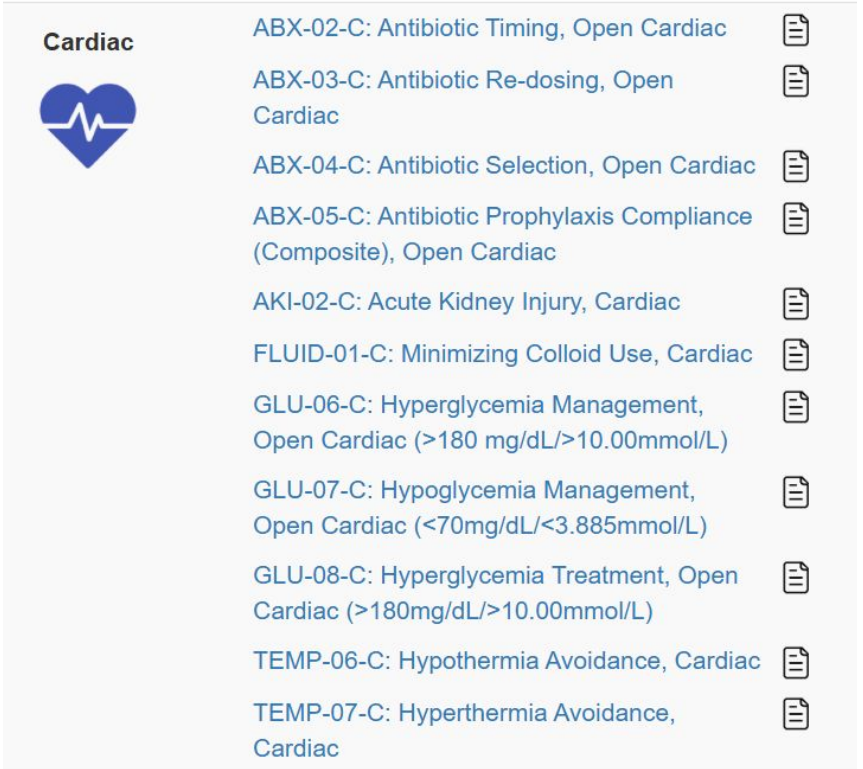
Preliminary Data:



Next Steps - New Measure Topics?

- Current cardiac measures:
  - Antibiotic timing, re-dosing, selection, composite
  - AKI avoidance
  - Fluids - minimizing colloid use (dev by general QC)
  - Glucose management
  - Temperature management

- Previous measure topics proposed include:
  - Neuromuscular blockade reversal
  - Pulmonary complication avoidance (extubation in OR or within 6h)



Next Steps

- Open to all anesthesiologists or those interested in improving cardiothoracic measures
  - Do not have to practice at an active MPOG institution
- Meeting Schedule
  - June 2025
  - November 2025
  - February 2026
  - June 2026
  - November 2026
- Thank you for using the forum for discussion between meetings

Thank you!

Allison Janda, MD
MPOG Cardiac Anesthesia
Subcommittee Chair
ajanda@med.umich.edu