Multicenter Perioperative Outcomes Group (MPOG)
PCRC Meeting Notes – Monday, September 9, 2019

Ground Rules for PCRC

1. Each protocol must have specific testable hypothesis with data available in MPOG data structure
2. People requesting specific data elements must also supply that data type to MPOG. If you don't submit that data type currently, then you can't get that type of data type out. However, if you have a co-investigator from another site that does supply that data, then you can ask for that type of data. The reason is so someone on the research team understands the limitations of each data element being requested and used
3. To ensure that there is not a lack of clarity about what the status of the proposal is, each proposal will get the following overall decision at the end of each presentation and discussion
    a. Accept with no changes
    b. Accept with minor changes send revision electronically
    c. Accept with major changes and represent at PCRC
    d. Reject
4. Meeting will be recorded to be shared later with members of MPOG via the MPOG website. There were no objections to this via the members that were on the call.

Attendance:

Michael Avidan (WUSTL)	Tory Lacca (Michigan)
Brian Bateman (Brigham and Women's)	Matthieu Legrand (UCSF)
Dan Biggs (Oklahoma)	Allie Leis (Michigan)
Ruth Cassidy (Michigan)	Donny Likosky (Michigan)
David Clark (Michigan)	Mike Mathis (Michigan)
Douglas Colquhoun (Michigan)	Graciela Mentz (Michigan)
Germaine Cuff (NYU Langone)	Bhiken Naik (Virginia)
Roger Dias (BWH)	Nathan Pace (Utah)
Karen Domino (Washington)	Donald Penning (Henry Ford)
Milo Engoren (Michigan)	Rob Schonberger (Yale)
Rob Freundlich (Vanderbilt)	Douglas Shook (BWH)
Leslie Jameson (Colorado)	Shelley Vaughn (Michigan)
Elizabeth Jewell (Michigan)	Jonathan Wanderer (Vanderbilt)
Sachin Kheterpal (Michigan)	

Announcements/Updates:

- Reminder that the ASA & MPOG Retreat registration is open for the October 2019 meeting - https://mpog.org/mpogretreat2019/

PCRC 0082: The relationship between intraoperative vasoactive medications, hypotension, and postoperative acute kidney injury - a retrospective study
PI: Dr. Milo Engoren, MD
Institution: University of Michigan
PCRC Review Committee Moderator: Dr. Jonathan Wanderer (Vanderbilt)

- **Comment**: Authors should consider developing specific testable hypotheses.
    - **A**: Hypothesis would be: Is AKI related to hypotension, the treatment, or both? Which vasoactive medications have a larger/smaller effect size on AKI?
- **Comment:** How are the authors planning to account for possible confounding of multiple vasoactive medications given over the entire case?
    - **Comment**: One suggestion is to consider comparing just among patients, who just receive phenylephrine or ephedrine.
    - **A:** Authors will consider a sub-group analysis of just those patients.
    - **A:** We are planning to examine each drug independently and expect a better signal around the drugs used more commonly compared to those used less frequently.
- **Comment**: Anesthetic chart may not accurately reflect when fluids are given, which is why we are considering using the total amount and types of fluids as a variable within the analysis. In terms of anesthesia agents, the chart may not accurately reflect when gas or infusion was changed.
    - **A:** Agree that fluids are documented when bag is done. Volatile gases and infusion medications are accurately documented.
- **Comment:** As currently described, the blood pressure bands are divided into bands and considered as independent variables. They cannot be independent variables.
    - **A:** We are looking at the amount of time spent in each band.
- **Comment:** How do you plan to control for error rate when conducting multiple tests?
    - **A:** We have one primary outcome. There will be secondary outcomes with the different definitions of AKI, which may be more of an exploratory analysis.
    - **A:** Our current primary analysis is when combining vasoactive medications and hypotension, which if any, are associated with AKI.
- **Comment:** What are the inclusion criteria for the cases?
    - **A:** Please refer to the protocol for the full list of inclusion/exclusion criteria for this study.
    - **Comment:** Use of vasopressor varies based upon institution and practitioner. There would still be a lot of variables to control for in the analysis. May need to consider a randomized control trial.
- **Comment:** Trying to adjust for a lot of variables in a heterogeneous population. Authors may want to consider subgroup analyses or propensity score matched populations to help answer these hypotheses.
- **Comment:** Looking at a narrower population where some of the other covariates are similar among the population may be more beneficial.
- **Summary of planned changes based upon feedback:**
    - Smaller patient population with more restrictive surgeries
    - One hypothesis and controlling for multiple comparisons

Final Decision: Revise and represent

	Vote
Academic Medical Center (AMC) Amsterdam	**N/A**
Beaumont	**N/A**
Brigham and Women's	**Revise and represent**
Bronson	**N/A**
Children's Hospital of Orange County (CHOC)	**N/A**
Cleveland Clinic	**N/A**
Columbia	**N/A**
Duke	**N/A**
Henry Ford	**Revise and represent**
Holland	**N/A**
MGH	**N/A**
Memorial Sloan Kettering	**N/A**
NY Langone	**Revise and represent**
Oregon Health Science University	**N/A**
St. Joseph/Trinity	**N/A**
Sparrow	**N/A**
Stanford	**Revise and represent**
University Medical Center of Utrecht	**N/A**
University of Arkansas	**N/A**
University of California San Francisco	**Revise and represent**
University of California Los Angeles	**N/A**
University of Colorado	**N/A**
University of Michigan	**Abstain**
University of Oklahoma	**Revise and represent**
University of Pennsylvania	**N/A**
University of Tennessee	**N/A**
University of Utah	**Revise and represent**
University of Vermont	**N/A**
University of Virginia	**Revise and represent**
University of Washington	**Revise and represent**
Vanderbilt	**Revise and represent**
Wake Forest	**N/A**
Washington University, St. Louis	**Revise and represent**
Weill-Cornell Medical Center – New York Presbyterian	**N/A**
Yale	**Revise and represent**

PCRC 0093: Investigating the relationship between team familiarity and clinical outcomes in the context of cardiothoracic surgery
PI: Dr. Steven Yule, Ph.D. and Dr. Donald Likosky, Ph.D.
Institution: Brigham and Women's Hospital (BWH) and University of Michigan
PCRC Review Committee Moderator: Dr. Jonathan Wanderer (Vanderbilt)

- **Comment**: How do you plan to handle residents, nurse anesthetist, etc staffing model variations based upon participating institutions?
    - **A**: Teaching can certainly change the team dynamic. In the present model, we would like to eventually model every member that is part of the team.
- **Comment:** Relationship between team familiarity and good/poor team dynamic.
    - **A:** This current analysis is agnostic to team dynamic, as this might be difficult to capture via MPOG data. We could consider capturing via interviews or a third-party reviewer. Would be a mix of qualitative and quantitative analysis.
- **Q:** Familiarity quotient and whether it's possible to do a data biopsy to find whether there are groups of surgeon-anesthesiologist provider pairs, who tend to work with very sick patients.
    - **A:** Could be inherent bias in assignment of provider to patient that we would need to try to tease out somehow. STS score may help with control for some of this.
    - **Comment:** One idea may be to determine an a priori extent to which similarity of groups of cases is exceeded, then exclude those groups in order to get at a core of less-biased provider groups.
    - **A:** Within STS we will look at more common cardiac surgeries and not the more specialized ones.
    - **A:** UM data showed variation in the distribution of familiarity in providers working together.
- **Comment:** Familiarity quotient has been previously used in psychology and some clinical research.
    - **A:** Plan to limit to a 2-year timeframe.
- **Comment:** Consider including provider experience based on years of experience (after board certification, etc).
- **Comment:** What is the model per institution for the cardiac ICU (residents, fellows, etc)?
- **Q:** Time of day is a stratifying variable (day versus evening) – how were the category cutoffs determined?
    - **A:** We could certainly make the cutoff ranges more granular. The research team is open to other definitions of this. May consider a 2pm cutoff.
- **Summary of planned changes based upon feedback:**
    - May consider proposing a secondary study looking at qualitative relationship between teams.
    - Capturing experience of provider and consider changing the time of day cutoffs.

Final Decision: Electronic Revisions

	Vote
Academic Medical Center (AMC) Amsterdam	**N/A**
Beaumont	**N/A**
Brigham and Women's	**Abstain**
Bronson	**N/A**
Children's Hospital of Orange County (CHOC)	**N/A**
Cleveland Clinic	**N/A**
Columbia	**N/A**

Duke	**N/A**
Henry Ford	**Electronic revisions**
Holland	**N/A**
MGH	**N/A**
Memorial Sloan Kettering	**N/A**
NY Langone	**N/A**
Oregon Health Science University	**N/A**
St. Joseph/Trinity	**N/A**
Sparrow	**N/A**
Stanford	**Electronic revisions**
University Medical Center of Utrecht	**N/A**
University of Arkansas	**N/A**
University of California San Francisco	**Accept**
University of California Los Angeles	**N/A**
University of Colorado	**N/A**
University of Michigan	**Abstain**
University of Oklahoma	**Electronic revisions**
University of Pennsylvania	**N/A**
University of Tennessee	**N/A**
University of Utah	**Electronic revisions**
University of Vermont	**N/A**
University of Virginia	**Electronic revisions**
University of Washington	**Electronic revisions**
Vanderbilt	**Electronic revisions**
Wake Forest	**N/A**
Washington University, St. Louis	**Electronic revisions**
Weill-Cornell Medical Center – New York Presbyterian	**N/A**
Yale	**Accept**