Multicenter Perioperative Outcomes Group (MPOG)
PCRC Meeting Notes – Monday, May 12, 2014

Attendees: P=Present; A=Absent; X=Expected Absence

Active PIs			
A	Michael Avidan, MD - Wash U	**A**	Daniel Helsten, MD – Wash U
P	Michael Aziz, MD - OHSU	**P**	Leslie Jameson, MD - Colorado
P	S. Patrick Bender, MD - Vermont	**P**	Sachin Kheterpal, MD - Michigan
P	Mitchell Berman, MD - Columbia	**P**	Timothy McMurry, PhD – Virginia
P	Daniel Biggs, MD – Oklahoma	**A**	Timothy Morey, MD - Florida
P	Randal Blank, MD - Virginia	**P**	Bhiken Naik, MD – Virginia
A	Robert Craft, MD –Tennessee	**A**	Bala Nair, PhD – U of Washington
P	Douglas Colquhoun, MD –Virginia	**P**	Nathan Pace, MD – Utah
X	Jurgen de Graaff MD – Utrecht	**P**	William Paganelli, MD – Vermont
A	Karen Domino, MD, MPH – U of Washington	**P**	W. Pasma - Utrecht
P	Marcel Durieux, MD, PhD- Virginia	**A**	Peter Schulman, MD – OHSU
A	Jerry Epps, MD - Tennessee	**A**	Kelley Smith, MD – Utah
P	Jesse Ehrenfeld, MD - Vanderbilt	**A**	Wilton van Klei, MD – Utrecht
A	Ana Fernandez-Bustamente, MD - Colorado	**A**	Jonathan Wanderer, MD - Vanderbilt
A	Peter Fleishut, MD – Weill-Cornell	**A**	Kevin Wethington, MD - Utah
A	Alexander Friend, MD –Vermont		
In Progress PIs Continued			
A	Brian Bateman, MD - MGH	**A**	Philip Lirk, MD – AMC Amsterdam
A	Matthias Eikermann, MD - MGH	**A**	Marco Navetta, MD – Santa Barbara Cottage
A	Bassam Kadry, MD - Stanford	**A**	David Robinowitz, MD - UCSF
A	Fabian Kooij, MD – AMC Amsterdam	**P**	Leif Saager, MD – Cleveland Clinic
A	Andreas Hoeft, MD – Bonn Germany	**P**	Robert Schonberger, MD - Yale
A	Warren Levy, MD – Pennsylvania	**A**	Scott Springman, MD – Wisconsin
A	Karen Nanji, MD – MGH		
Chairs			
A	David C. Adams, MD - Vermont	**P**	Kevin Tremper, PhD, MD - Michigan
P	Jerry Epps, MD – Tennessee	**P**	Warren Sandberg, MD, PhD – Vanderbilt
A	Timothy Morey, MD - Florida	**A**	Wilton van Klei, MD – Utrecht
MPOG			
A	Mark Dehring	**X**	Nirav Shah, MD
P	Genevieve Bell	**P**	Amy Shanks, MS, PhDc
A	Robert Freundlich, MD – Michigan	**P**	Tyler Tremper
P	Tory Lacca, MBA	**P**	John Vandervest
A	Michael Mathis, MD – Michigan		
Other Invited Guests			
P	Thomas Jeffries, MD – Trinity Health	**A**	Beth Seese – MSQC
P	Greta Krapohl, PhD, RN – MSQC	**A**	Michelle Wyngard - Trinity

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 minimal or no changes required
        i. E-mail revision to PCRC
    b. Accept with moderate changes required
        i. Represent at a future PCRC
        ii. E-mail Revisions to PCRC
    c. Revise and reconsider at future meeting
    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.

Presentation

Title: Management of mechanical ventilation during thoracic surgery – variation and trends in clinical practice

Proposed Authors: Douglas Colquhoun, M.B. Ch.B., M.Sc., S. Patrick Bender, M.D., M.P.H., Bhiken Naik, M.D., Marcel E. Durieux, M.D., Ph.D., Timothy L. McMurry, Ph.D., Sachin Kheterpal M.D., M.B.A.

Primary Institution: University of Virginia

Presented by: Randal Blank, MD

Discussion Points:

- Will you choose to look at median values and pick a number for pre one-lung and during one-lung and after? Will you pick a median and throw out the highs and lows?
    - The number of patients is low enough that we may be able to look at all the numbers. We will look at both ways and determine which may offer value.
    - Looking at minimum, median and maximum may be the best way
    - Analyze the median and mean then link with standard variation in order to take into account the widen variation in the ventilation
    - Primary purpose is to see if it varies from center-to-center and if we are getting better clinically
    - Dr. Bender can speak to what he saw in his data (data was submitted to ASA)
        - We noted that over the past six to seven years and there is a significant over-ventilation in patients. The three demographics of patients getting over ventilation are female, short stature patients and patients with high BMI

- Barrel pressures can be measured simultaneously along with the tidal volumes.
    - It is in the proposal and we are not certain how much of the data is available from each institution. The data is available at Virginia.
        - Dr. Kheterpal: We should have data from almost everyone on one of those measures
- Have you thought of getting the end tidal $C0_2$ to see if there is rise in permissive hypercapnia and at least by the lower tidal volumes during one-lung ventilation? People allowing lower tidal volumes are allowing for higher CO_2 levels.
    - This was not considered that and it might go along with the hypercapnia. At this time is everyone submitting this data?
        - Most centers have Q1 minute CO_2 and this may be an interesting
    - We can model this if data is available
    - There may be some interesting trivariate models
- The Walsh paper has been looking at the times at a particular tidal volume and making that a parameter. How long you are you going above or below the threshold? This paper is descriptive and does not have an outcome. Walsh looked at the time and had a risk variable.
    - This may be possible, but we do not have outcomes on this paper and this may be a reason to download all tidal volume numbers, so that we can get data for all patients during the initial period. If we only look at medians we will not get a time volume integral. It shouldn't be hard to calculate if we can get all the measurements.
    - We are going to attempt to link the EMR data intraoperatively to the STS outcomes data. That might be worth looking at the time volume integral or the time over threshold in that context. What are everyone's feelings on the value of this direction?
        - This is a descriptive paper and we need to stick to the original intent. It would take a long time to get the STS data (six months to a year) and we do not want to hold up this paper waiting for that data. Let's do the descriptive now and then make the next target to go after the STS data.
        - That will be our ultimate goal.
- Since this is a descriptive paper, it may be interesting to show not just the mean but the quantile regression, so you can look at the full distribution.
    - This is a good idea and it will flush out the results.
- We need a revision taking a look at how we get in the concept of duration of injury or possible increase as opposed to presence/absence or median over time. Currently, if that median is over two hours or thirty minutes they are both be represented equally in the current proposal.
    - Anyone misreprested in the data?
        - Dr. Paganelli will be contacting their Picis support to see if he can get more data. They may have more cases now, Dr. Paganelli will check.
        - Dr. Biggs: He will look at his cases, he may have more cases now.
- Dr. Saager: I like the idea of looking at the area under the threshold. We started that with the hypotension project where we looked at intraoperative normothermia and hypothermia to quantify the effects of redistribution. We are looking at the area under

the threshold for the project and then we switched to look for specific temperature band width during the case. We are doing regression under the threshold and at specific band width. Dr. Saager will forward the statistician's name to Dr. Blank to give more details on what they did for the project.

Vote

Institution	Vote
Columbia	E-mail revision
Oregon Health Science University	E-mail revision
University Medical Center of Utrecht	No data available
University of Colorado	E-mail revision
University of Florida	E-mail revision
University of Michigan	E-mail revision
University of Oklahoma	E-mail revision
University of Tennessee	Not on call, PI to follow up with Dr. Epps
University of Utah	E-mail revision
University of Vermont	E-mail revision
University of Virginia	Presenting institution
University of Washington	No data available
Vanderbilt	No data available
Washington University , St. Louis	Not on call
Weill-Cornell Medical Center – New York Presbyterian	No data available

Final Decision: E-mail revision

Current Data Available from Centers:

Institution_Name	Two_Lung_Ventilation_50500	Single_Lung_Ventilation_50501	Single_Lung_Ventilation_Side_Detail_50502	Bronchial_Cuff_Inflated_or_Deflated_50640
University of Michigan Health System	4641	3131	0	0
Columbia University Medical Center	0	0	1779	0
Oregon Health and Science University	218	284	0	0
University of Colorado Denver	1658	1378	0	1115
University of Tennessee Medical Center	530	609	0	0
University of Virginia Health System	2014	0	2386	0
University of Utah Health Care	68	78	13	0
University of Florida, Gainesville	35	83	0	0
University of Oklahoma Health Sciences Center	15	39	5	0
Washington University School of Medicine	0	2780	2761	0
University of Vermont - Fletcher Allen Health Care	0	443	418	0

Review AQI Board Discussion:

- Sachin met with the AQI board because the memorandum of understanding (MOU) between AQI and MPOG is that all research proposals using MPOG data should be brought to PCRC for approval. The AQI is currently reviewing the MOU to figure out if they can operationalize that level of communication. They did an analysis and approximately 15% of the electronic health record datasets are coming from MPOG sites, the rest is coming through other mechanisms. The results of the last PCRC meeting that was until there is confidence around the publications process, we will only send billing and CPOM data.
    - The AQI will get back with MPOG about their decision on this matter
    - Sachin will discuss this issue with the MPOG Executive Committee on Tuesday, May 13, 2014

MPOG Retreat

- The MPOG Retreat will be Friday, October 10, 2014 and we will find out the room in a couple of months when ASA assigns it.
    - Time: 8:00am – 4:00 pm
    - Agenda:
        1. PCRC Proposal
        2. Educational Session
        3. Possible Scientific Advisory Board Meeting

Conflict of Interest (COI) Documentation Requirements

- Do we want investigators to submit a COI at the time they are presenting their proposal or do we want PIs from each institution to submit them annually?
    - Two possible actions:
        1. Annual COI plus for COI for each PCRC proposal (all authors on the proposal)
        2. COI for proposal only (all authors on the proposal)

        Vote: The final vote was for 1. Annual COI and proposal
    - Sachin will submit a recommendation to Executive Committee for Annual COI plus COI for PCRC proposal and recommend changes to the bylaws

MPOG QI Committee

- The University of Michigan received funding from Blue Cross/Blue Shield of Michigan to initiate a Quality Improvement (QI) initiative and develop QI reporting mechanisms. MPOG institutions can choose to be part of this initiative and if an institution chooses to be part of the QI initiative, they must contribute their data.
- Dr. Kheterpal is recommending to the Executive Committee to have separate QI committee. Currently, there are 23 QI measures and the new committee will help examine and refined those measures. Members of MPOG are welcome to sit on both committees, but we want to separate out the research from the QI initiative.

- Dr. Kheterpal is going to recommend a 1-hour phone call per month for the QI Committee.

  Thoughts/concerns?

  - All PCRC members were supportive of the initiative
  - There will be three people identified at each institution (members can overlap):
    1. Anesthesia IT champion
    2. Research champion
    3. QI champion
  - After the Executive Committee approves this initiative Dr. Kheterpal will be sending out an e-mail to each institution to inquire if they want to be part of this initiative. If so, they will have to identify the QI champion.

Matters Arising

- Dr. Berman: We are finding areas of concern in our data. Maybe we can add an agenda item to PCRC where we discuss issues with the data.
  - Have a PI who is working on a project put together a few slides on the problems they are having and offer recommendations
  - Allocate 15-30 minutes of PCRC to a previous PI who is 'digging' into their data to discuss issues