Anesthesiology Performance Improvement and Reporting Exchange (ASPIRE)

Pediatric Subcommittee Meeting Minutes – June 26, 2023

Attendance:

Amber Franz, Seattle Children's	Lucy Everett, MGH
Andrew Zittleman, MPOG	Meridith Wade, MPOG
Ben Andrew, Duke Children's	Morgan Brown, Boston Children's
Bishr Haydar, Univ. of Michigan	Nicole Barrios, MPOG
Brad Taicher, Duke Children's	Nirav Shah, MPOG
Chuck Schrock, St. Louis Children's	Rahul Koka, Johns Hopkins
Diana O'Dell, MPOG	RK Ramamurthi, Lucile Packard Children's
Ellen Wang, Lucile Packard Children's	Ruchika Gupta, Univ. of Michigan
Eva Lu-Boettcher, Univ. Wisconsin	Ruchik Sharma, Univ. of Virginia
Frances Guida Smiatacz, MPOG	Ruth Cassidy, MPOG
Jacques Scharoun, Weill Cornell	Ryan Bradstreet, Bronson Kalamazoo
James Xie,Lucile Packard Children's	Sushma Vallamkonda, MPOG
Kate Buehler, MPOG	Tiffany Malenfant, MPOG
Kelly Everhart, Dartmouth Hitchcock	Vikas O'Reilly-Shah, Seattle's Childrens
Kim Taylor, Univ. of Michigan	Yuan Yuan, MPOG

Meeting Summary

Minutes from March 7, 2023 meeting approved - minutes and recording posted on the MPOG website for review

Announcements

- Sustainability Toolkit available on MPOG Website
    - Thank you to Dr. Eva Lu-Boettcher for adding the pediatric sections!
- SUS-06 Measure Released!
    - Description: Percentage of pediatric cases with a max fresh gas flow (FGF) equal to or less than a weight-based threshold during the induction phase of anesthesia.
    - Measure is available on the sustainability and pediatric dashboard now. Please view the measure specification for more information
    - See slides for anonymized institution performance
    - *James Xie (Stanford)*: We changed all our machine FGF defaults to 3L/min since the last meeting 👍
- Call for Measure Reviewers
    - PAIN-01-Peds: Multimodal Analgesia, Pediatrics
        - Initial measure development - December 2020. First review due to be presented at the Winter 2023 pediatric subcommittee meeting
    - MPOG Measure Reviewers are clinical and quality improvement experts that critique our QI Measures to ensure they stay relevant.
        - Review of New Literature
        - Appropriateness of rationale

        - Evaluation of inclusion/exclusion criteria
        - Evaluation of definition of success criteria
        - Recommend to modify, retire or continue measure as is
- Upcoming Pediatric Research Proposals
    - Two pediatric research proposals will be presented to the MPOG Perioperative Clinical Research Committee (PCRC) on **Monday, August 14th**
    - Must practice at an active MPOG site to join PCRC meetings
    - PCRC 0145 Intraoperative Antiemetics - DESCRIPTIVE analysis (Dr. Lucy Everett)
    - PCRC 0180 Intraoperative Antiemetics and PONV - OUTCOMES analysis (Dr. Ben Andrew)

TEMP-04-Peds Measure Update: *Vikas O'Reilly -Shah (Seattle Children's/MPOG Pediatric Subcommittee Co-Chair)*

- Initial publish date: April 2020; Reviewed and presented to Peds committee March 2023
    - Success: median core/near core body temperature > 36C (96.8F)
    - Time period: Patient in room → Patient out of room
    - Exclusions: Patients ≥ 18yo, ASA 5 & 6, cases < 30 minutes, cases without a temperature route documented, Labor epidurals, Cardiac procedures, MRI, MAC/Sedation cases
    - Provider Attribution: Provider present for the longest duration of the case (per staff role)
- Thank you for your feedback! - 23 Survey responses
- Majority vote to exclude:
    - GI cases
    - Cases where patient's baseline temperature was < 35.5C or > 38C
- No real consensus on:
    - Case duration definition (room duration vs. procedure duration)
    - Excluding short duration cases (30 min vs. 60 min)
    - Hyperthermia metric
    - Measure success criteria
- **DISCUSSION**:
    - *Brad Taicher (MPOG Pediatric Subcommittee Co-Chair, Duke)*- will bring this back to get a decision on what to do moving forward.

Quality Committee Update *Brad Taicher (Duke Children's/MPOG Pediatric Subcommittee Chair)*

- Hyperglycemia (includes patients ≥ 12y)
    - GLU 01, 03: Cases with glucose > 200 mg/dL with administration of insulin or lab recheck within 90 minutes.
    - GLU 05: Cases with glucose > 200 mg/dL with administration of insulin within 90 minutes.
    - QC Vote: Modify, Change threshold to 180 mg/dL; Support for a recheck only measure
- Hypoglycemia
    - GLU 02, 04: Percentage of cases with glucose < 60 mg/dL with administration of dextrose or lab recheck within 90 minutes.
    - QC Vote: Modify, Change threshold to 70 mg/dL; Reduce time to recheck/treat hypoglycemia
- **DISCUSSION:**
    - *Ruchika Gupta (University of Michigan)*: Conducted a study about 10 years ago, checking glucose in all pediatric patients (neonate - 18 years old, majority were 3 years and younger) and found that though checking glucose is reasonable, would not recommend

treating all hyperglycemia values as patient response to insulin is somewhat unpredictable in the pediatric population and the risk of hypoglycemia presents as a patient safety issue.
        - *Meridith Wade (MPOG Pediatric Program Manager)* -Hyperglycemia measures include patients greater than or equal to 12 years of age. Hypoglycemia measures include all ages.
    - *Nirav Shah (MPOG Quality Director)*- These were some of the first measures we implemented at MPOG and with the last Quality Committee review, are now looking to align with hospital policies and national guidelines.
    - *Brad Taicher (MPOG Pediatric Subcommittee Co-Chair, Duke)* - When we rolled these measures out at Duke, we started at 200 to achieve buy-in and I think it makes sense to now move to 180 to align with national guidelines.
    - *Nirav Shah (MPOG Quality Director*)- having a broad suite of measures would make it likely for sites to pick and choose what would work for them.
    - *Brad Taicher (MPOG Pediatric Subcommittee Co-Chair, Duke)* will speak with staff to see how they are using these measures currently.

- Oral Morphine Equivalency (OME) Measure Review
    - Calculated using opioids given between anesthesia start and anesthesia end for each case. This value is normalized to patient weight (kg) and duration of anesthetic (anesthesia end – anesthesia start, hours as a decimal).
    - QC Vote: Modify - Widen time frame to include PACU OR create separate measure for OME in PACU
    - **DISCUSSION**:
        - *Brad Taicher (MPOG Pediatric Subcommittee Co-Chair, Duke)*: One way to use these measures is to compare institutional performance to other institutions to obtain some idea of current benchmarks. How are other sites using these metrics?
            - *Nirav Shah (ASPIRE Quality Director)*: That is one way to use these OME measures - the other way sites are using these metrics to see if any individual providers prove to be high (or low) outliers
            - *RJ Ramamurthi (Stanford)*- Is valuable to see this on the dashboard.
            - *James Xie (Stanford)* - We created an opioid use dashboard at Stanford: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8942721/ Another question that has come up is if this data could (or should) be used as a signal for opioid diversion? How would you deal with extreme outlier providers?
            - *Brad Taicher (MPOG Pediatric Subcommittee Co-Chair, Duke)* - a lot to unpack there. We use different software to look at use per provider. But an interesting thought to use MPOG data for diversion activity. Discharge from PACU opioid use - way to identify how much pain meds you get in PACU is due to nursing preference.
        - Interest in a separate PACU opioid equivalency measure for pediatrics? or combine with intraop?
            - *Lucy Everett (MGH)*: I think it would be great to include PACU data but would want to be able to break out intraop vs. PACU OME use.

            - *Brad Taicher (MPOG Pediatric Subcommittee Co-Chair, Duke)*: Agree! I think a filter to show intraop vs. PACU vs. periop would be excellent!
        - *Ben Andrews (Duke)* - Alternatively, separating them but also including a metric comparing them (PACU to intraop OME ratio or something similar) could be informative
    - Would displaying the 'score' as morphine IV equivalency be more valuable for peds?
        - *Brad Taicher (MPOG Pediatric Subcommittee Co-Chair, Duke)*- Please clarify what the change would mean.
            - *Meridith Wade (MPOG Pediatric Program Manager)* - currently displayed as oral equivalents but can change to IV if more helpful.
        - *Ruchik Sharma (Univ. of Virginia)*: IV morphine
        - *James Xie (Stanford)*: IV morphine equivalents would be more readily relatable
        - *Charles Schrock (WashU)*: If equivalence is indeed reliably calculable, maybe the dashboard can toggle to whatever norm the user wants, oral or IV, with morphine, hydromorphone, or fentanyl as the calculated standard
    - Additional OME cohorts of interest for pediatrics?
        - *Brad Taicher (Duke)* - Cardiac could be an area of interest.
        - *Ruchik Sharma (Univ. of Virginia)* : Pectus
            - *James Xie (Stanford)* and *Ruchika Gupta (University of Michigan)*: Agree!

Antibiotic Timing Measure Discussion: ABX-02-peds

- Background
    - Proposed by subcommittee in previous 'call for measure' surveys
    - Plan to include in future SSI measure bundle/dashboard
    - Allows comparison of antibiotic timing adherence with SSI outcomes for sites who submit NSQIP-p data
    - Currently refining MPOG microbiology data extract - future measures to include antibiotic susceptibility
- Description: Percentage of patients < 18 years old with documentation of antibiotic administration initiated before surgical incision.
- Measure Time Period: - 3 hours ≤ Procedure Start ≥ 30 minutes
- Inclusions: Patients < 18 year of age
- Exclusions
    - ASA 6
    - Patients ≥ 18 years of age
    - Procedure Type List: *see below
    - Emergency Cases
    - Antibiotics not indicated for procedure. Defined as one of the following:
        - Patients given IV antibiotic treatment > 3 hrs prior to Procedure Start/Incision
        - Case returns value code 0, 2, or 3 for ABXNotes
            - 0 - Not ordered/Indicated per surgeon

        - 2 - Patient on scheduled antibiotics/documented infection
        - 3 - Not administered for medical reasons
- Procedure Type List: Same procedures excluded from NSQIP-p Surgical Antibiotic Prophylaxis

- **DISCUSSION**:
    - *Ruchik Sharma (UVA)* - Please elaborate on MPOG/NSQIP merger.
        - *Brad Taicher (MPOG Pediatric Subcommittee Co-Chair, Duke)* - Sites can upload NSQIP data to MPOG and look at outcomes data.
        - *Meridith Wade (MPOG Pediatric Program Manager)* - We are working to get the congenital heart registry for adults up and running and work out any kinks before opening up to Peds.

Meeting Concluded @ 1651