Anesthesiology Performance Improvement and Reporting Exchange (ASPIRE)

Quality Committee Meeting Notes – Monday, May 24, 2021

Attendees:

Abess, Alex (Dartmouth)	Lacca, Tory (MPOG)
Agerson, Ashley (Spectrum)	LaGorio, John (Mercy Muskegon)
Ahmad, Dennis (Metro Health)	Lewandowski, Kristyn (Beaumont)
Angel, Alan (Bronson Battle Creek)	Liu, Linda (UCSF)
Applefield, Daniel (St. Joseph Oakland)	Lockwood, Holly (Henry Ford Allegiance)
Bailey, Meridith (MPOG)	Loyd, Gary (Henry Ford)
Biggs, Dan (Oklahoma)	Mack, Patricia (Weill Cornell)
Bollini, Mara (Washington University)	Malenfant, Tiffany (Beaumont Trenton/Wayne)
Boutin, Jimmy (Henry Ford)	Mango, Scott (MidMichigan Midland)
Brydges, Garry (MD Anderson)	McKinney, Mary (Beaumont Dearborn / Taylor)
Buehler, Kate (MPOG)	Mentz, Graciela (MPOG)
Charette, Kristin (Dartmouth)	Milliken, Christopher (Sparrow)
Chen, Lee-Lynn (UCSF)	Mockridge, Stacy (Metro)
Clark, David (MPOG)	Mulder, Barb (Borgess)
Cohen, Bryan (Henry Ford Detroit)	Nanamori, Masakatsu (Henry Ford Detroit)
Coleman, Rob (MPOG)	Nurani, Shafeena (Beaumont Troy)
Collins, Kathleen (St. Mary Livonia)	Obembe, Samson (Weill Cornell)
Coons, Denise (Bronson)	Overmyer, Colleen (UChicago)
Cuff, Germaine (NYU Langone)	Owens, Wendy (MidMichigan - Midland)
Cywinski, Jacek (Cleveland Clinic)	Pardo, Nichole (Beaumont)
Davis, Quinten (Mercy Muskegon)	Payne, Gloria (Beaumont Dearborn)
Davies, Eric (HF Allegiance)	Percha, Tina (Beaumont Dearborn)
Dewhirst, Bill (Dartmouth)	Ping Yu, Shao (Weill Cornell)
Domino, Karen (UW)	Poindexter, Amy (Holland)
Doney, Allison (MGH)	Poterek, Carol (Beaumont)
Drennan, Emily (University of Utah)	Pywell, Carol (Beaumont Troy)
Everett, Lucy (MGH)	Qazi, Aisha (Beaumont Troy)
Finch, Kim (Henry Ford Detroit)	Quinn, Cheryl (St. Joseph Oakland)
Gall, Glenn (St. Mary Livonia)	Raty, Sally (MD Anderson)
Goatley, Jackie (Michigan Medicine)	Rubin, Daniel (University of Chicago)
Goorin, Patty (Sparrow)	Ruiz, Joseph (MD Anderson)
Hall, Kathleen (Borgess)	Saffary, Roya (Stanford)
Harwood, Timothy (Wake Forest)	Schonberger, Rob (Yale)
Heiter, Jerri (St. Joseph A2)	Scranton, Kathy (Mercy St. Mary)
Horton, Brandy (A4)	Shah, Nirav (MPOG)
Jeong, Jay (MPOG)	Stewart, Alvin (UAMS)
Johnson, Rebecca (Spectrum & Metro)	Tao, Jing (MSKCC)
Kaper, Jonathan (Beaumont Trenton)	Trummel, John (Dartmouth)
Kenron, Dan (OHSU)	Tyler, Pam (Beaumont Farmington Hills)
Kertai, Miklos (Vanderbilt)	Vachhani, Shital (MD Anderson)

Khan, Meraj (Henry Ford Macomb)	Vaughn, Shelley (MPOG)
Kheterpal, Sachin (MPOG)	Veach, Kristine (St. Joseph)
Koltun, Ksenia (Beaumont Royal Oak)	Vishneski, Susan (Wake Forest)
	Wren, Jessica (Henry Ford Wyandotte/Macomb)

Agenda & Notes

1) **Roll Call**: Will contact QI Champions and ACQRs directly to inquire about participation status if missing. Other participants can review meeting minutes and contact the Coordinating Center if they are missing from the attendance record.
2) **Minutes from April 22, 2021 meeting approved**- minutes and recording posted on the website for review
3) **Announcements & Updates**
    a) Featured Member May and June 2021 – Dr. Gary Loyd
    b) New sites:
        i) Metro Health Grand Rapids
        ii) Froedtert & Medical College of Wisconsin
4) **Upcoming Events**
    a) ASPIRE Virtual Collaborative Meeting: July 16, 2021
    b) MPOG Retreat: October 8, 2021
        i) Hopefully in-person but plan to have a virtual option as well
    c) Quality Committee Meetings via Zoom
        i) Monday, July 26, 2021
        ii) Monday, September 27, 2021
        iii) Monday, November 22, 2021
5) **OB Subcommittee Updates**
    a) May 5, 2021 meeting slides and minutes on website; 15 members in attendance
    b) Neuraxial anesthesia type added to the BP 04 OB Case Report Tool as an additional column
        i) Request per subcommittee to enable sites to filter out results by neuraxial type
    c) Updating GA 01 (General anesthesia used in cesarean delivery) to highlight cases where neuraxial anesthesia is documented prior to conversion to GA
    d) Plan to create new temp outcome measure (TEMP 05 OB) examining hypothermia in PACU for cesarean delivery patients
    e) If your site is doing any work around standardizing documentation of reason for conversion to GA for cesarean delivery- please contact the Coordinating Center.
    f) Please review the OB dashboard for BP 04 and GA 01. Consider if the results accurately reflect your practice and if the appropriate cases are being excluded
    g) Next OB Subcommittee meeting: April 4, 2021 at 1pm Eastern
6) **Pediatric Subcommittee Updates**
    a) May 19, 2021, meeting slides and recording on website; 33 members in attendance
    b) Finalized PONV risk factors for patients 3-17y
        i) Females (≥ 12y)
        ii) Inhaled anesthetic duration ≥ 30 minutes
        iii) Hx of PONV (personal or first-degree relative)

iv) At Risk Surgery (Strabismus, adenotonsillectomy, tympanoplasty)
v) Postoperative long-acting opioids (Administered after Induction)

c) Reviewed TRAN-01 and TRAN-02 measure criteria related to patients < 18y
d) TRAN 01/02 Recommendations
   i) 1 'unit' transfused definition = 15cc/kg
   ii) Massive Transfusion/blood loss: Total transfused volume (or EBL) of 40cc/kg (updated from 30cc/kg)
   iii) Include patients ≥ 6mo. (updated from 2 years)
   iv) Exclusions
      (1) Cardiac bypass cases (and ECMO)
      (2) All obstetric procedures
      (3) Revisit Burn case exclusion or refine to TBSA.
   v) TRAN 02 Success
      (1) If No Hb/Ht checked within 18 hours of Anesthesia End, the case should be flagged for systematic review
   vi) Next meeting August 18, 2021

7) PAIN 02 Measure Update

a) Percentage of patients ≥ 18 years old who receive a non-opioid adjunct preoperatively and/or intraoperatively (at least one non-opioid adjunct - medication, regional block, neuraxial block, or local injection). Released to dashboard 5/4/2021
   i) Study in April Anesthesiology: https://pubmed.ncbi.nlm.nih.gov/33630043/
      (1) Modified measure from originally approved specification by removing dexmedetomidine from list of non-opioid analgesic medications based on POFA study
      (2) Discussion:
         (a) Karen Domino (University of Washington): There are a lot of other agents used in this study such as ketamine and lidocaine. What did the other studies with dexmedetomidine alone show as far as analgesic effectiveness?
         (b) Nirav Shah (ASPIRE Director): Previous studies have shown that dex can function as an analgesic and many use it as non-opioid adjunct
            (i) Karen Domino (University of Washington): Would leave it in until there is more literature to prove otherwise
            (ii) John LaGorio (Mercy Muskegon): Support no change to Dex
            (iii) Alex Abess (Dartmouth): recommend continuing to have dexmedetomidine as an adjunct (don't change the measure based on this study)
            (iv) Shafeena Nurani (Beaumont Health System): I agree, it should count as an analgesic
            (v) Conclusion provided by Nirav Shah (ASPIRE Director): Lots of support to continue dexmedetomidine as analgesic despite this study. Will add back into PAIN 02 measure. Will post to forum when updated on dashboards

8) Measure Review and Vote (Drs. Linda Liu /UCSF; Dr. John Trummel / Dartmouth; Dr. Masakatsu Nanamori / Henry Ford Health System)

a) TRAN 01 – Click here for Measure Review

i) Literature review: Unable to find a particular hgb/hct value for which transfusion would be indicated but literature states restrictive transfusion strategies are the gold standard but there is no literature about how much.
ii) Linda Liu (UCSF): 350 cc/unit definition is not consistent across centers, our cases have failed at transfusion #4 (MPOG thinks it's 3.4 units) because we use 300 cc/unit
iii) Masakatsu Nanamori (Henry Ford Detroit): Is it possible to develop exclusion criteria of red blood transfusion associated with profound or prolonged intraoperative hypotension requiring a vasopressor use or sign of the end organ damage?
iv) Linda Liu (UCSF): There are considerations made for hemodynamics for C/S patients (HR>110, SBP<85, DBP<45, or O2Sat <95%) Should there also be considerations for other surgical patients who are hemodynamically unstable? (ie: where the successive unit is given without stopping for a hct check)? Or else if 2 units are given within 15-30 minutes, they are considered as passed based on 1 prior hct/hgb check?
v) Masakatsu Nanamori (Henry Ford Detroit): Consideration for separation of cardiac and non-cardiac cases?
vi) **Discussion:**
    (1) Eric Davies (Henry Ford Allegiance): Look at the TRAN 02 measure, most sites performing better than expected so it may indicate that the benchmark is clearly showing it's not set correctly and should be set lower.
    (2) Linda Liu (UCSF): Workflow is likely different across institutions but at both UCSF and Henry Ford Detroit, EBL is not charted for cardiac bypass cases so the exclusion of 2L cannot be applied. These cases are typically included & flagged as anesthesiologists will document units given but perfusionists document hgb/hct values. Perfusion module is being added to Epic at some point but not currently available.
    (3) Definition of a unit and originally we had all sites submit what they consider a unit and when we were building the transfusion toolkit, there was a standard of 300ccs per unit. We may need to revisit how we classify a unit.
    (4) Jing Tao (Memorial Sloan Kettering): I think using hemodynamics is a great idea. There are plenty of cases where blood loss is quick and patients are clearly symptomatically anemic. These times, abg either takes too long or the clinical picture does not necessitate abg before transfusion
    (5) If there are specific parameters we can use would be helpful but that becomes difficult across all sites and setting it at 90% may be inappropriate.

    TRAN 01 Measure Vote:
    Continue as is: (12) 35%
    Modify: (20) 59%
    Retire: (2) 6%

b) TRAN 02 – Click here to review measure
    i) John Trummel (Dartmouth) conducted review of current measure and provided Quality Committee with a summary of his findings.
        (1) Last reviewed June 2018

(2) Literature review: Reviewed prior studies & any new studies published since measure was first released. Bottom line is that there was not any new literature to suggest that a liberal policy would be better. Still supports restrictive transfusion strategy.
(3) In summary, do not recommend any changes to this measurement at present. However, some may view the body of knowledge on perioperative transfusion and conclude there may be some subgroups of patients (possibly patients with severe cardiac disease undergoing cardiac procedures and elderly orthopedic patients) for which the benefits of a liberal transfusion policy outweigh the risks. At this point, there is not evidence to definitively support this viewpoint and nothing in the literature since June 2018 would suggest that these patients or any other group of operative patients would benefit from liberalized transfusion as compared to a restrictive approach.

ii) Based on recommendations from Pediatrics Subcommittee: If No Hb/Ht checked within 18 hours of Anesthesia End, the case should be flagged for systematic review
(1) John Trummel (Dartmouth): would be reasonable to flag these cases
(2) Rob Schonberger (Yale): In the instance that there is hct value of 30 after the last transfusion and then the next hct value is lower, indicating the patient did continue to bleed, which value does TRAN 02 use?
(a) Nirav Shah (ASPIRE Director): We take the lowest hemoglobin value
(b) Kate Buehler (MPOG Coordinating Center) via chat: All hemoglobin/hematocrit lab values drawn after the last transfusion and within 18 hours after anesthesia end will be evaluated. If the lowest of these values is ≤10g/dL or ≤30%, the case will pass.
(3) Eric Davies (Henry Ford Allegiance): I think failure to check H&H following transfusion would make a great informational measure.
(a) Germaine Cuff (NYU): Agree with this approach.
(4) Lucy Everett (MGH): Can you clarify - is a separate measure "continue as is" or "modify"? Separate measure would be to modify
(a) I support the separate informational measure and just wanted to know which way to vote to accomplish that.

TRAN 02 Measure Vote:
Continue as is: (17) 50%
Modify: (15) 44%
Retire: (2) 6%

c) PONV
i) New guidelines released (Fourth Consensus Guidelines for the Management of Postoperative Nausea and Vomiting) August 2020- suggesting some significant changes to existing ASPIRE measure.
ii) New guidelines provide updates to both risk factors and prophylaxis recommendations for adults and pediatrics
iii) MPOG Pediatric Subcommittee creating new measure for pediatrics PONV prophylaxis
iv) Need feedback from Quality Committee for new adult prophylaxis measure
v) Consider new measure rather than revision to old measure to enable comparison between two processes and impact on outcome (PONV 03)

vi) Michigan data presented in aggregate form to Quality Committee: PONV 01 improved between 2018-2020 and yet PONV 03 and PONV 03b scores suggest increased incidence of PONV in PACU. There are discrepancies between the process and outcome measure as far as exclusion criteria but still suggests that a potential change to the prophylaxis measure is needed.

vii) Need feedback regarding:
   (1) Risk factors
   (2) Inclusions/Exclusions
   (3) Success Criteria
   (4) Prophylaxis

viii) Proposed Risk factors:
   (1) Female sex
   (2) Non-smoker
   (3) Age < 50 years
   (4) At Risk Surgery
   (5) Cholecystectomy
   (6) Laparoscopic
   (7) Gynecological
   (8) Hx of PONV or motion sickness
   (9) Use of volatile anesthetics and/or nitrous oxide (> 1 hour?)
   (10) Use of opioid analgesia - medium and long acting

ix) Next Steps
   (1) Create measure specifications
   (2) Circulate among Quality Committee for feedback
   (3) Review at next Quality Committee meeting (July)
   (4) Vote to approve

d) **Discussion:**

i) Kate Buehler (MPOG Coordinating Center): We need feedback on risk factors, inclusion criteria, and definition of success

ii) Steve Lins (Bronson Battle Creek): I think PONV was underreported until import manager was available

iii) Lucy Everett (MGH): Acupuncture or acupressure or both?
   (1) Kate Buehler (MPOG Coordinating Center): Both

iv) Germaine Cuff (NYU): If we are discussing acupuncture/pressure, our Peri-op nurses are using aromatherapy in the holding room through PACU for PONV.

v) Karen Domino (University of Washington): Is dexamethasone and ephedrine on the list? Please also keep haloperidol.

vi) Amy Poindexter (Holland Hospital): I really like the apples to apples comparison option.

Meeting concluded at 11:02 am

Inclusion/Exclusion Criteria

OLD (PONV 01 - 2018) from MIPS Measure

Inclusion

- Received an inhalational general anesthetic
- Has ≥ 3 risk factors for PONV

Exclusion

- Patients less than 18 years old
- Patients transferred directly → ICU
- Liver or Lung Transplants
- CPT 00452 (no longer used for clavicle surgery)
- Procedures on the Neck
- Intrathoracic Procedures (CPT 00561)
- Cardiac procedures (CPT 00562, 00563, 00567)
- CPT 00622 (no longer used for thoracolumbar sympathectomy)
- CPT 00634 (no longer used for chemonucleolysis)
- Radiology Procedures (CPT 01916; 01922)
- Cardiac Catheterization procedures (CPT 01920)
- Burn Debridement (CPT 01953)
- Organ Harvest (CPT 01990)
- Anesthesia for other procedures/block only (CPT 01991, 01992, 01996, 01999)
- Labor Epidurals (CPT 01958, 01960)

UPDATE (2021)

Inclusion

- Patients ≥ *18* years old
- Received general anesthesia (inhalational or TIVA)

Exclusion

- Patients < 18 years old
- Patients transferred directly → ICU
- Labor Epidural cases
- Organ Harvest (CPT 01990)
- Cases performed without general anesthesia
  - Neuraxial only
  - Regional only
  - MAC/sedation cases

Gan et al, 2020

Success Criteria

OLD (PONV 01)

- Patients with 3 or more risk factors receive combination therapy consisting of at least two prophylactic pharmacologic anti-emetic agents of different classes preoperatively or intraoperatively

NEW (PONV 04)

- Patients with 1 or 2 risk factor(s) receive combination therapy consisting of at least two prophylactic pharmacologic anti-emetic agents of different classes preoperatively or intraoperatively.

- Patients with 3 or 4 risk factor(s), receive three or more prophylactic pharmacologic antiemetic agents from different classes preoperatively or intraoperatively.

Prophylaxis Considerations

OLD (PONV 01-2018):

- NK-1 Receptor Antagonists
- 5-Hydroxytryptamine (5-HT3) Receptor Antagonists
- Glucocorticoids
- Phenothiazines
- Butyrophenones
- Antihistamines
- Anticholinergics
- Prokinetics (metoclopramide)
- Other:
  - Propofol (infusion only)

NEW (PONV 04 - 2021):

- NK-1 Receptor Antagonists
- 5-Hydroxytryptamine (5-HT3) Receptor Antagonists
  - Remove Dolasetron?
- Glucocorticoids
- Phenothiazines
- Butyrophenones (rename Antidopaminergics)
  - Move metoclopramide to this category
  - Add perphenazine?
  - Keep Haloperidol?
- Antihistamines
- Anticholinergics
- Other
  - Propofol (infusion only)
  - Continue to exclude midazolam?
  - Continue to exclude gabapentinoids?
- Add non-pharmacologic section
  - Include acupuncture (PC6 stimulation)

MPOG

Another consideration - should we match the inclusion and exclusion criteria for the process and outcome measure

PONV 01 Exclusions

- Patients transferred directly → ICU
- Liver or Lung Transplants
- CPT 00452 (no longer used for clavicle surgery)
- Procedures on the Neck
- Intrathoracic Procedures (CPT 00561)
- Cardiac procedures (CPT 00562, 00563, 00567)
- CPT 00622 (no longer used for thoracolumbar sympathectomy)
- CPT 00634 (no longer used for chemonucleolysis)
- Radiology Procedures (CPT 01916; 01922)
- Cardiac Catheterization procedures (CPT 01920)
- Burn Debridement (CPT 01953)
- Organ Harvest (CPT 01990)
- Anesthesia for other procedures/block only (CPT 01991, 01992, 01996, 01999)
- Labor Epidurals (CPT 01958, 01960)

PONV 03/03b Exclusions

- Patients transferred directly → ICU
- Liver or Lung Transplants
- Organ Harvest (CPT: 01990)
- Labor epidurals
- MAC cases?

MPOG