

Quality Committee Meeting

July 25, 2022 @10:00 ET



Agenda

Announcements

- Matters arising
- PONV Toolkit
- Subcommittee Updates

Measure Review

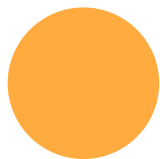
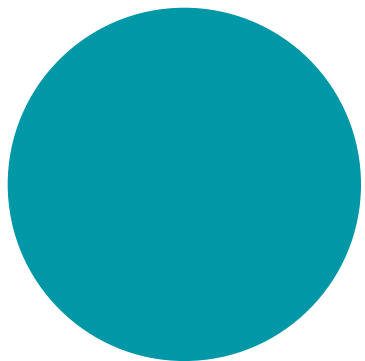
- Drs Sunny Chiao (UVa) and Shafeena Nurani (Beaumont), TEMP 01
- Dr. Jonathan Kaper (Beaumont Trenton), TEMP 02

App Discussion

- WebCaseviewer
- Data Direct

Meeting Minutes February 2022

Roll Call – via Zoom or
contact us



Announcements



The background of the entire graphic is a photograph of the St. Joseph Mercy Hospital building, a large multi-story brick structure with many windows. In the foreground, there is a green lawn and a sign that reads "ST. JOSEPH MERCY HOSPITAL".

MPOG Featured Member July and August 2022

[MORE INFO](#)

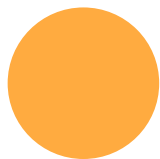
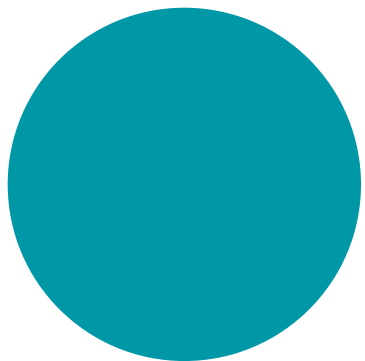


***Jerri Heiter, RN
Anesthesiology Clinical Quality Reviewer (ACQR)
Trinity St. Joseph Ann Arbor, Chelsea & Livingston***

ASPIRE Collaborative Meeting

- Business and Updates
- QI Stories
 - Dr. Ben Stam (UM Health West)
 - Dr. Meredith Hall (Bronson Health)
- Hypotension Associated Outcomes
 - Dr. Kamal Maheshwari (Cleveland Clinic)
- Rational Vasopressor Selection
 - Dr. Allison Janda (UM Health Ann Arbor)
- ASPIRE Performance Review





Upcoming Events



Quality Committee

This group meets both virtually and in-person at collaborative meetings to review and determine the feasibility of new measure proposals and all other quality improvement efforts.

[Quality Committee](#)

September 26th



Cardiac Subcommittee

This group meets virtually once per quarter to discuss the development of cardiac-specific quality improvement measures.

[Cardiac Subcommittee](#)

August 22nd

Obstetric Subcommittee

This committee of anesthesiologists around the country meets quarterly via web conferencing. Topics of discussion include development of obstetric specific ASPIRE measures and modifications to general measures to accommodate OB procedures. This group provides expert opinion to inform ASPIRE work.

[Obstetrics Subcommittee](#)

December 7th



Pediatrics Subcommittee

This subgroup meets virtually once per quarter to discuss modifications to the existing ASPIRE measures for the pediatric population.

[Pediatrics Subcommittee](#)

August 17th



ACQR Annual Retreat

September 16, 2022
DoubleTree Hotel, Ann Arbor

In person Only



MPOG Annual Retreat

October 21, 2022
New Orleans, LA

In person + virtual



**PONV Toolkit is
complete!**

Existing Toolkits



Acute Kidney Injury (AKI)

[Click Here](#)



Acute Respiratory Complications

[Click Here](#)



Perioperative Transfusion Stewardship

[Click Here](#)



Postoperative Nausea and Vomiting (PONV)






[Click Here](#)



Surgical Site Infection

[Click Here](#)

Objectives

-  Define postoperative nausea and vomiting (PONV)
-  Discuss the incidence and impact of PONV
-  Review the pathophysiology related to PONV
-  Identify risk factors for PONV
-  Review ASPIRE PONV measures



Combination Therapy Recommended

4th Consensus Guidelines for the Management of Postoperative Nausea and Vomiting (ASER & SAMBA-2020) recommendations:

- 1) **Combination antiemetic therapy (≥ 2) for patients at high risk (≥ 3 Risk Factors) for PONV.**
- 2) Combination therapy should consist of medications from different classes, using minimum effective dosing
- 3) Use of multimodal PONV prophylaxis in patients with 1 or 2 risk factors (multimodal includes use of TIVA, alternative therapy, medications) ^{2,95}

Table 5. Pharmacologic Combination Therapy for Adults and Children

Adults

5-HT₃ receptor antagonists + dexamethasone

Ondansetron: (A1)^{158,159}

Palonosetron: (A2)¹⁶⁰⁻¹⁶⁴

Ramosetron: (A2)^{165,166}

Granisetron: (A3)¹⁶⁷

Tropisetron: (A3)¹⁶⁸; with methylprednisolone (A3)¹⁶⁹

5-HT₃ receptor antagonists + aprepitant

Ondansetron: (A2)^{170,171}

Ramosetron: (A3)¹⁷²

Palonosetron: (A3)¹⁷³

Aprepitant + dexamethasone: (A2)^{174,175}

5-HT₃ + droperidol

Ondansetron + droperidol: (A3)¹⁷⁶

Granisetron + droperidol: (A3)¹⁷⁷

Palonosetron + droperidol: (A3)¹⁷⁸

Other 5-HT₃ combination therapies:

Ondansetron + haloperidol: (A3)¹⁷⁹

Haloperidol + dexamethasone + ondansetron: (A3)¹⁸⁰

Ondansetron + betahistine: (A2)^{181,182}

Ramosetron + gabapentin: (A3)¹⁸³

Midazolam + ramosetron: (A3)¹⁸⁴

Other antidopaminergic combination therapies

Dexamethasone + haloperidol: (A2)^{185,186}

Metoclopramide + dimenhydrinate: (A3)¹⁸⁷

Amisulpride + 1 nondopaminergic antiemetic: (A3)¹⁸⁸

Haloperidol + midazolam: (A2)^{189,190}

Acupoint stimulation + pharmacoprophylaxis: (A2)^{191,192}

Others

Propofol + dexamethasone: (A3)¹⁹³

Dexamethasone + dimenhydrinate:¹⁹⁴ (A3)

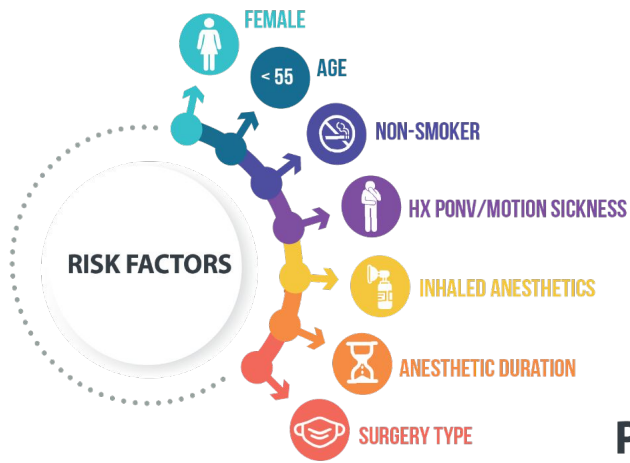
Gabapentin + dexamethasone: (A3)¹⁹⁵

Children

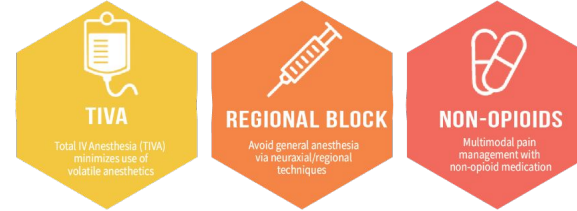
Ondansetron + dexamethasone: (A1)¹⁹⁶

Ondansetron + droperidol (A3)¹⁹⁷

Tropisetron + dexamethasone (A3)¹⁹⁸



ANESTHESIA CONSIDERATIONS



PONV MANAGEMENT



Assess for, and treat PONV immediately with rescue antiemetic.

If prophylaxis was not given, administer low-dose 5-HT₃ receptor antagonist.

If prophylaxis was given, administer antiemetic from a different class.

Preferred rescue antiemetics:

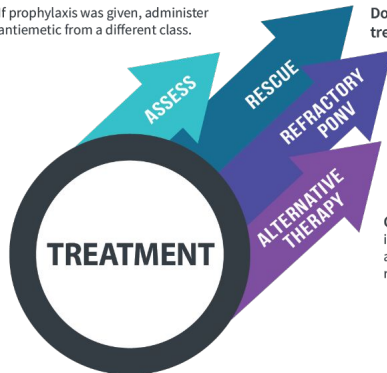
- 5-HT₃ receptor antagonist
- Amisulpride
- Promethazine
- Metoclopramide
- Dimenhydrinate

Do not re-dose scopolamine patch for treatment

Assess possible causes of refractory PONV:

- Hypotension
- GI abnormality
- Excessive opioid use

Consider multi-modal therapy including PC6 stimulation, aromatherapy and non-opioid pain management to reduce symptoms



PROPHYLAXIS

5-HT₃ ANTAGONISTS

ONDANSETRON
GRANISETRON

DOLASETRON
PALONOSETRON

NK-1 ANTAGONISTS

APREPITANT
FOSAPREPITANT

CORTICOSTEROIDS

BETAMETHASONE
DEXAMETHASONE
METHYLPREDNISOLONE

ANTICHOLINERGICS

SCOPOLAMINE

ANTIHISTAMINES

PROMETHAZINE
MECLIZINE
HYDROXYZINE

DIMENHYDRINATE
DIPHENHYDRAMINE

DOPAMINE ANTAGONISTS

AMISULPRIDE
PERPHENAZINE

DROPERIDOL
METOCLOPRAMIDE

CHLORPROMAZINE
HALOPERIDOL



**Subcommittee
Updates**

Obstetric Anesthesia Subcommittee Updates

Met this past week with 20 participants in attendance

Slides, minutes, and recording posted on the [website](#)

- Reviewed results of the measure build survey that was sent in February
- Subcommittee voted to build a measure examining the percentage of cesarean delivery cases that converted to GA from an epidural (GA-03-OB)

Next meeting: December 7, 2022 1pm EST

If interested in joining the Obstetric Subcommittee, please contact Kate Buehler (kjbucrek@med.umich.edu)





Measure Review
TEMP 01

Dr Sunny Chiao
University of Virginia

Dr. Shafeena Nurani
Beaumont Health System

Temp 01 Vote


1 vote/ site

Continue as is/ modify/ retire

Need > 50% to retire measure

Coordinating center will review all votes after meeting to ensure no duplication





**Measure
Review**
TEMP 02

Dr. Jonathan Kaper
Beaumont Trenton

Temp 02 Vote

1 vote/ site

Continue as is/ modify/ retire

Need > 50% to retire measure

Coordinating center will review all votes after meeting to ensure no duplication



The logo consists of a large white circle centered on a dark blue background. The circle is defined by a thin white border and a thicker dark blue border. Inside the white circle, the text "WebCaseviewer" is written in a bold, dark blue, sans-serif font.

WebCaseviewer

Updated Version of Web Case Viewer - A new version of Web Case Viewer will be released by August provider feedback emails

MPOG
Michigan Perioperative Outcomes Center

Chart

Record Search

Administrative

H & P

Outcomes

Labs

Case ID		Age/Sex/Race	79 / Male / White, not of hispanic origin	Surgical Service	Cardiac
Institution	University of Michigan Health - Ann Arbor	Height/Weight	182.9 cm / 89.4 kg	Admission Room Name	Inpatient CVC-OR 04
Time		ASA Class	4		
Procedure	(Actual)MIDLINE CORONARY ARTERY BYPASS GRAFT				

Main Chart

Sections Zoom - Reset + Presets Notes

Measure Details - BP01			
Minutes below 55	0	Passed	
Is Valid Case	Yes	Included	
Valid Measure Duration	Yes	Included	
Patient Age	26	Included	
Baseline MAP	102	Included	
ASA Class	ASA Class 3	Included	
Liver Transplant	No	Included	
Lung Transplant	No	Included	
Labor Epidural	No	Included	
Cardiac Procedures (Open or Other)	No	Included	

Time	Mapped As	Value	Original Variable
08/20/2018 04:06:00	Patient in Facility	Patient in Facility	Patient in Facility
08/21/2018 04:00:00	Rhythm/Pattern (Respiratory)	Depth regular / Unlabored	Resp: Effort/Depth
08/21/2018 05:00:00	Rhythm/Pattern (Respiratory)	Depth regular / Unlabored	Resp: Effort/Depth
08/21/2018 05:00:00	Preop Bathing - chlorhexidine	Bath done	Chlorhexidine:
08/21/2018 06:00:00	Rhythm/Pattern (Respiratory)	Depth regular / Unlabored	Resp: Effort/Depth
08/21/2018 06:39:02	Anesthesia Machine Checked	Anesthesia Machine Checked	Anesthesia Machine Checked
08/21/2018 06:39:03	Equipment Verified	Equipment verified	Equipment verified
08/21/2018 06:39:05	NPO Verification	NPO status confirmed to be solids > 8 hours and clear liquids > 3 hours	NPO status confirmed to be ___ hours
08/21/2018 06:39:05	Patient Identified	Patient identified, chart reviewed, status unchanged from preoperative evaluation	Patient identified, chart reviewed, status ___ from preoperative evaluation
08/21/2018 06:39:18	IV Access (Misc)	Existing Site - Left Hand 22 g.	Peripheral IV
08/21/2018 06:39:44	Free Text Note	IABP in place	Free text
08/21/2018 06:45:00	Anesthesia Start	Anesthesia Start	Anesthesia Start
		Anesthesia ready to transport patient to CVC OR. Awaiting	

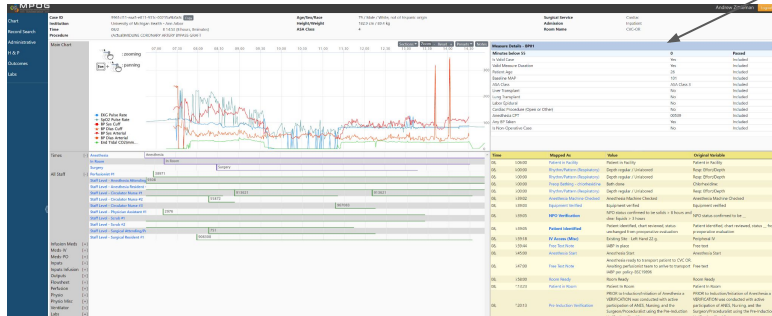
Times	[-]	Anesthesia	Anesthesia	In Room	Surgery
All Staff	[-]	Perfusionist #1	38971		
		Staff Level - Anesthesia Attending	9308		
		Staff Level - Anesthesia Resident -			
		Staff Level - Circulator Nurse #1		913621	913621
		Staff Level - Circulator Nurse #2	55872		
		Staff Level - Circulator Nurse #3			967083
		Staff Level - Physician Assistant #1	2976		
		Staff Level - Scrub #1			
		Staff Level - Scrub #2			
		Staff Level - Surgical Attending/Pr	751		
		Staff Level - Surgical Resident #1	908308		
Infusion Meds	[-]	EPINEPHRINE			0.03 MCG/KG/MIN
		HYDROCORTISONE			
		INSULIN REGULAR		2 UNITS/HR	6 UNITS/HR
		MILRINONE			0.125 MCG/KG/MIN
		NITROGLYCERIN	10 MCG/MIN		
		NOREPINEPHRINE		0.06 MCG/KG/MIN	0.08 MCG/KG/MIN
		PHENYLEPHRINE	30 MCG/MIN		40 MCG/MIN
		PROPOFOL			30 MCG/KG/MIN
		TRANEXAMIC ACID		1 MG/KG/HR	
		VASOPRESSIN			1 UNITS/HR
Meds-IV	[+]				4 UNITS/HR

Web Case Viewer

Measure Details

The result breakdown for the measure is brought to the top above the notes section for easy review

Measure Details - BP01		
Minutes below 55	0	Passed
Is Valid Case	Yes	Included
Valid Measure Duration	Yes	Included
Patient Age	26	Included
Baseline MAP	101	Included
ASA Class	ASA Class 3	Included
Liver Transplant	No	Included
Lung Transplant	No	Included
Labor Epidural	No	Included
Cardiac Procedure (Open or Other)	No	Included
Anesthesia CPT	00539	Included
Any BP Taken	Yes	Included
Is Non-Operative Case	No	Included



- Chart
- Record Search
- Administrative
- H & P**
- Outcomes
- Labs

Case ID	[REDACTED]	Age/Sex/Race	79 / Male / White, not of hispanic origin	Surgical Service	Cardiac
Institution	University of Michigan Health - Ann Arbor	Height/Weight	182.9 cm / 89.4 kg	Admission	Inpatient
Time	[REDACTED]	ASA Class	4	Room Name	CVC-OR 04
Procedure	(Actual)MIDLINE CORONARY ARTERY BYPASS GRAFT				


History

Family History	General - Family History of Anesthetic Problems	(None)
History Of Present Illness	General - Surgical Diagnosis	cad, Non-ST elevation (NSTEMI) myocardial infarction, A
Past Medical History	General - Past Medical History Free Text Comments	Cancer (CMS/HCC) Chronic kidney disease Hyperlipidemia Hypertension Thyroid disease
Past Surgical History	General - Past Surgical History	Cardiac Cath Cholecystectomy Colonoscopy Cystoscopy Excisional Lipoma Prostate Biopsy Tonsillectomy and Adenoidectomy TOBACCO: Tobacco Use: Former smoker, quit?more than five years ago?

Web Case Viewer - H & P

- Medications
- Review of Systems
- Physical Exam
- Assessment and Plan**

Record Search and Administrative Sections



MPOG
MULTICENTER PERIOPERATIVE
OUTCOMES GROUP

- Chart
- Record Search
- Administrative
- H & P
- Outcomes
- Labs

Case ID [Redacted]

Institution University of Michigan Health - Ann Arbor

Time [Redacted]

Procedure (Actual)MIDLINE CORONARY ARTERY BYPASS GRAFT

Age/Sex/Race 79 / Male / White, not of hispanic origin

Height/Weight 182.9 cm / 89.4 kg

ASA Class 4

Surgical Se

Admission

Room Nam

Demographics		Professional Fee Billing			
MPOG Patient ID	92d4fae1-e9a5-e811-931c-00215a9b0a8c	Procedure Codes (CPT) Required	Code	Description	Type
Diagnosis	cad, Non-ST elevation (NSTEMI) myocardial infarction, A		71045	Unknown Code	Unspecified Professional Fee
AIMS Patient ID	5137639		71045NL	Unknown Code	Unspecified Professional Fee
AIMS Case ID	1735575		90088	Unknown Code	Unspecified Professional Fee
AIMS Encounter ID	69223977		93010	Unknown Code	Unspecified Professional Fee
AIMS Admission Type	I	93306	Unknown Code	Unspecified Professional Fee	
AIMS Surgical Service	CARD	93880	Unknown Code	Unspecified Professional Fee	
MPOG Surgical Service	Cardiac(80005)	93880NL	Unknown Code	Unspecified Professional Fee	
Scheduled Time	08/21/2018 07:00:00	Diagnosis Codes (ICD-9/10)	Code	Description	Type
Date of Birth	Missing		I21.4	Non-ST elevation (NSTEMI) myocardial infarction	Unspecified Professional Fee
			I21.4	Non-ST elevation (NSTEMI) myocardial infarction	Unspecified Professional Fee
			I21.4	Non-ST elevation (NSTEMI) myocardial infarction	Unspecified Professional Fee
		I21.4	Non-ST elevation (NSTEMI) myocardial infarction	Unspecified Professional Fee	
			I21.4	Non-ST elevation (NSTEMI) myocardial infarction	Unspecified Professional Fee

Location Hierarchy		Hospital Discharge Billing			
Location	<p>Level 1 - University of Michigan Health System</p> <p>Level 2 - Ann Arbor - Main</p> <p>Tag: Facility type - Acute care hospital</p> <p>Level 3 - Frankel Cardiovascular Center</p> <p>Level 4 - CVC-OR 04</p> <p>Tag: Facility type - Acute care hospital</p> <p>Tag: Other - Mixed use operating room</p>	Diagnosis Codes (ICD-9/10) Required	Code	Description	Type
Combined Tags	Facility type - Acute care hospital		D62	Acute posthemorrhagic anemia	Hospital Discharge
	Other - Mixed use operating room		D63.1	Anemia in chronic kidney disease	Hospital Discharge
			E03.9	Hypothyroidism, unspecified	Hospital Discharge
			E21.1	Secondary hyperparathyroidism, not elsewhere classified	Hospital Discharge
		E78.5	Hyperlipidemia, unspecified	Hospital Discharge	
		E87.1	Hypo-osmolality and hyponatremia	Hospital Discharge	
		E87.5	Hyperkalemia	Hospital Discharge	
		Procedure Codes (CPT/ICD9/ICD10)	Code	Description	Type
			02100Z9	Unknown Code	Hospital Discharge
			021109W	Unknown Code	Hospital Discharge
			02H633Z	Unknown Code	Hospital Discharge
			02HV33Z	Unknown Code	Hospital Discharge



**MPOG QI
Tools**

Measure Case Report

- Standard columns for patient, procedure and anesthesia type
- Predetermined columns specific to measure to assist in flagged case review
- Not customizable by the end user

	A	I	J	K	L	M	N	O	P	Q	R
1	MPOG_Case_ID	Age	Result	Result_Reason	Result Check	Highest Postop Creatinine within 48	Risk of Progression	Severe Pre-Eclampsia	AKI Stage	Vassopressor Use (Bolus)	Vassopressor U
2	1f093003-fc79-ec11-94f6-005056946c96	23	Flagged	AKI Stage: 3		0.600	0.87 %	No	3	No	No
3	44083003-fc79-ec11-94f6-005056946c96	81	Flagged	AKI Stage: 1		2.000	2.44 %	No	1	Yes	No
4	2f083003-fc79-ec11-94f6-005056946c96	75	Flagged	AKI Stage: 1		1.100	0.36 %	No	1	No	No
5	b6073003-fc79-ec11-94f6-005056946c96	56	Flagged	AKI Stage: 1		1.400	3.38 %	No	1	No	No
6	63073003-fc79-ec11-94f6-005056946c96	82	Flagged	AKI Stage: 2		2.000	1.79 %	No	2	No	No
7	f1063003-fc79-ec11-94f6-005056946c96	83	Flagged	AKI Stage: 1		1.800	1.20 %	No	1	No	No
8	b7063003-fc79-ec11-94f6-005056946c96	15	Flagged	AKI Stage: 1		0.500	0.11 %	No	1	No	No
9	ac063003-fc79-ec11-94f6-005056946c96	5	Flagged	AKI Stage: 2		0.400	0.14 %	No	2	No	No
10	85063003-fc79-ec11-94f6-005056946c96	82	Flagged	AKI Stage: 1		1.600	3.55 %	No	1	No	No
11	84063003-fc79-ec11-94f6-005056946c96	21	Flagged	AKI Stage: 1		1.100	0.13 %	No	1	Yes	No
12	79063003-fc79-ec11-94f6-005056946c96	54	Flagged	AKI Stage: 3		2.500	15.05 %	No	3	No	No
13											
14											
15											
16											
17											
18											
19											
20											
21											

Data Direct - Quality Mode

- All measures now available as filters and outputs
- Customizable columns

Current Limitations:

- Limited to measure result; does not include other measure details
- Columns limited to phenotypes and their definitions
- Exports results on multiple spreadsheets

MPOG DataDirect

Step 1: Define Project

Step 2: Filter a Patient Population

Population
Demographics
Cases
Diagnoses
Procedures
Concepts
Outcomes
Laboratories
Quality Measures

Step 3: Choose Data Elements

Step 4: Review and Finalize

Quality Measures

MPOG Quality Improvement measure data, derived from Electronic Health Record and Administrative Data. Please review specification before selecting a measure below.

Available Filter Items

Transfer of Care, PACU	? -
Measure: TRAN-02 Overtransfusion	? +
Measure: CARD-03 Myocardial infarction, High Risk	? +
Measure: GLU-03 High Glucose, Periop	? +
Measure: GLU-04 Low Glucose, Periop	? +
Measure: GLU-05 Escalated High Glucose, Treated	? +
Measure: PONV-04 (PEDS) PONV Prophylaxis, Pediatrics	? +
Measure: PUL-03 PEEP Administration	? +
Measure: TEMP-03 Postoperative Hypothermia	? +
Measure: TEMP-04 (PEDS) Normothermia Intraop, Pediatrics	? +
Measure: TOC-03 Transfer of Care, ICU	? +
Measure: BP-04 (OB) Hypotension during C-section	? +
Measure: TRAN-03 (PEDS) Hgb/Hct Lab check before PRBC transfusion	? +
Measure: TRAN-04 (PEDS) Overtransfusion	? +

Selected Filter Items

PONV-05
PONV Prophylaxis, Adult ? x

Filtered Passed
by Failed
 Excluded

Measure: PONV-03
PONV Outcome - Signs/Symptoms: Rescue Antiemetic ? x

Filtered Passed
by Failed
 Excluded

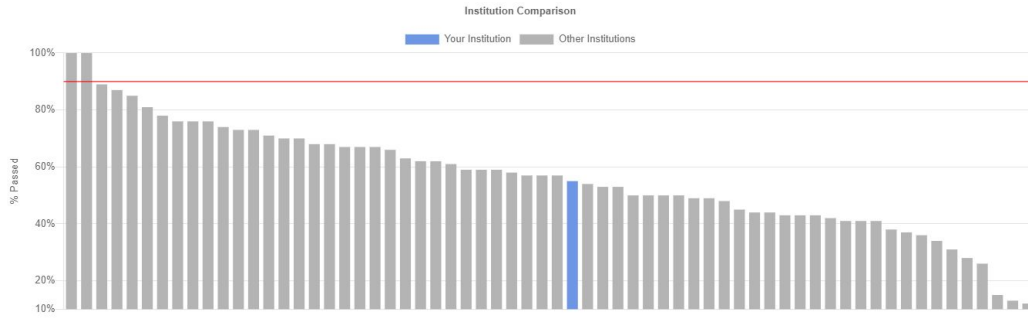
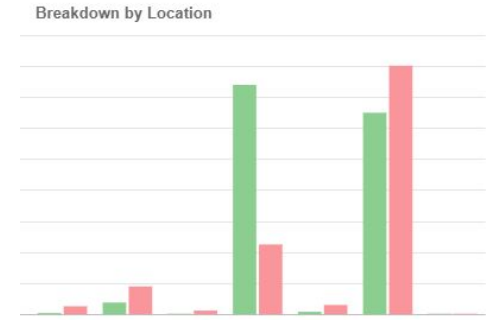
Next

Next Steps

What modifications would be helpful in Data Direct?

Are there additional visualizations/filters that would be helpful in QI Reporting?

In general, are there additional reporting needs that MPOG could meet?





Thank You!



GLU 05 Update

GLU 05 Update

- Percentage of cases with a blood glucose >200 mg/dL with documentation of insulin treatment
- Previously identified issue: Inappropriate flagging of cases where subcutaneous insulin administered, glucose recheck > 200 mg/dL, but no additional insulin sq given within 90 minutes because still within the 2-3 hour window of peak insulin effect

Updates

- Insulin administrations within 90 minutes after high glucose value -> PASS
- If not treated, measure will assess if insulin sq was administered within 180 minutes prior to high glucose value
 - If yes, will 'ignore' that value
 - If no, then case will be flagged
- Only applies if MPOG is receiving insulin administration data at least 4 hours before anesthesia start (ie preop holding)
- These updates will improve measure scores to reflect treatment of hyperglycemia. However, there may still be gaps in which cases with poor glycemic control are now passed or excluded



**New Measure:
BP 05**

New Measure: BP 05

Percentage of cases where severe hypotension during anesthesia induction (defined as MAP < 55 mmHg) was avoided

Informational Measure Only

Measure Time Period: Induction Start through Induction End

Inclusions: All patients requiring general anesthesia

Exclusions:

- Patients <18 years old
- ASA 6 cases
- Baseline MAP <60 mmHG
- Labor Epidurals / Obstetric Non-Operative Procedures

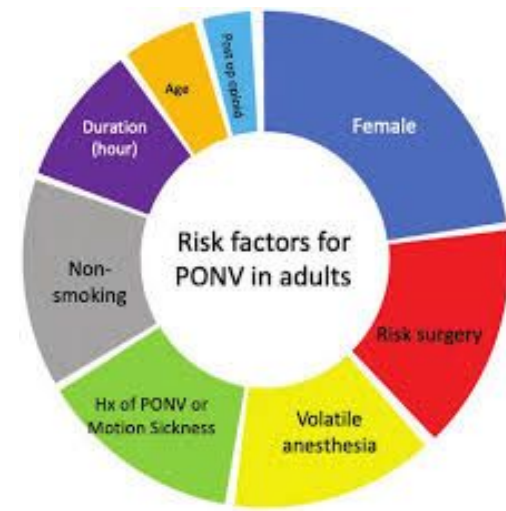
Success Criteria: MAP > 55 mmHG throughout induction time period



**PONV 05
Updates**

PONV 05 Revisions

- New [Adult PONV prophylaxis measure](#) released in January
- Upon review, sites have requested several modifications to PONV 05
- Plan to retire PONV 01/02 once revised version of PONV 05 released



Source: [Fourth Consensus Guidelines for the Management of PONV](#)

Updates In Progress

1. Will now only consider actual CPT codes (not predicted) to assign procedure type risk factors (cholecystectomy, laparoscopy, gynecologic procedures)
2. ERCP (only) procedures will not trigger the cholecystectomy risk factor
3. Amulsipride will be added as an acceptable antiemetic agent

Obstetric Population Updates (per OB Subcommittee)

- Include all cesarean delivery cases, regardless of age
- Adjust measure start time for labor epidural cases that convert to cesarean delivery: Include antiemetics given within 1-2 hours before surgery start time

Amisulpride

- Antidopaminergic - IV formulation recently approved for management of PONV
- In a randomized, double-blind placebo-controlled trial (n=1,147), incidence of PONV significantly lower in the amisulpride group when given with a standard antiemetic ([Kranke et al., 2018, Anesthesiology](#))

Requested revisions pending Quality Committee vote

1. Add procedure exclusions for TEE and endoscopy procedures (even if GA is used)
2. Consider midazolam as an acceptable 'antiemetic'
3. Remove intraop fentanyl as risk factor for PONV (part of the opioids for postoperative pain bucket of risk factors)

Add Procedure Exclusions?

Procedure Type	Cases with PONV	Total Cases	% Cases with PONV	Recommendation
Cholecystectomy (control)	1453	11504	13%	Include
TEE	67	7000	1%	Exclude
Endoscopy	511	16891	3%	Exclude

MPOG Analysis:

806,978 Adult PONV 03b cases (05/2021-10/2021)

Overall PONV incidence: 5%

Fentanyl as a risk factor

- Remove intraop fentanyl as a risk factor for PONV? (only consider other “long-acting” opioids?)
- Or, only include intraop fentanyl administrations if they meet a certain dose threshold for the case?
- Or, do we continue to include fentanyl as a risk factor?

Midazolam

- [4th Consensus PONV Management Guidelines](#) do not recommend midazolam use due to possibility of sedation-related adverse effects.
- Meta-analysis of 12 RCTs (n=841) found administration of IV midazolam to be associated with significantly reduced PONV ([Grant et al, 2016, Anesth & Analg](#))
- No significant difference in PONV between midazolam and ondansetron given 30 minutes before end of surgery ([Lee et al., 2007, Anaesthesia](#))

Poll

1. Should we add a procedure exclusion for TEE?
2. Should we add a procedure exclusion for endoscopy
3. Should we add midazolam as an anti-emetic?
4. How do we handle fentanyl?
 - a. Exclude fentanyl as an intraoperative PONV risk factor
 - b. Include any dose of intraoperative fentanyl as a PONV risk factor (current state)
 - c. Include dose dependent fentanyl as a PONV risk factor (dose TBD)

Add Procedure Exclusions?

Procedure Type	Cases with PONV	Total Cases	% Cases with PONV	Recommendation
Cholecystectomy (control)	1453	11504	13%	Include
ECT	22	2857	1%	Exclude
TEE	67	7000	1%	Exclude
Radiology (CT/MRI/IR only)	333	5029	7%	?
Nerve Blocks	2365	126968	2%	Exclude
Cataracts	1878	17035	11%	Include
Endoscopy	511	16891	3%	Exclude
AV Fistula	79	1978	4%	Exclude
Cystoscopy	1506	269845	6%	?

MPOG Analysis:
806,978
Adult
PONV 03b
cases from
05/2021-
10/2021

Overall
PONV
incidence:
5%

Add Procedure Exclusions?

Procedure Type	Cases with PONV	Total Cases	% Cases with PONV	Recommendation
I&D procedures	192	1673	11%	Include
Lumbar Puncture/Spinal tap/Line placement	6	306	4%	Exclude
Tympanoplasty	76	881	9%	?
Bronchoscopy/Intubation only	6	914	1%	Exclude
Dental Procedures	57	832	7%	?
Dilatation & Curettage (D&C)	173	3211	5%	Exclude
Others to consider?				

**MPOG
Analysis:**
806,978
Adult
PONV 03b
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10/2021

Pediatric Subcommittee

-



Cardiac Subcommittee

Postoperative Nausea & Vomiting QI Toolkit

OVERVIEW: I

RECOMMENDATIONS: PREVENTION & TREATMENT