



ASPIRE Obstetric Anesthesia Subcommittee Meeting

February 15, 2023



Agenda



Announcements



December 2022 Meeting recap



PCRC Overview- Mike Mathis, MPOG Director of Research



QI Story: ABX-01 (Bronson Kalamazoo)



Oxytocin Survey Results



PONV Updates



OB Dashboard tutorial



Announcements

OB Subcommittee Meetings:

- May 24, 2023 1pm EST
- November 15, 2023 1pm EST



December Meeting Recap

- Subcommittee voted to exclude Cesarean Deliveries from TEMP-01 data. This change has been implemented: score changes minimal (-2.2-+5 points).
- Discussed Oxytocin dose ranges at MPOG sites. A survey was sent out to gather information from sites – will share later in meeting.
- Dr. Ashraf Habib and Nicole Zanolli presented the research project on placenta accreta.



Measure Updates

- GA-03-OB – Will likely go live by end of March. The Neuraxial and Obstetric Anesthesia Type phenotypes need revisions before we make this measure public on dashboards.
- TEMP-01- Cesarean deliveries now excluded from this measure.



TEMP 05 Measure review

- TEMP-05 is the first obstetric-specific measure due for review in early 2023.
- We are seeking one or two volunteers from different institutions, to review this measure and associated normothermia literature.
- Reviewers name will be listed on the Measure Spec
- [Template form](#)



Temp-05 - February 15, 2023
Physician reviewing measure
Review Temp-05 Measure Specification by selecting this [link](#)

Review of new literature (last review)

Dr.

Add comments

Appropriateness of rationale

Dr.

Evaluation of inclusion/ exclusion criteria

Dr.

Evaluation of definition of success or flagged cases

Dr.

Other feedback

Dr.

Recommendation for Temp-05

	Dr.
Keep as is: no changes at all	<input type="checkbox"/>
Modify: changes to measure specifications (see below)	<input type="checkbox"/>
Retire: eliminate entirely from dashboard and emails	<input type="checkbox"/>

Summary of recommended modifications (if applicable)

MPOG Research Overview

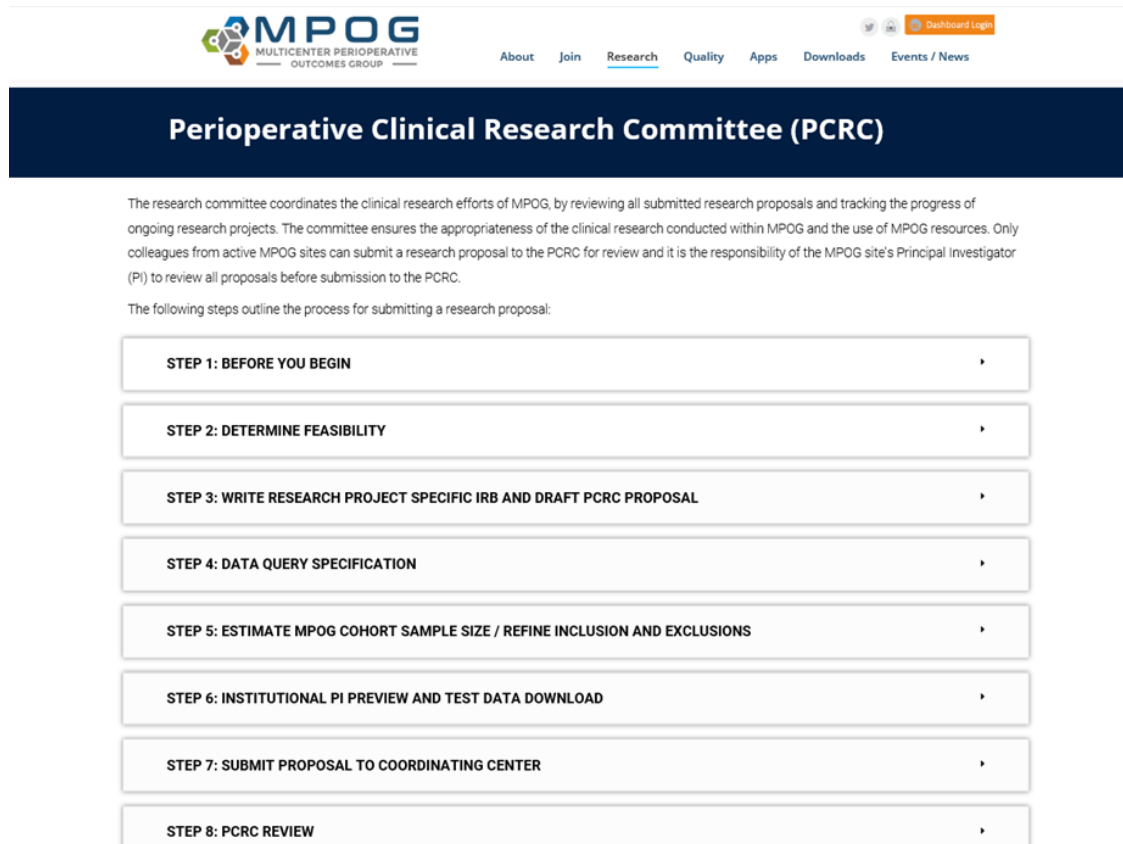


OB-related Research Questions *Answerable* with MPOG:

- Do emergent C-sections tend to follow a diurnal pattern? Are anesthesia practice patterns for emergent daytime C-sections different from emergent nighttime C-sections?
- Does the decision to use a vasopressor infusion for a C-section, mostly depend on the patient's blood pressure, or what hospital the patient went to?
- How is oxytocin dosed and administered during C-sections, and how does this associate with hypotension, tachycardia, and estimated blood loss?
- Do anesthesiologists who commonly do obstetric anesthesia (e.g. >10% of cases are obstetric cases) have better obstetric outcomes than anesthesiologists who don't?
- How are obstetric patients with advanced cardiac disease (e.g. mWHO Class IV "cardio-obstetric" patients) typically managed intraoperatively?



Steps to Developing a Research Proposal



The screenshot shows the MPOG website header with the logo and navigation links: About, Join, Research, Quality, Apps, Downloads, and Events / News. A 'Dashboard Login' button is also visible. Below the header is a dark blue banner with the text 'Perioperative Clinical Research Committee (PCRC)'. The main content area describes the PCRC's role in coordinating clinical research efforts, reviewing proposals, and tracking progress. It mentions that colleagues from active MPOG sites can submit proposals for review and that the MPOG site's Principal Investigator (PI) is responsible for reviewing proposals before submission. The page lists eight steps for submitting a research proposal:

- STEP 1: BEFORE YOU BEGIN
- STEP 2: DETERMINE FEASIBILITY
- STEP 3: WRITE RESEARCH PROJECT SPECIFIC IRB AND DRAFT PCRC PROPOSAL
- STEP 4: DATA QUERY SPECIFICATION
- STEP 5: ESTIMATE MPOG COHORT SAMPLE SIZE / REFINE INCLUSION AND EXCLUSIONS
- STEP 6: INSTITUTIONAL PI PREVIEW AND TEST DATA DOWNLOAD
- STEP 7: SUBMIT PROPOSAL TO COORDINATING CENTER
- STEP 8: PCRC REVIEW

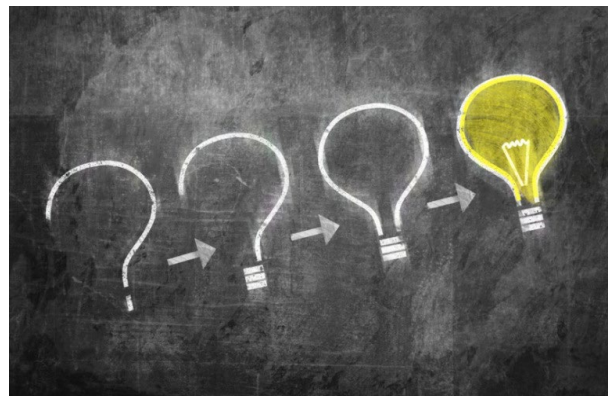
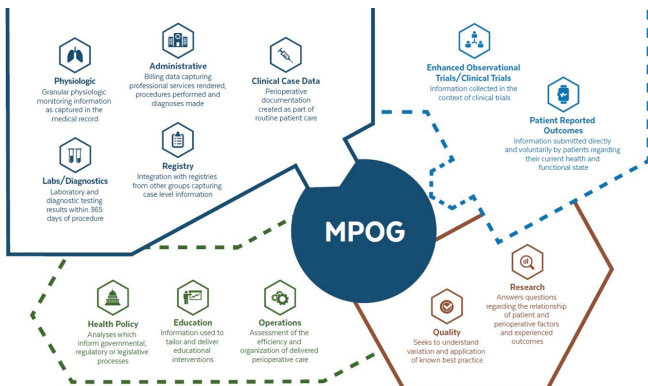
MPOG website -->

Research -->

**"Research Proposal
Process"**



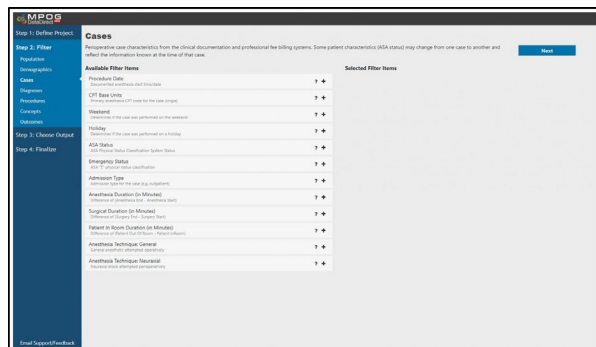
"Tips & Tricks" Research Modules



MPOG website -->

Research -->

"Tips & Tricks"



Standard MPOG Concepts		
Fluids	Labs	Vitals
Meds	Times	Diagnoses
Outputs	Events	Outcomes

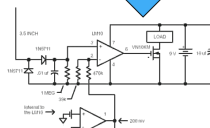
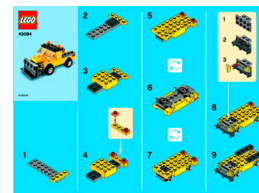


Figure 1: Common pre-amplifier circuit



MPOG Phenotypes

Cardiopulmonary Bypass Used
Anesthesia Technique: General
Oral Morphine Equivalents
Baseline Blood Pressure



Importance of Preparation...

- **Before you begin:**
 - DataDirect Security Checklist and Authorization
 - Tips & Tricks Modules
- **Determine feasibility:**
 - Consult your local MPOG Site PI (Research Champion)
 - Is question answerable with MPOG data?
 - DataDirect for sample size estimates

MPOG Research Consultations



We're committed to your success...

MPOG website -->

Research -->

"Consultation Request"



DataDirect Live Demo

MPOG website --> Tools --> DataDirect: <https://datadirect.mpog.org/>

MP
OG

DataDirect

Step 1: Define Project

Step 2: Filter a Patient Population

Population

Demographics

Cases

Diagnoses

Procedures

Concepts

Outcomes

Laboratories

Quality Measures

Step 3: Select Report Columns

Step 4: Review and Finalize

Email Support/Feedback

Procedures

Perioperative procedures activity identified using Current Procedure Terminology (CPT) codes, professional fee charges, or using free text procedure descriptions.

Next

Available Filter Items

Procedure Type: Adenotonsillectomy

Adenoidectomy, Tonsillectomy, Adenoidectomy, Control of Tonsil Bleed

?

+

Procedure Type: Cardiac (new)

Cardiac Case Type

?

+

Procedure Type: ECT

Electroconvulsive Therapy

?

+

Procedure Type: Endoscopy

EGD/Colonoscopy

?

+

Procedure Type: Liver Transplant

Liver Transplant

?

+

Procedure Type: Lung Transplant

Lung Transplant

?

+

Procedure Type: MRI

Radiology Procedures

?

+

Procedure Type: Strabismus

Strabismus

?

+

Procedure Type: TEE/Cardioversion

TEE/Cardioversion

?

+

Procedure Type: Tympanoplasty

Tympanoplasty w/Two Mastoidectomy

?

+

Procedure Codes

CPT codes from hospital discharge and professional fee billing

+

Procedure Text

The procedure description as recorded in the schedule

+

Anesthesia CPT - Base Unit Value

Primary anesthesia CPT code for the case (single)

?

+

Procedure Type: IVF

Procedure Type: IVF

?

+

Selected Filter Items

Obstetric Anesthesia Type

Obstetric Anesthesia Type

?

×

Filtered by

☐ No

☒ Conversion (Labor epidural and cesarean delivery combined)

☒ Cesarean Delivery

☐ Labor Epidural

☒ Cesarean Hysterectomy

☐ Obstetric Case, Unable to Determine Type

☐ Conversion (labor epidural portion)

☒ Conversion (cesarean delivery portion)

☒ Conversion (Cesarean Hysterectomy Portion)

Michael Mathis

Logout

Project

OB Anesthesia Test Project

Project ID: 9752

Mode: Cohort Only

Refresh

Filters

Starting Population

Intraoperative Research Standard

20,397,856 cases

90 institutions

Sex

Female

11,164,710 cases

66 institutions

Age

value ≤ 50

5,356,846 cases

66 institutions

Procedure Date

01/01/2015 ≤ date

4,224,571 cases

65 institutions

ASA Status

ASA Class 1

4,217,466 cases

65 institutions

ASA Class 2

ASA Class 3

ASA Class 4

Obstetric Anesthesia Type

Conversion (labor epidural and cesarean delivery combined)

Cesarean Delivery

Cesarean Hysterectomy

Conversion (cesarean delivery portion)

Conversion (Cesarean Hysterectomy Portion)

365,053 cases

60 institutions

MPOG Concepts - General

Keep ANY: 10176

18,170 cases

56 institutions

Rearrange Filters

+ Final Counts by Institution

Status

Ready to Run



Quality Improvement Story: ABX 01

Quality Champion: Brad Berndt, MD

OB Champion: Robert Nicholson IV, MD

ACQR: Denise Schwerin, RN

Bronson Kalamazoo



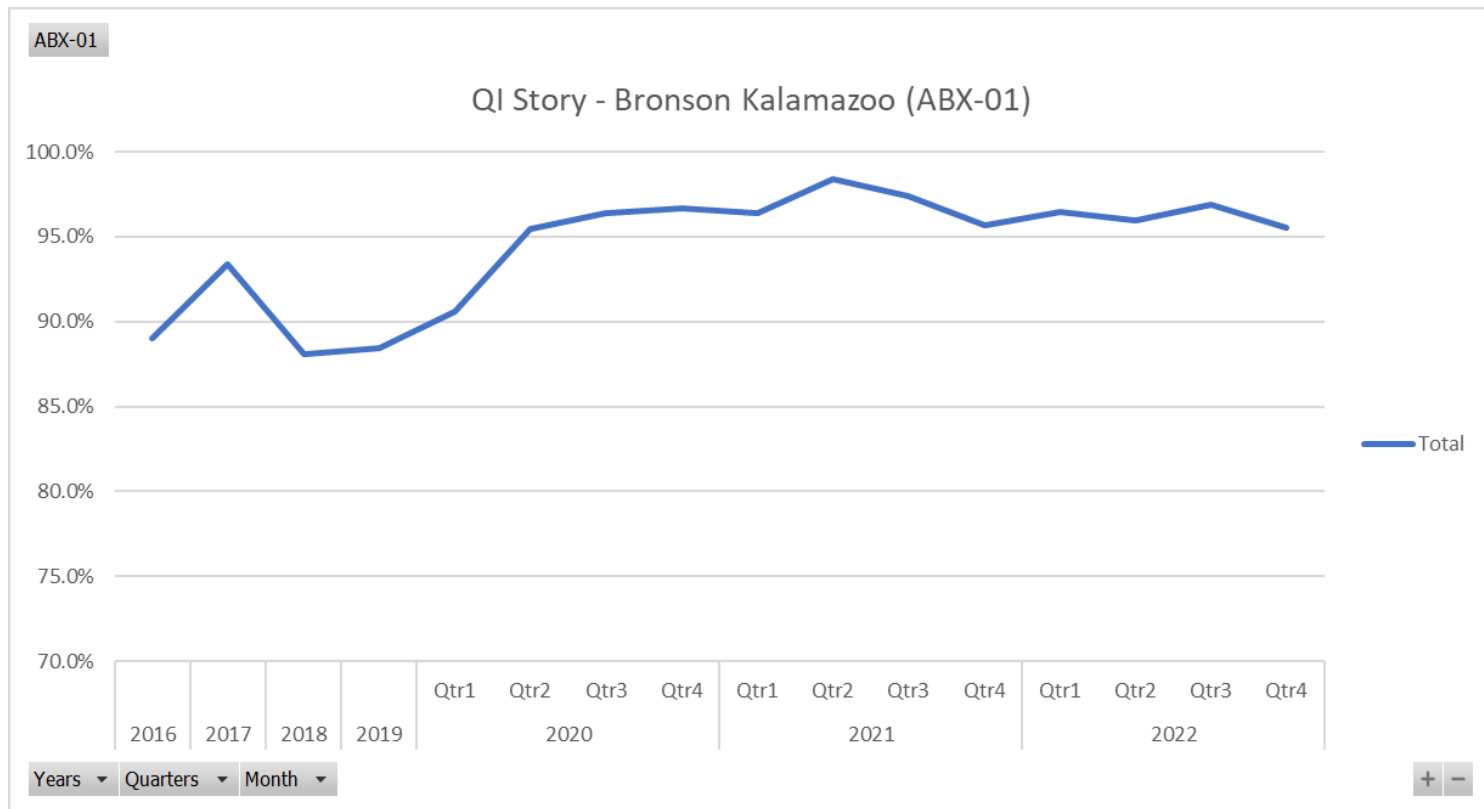


ABX-01

February 15, 2023

Dr. Robert Nicholson, IV
Kalamazoo Anesthesiology

ABX-01



Antibiotics and C-sections

- Collaborative focus
 - L&D Nursing
 - OB Physicians
 - Anesthesia
- Surgeon order sets improved for ease of ordering
- Common antibiotics in Pyxis near L & D OR's
 - Cefazolin
 - Clindamycin
 - Azithromycin



Scheduled C-Section with Spinal

- Anesthesia staff education
 - Administer antibiotics prior to spinal
 - Reminders posted in each L&D OR



C-section After Laboring

- L&D nurse start azithromycin in patient room (ruptured/in labor)
- L&D nurse may also start cefazolin (ex. Urgent case with epidural in place)





Thank you!
bronsonhealth.com

Oxytocin Survey Results

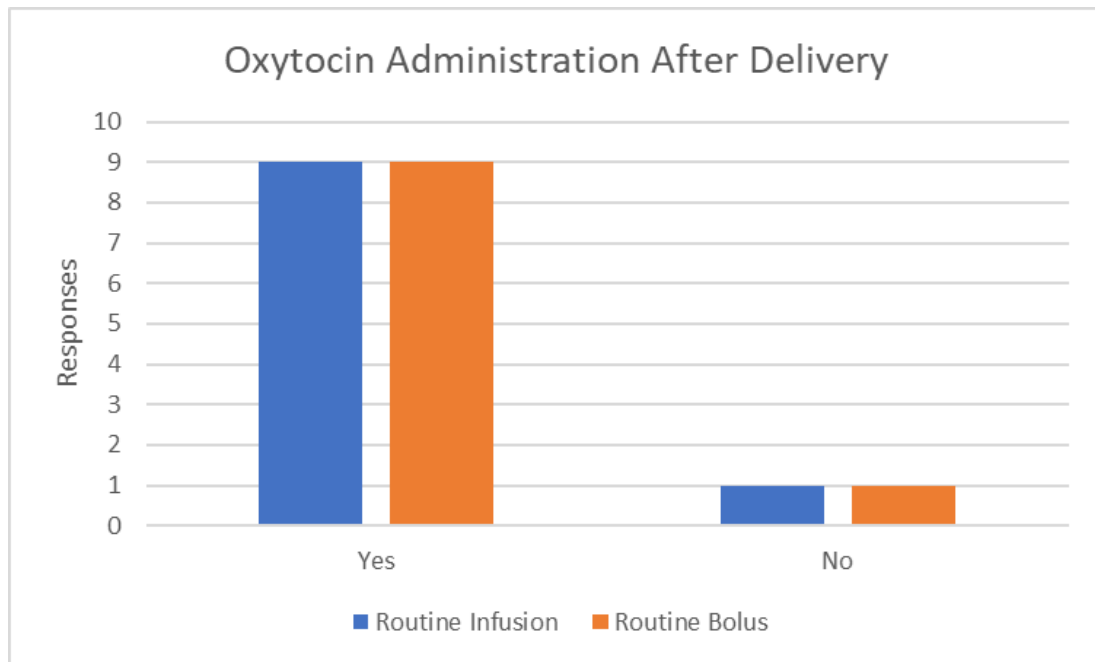


Oxytocin Survey Results

- Survey was posted to the Basecamp forum to 26 participants on Jan 3rd, 2023
- Survey was active for 10 days & received 10 responses.
- Questions focused on oxytocin administration following delivery of neonate: describe bolus dose ranges and infusion amounts as well as duration of infusions following labor.
- Asked the group to share policies related to oxytocin administration at their site.
- Requested any additional topics for subcommittee to discuss throughout the year.



Oxytocin Survey Results

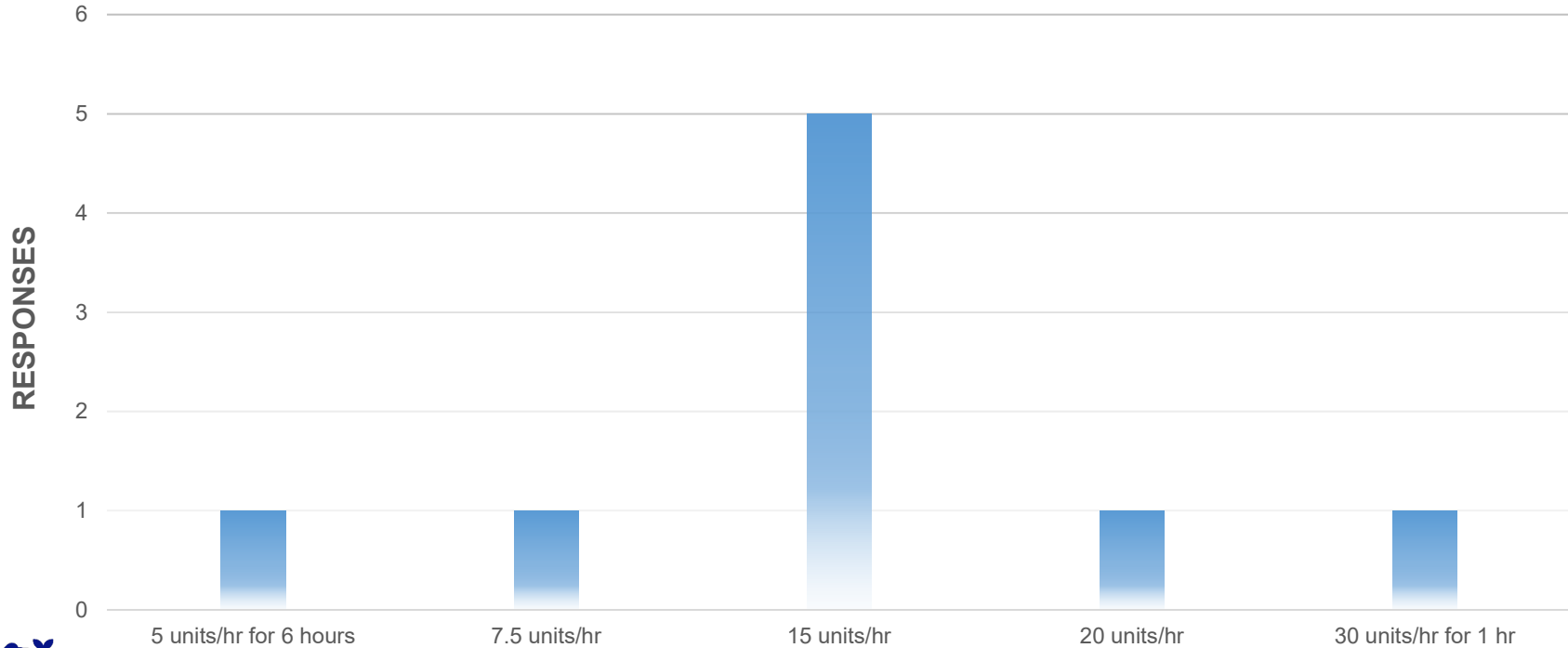


Bolus dosage ranged from 1-3 units after delivery.

One site reported 30 units – ‘wide open, after cord clamped.’



Oxytocin Infusion Following Delivery



PACU Rate and Duration

3.72 units/hr for 4 hrs	1
4.8 units/ hr x 2 hours	1
5 units/hr	1
7.5 units/hr	1
10-15 units/hr	1
15 units/hr x 4 hrs	1
30 units over 4 hours	1
30 Unit bag over 30 min	1
30 units/hr for 1 hr then 3.6 units/hr x 1hr	1



Discussion

- How is success of the infusion measured? Uterine tone grading?
- Is there opportunity to standardize oxytocin infusion rates across sites? Has anyone experienced adverse effects from oxytocin infusion in their patients?
- Other data the group would be interested in?



Future topics

- Topics the OB Subcommittee would like to discuss in 2023 per January 2023 OB Subcommittee Survey:
 - NPO for labor epidural (not possible with MPOG data)
 - Reducing the wet tap rate (not possible with MPOG data)
 - Chloroprocaine spinals for short OB procedures (Can send out survey if interested)
 - Epidural monitoring and labor analgesia (not possible with MPOG data)
 - BMI Stratification across sites
 - Transfusion and EBL

*Any other topics or suggestions please reach out to Monica Servin or Nicole Barrios, and we will add these to our agenda. All suggestions welcome!



Postoperative Nausea and Vomiting (PONV)

ASPIRE Measures



Basecamp Discussion – Jan 2023

- Question posted to Basecamp regarding data on the use of two agents for preventing PONV during a cesarean delivery.
- Question also raised at previous meetings via chat in Zoom meetings.
- Information presented during February 2022 meeting.



PONV 05

- For cesarean delivery cases only: At least two prophylactic pharmacologic antiemetic agents from different classes preoperatively or intraoperatively (per SOAP ERAS 2021 guidelines)
- Excludes labor epidurals
- PONV Risk factors not considered for cesarean delivery patients
- Measure time period for cesarean delivery cases: 4 hours before [cesarean delivery start time](#) to [PACU Start](#) (Cesarean conversion cases are determined using the [Obstetric Anesthesia Type phenotype](#) value codes 1, 7, & 8)

*1- Conversion (Labor epidural and cesarean delivery combined),

7- Conversion (Cesarean delivery portion),

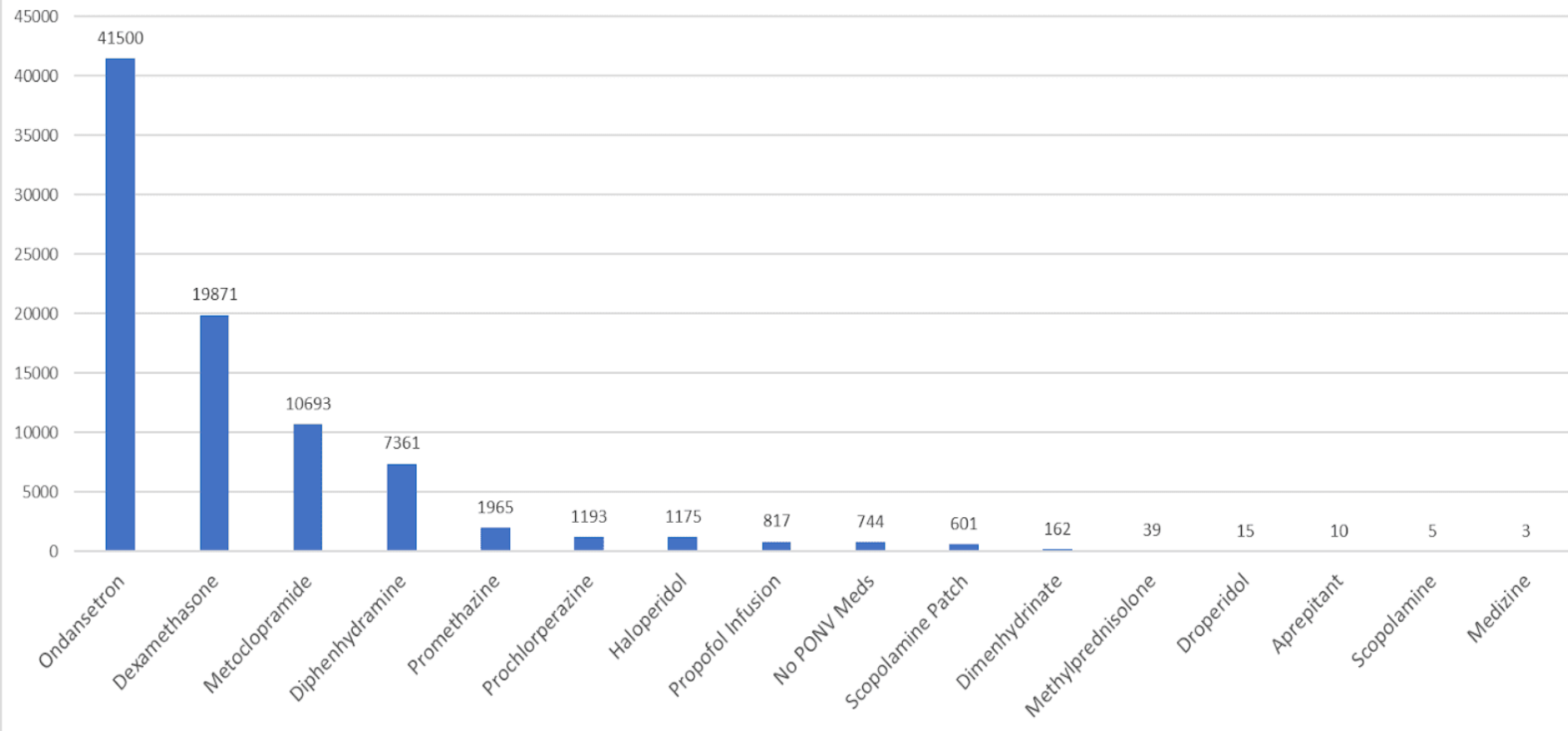
8- Conversion (Cesarean hysterectomy portion)



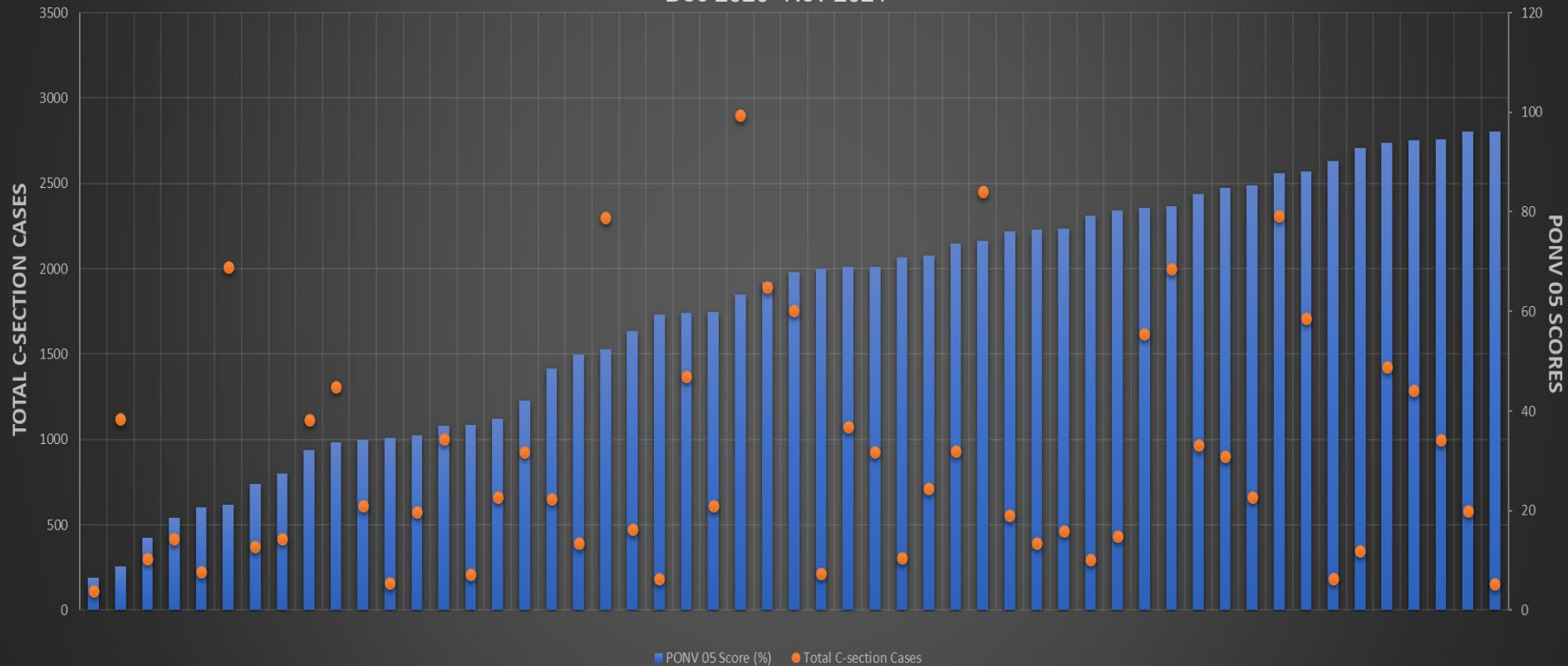
Antiemetic Administration (by medication) - Cesarean Delivery Cases

December 2020-November 2021

Total Cases: 46,580



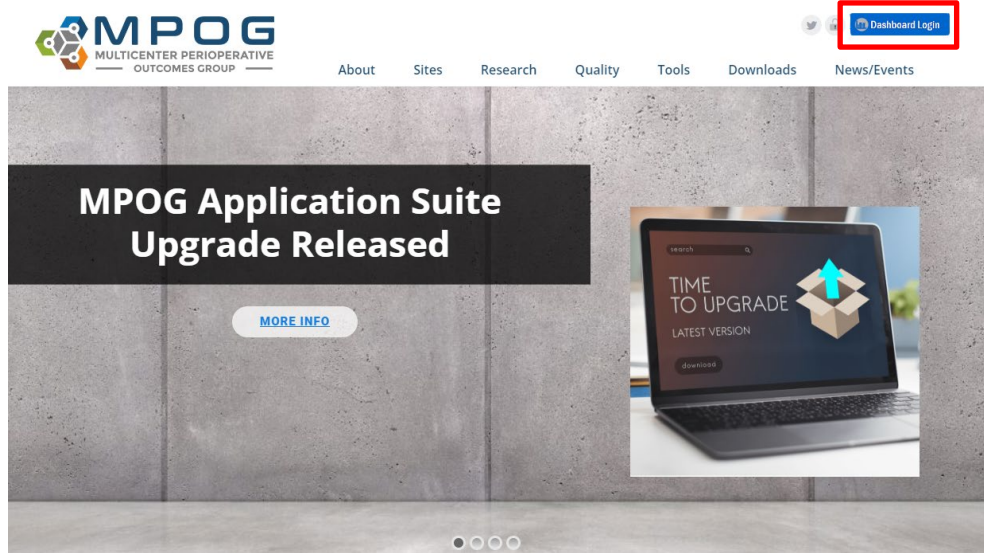
PONV 05 Performance by Site
Cesarean Delivery Cases Only
Dec 2020- Nov 2021



Quality Dashboard Tutorial



MPOG Quality Dashboard Tutorial



MPOG
MULTICENTER PERIOPERATIVE
OUTCOMES GROUP

Login to MPOG

Log in with your username and password below.

Login

[Forgot your password?](#)

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HEALTHCARE TECHNOLOGY

- From the <https://mpog.org> home screen, select dashboard login.
- Enter credentials on next page:
 - Username: Your institutional email address
 - Password: Created by user when account was established – use forgot password button if needed.



MPOG Dashboard

Once you see the dashboard view, select the dropdown highlighted above and filter for Obstetric.

MPOG Reporting

Entity
University of Michigan Health - Ann Arbor

Time Period
Past 12 Months

Specialty Population
Obstetric

Additional Filters
+ Location
+ Patient Age

Personal Performance
Monica Servin (University of Michigan Health - Ann Arbor)

Your Groups
University of Michigan Health - Ann Arbor

Other

Find a Provider

Search for a provider

Dashboards ▾ Measure Summary ▾ Provider List ▾ Case List ▾

Site Selected Measures

- All Measures
- Pediatric
- Obstetric
- Cardiac
- Opioid Equivalence
- Sustainability



Dashboard Con't - Live Demonstration



- The performance metrics for OB cases will be shown on your dashboard.
- You can toggle between dashboard views as you like!



THANK YOU!

Monica Servin, MD

MPOG Obstetric Anesthesia
Subcommittee Chair

monicar@med.umich.edu

Nicole Barrios MHA, BSN-RN

Obstetric Anesthesia Subcommittee Lead

nicbarri@med.umich.edu



GA-03-OB Specification: DRAFT

Description:

Percentage of cesarean delivery cases converted to general anesthesia after epidural

- GA-03b-OB: Percentage of cesarean delivery cases converted to general anesthesia after combined spinal epidural

Inclusion:

Cesarean delivery cases with epidural anesthesia administered

- GA-03b-OB: Cesarean delivery cases with combined spinal epidural

Exclusion:

- Cesarean Hysterectomies as determined by the “Obstetric Anesthesia Type” Phenotype.
- Non-cesarean delivery cases, including labor epidural only cases
- Cesarean delivery cases without epidural placement (or CSE for GA-03b)



Review of Existing General Anesthesia Measures for Cesarean Delivery

- ❖ GA-01-OB: Percentage of cesarean delivery cases where GA was used
- ❖ GA-02-OB: Percentage of cesarean delivery cases where GA was administered after neuraxial anesthesia
- ❖ GA-03-OB: Percentage of cesarean delivery cases converted to general anesthesia after epidural
- ❖ GA-03b-OB: Percentage of cesarean delivery cases converted to general anesthesia after combined spinal epidural

