

MPOG Pediatric Subcommittee Meeting

February 17, 2021



Agenda

5 minutes	Announcements
5 minutes	Multimodal Analgesia (PAIN-01)
10 minutes	MPOG Pediatrics: 2021 Plans
40 minutes	PONV Prophylaxis (PONV-02) <i>Measure Review and Discussion</i>

2021 MPOG Meetings

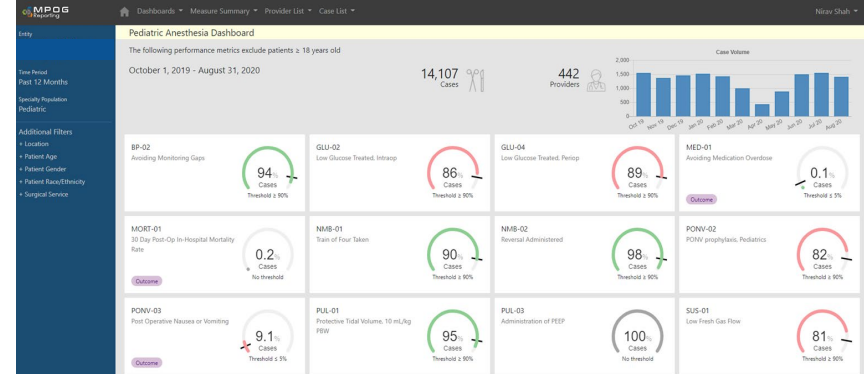
- **Pediatric Subcommittee Meetings**
 - February 17
 - May 19
 - August 18
 - December 15
- **MPOG Annual Retreat 2021**
 - October 8 (San Diego, CA)



2020 Recap

- Pediatric Measure Build x4
 - Intraoperative Hypothermia (TEMP-04)
 - OME (T&A and Spine)
 - Multimodal Analgesia (PAIN-01)
- 150,000+ pediatric cases submitted to MPOG central database

- Pediatric QI Dashboard Released



MPOG Peds Membership

ACTIVE - (Preop → PACU data)

1. Vanderbilt (*Monroe Carell Jr. Children's*)
2. Michigan Medicine (*C.S. Mott Children's*)
3. Washington University (*St. Louis Children's*)
4. Oregon Health & Science University (*Doernbecher Children's*)
5. Yale University (*Yale-New Haven Children's*)
6. University of California San Francisco (*Benioff Children's*)
7. Duke Children's Hospital
8. NYU-Langone (*Hassenfeld Children's Hospital*)
9. Massachusetts General (*MassGeneral Hospital for Children*)
10. MD Anderson (*Children's Cancer Hospital*)
11. University of Chicago Medicine (*Comer Children's*)
12. Dartmouth (*Children's Hospital at Dartmouth-Hitchcock*)
13. University of Virginia Children's Hospital
14. Beaumont Health (*Beaumont Children's*)
15. Bronson Healthcare Group

ACTIVE - (Intraop data Only)

- Oklahoma University
- **2021 Conversions**
 - Weill Cornell University
 - Cleveland Clinic Children's
 - Wake Forest
 - Memorial Sloan Kettering Cancer Center

New Sites Onboarding

- Spectrum Health (*Helen-Devos Children's*)
- Penn State Health
- Boston Children's
- Lucile Packard Children's - application submitted!

PAIN 01 (Peds)

Multimodal Analgesia

New Measure

Description

- Percentage of patients < 18 years old who undergo a surgical or therapeutic procedure and receive a non-opioid adjunct preoperatively or intraoperatively

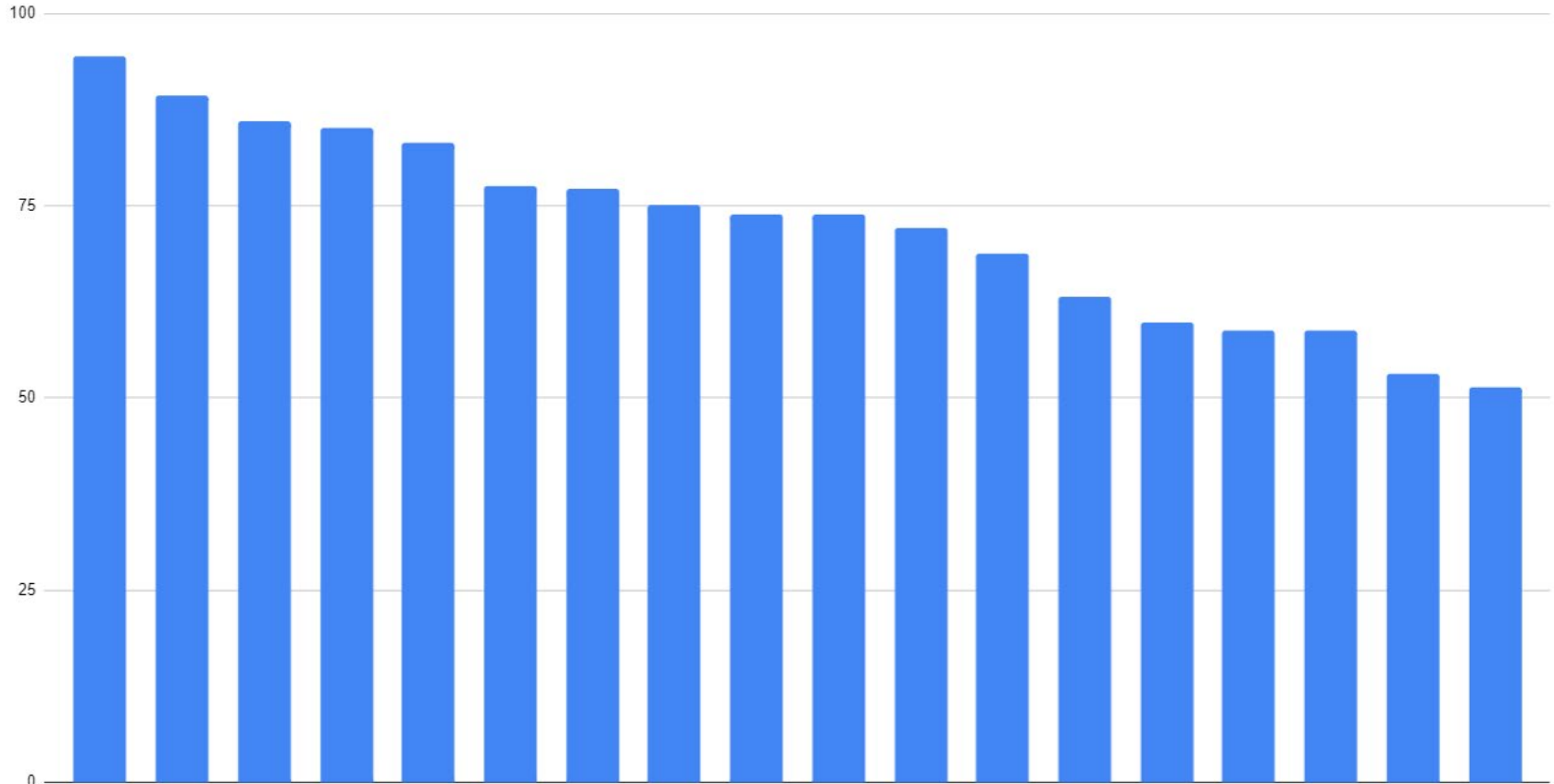
Success

- At least one non-opioid adjunct (medication, regional block, caudal, or epidural) was administered to the patient during the preoperative or intraoperative period.

Exclusions

- ASA 5 and 6
- Cardiac Surgery, Obstetric Procedures, Radiology Procedures, ABR testing, and other non-operative procedures

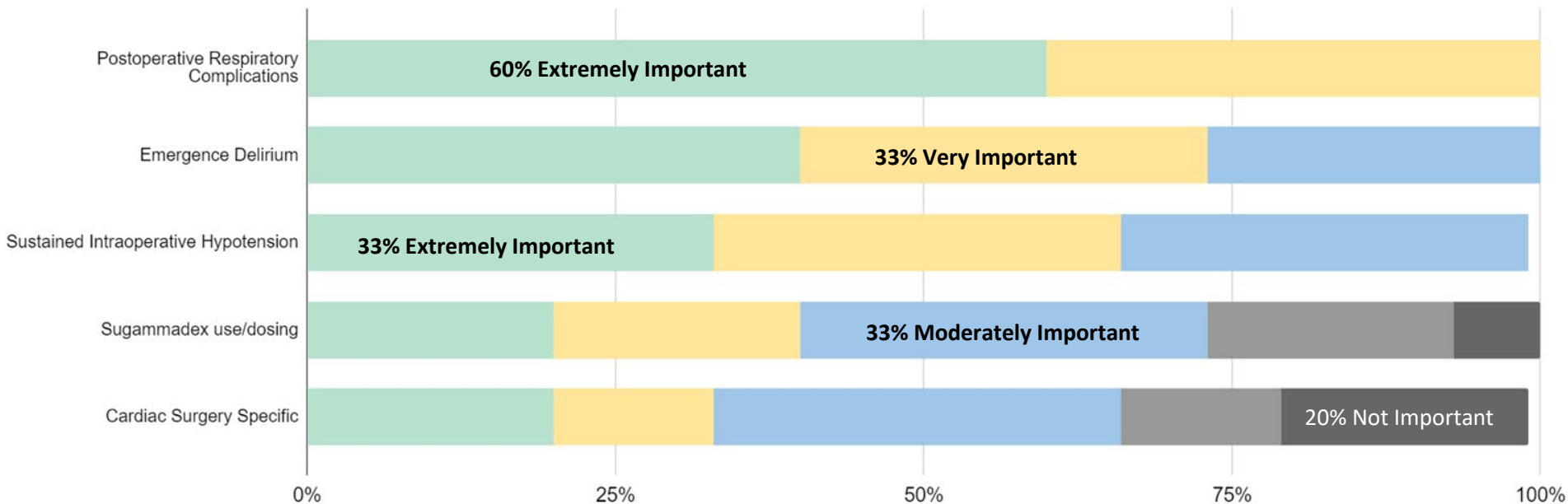
PAIN-01 Performance across MPOG pediatric sites (2020)



2021 Measure Survey

15 responses - Thank You!

2021 Measure Survey Results



2021 Measure Survey Results - 'Write Ins'

Suggestion	Rating	Related MPOG Measures
Temperature Regulation in Infants, Hypothermia (postop)	Extremely important	TEMP 03, TEMP 04
Appropriate monitoring (i.e. documented TOF) and use of any (sugammadex or neostigmine) for reversal)	Extremely important	NMB 01, NMB 02
Postoperative Nausea & Vomiting	Very important	PONV 02, PONV 03
Blood product usage - PRBC and other, blood conservation	Very important	TRAN 02
Use of appropriate handover tools, # of handovers intraop, etc.	Very important	TOC 01, TOC 02, TOC 03
Use of PEEP for all cases when using PPV.	Very important	PUL 03
Hypoglycemia and hyperglycemia prevalence across pediatric surgical patients	Moderately important	GLU 01 - 05



Discussion

Do any of these line up with recent, current, or upcoming QI projects in your department?

2021 Plans

Pediatric Subcommittee Goals - 2021

#1 Review and Modify existing MPOG Measures

- Quality measures should reflect the latest evidence in pediatrics or may be “topped out” and worth retiring if no longer relevant for QI

Measure	Description	Peds Meeting Review
PONV 02 (PEDS)	<i>PONV prophylaxis, Pediatrics</i>	2/17/2021
TRAN 01	<i>Transfusion Management Vigilance</i>	5/19/2021
TRAN 02	<i>Overtransfusion</i>	5/19/2021
NMB 01	<i>Train of Four Taken</i>	8/18/2021
NMB 02	<i>Reversal Administered</i>	8/18/2021
PUL 03	<i>Administration of PEEP</i>	10/9/2021
TOC 01	<i>Intraoperative Transfer of Care</i>	10/9/2021
PUL 01	<i>Protective Tidal Volume, 10 mL/kg PBW</i>	12/15/2021
TEMP 03	<i>Perioperative Hypothermia</i>	12/15/2021

Pediatric Subcommittee Goals - 2021

#2 Add OME dashboard to new reporting tool



#3 Feature presentations on how sites have used pediatric data to do QI or research to spark ideas of new MPOG projects



#4 Have two additional MPOG sites merge NSQIP-peds data



Measure Review

PONV Prophylaxis in Children (PONV-02)

PONV 02 - Released March, 2018

Description

- Percentage of pediatric patients 3 - 17yo with \geq two risk factors for postoperative vomiting (POV), and receive antiemetic combination therapy.

Success

- Patient receives at least two prophylactic pharmacologic antiemetic agents of different classes preoperatively or intraoperatively

Attribution: Provider(s) signed in at Induction End. If not available then,

1. Induction Begin
2. Procedure Start
3. Patient in Room
4. Anesthesia Start

PONV 02 - Current Specification

Inclusion Criteria

- Patients ages 3-17 years old
- Received an inhalational general anesthetic
- Has ≥ 2 risk factors for POV
 - History of PONV
 - Strabismus surgery
 - Surgery ≥ 30 minutes

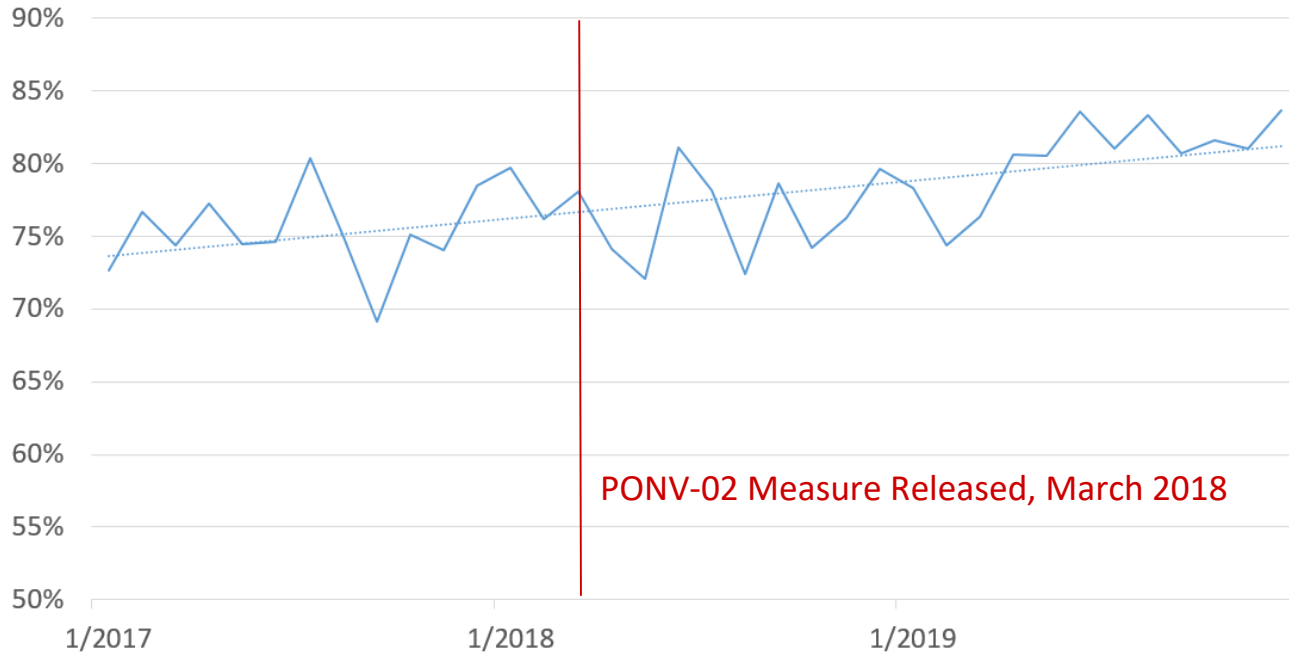
Exclusion Criteria

- Patients < 3 or > 17 years old.
- Patients transferred directly \rightarrow ICU
- Liver Transplants
- Lung Transplants
- Procedures on the Neck
- Intrathoracic Procedures
- Procedures on the Lower Abdomen
- Obstetric Procedures & Labor
- Epidurals
- Endoscopy
- Obturator neurectomy
- Shoulder cast application

PONV Prophylaxis vs. Outcomes

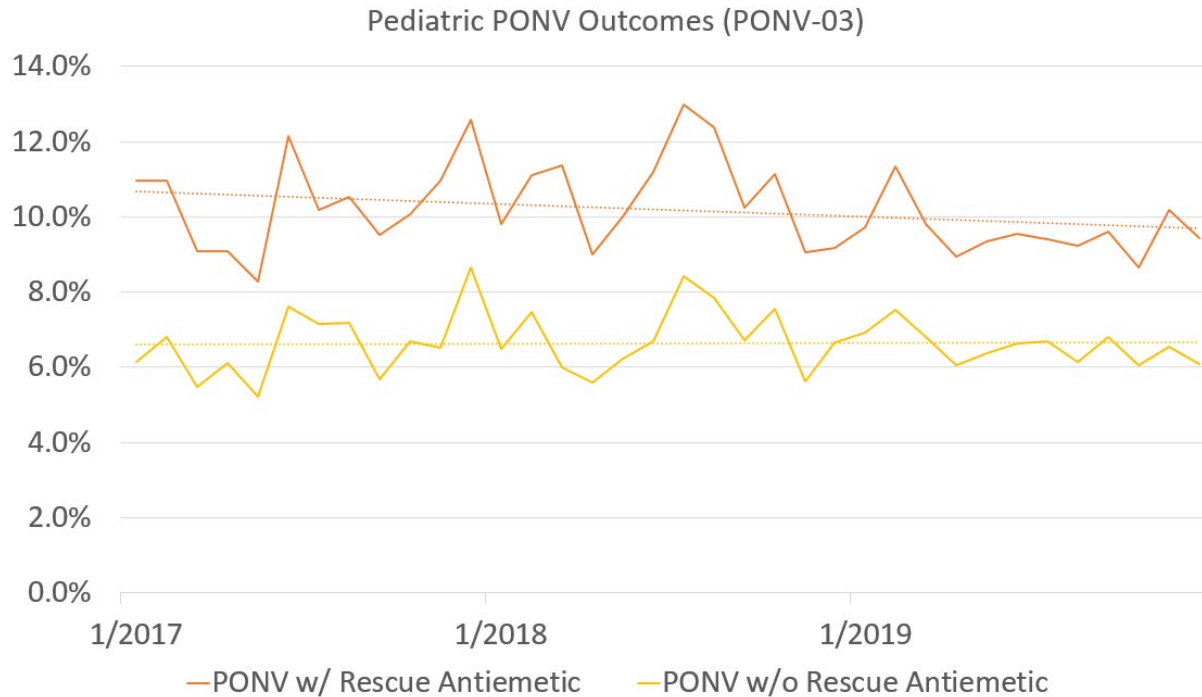
A Single Center QI Report....

Antiemetic Prophylaxis Measure (PONV-02) Compliance



PONV Prophylaxis Compliance

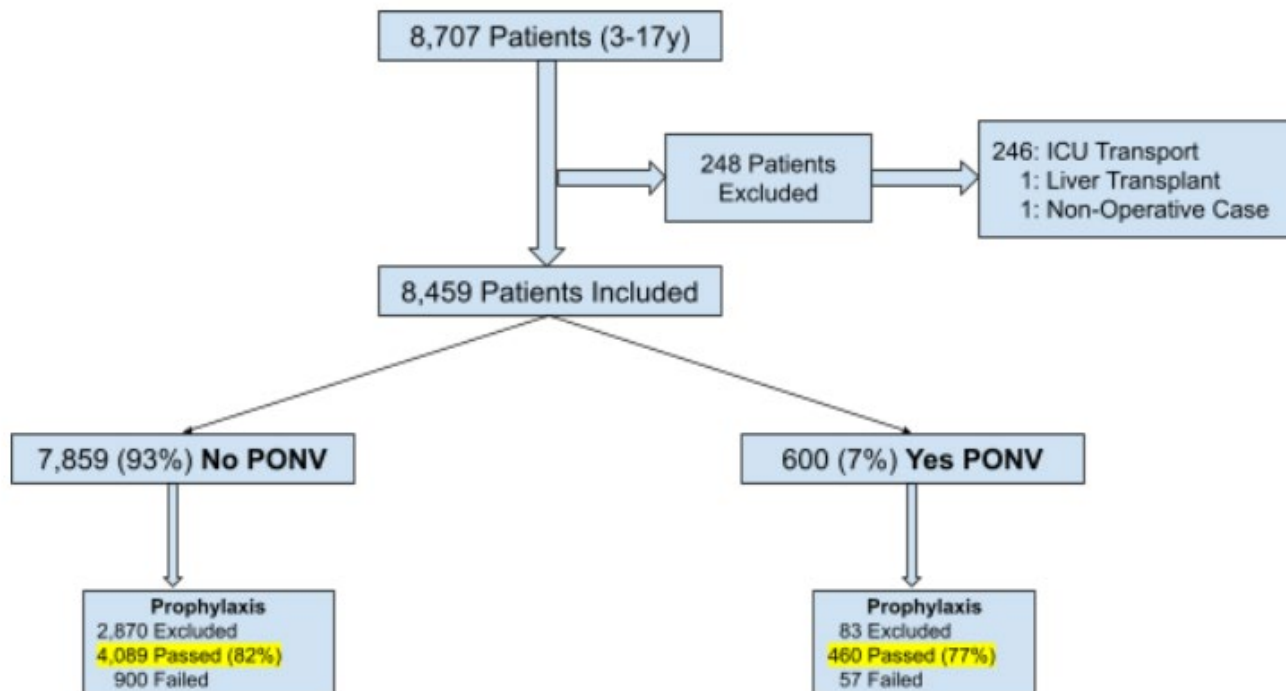
Antiemetic prophylaxis compliance and PONV outcomes were analyzed for **22,121 pediatric patients** from 2017 to 2020. Baseline compliance of PONV-02 was 76%. Following release of the PONV 02 quality measure in March 2018, rates of PONV-02 compliance steadily increased to 84% by December 2019.



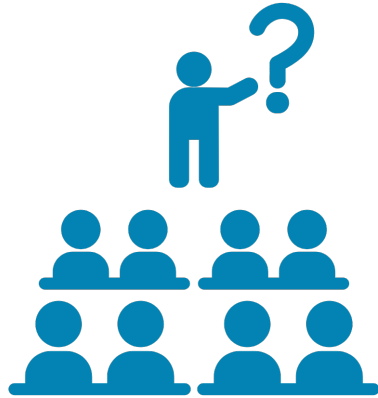
PONV Outcomes

Baseline rate of PONV outcomes was 6.5% in January 2017. Despite an increase in prophylactic compliance, the average percentage of **patients who reported nausea or vomiting in the recovery room remained at 6%**. There was a slight decrease in the percentage of patients who received a rescue antiemetic after surgery (1.6%)



Similar outcomes in 2020...



Where do we go from here...



Proposed Risk Factors

<u>Preoperative</u>		<u>Intraoperative</u>	1 RISK FACTORS
<ul style="list-style-type: none">• Age \geq 3 years• History of POV/PONV/motion sickness• Family history of POV/PONV• Post-pubertal female		<ul style="list-style-type: none">• Strabismus surgery• Adenotonsillectomy• Otoplasty• Surgery \geq 30 mins• Volatile anesthetics• Anticholinesterases	<u>Postoperative</u> <ul style="list-style-type: none">• Long-acting opioids 

- Post-pubertal females ← Defined as age 12y
- Exposure to Volatile Anesthetics ← Include Nitrous
- Hx of PONV (personal or first-degree relative)
- At Risk Surgery
 - Strabismus
 - Adenotonsillectomy
 - Tympanoplasty/Otoplasty
- Anesthetic Duration \geq 30 minutes
- Postoperative Long-acting opioids
 - Administered after Intubation

Denominator

Inclusion Criteria

- Patients 3 - 17 yo
- Has \geq ___ Risk Factors for PONV

Exclusion Criteria

- Patients <3 or >17 yo
- ASA 5 or 6
- Labor Epidural Cases
- Direct ICU Transport  Exclude all patients who remained intubated?



Numerator



[Gan et al, 2020](#)

Success Criteria

- Should patients with 1 or 2 risk factors receive at least two antiemetic medications?

Antiemetics Considered

Antiemetic MPOG Concept IDs (by class)	
10377	Propofol (Infusion only)
Class: 5-Hydroxytryptamine (5-HT3) Receptor Antagonists	
10335	Ondansetron
10164	Dolasetron
10208	Granisetron
10711	Palonosetron
Anticholinergics	
10400	Scopolamine Patch
10399	Scopolamine
11040	Butylscopolamine
Antihistamines	
10257	Dimenhydrinate
10160	Diphenhydramine
10635	Meclizine
Butyrophenones	
10169	Droperidol
10210	Haloperidol
Neurokinin-1 Receptor Agonists	
10035	Aprepitant
10719	Fosaprepitant
Phenothiazines	
10374	Promethazine
10373	Prochlorperazine
Steroids	
10147	Dexamethasone
10296	Methylprednisolone
Prokinetic	
10297	Metoclopramide

Total threshold vs. infusion only?

PONV Prophylaxis Measure - Next Steps

- We will incorporate your feedback and draft a measure specification
- Build and validate
- Present the new PONV-02 specification at the next Quality Committee meeting on March 22nd





Thank you