Second Annual ACQR Retreat
Ann Arbor, Michigan

September 21, 2018

MPOG
MULTICENTER PERIOPERATIVE OUTCOMES GROUP

General Housekeeping

- Please help yourself to breakfast and a beverage from Panera Bread
- Bathrooms are located down the hall:
  - Follow the signs
  - Please take a break when needed
- Coffee/tea will be provided throughout the day.
- Soda & Water is stocked in the refrigerator
- Lunch from Jerusalem Garden

Morning Agenda

- Introductions/Announcements
- 2019 P4P Cards for all Sites
- MPOG Application Suite Upgrades
- Data Cleaning Tools
- Quality Improvement Stories
  - Bronson Healthcare Group
  - Beaumont Grosse Pointe
  - Holland Hospital
  - SJ Oakland

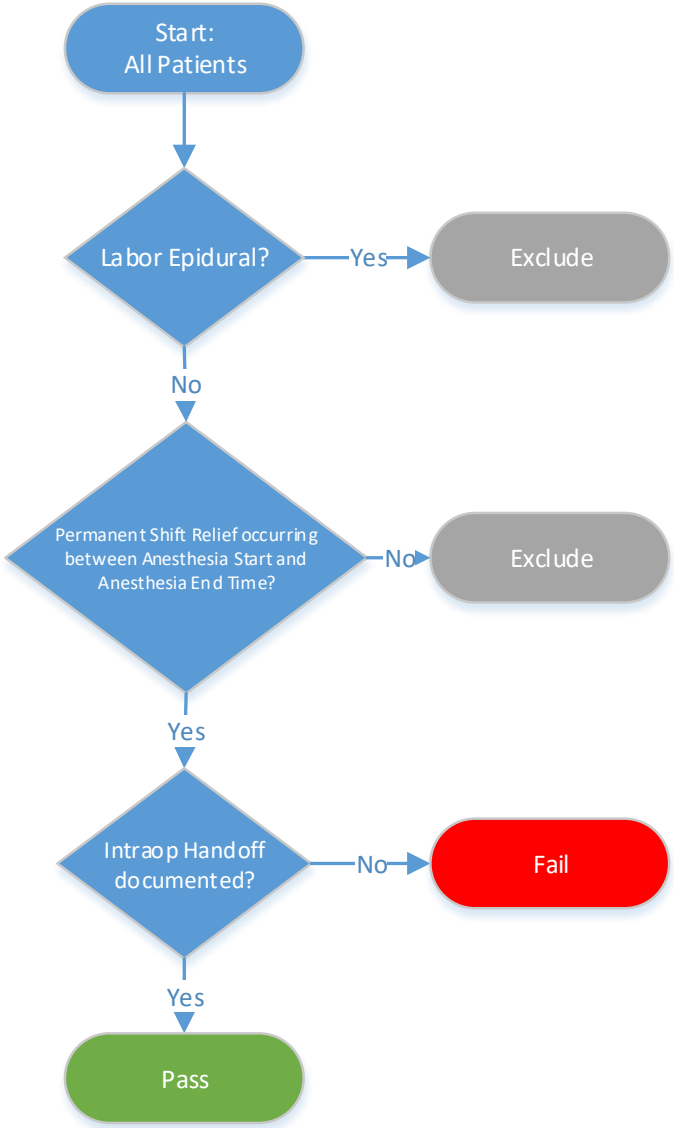
INTRODUCTIONS

Announcements

- Welcome to our Newest ACQRs!
- Import Manager Conversion
- MPOG Retreat in October
  - Achieving the Promise of Digital Health; Dr. Robert Wachter from University of California San Francisco;
  - The Celebrated Call of the P Value: Time for a New paradigm; Dr. Elizabeth Whitlock from University of California San Francisco
  - Best of MPOG Abstracts
  - MPOG QI Update, Dr. Shah from ASPIRE

TOC – 01 Coming Soon!

- ***Success:*** Documentation of intraoperative transfer of care report in the electronic anesthesia record; 5 minutes before to 5 minutes after the staff change
- Only permanent relief (not lunch/coffee/bio breaks)
  - A permanent handoff is defined as:
    - Staff relief for >40 minutes between staff change and Anesthesia End or,
    - Staff change in which the original provider is relieved and does not sign back into the case.
- What do we measure?
  - Only in-room anesthesia provider handoffs (not supervising provider handoffs)
- Responsible provider
  - Both incoming and outgoing providers attributed



2019 P4P Scorecard

New this year:

- Cross Cohort Measure: PUL 02
- TOC 02 PACU Handoff Audits (MQUARK)
- Monthly ACQR/QI Champion Meeting removed

2019 ASPIRE Collaborative Quality Initiative Performance Index Scorecard Cohort 1 - 4 Measurement Period: 01/01/2019 - 12/31/2019			
Measure #	Weight	Measure Description	Points
1	10%	**Collaborative Meeting Participation: ASPIRE Quality Champion and Anesthesiology Clinical Quality Reviewer (ACQR)**	
		Perfect or Nearly Perfect Attendance at Meetings	10
		Good Attendance at Meetings	5
		Attendance Needs Improvement at Meetings	0
2	5%	**Attend Webex ASPIRE Quality Committee Meetings (6 Meetings)**	
		6 Meetings	5
		5 or less Meetings	0
3	5%	**ACQR/ASPIRE Quality Champion perform data validation, case validation and submit data by the third Wednesday of each month for January through November and by the second Wednesday of the month for December**	
		10 - 11/12 Months	5
		9 or Less Months	0
4	10%	**Site Based Quality Meetings: Sites to hold an onsite meeting following the ASPIRE Collaborative meetings to discuss the data and plans for quality improvement**	
		3 Meetings	10
		2 Meetings	5
		1 or less Meetings	0
5	10%	**Sites must perform 10 Transfer-of-Care (TOC) Audits on a Monthly Basis**	
		11 or 12/12 Months	10
		8 - 10/12 Months	5
		7 or less Months	0
6	10%	**Performance Measure: Cross Cohort Measure Pulmonary 02 (PUL 02) - percentage of patients with median tidal volumes less than or equal to 8 ml/kg (cumulative score January 1, 2019 through December 31, 2019)**	
		90% of sites above 75%	10
		Collaborative Score Shows Improvement	5
		No Performance Improvement or Decline	0
7	25%	**Performance Measure: Transfusion 02 (TRAN 02) - percentage of cases with a post transfusion hemoglobin or hematocrit value less than or equal to 10g/dL or 30% (cumulative score January 1, 2019 through December 31, 2019)**	
		Performance is > 85%	25
		Performance is 75 - 85%	15
		Any Improvement	10
		No performance Improvement or Decline	0
8	25%	**Site Directed Measure: Sites choose a measure they are performing below national ASPIRE threshold by December 15, 2018 (cumulative score January 1, 2019 through December 31, 2019)**	
		Performance is > 90%	25
		Performance is 80 - 90%	15
		Any Improvement	10
		No performance improvement / Below 75%	0

MPOG Application Suite: Upgrades & Changes

- MPOG Case Viewer
  - Measure case details are now included in the upper left corner of web version of Case Viewer
- Case Validation
  - Ability to review previous case validations
- Data Diagnostics
  - Can export all diagnostics as an HTML file
- Import Manager Variable Mapping
  - Ability to search for concepts by ID number
  - Can export all mappings as Excel file
  - 'Room Type' and 'Unit of Measurement (Labs)' mapping types will be hidden
- Number of backend changes to fix bugs and improve performance
- Import Manager Assistant
- NSQIP Import modified to accept new file format

MPOG

MPOG Case Viewer Enhancement

Failed Cases

NMB01 Details

Valid Anesthesia Duration	Yes	Included
ASA Class	3	Included
Cardiac Case	No	Included
Extubation	Earliest extubation at 6:16 PM	Included
NMBs Administered	Yes	Included
Provider Signed in at Extubation	Yes	Included
Train of Four Taken	Train of four not rechecked after last NMB administration	Failed

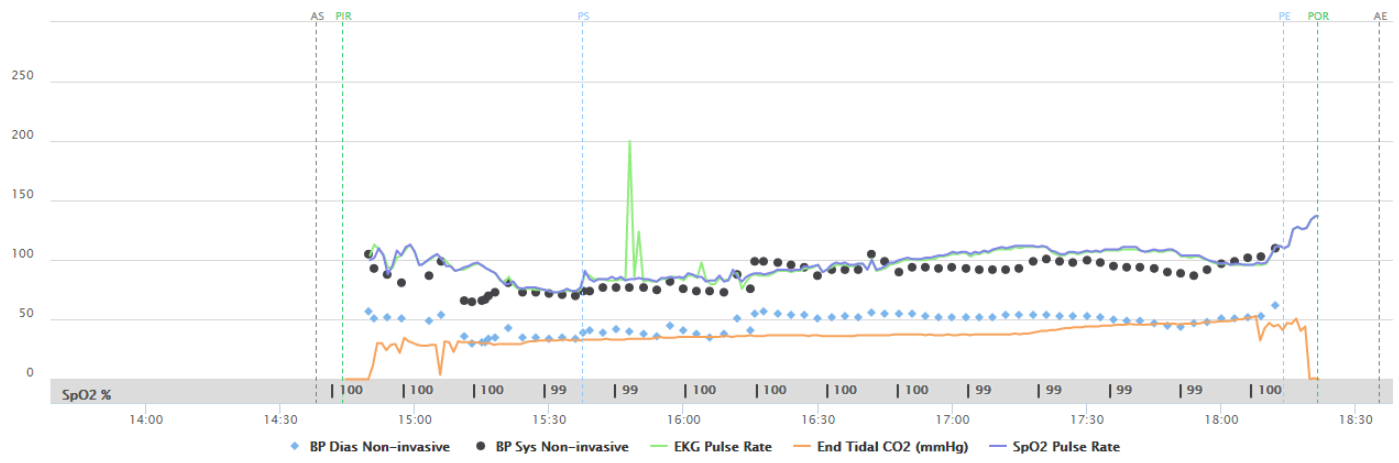
-- Additional Information --

NMB Administration	Cisatracurium administered at 2:51 PM
Train of Four	TOF of 4 at 3:30 PM
NMB Administration	Cisatracurium administered at 3:35 PM
NMB Administration	Cisatracurium administered at 4:25 PM

Intraop Notes

Time	Note
01:16	Patient in Facility
13:42	Assigned PreOp

Cardiovascular



Ventilator

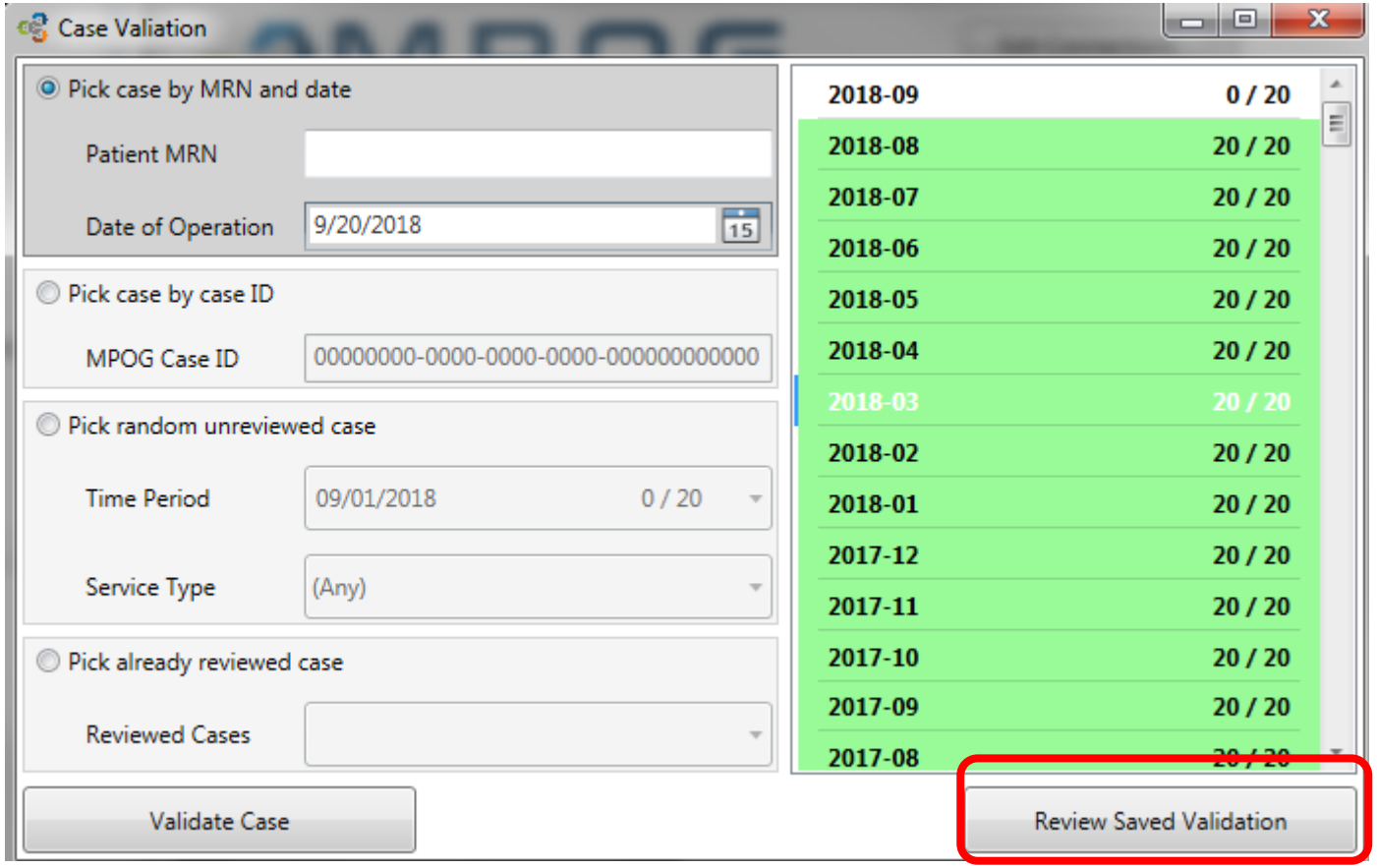
Neuromuscular blockade

Glucose management

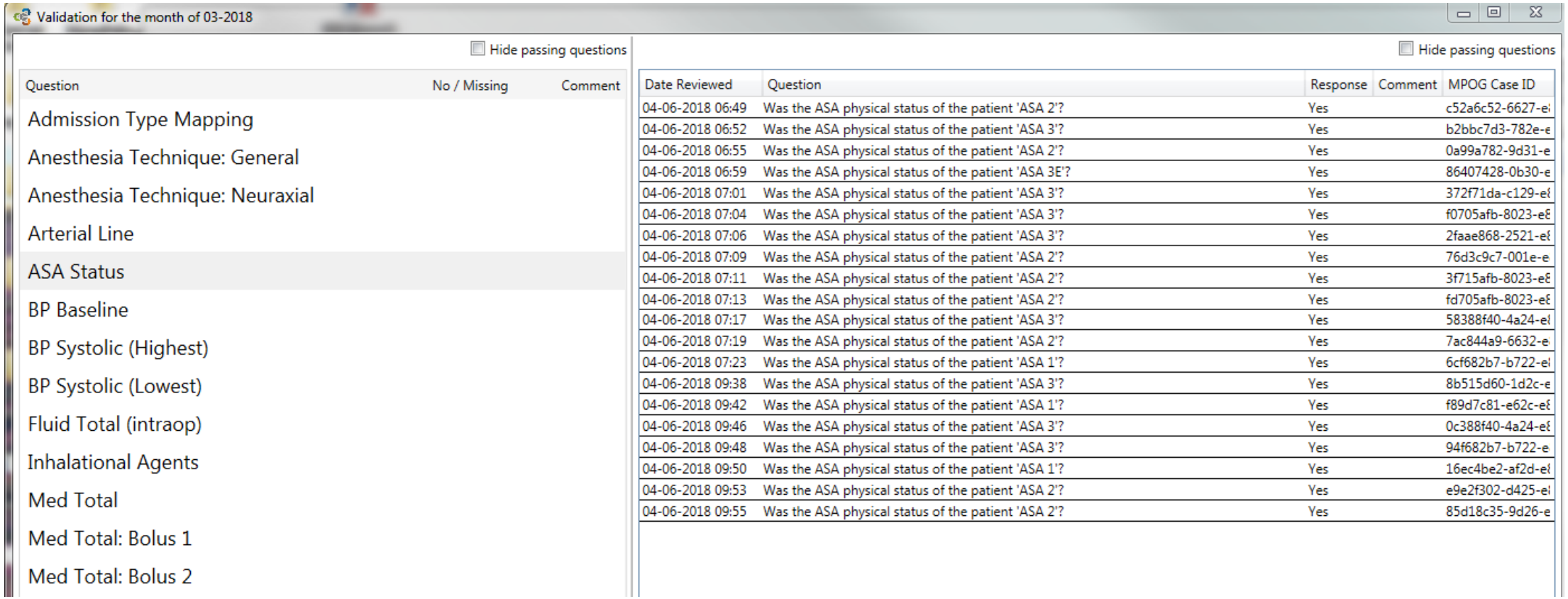
Prophylaxis

MPOG Application Suite Upgrade: Case Validation

- Case Validation: Ability to review previous validations

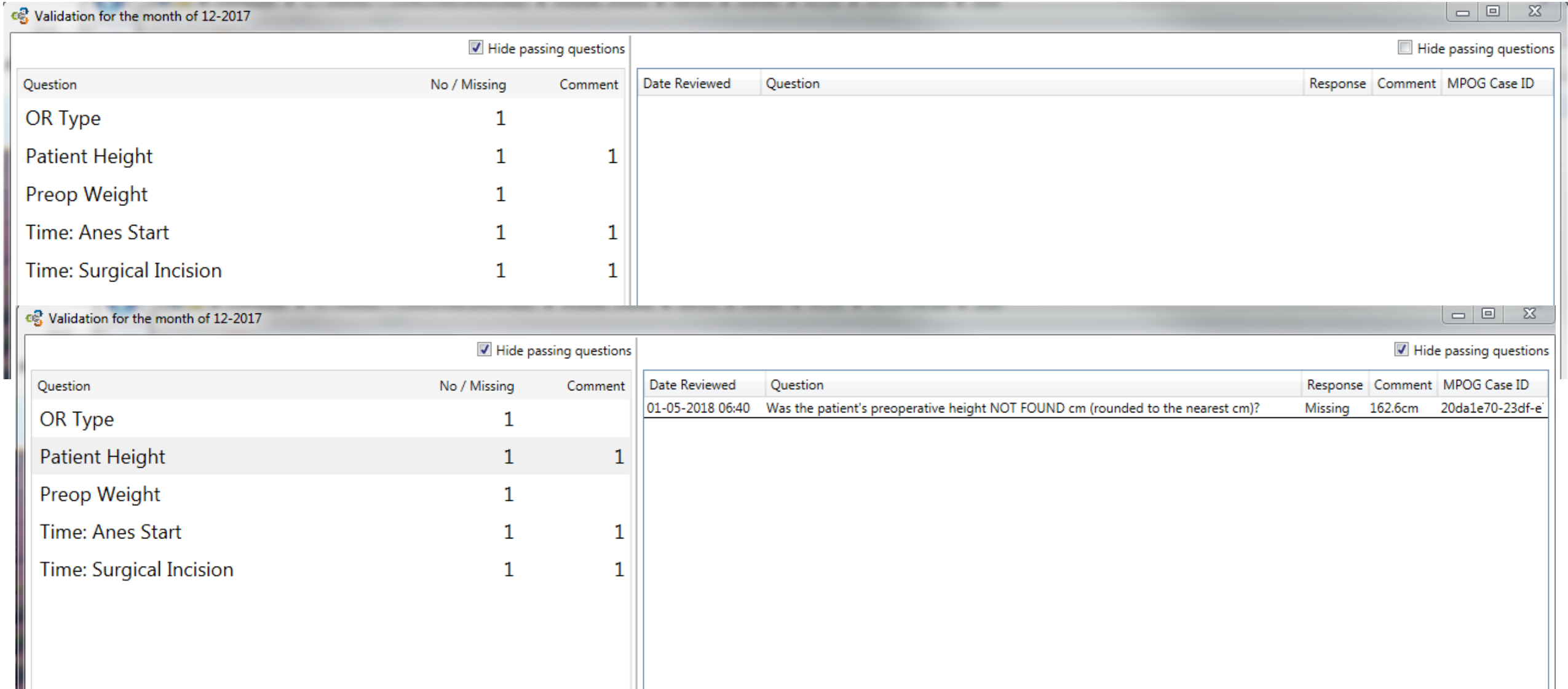


MPOG Application Suite Upgrade: Case Validation

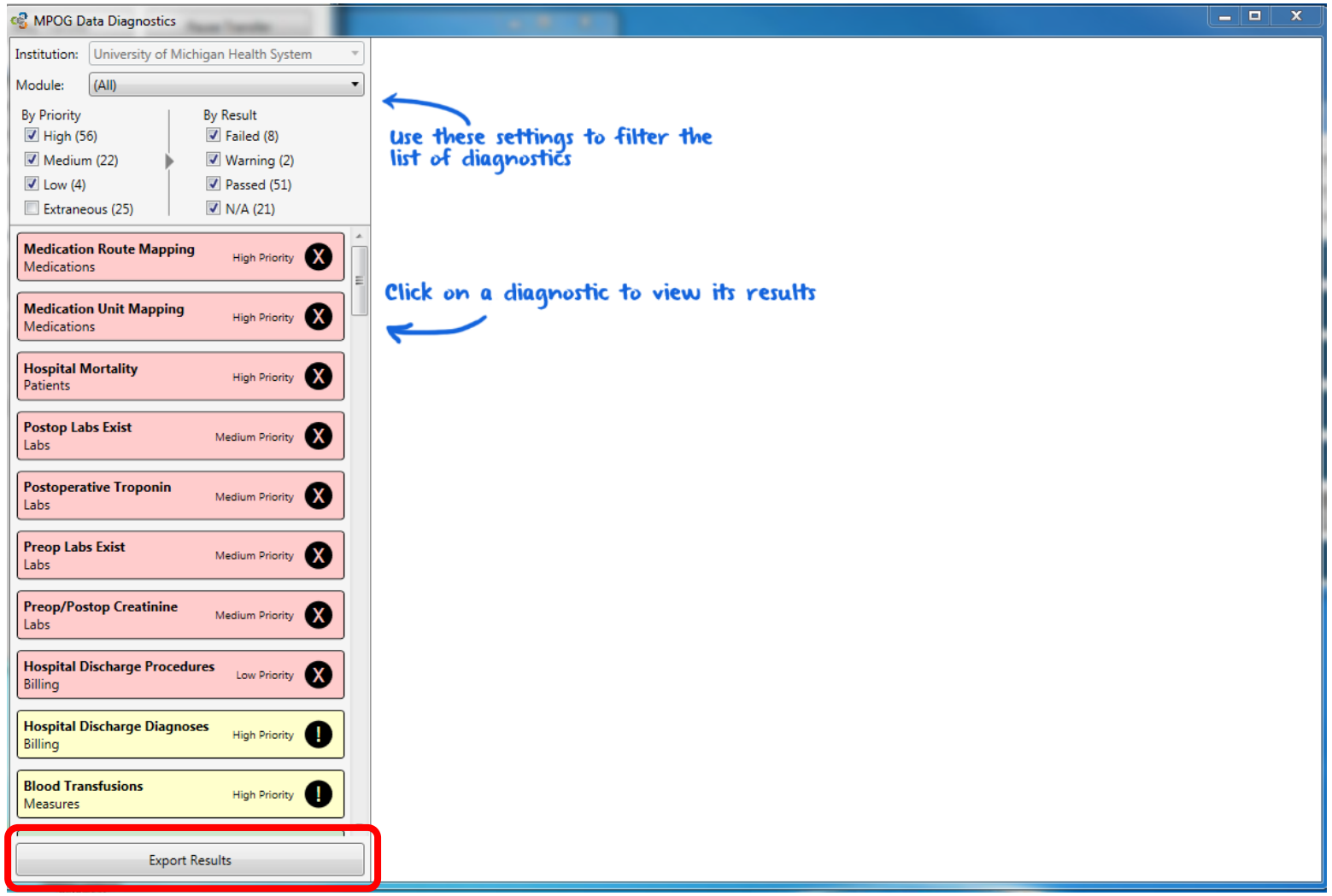


Previous Case Validations

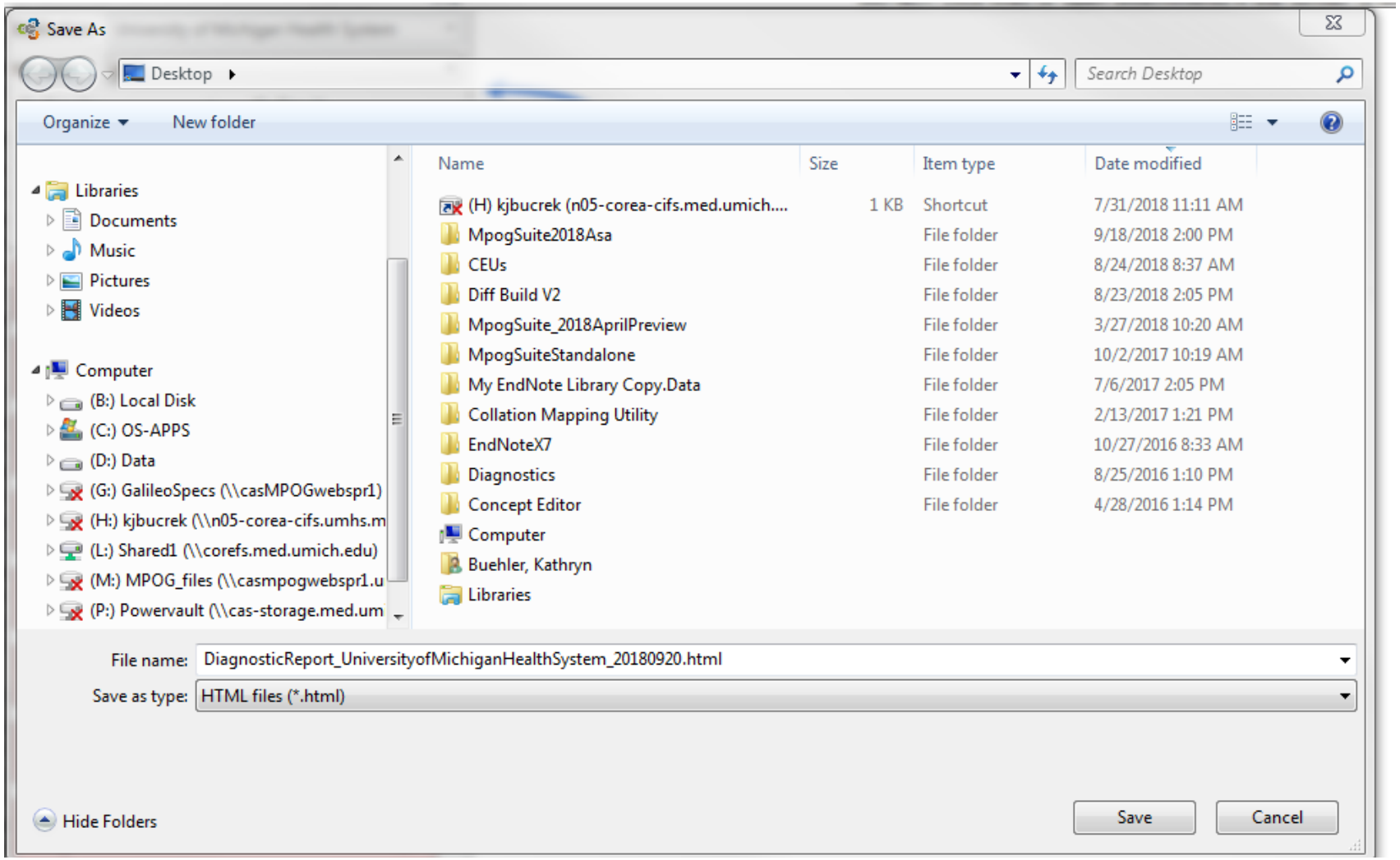
Hide passing questions:



Data Diagnostics: Export all diagnostics as HTML file



Data Diagnostics: How to Export



Data Diagnostics: HTML File

University of Michigan Health System

Report generated on Thursday, September 20, 2018

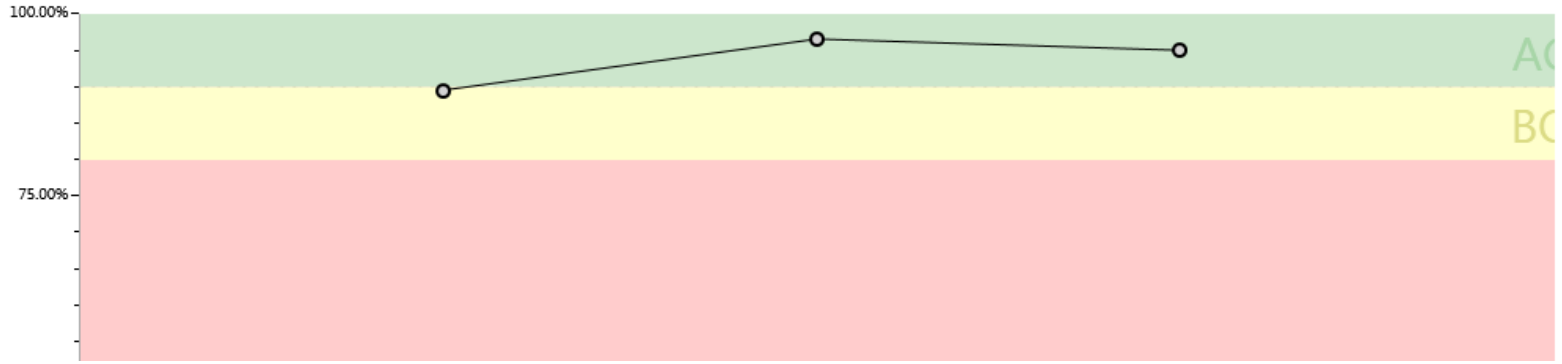
Jump to:

- Billing
- Cases
- Fluids
- Labs
- Measures
- Medications
- Notes
- Outcomes
- Patients
- Physiologic
- Preop
- Staff

Billing

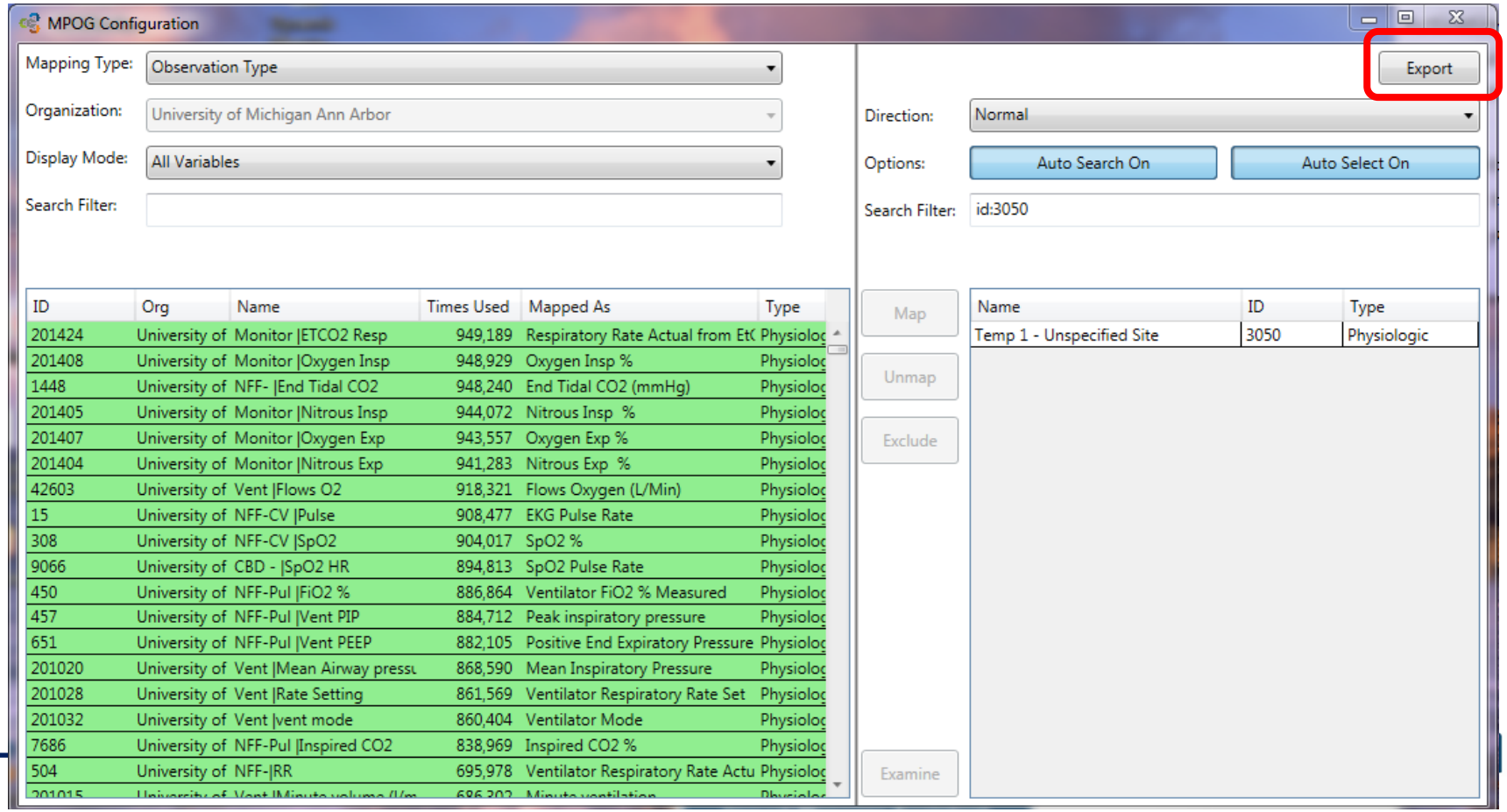
Percentage of Cases with Hospital Discharge Diagnosis Codes

High Priority
Last run: 9/20/2018



Import Manager: Variable Mapping Changes

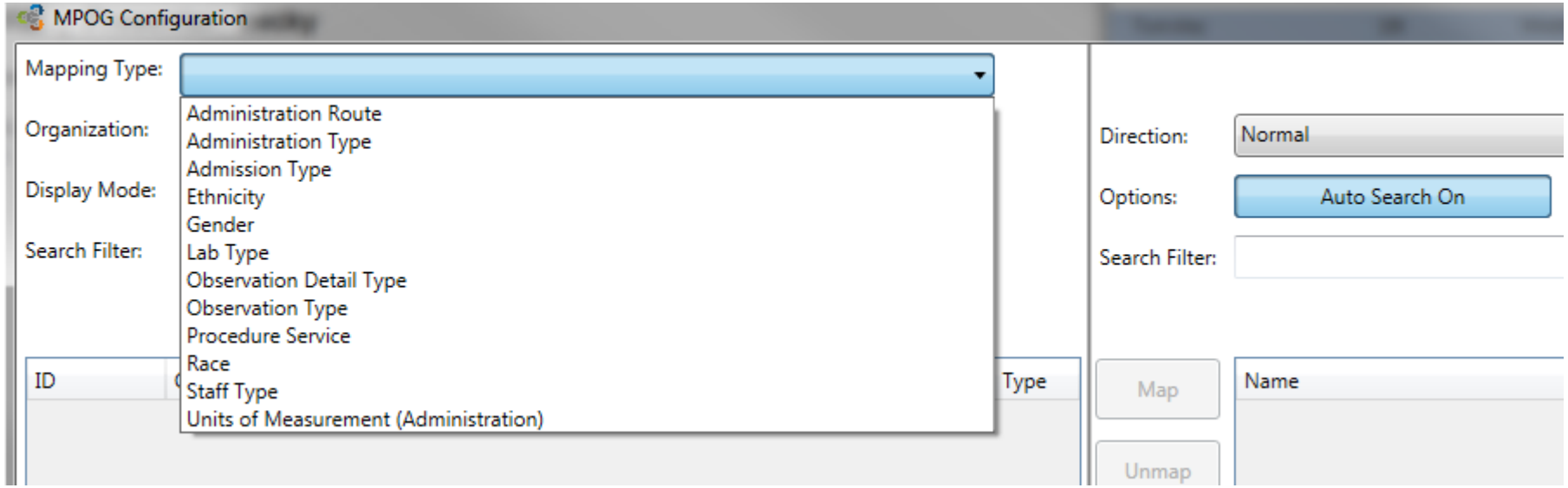
- Ability to search for concepts by ID# (id:_____)- No space between : and the concept number
- Export Mappings as Excel file



Import Manager: Variable Mapping Changes

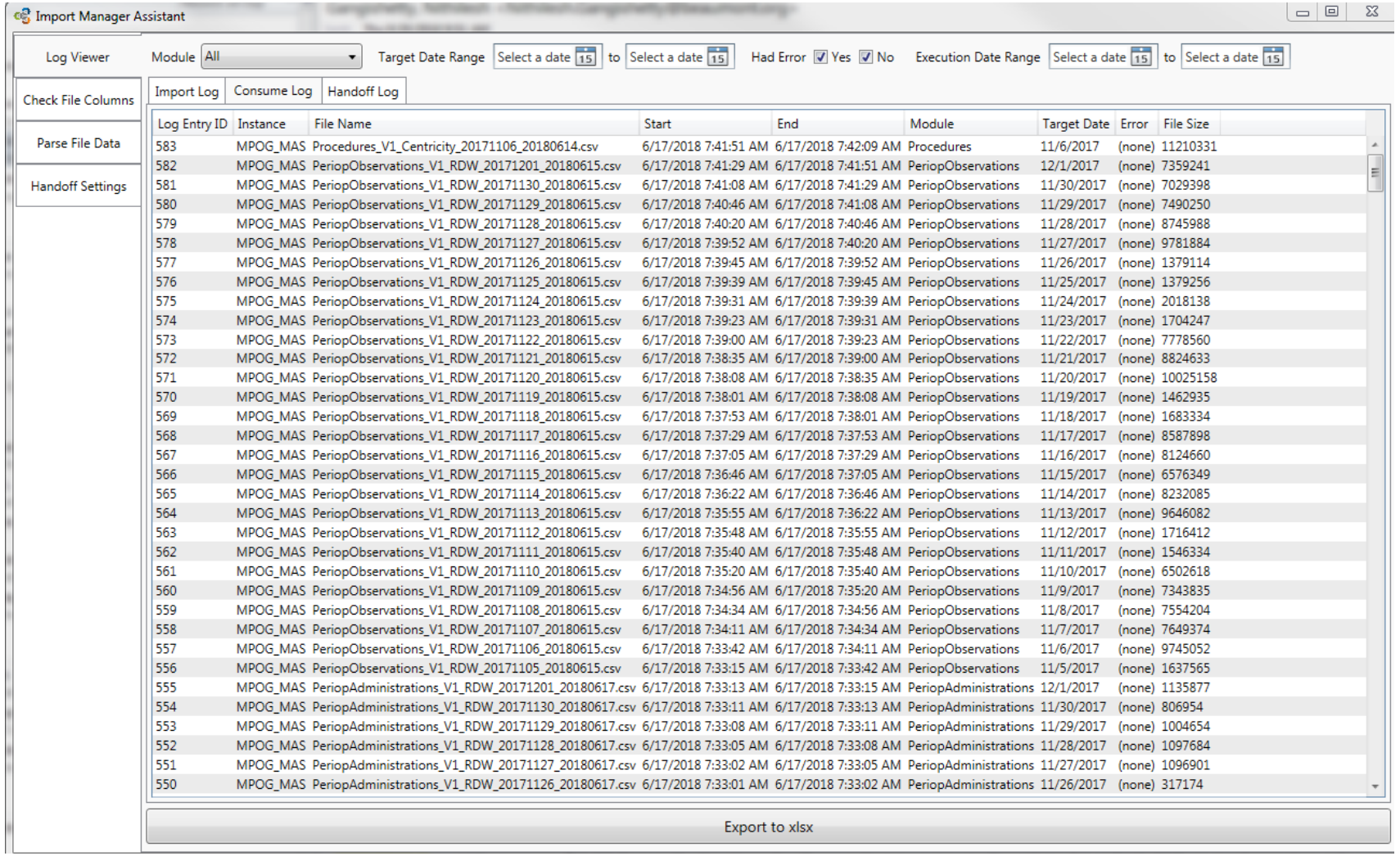
Units of Measurement (lab) and Room Type now hidden under Mapping Type

- Not currently mapping Units of Measurement (lab)
- Room Type is now handled 100% within location mapping

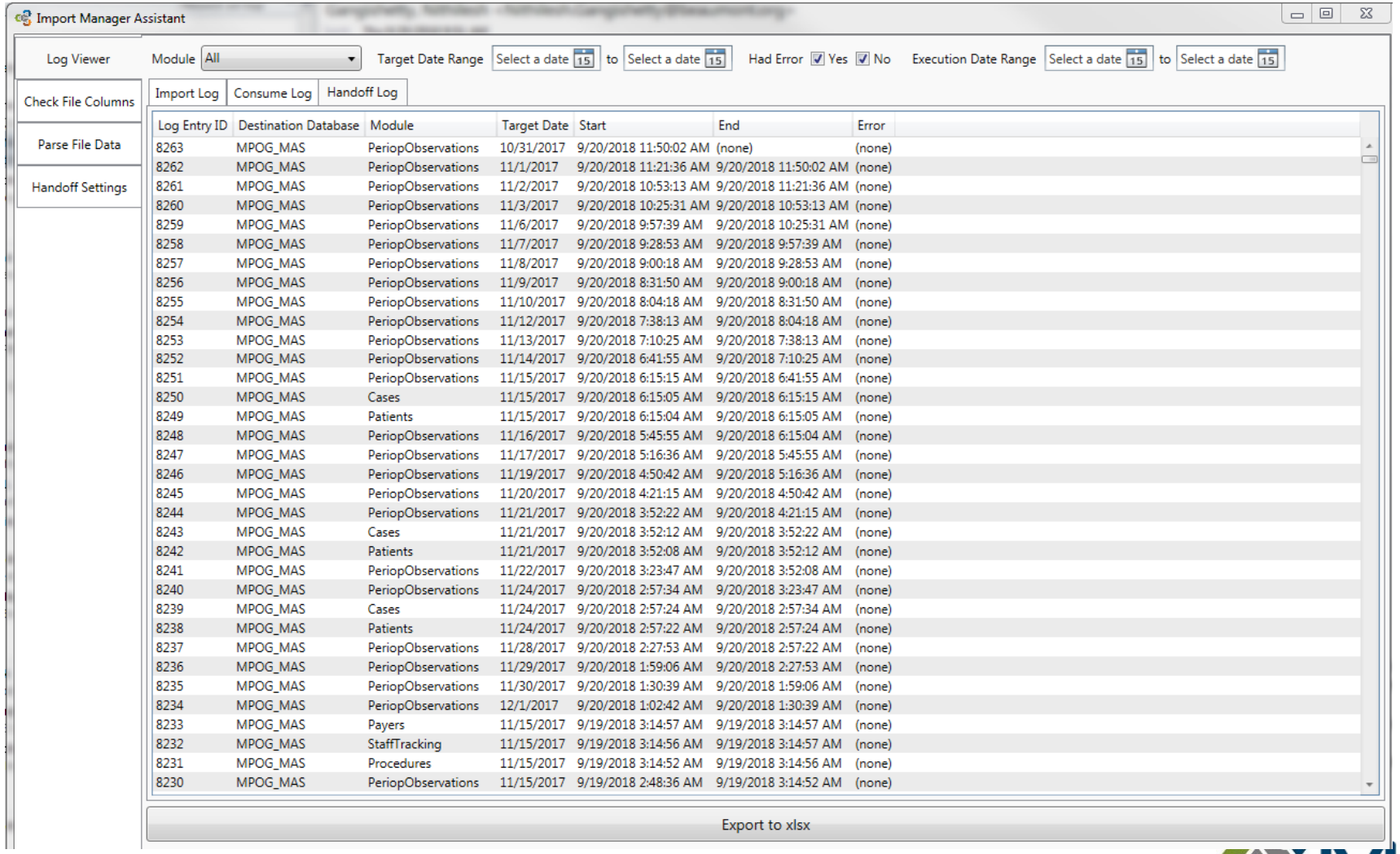


Import Manager Assistant

Import Manager Assistant: Consume Log



Import Manager Assistant: Handoff Log



Log Entry ID	Destination Database	Module	Target Date	Start	End	Error
8263	MPOG_MAS	PeriopObservations	10/31/2017	9/20/2018 11:50:02 AM	(none)	(none)
8262	MPOG_MAS	PeriopObservations	11/1/2017	9/20/2018 11:21:36 AM	9/20/2018 11:50:02 AM	(none)
8261	MPOG_MAS	PeriopObservations	11/2/2017	9/20/2018 10:53:13 AM	9/20/2018 11:21:36 AM	(none)
8260	MPOG_MAS	PeriopObservations	11/3/2017	9/20/2018 10:25:31 AM	9/20/2018 10:53:13 AM	(none)
8259	MPOG_MAS	PeriopObservations	11/6/2017	9/20/2018 9:57:39 AM	9/20/2018 10:25:31 AM	(none)
8258	MPOG_MAS	PeriopObservations	11/7/2017	9/20/2018 9:28:53 AM	9/20/2018 9:57:39 AM	(none)
8257	MPOG_MAS	PeriopObservations	11/8/2017	9/20/2018 9:00:18 AM	9/20/2018 9:28:53 AM	(none)
8256	MPOG_MAS	PeriopObservations	11/9/2017	9/20/2018 8:31:50 AM	9/20/2018 9:00:18 AM	(none)
8255	MPOG_MAS	PeriopObservations	11/10/2017	9/20/2018 8:04:18 AM	9/20/2018 8:31:50 AM	(none)
8254	MPOG_MAS	PeriopObservations	11/12/2017	9/20/2018 7:38:13 AM	9/20/2018 8:04:18 AM	(none)
8253	MPOG_MAS	PeriopObservations	11/13/2017	9/20/2018 7:10:25 AM	9/20/2018 7:38:13 AM	(none)
8252	MPOG_MAS	PeriopObservations	11/14/2017	9/20/2018 6:41:55 AM	9/20/2018 7:10:25 AM	(none)
8251	MPOG_MAS	PeriopObservations	11/15/2017	9/20/2018 6:15:15 AM	9/20/2018 6:41:55 AM	(none)
8250	MPOG_MAS	Cases	11/15/2017	9/20/2018 6:15:05 AM	9/20/2018 6:15:15 AM	(none)
8249	MPOG_MAS	Patients	11/15/2017	9/20/2018 6:15:04 AM	9/20/2018 6:15:05 AM	(none)
8248	MPOG_MAS	PeriopObservations	11/16/2017	9/20/2018 5:45:55 AM	9/20/2018 6:15:04 AM	(none)
8247	MPOG_MAS	PeriopObservations	11/17/2017	9/20/2018 5:16:36 AM	9/20/2018 5:45:55 AM	(none)
8246	MPOG_MAS	PeriopObservations	11/19/2017	9/20/2018 4:50:42 AM	9/20/2018 5:16:36 AM	(none)
8245	MPOG_MAS	PeriopObservations	11/20/2017	9/20/2018 4:21:15 AM	9/20/2018 4:50:42 AM	(none)
8244	MPOG_MAS	PeriopObservations	11/21/2017	9/20/2018 3:52:22 AM	9/20/2018 4:21:15 AM	(none)
8243	MPOG_MAS	Cases	11/21/2017	9/20/2018 3:52:12 AM	9/20/2018 3:52:22 AM	(none)
8242	MPOG_MAS	Patients	11/21/2017	9/20/2018 3:52:08 AM	9/20/2018 3:52:12 AM	(none)
8241	MPOG_MAS	PeriopObservations	11/22/2017	9/20/2018 3:23:47 AM	9/20/2018 3:52:08 AM	(none)
8240	MPOG_MAS	PeriopObservations	11/24/2017	9/20/2018 2:57:34 AM	9/20/2018 3:23:47 AM	(none)
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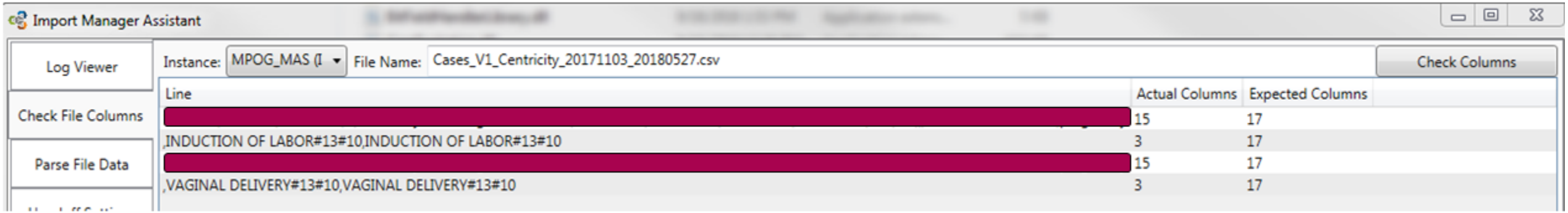
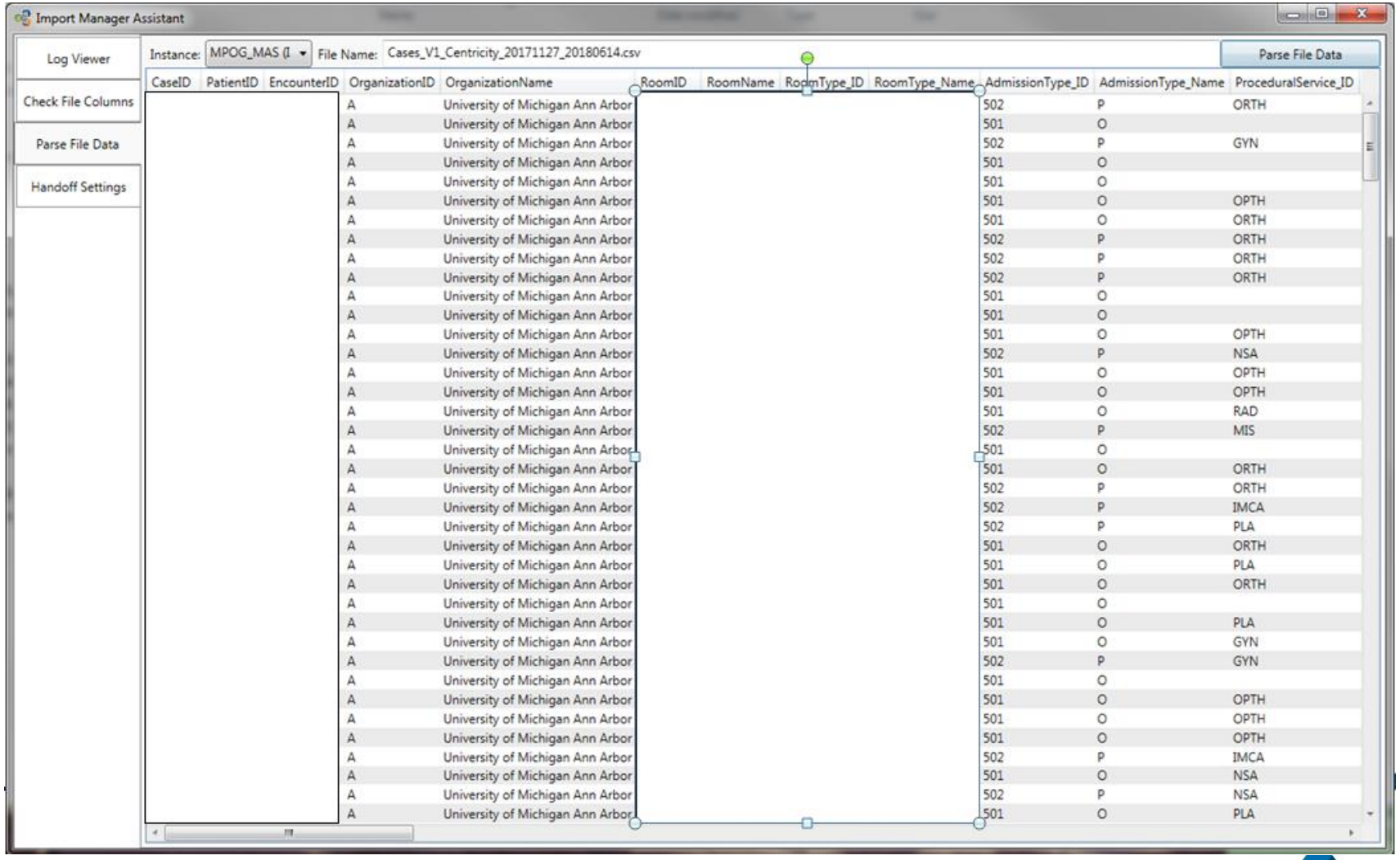
8238	MPOG_MAS	Patients	11/24/2017	9/20/2018 2:57:22 AM	9/20/2018 2:57:24 AM	(none)
8237	MPOG_MAS	PeriopObservations	11/28/2017	9/20/2018 2:27:53 AM	9/20/2018 2:57:22 AM	(none)
8236	MPOG_MAS	PeriopObservations	11/29/2017	9/20/2018 1:59:06 AM	9/20/2018 2:27:53 AM	(none)
8235	MPOG_MAS	PeriopObservations	11/30/2017	9/20/2018 1:30:39 AM	9/20/2018 1:59:06 AM	(none)
8234	MPOG_MAS	PeriopObservations	12/1/2017	9/20/2018 1:02:42 AM	9/20/2018 1:30:39 AM	(none)
8233	MPOG_MAS	Payers	11/15/2017	9/19/2018 3:14:57 AM	9/19/2018 3:14:57 AM	(none)
8232	MPOG_MAS	StaffTracking	11/15/2017	9/19/2018 3:14:56 AM	9/19/2018 3:14:57 AM	(none)
8231	MPOG_MAS	Procedures	11/15/2017	9/19/2018 3:14:52 AM	9/19/2018 3:14:56 AM	(none)
8230	MPOG_MAS	PeriopObservations	11/15/2017	9/19/2018 2:48:36 AM	9/19/2018 3:14:52 AM	(none)

Import Manager Assistant: File Checker

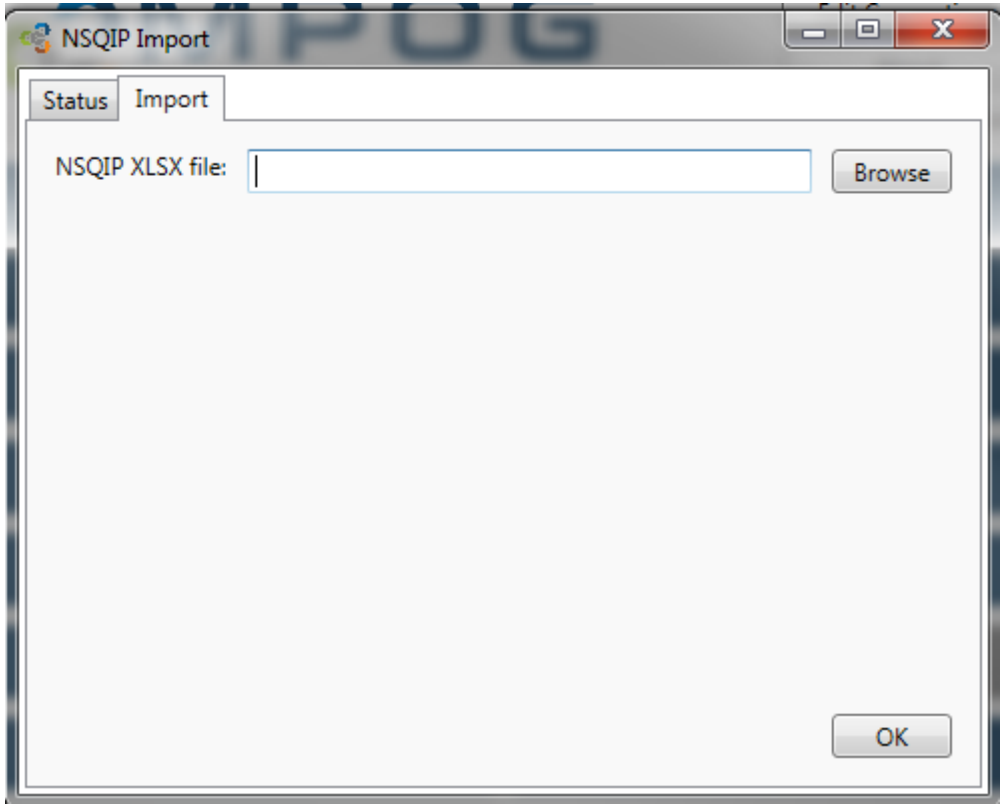


Import Manager Assistant: File Parser



NSQIP Import Tool

- Modified to accept NSQIP file in the new format:



Questions?

MPOG Data Cleaning Tools

Michael Mathis, MD

Assistant Professor of Anesthesiology

Director, Cardiothoracic Anesthesiology Research

University of Michigan Medical School

MPOG
MULTICENTER PERIOPERATIVE
OUTCOMES GROUP

Outline

- Identify challenges associated with using ‘big data’
- Describe tools to refine MPOG data
  - QI
  - Research
- Examine the roles of stakeholders in data cleaning process
  - ACQRs
  - QI Champions
  - Researchers
  - MPOG Coordinating Center

Data Use Challenges

- Data quality not a priority for busy clinicians [1]
- Data are non-standardized [2]
- Average anesthesia record has 2,000 physiologic observations from 40 parameters [3,4]
- Data can be “locked” in text [5]

1. Cook JA, Collins GS. The rise of big clinical databases. *The British journal of surgery.* 2015;102(2):e93-e101
2. Mandel JC, Kreda DA, Mandl KD, Kohane IS, Ramoni RB. SMART on FHIR: a standards-based, interoperable apps platform for electronic health records. *Journal of the American Medical Informatics Association : JAMIA.* 2016;23(5):899-908.
3. Kheterpal S, Shanks A, Tremper KK. Impact of a Novel Multiparameter Decision Support System on Intraoperative Processes of Care and Postoperative Outcomes. *Anesthesiology.* 2018;128(2):272-282.
4. The Multicenter Perioperative Outcomes Group. https://mpog.org. Accessed March 6 2018, 2018.
5. Hripcsak G, Albers DJ. Next-generation phenotyping of electronic health records. *Journal of the American Medical Informatics Association : JAMIA.* 2013;20(1):117-121.

Specific Example: PONV 01

Risk Factor for PONV 01: History of PONV

- **Site A**
  - Maps "**History of PONV**" variable → MPOG concept **70338 General- PONV Risk Factors**
- **Site B**
  - Maps "**History of PONV**" variable → MPOG concept: **70080 General- Previous Anesthetic Problem**

If either concept shows up → mark as 'Yes' for "**History of PONV**", right?

Actual values associated with PONV concepts:

General - Previous Anesthetic Problem	Brother with nausea/vomiting associated with anesthesia
General - Previous Anesthetic Problem	mother- PONV, father-requires larger doses of anesthesia then normal
General - Previous Anesthetic Problem	Last GA: 7/10/15- IV induction, LMA 2.5- easy mask; Mother reports x1 incidence of PONV during 5 previous eye surgeries
General - Previous Anesthetic Problem	pt had PONV with hysterectomy, none since. Mother PONV and "multiple allergies"
General - Previous Anesthetic Problem	Last GA 2008, did well, no PONV. Mother with strong history of PONV
General - Previous Anesthetic Problem	PONV x1 with last tympanoplasty
General - Previous Anesthetic Problem	+ motion sickness and vomits in the car
General - Previous Anesthetic Problem	Pt has severe PONV except for last surgery

General - PONV Risk Factors	Yes, treated in PACU.
General - PONV Risk Factors	Yes after receiving morphine
General - PONV Risk Factors	last surgery had no PONV
General - PONV Risk Factors	last time she had no problems
General - PONV Risk Factors	Yes, unknown
General - PONV Risk Factors	Yes Treated in PACU, has been admitted in the past for pain.nausea
General - PONV Risk Factors	Yes--related to pain meds
General - PONV Risk Factors	required over night hospitalization
General - PONV Risk Factors	Unable to determine.

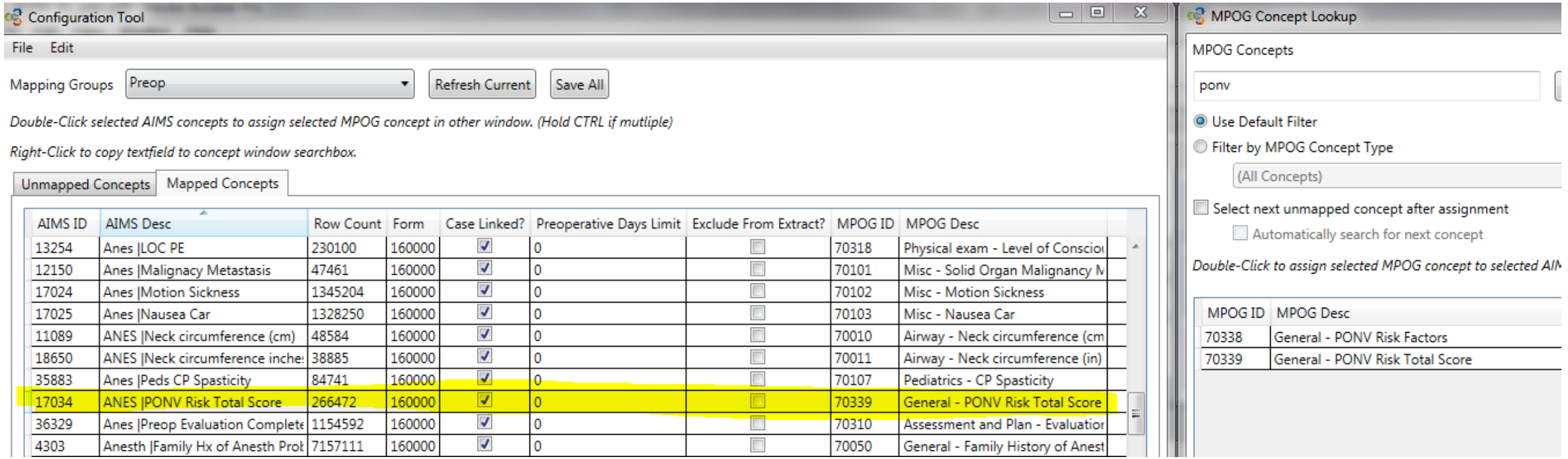
Further cleaning needed…mapping gets us close but not quite there yet.

MPOG

MPOG Tools for Data Cleaning

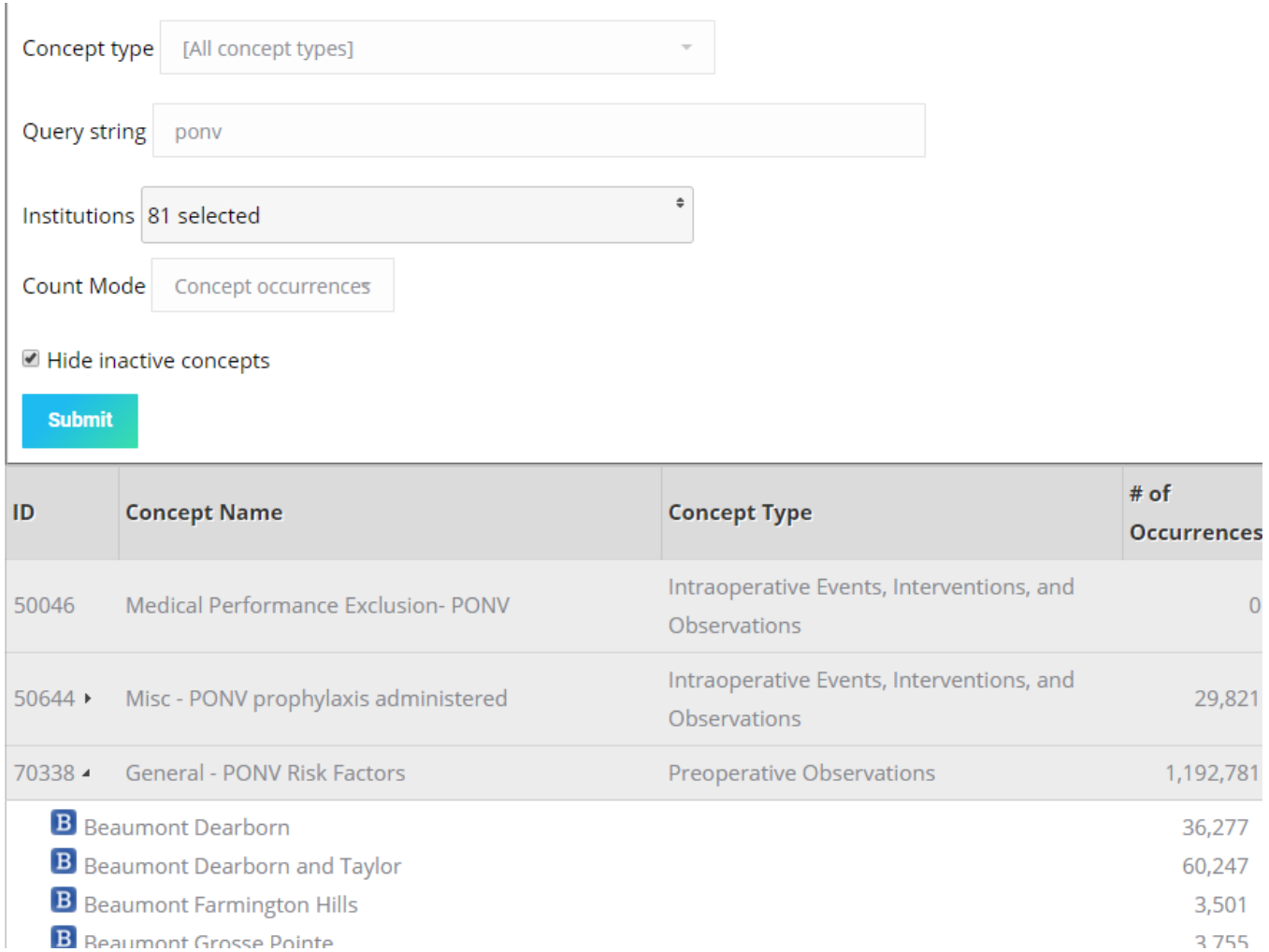
1. Concept Browser:
   - Map AIMS variables to standard MPOG concepts (Variable Mapping)
2. Collation Mapping:
   - Sort ‘answers’ mapped to specific concepts
3. Phenotype Browser:
   - Intelligent characterizations of data usable for QI/Research
   - Derived through synthesizing multiple concepts and using deductive/inductive reasoning

Step 1: Mapping Variables to Standardized MPOG Concepts



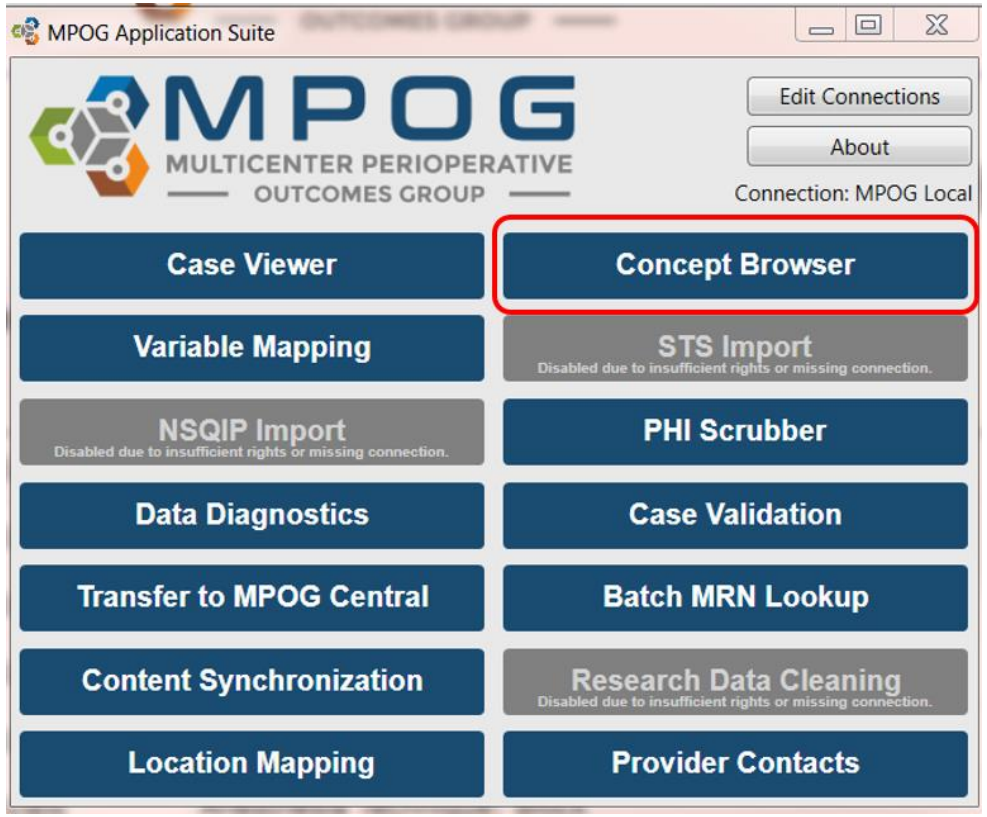
Step 1: Mapping Variables to Standardized MPOG Concepts

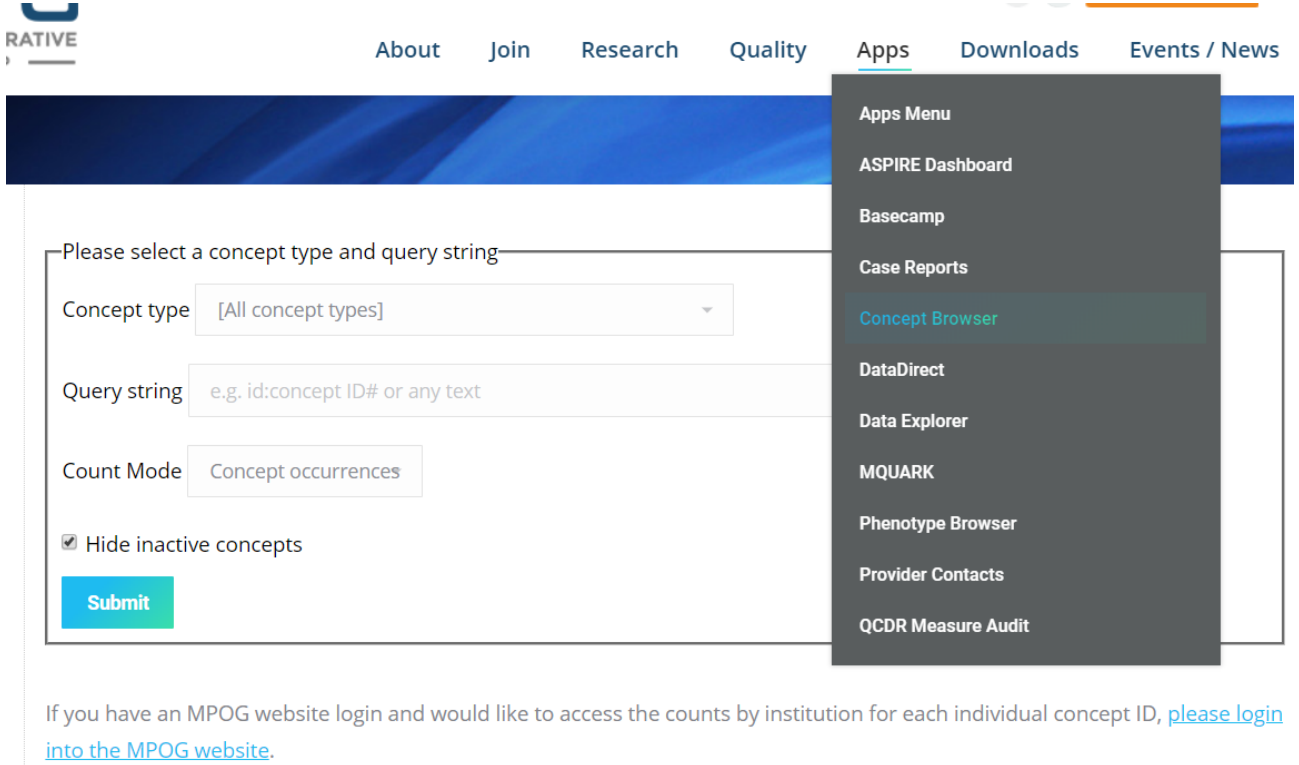
- MPOG Concept Browser: Click here for demo



ID	Concept Name	Concept Type	# of Occurrences
50046	Medical Performance Exclusion- PONV	Intraoperative Events, Interventions, and Observations	0
50644	Misc - PONV prophylaxis administered	Intraoperative Events, Interventions, and Observations	29,821
70338	General - PONV Risk Factors	Preoperative Observations	1,192,781
	Beaumont Dearborn		36,277
	Beaumont Dearborn and Taylor		60,247
	Beaumont Farmington Hills		3,501
	Beaumont Grosse Pointe		3,755

MPOG Concept Browser





Step 2: Sort data using Collation Mapping

PreopPONVHistoryNotes

Institution

Mapping Filter: History of PONV

Time Filter: All

Value Filter

Distinct Values Remaining: 0 / 11,784

Rows Remaining: 0 / 787,865

Percent Mapped: 100.0 %

(What's This?)

MPOG Concept	Source Value	Count	Mapped As
General - PONV Risk Factors	Yes	201,513	History of PONV
Assessment and Plan - Comments	Post-Op Nausea and Vomiting	65,494	History of PONV
General - Past Medical History ICD-10 Code	PONV (postoperative nausea and vomiting)	102,121	History of PONV
Assessment and Plan - Special Anesthesia Technique	PONV RISK SCORE	35,553	History of PONV
General - Previous Anesthetic Problem	Postoperative Nausea and Vomiting	51,925	History of PONV
General - PONV Risk Factors	PONV Present	25,812	History of PONV
General - Previous Anesthetic Problem	Postoperative Nausea and Vomiting Treated in PACU	21,795	History of PONV
General - Previous Anesthetic Problem	PONV	34,537	History of PONV
General - Past Medical History ICD-10 Code	Postoperative nausea and vomiting	30,871	History of PONV
General - PONV Risk Factors	Yes Treated in PACU	17,111	History of PONV
General - Family History of Anesthetic Problems	Postoperative Nausea and Vomiting	15,935	History of PONV
General - PONV Risk Factors	MEDIUM 3-5	14,991	History of PONV
General - Family History of Anesthetic Problems	PONV	10,666	History of PONV
General - Previous Anesthetic Problem	Postoperative Nausea and/or Vomiting	8,716	History of PONV
Assessment and Plan - Anesthetic Consideration	Postoperative Nausea and Vomiting	7,926	History of PONV
General - PONV Risk Factors	History of PONV/Motion Sickness	6,417	History of PONV
General - Previous Anesthetic Problem	Postoperative Nausea and Vomiting	6,063	History of PONV
General - Past Medical History ICD-9 Code	PONV (postoperative nausea and vomiting)	20,857	History of PONV
General - Past Medical History ICD-10 Code	Post-operative nausea and vomiting	21,577	History of PONV
Assessment and Plan - Anesthetic Consideration	Postoperative Nausea and Vomiting, Postoperative		

Missing or Unknown
(Description not provided)

Invalid Value
This note is irrelevant or incorrect

No History of PONV
(Description not provided)

History of PONV
(Description not provided)

History of PONV - Relatives Only
There is no history of PONV for the patient, but documention mentions PON

Some measures are not as ‘easy’ as PONV…

TRAN 01: *Exclude* transfusions between:

Cardiopulmonary bypass start and **cardiopulmonary bypass end**

What concepts should we use?

Assume we find 2 concepts that directly reflect bypass **start** and **end** times.

Do most sites who perform bypass have variables mapped to these two concepts?

Assume again that yes, majority of sites are using these concepts.

Do providers consistently use the variables that are mapped to these concepts?

No assumptions here ☺

What concepts to use / are sites mapping?

ID	Concept Name	Concept Type	# of Occurrences
3001	Perfusion- Cardiopulmonary Flow (ml/min)	Physiologic Observations	1,356,183
3002	Perfusion- Cardiopulmonary Line Pressure (mmHg)	Physiologic Observations	1,610,004
3003	Perfusion- Cardiopulmonary volume (ml)	Physiologic Observations	354,523
3036	Perfusion - Cardiopulmonary byp		
3037	Perfusion - Cardiopulmonary byp		
3038	Perfusion - Cardiopulmonary byp		
3039	Perfusion - Cardiopulmonary byp		
3044	Perfusion - Cardiopulmonary byp		
3049	Perfusion - Cardiopulmonary byp		
3067	Perfusion - Cardiopulmonary byp (mL/min/m2)		
10604	CARDIOPULMONARY BYPASS CIR		
10677	Cardiopulmonary bypass pump p		
40003	Modifier - Monitored anesthesia history of severe cardiopulmonar		
50399	Cardiopulmonary bypass -- aortic		
50401	Cardiopulmonary bypass vent on		
50402	Cardiopulmonary bypass vent off		
50403	Cardiopulmonary bypass vent on		
50404	Cardiopulmonary bypass vent off		
50405	Cardiopulmonary bypass rewarm		
50406	Cardiopulmonary bypass rewarm temperature - detail	Intraoperative Events, Interventions, and Observations	15,972
50407	Cardiopulmonary bypass systemic cooling initiated	Intraoperative Events, Interventions, and Observations	29,786
50408	Cardiopulmonary bypass systemic cooling temperature - detail	Intraoperative Events, Interventions, and Observations	16,381
50409	Cardiopulmonary bypass (full/partial/left-heart) terminated	Intraoperative Events, Interventions, and Observations	55,958
50410	Cardiopulmonary bypass initiated (full/partial/left-heart)	Intraoperative Events, Interventions, and Observations	66,310
50411	Cardiopulmonary bypass -- ventilator turned off	Intraoperative Events, Interventions, and Observations	35,106
50412	Cardiopulmonary bypass -- perfusion start	Intraoperative Events, Interventions, and Observations	33,513
50413	Cardiopulmonary bypass -- perfusion end	Intraoperative Events, Interventions, and Observations	41,693
50415	Cardiopulmonary bypass -- aortic crossclamp off	Intraoperative Events, Interventions, and Observations	73,789
50416	Cardiopulmonary bypass -- crossclamp and circulatory arrest time totals	Intraoperative Events, Interventions, and Observations	47,855
50417	Cardiopulmonary bypass -- Access cannula removed note	Intraoperative Events, Interventions, and Observations	70,799
50418	Cardiopulmonary bypass -- Access cannula removed location detail	Intraoperative Events, Interventions, and Observations	0
50419	Cardiopulmonary bypass -- Aortic crossclamp removal requiring therapy	Intraoperative Events, Interventions, and Observations	4,546
50420	Cardiopulmonary bypass -- Isoflurane vaporizer turned on	Intraoperative Events, Interventions, and Observations	18,369
50421	Cardiopulmonary bypass -- Arterial cannula inserted note	Intraoperative Events, Interventions, and Observations	92,858
50422	Cardiopulmonary bypass -- Arterial cannula insertion site detail	Intraoperative Events, Interventions, and Observations	7,472
50423	Cardiopulmonary bypass -- Arterial cannula insertion flow detail	Intraoperative Events, Interventions, and Observations	0
50424	Cardiopulmonary bypass -- Blood pressure lowered note	Intraoperative Events,	6,546

These are approximately half of the cardiopulmonary bypass MPOG Concepts in use.

Several Concepts used to determine start and stop times.

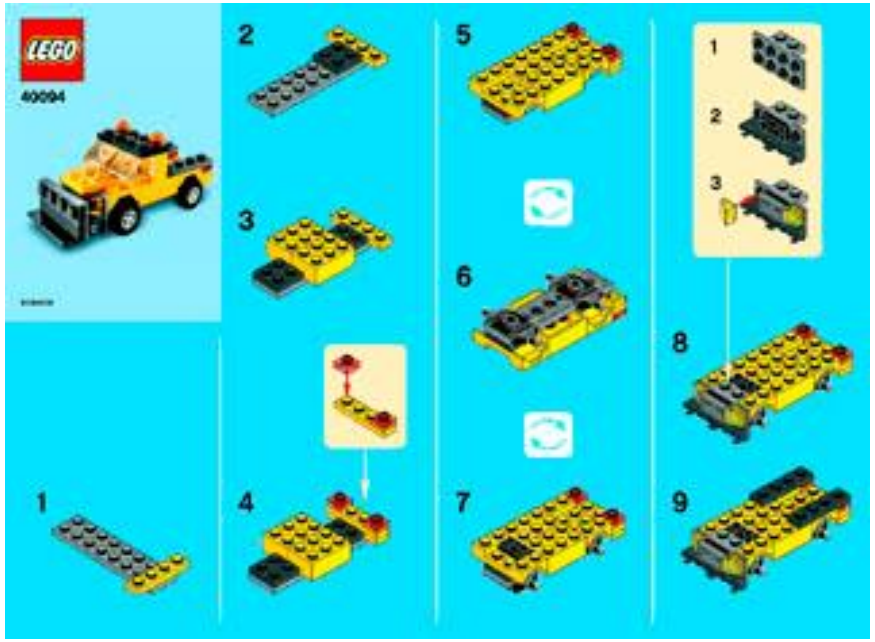
But, this still only covers 90% of the “true” instances of cardiopulmonary bypass.

How do we get the other 10%?

Step 3: Build Phenotypes

- MPOG Phenotype Browser
  - Multiple observations from multiple parameters:

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



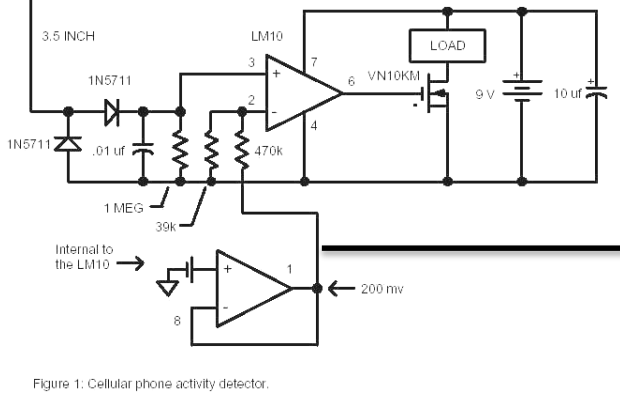
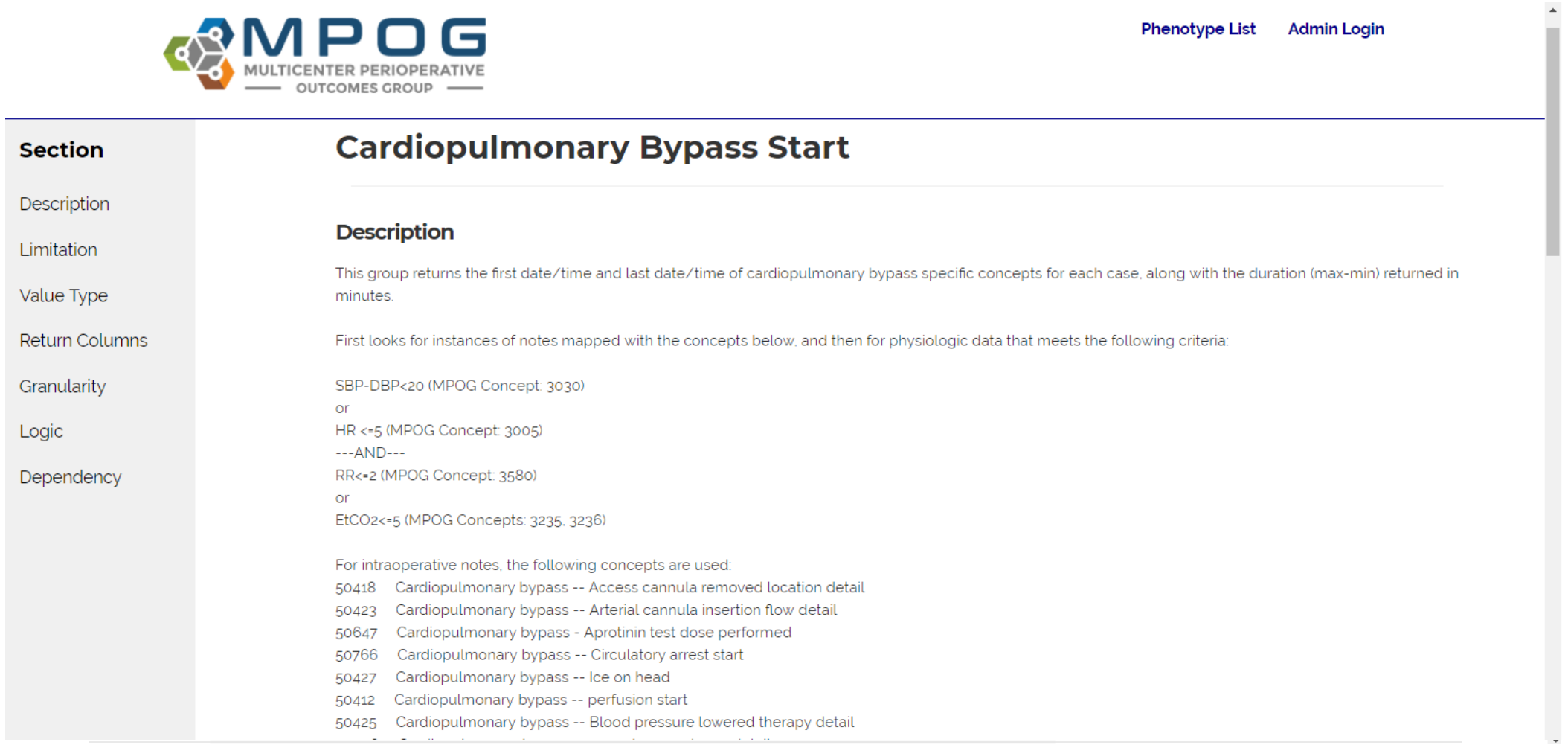


Figure 1: Cellular phone activity detector.

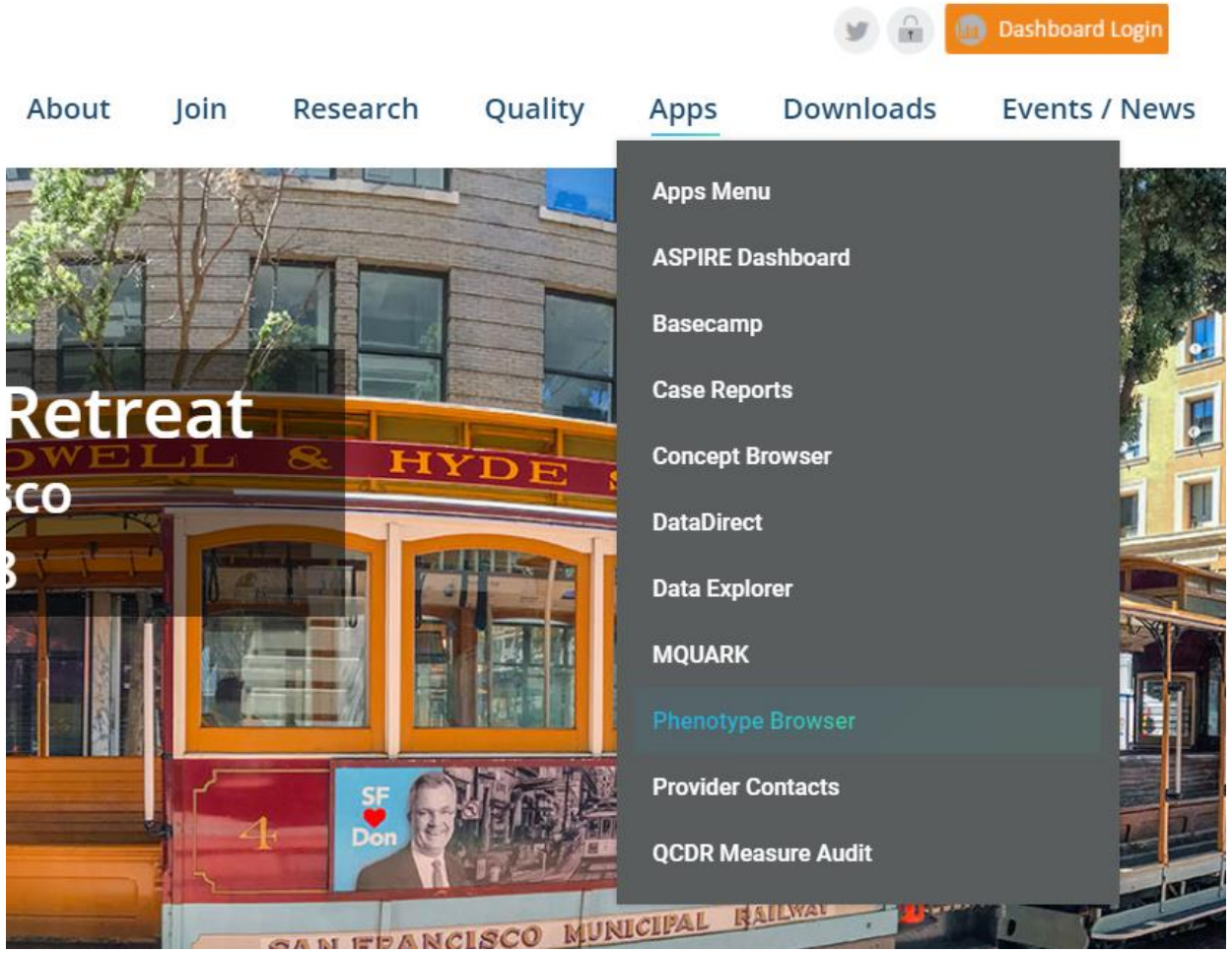
MPOG Phenotypes
On Cardiopulmonary Bypass Patient under General Anesthesia Low tidal volume ventilation achieved Total opioid analgesia, morphine equivalents ….

Phenotype Browser

- MPOG Phenotype Browser: Click here for demo



MPOG Phenotype Browser



Roles and Responsibilities

- ACQRs map to the best MPOG concept available: this is most important!
- Quality Champions communicate to providers the importance of standardized documentation
  - Avoid free text when possible
  - Use the standard variables available in Epic/Cerner
- Coordinating Center performs collation mapping and creates phenotypes to enable measure build and research projects

Thank you

Quality Improvement Stories

Bronson Health Care Group – Denise Coons

Working with Epic to Improve TOC 02 & TEMP 01

MPOG

UTILIZING RESOURCES
TOC-02 & TEMP-02

September 21, 2018

Denise Coons, RN
ACQR

FOR EPIC USERS

BRONSON

KNOW YOUR RESOURCES

- Bronson IT analysts (Op-Time)
  - Concept build, Mapping
- EPIC TS
  - Technical support

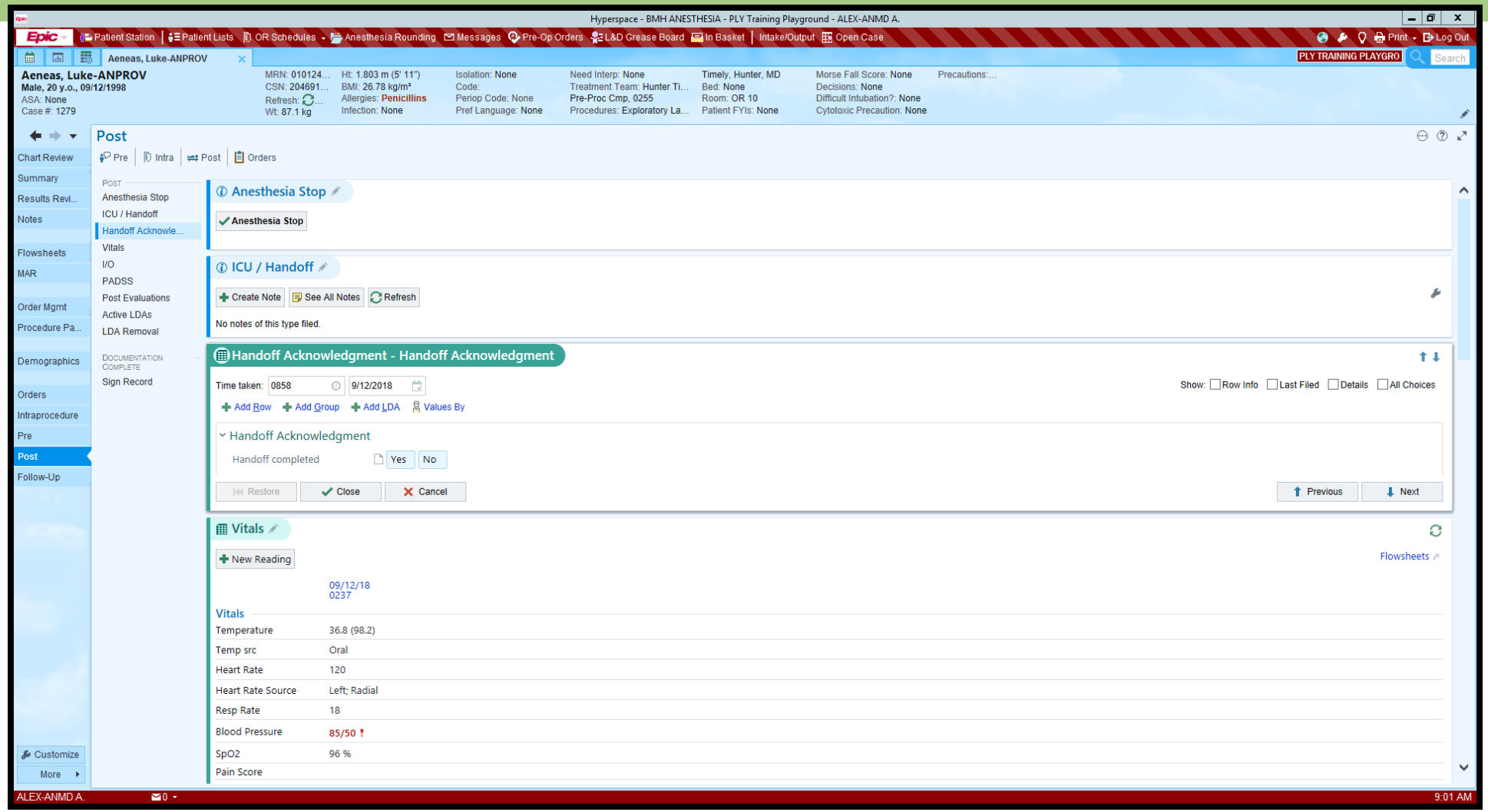
BRONSON

TOC-02
Bronson IT Analysts

- Enter request ticket to IT helpdesk
- Build per request
  - Simple request: IT can build
  - Complicated request: EPIC involved
- Test in Epic Playground
- Provide and communicate education
- IT management approval
- Move to production

BRONSON

The Final Product



BRONSON

Validation & Performance

- Monthly data for TOC-02 in Galileo
- Began at “zero” Jan. 2018
- Increases monthly
- Minimal failed cases
  - Review in Case Viewer
- Present to providers monthly

BRONSON

Collaboration TEMP-02

- A work in progress!
- Sources not matching
- OR monitors and Epic interface problem
- Bronson analyst reached out to Epic TS
- Initial “fix” unsuccessful
- Contacted Epic TS- Sherlock ticket created
  - Provide support documentation/information
  - Work with Bronson analysts

BRONSON

Validation, Performance & Education

- Track progress using dashboard
- Review failed cases
- Analyst creates Tip-Sheet for provider education
- Providers educated at monthly meetings and via emails.

BRONSON

Thank you!

bronsonhealth.com

BRONSON

Beaumont Grosse Pointe – Nicole Pardo

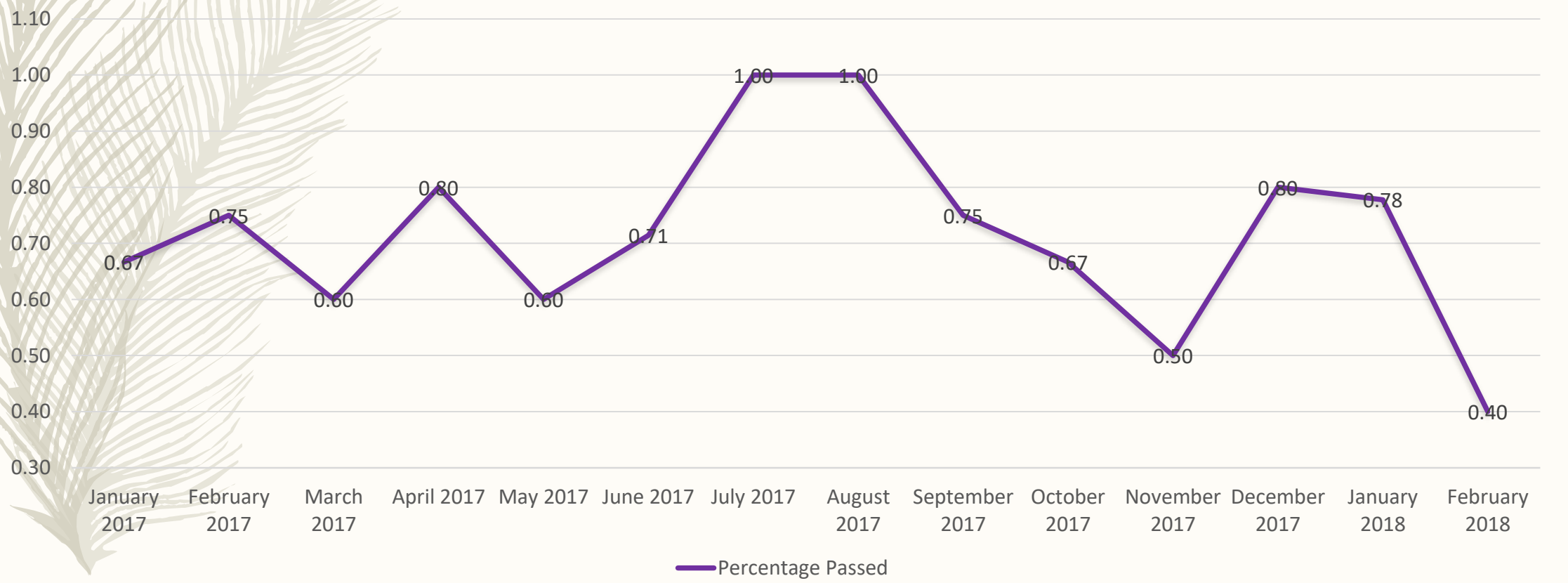
Transfusion

TRAN 02
QI Story

Nichole Pardo

Beaumont Grosse Pointe

TRAN 02
Data review



The Beginning…

- Monthly Meetings with QI Physician Champion
  - Focus on TRAN measures
- Start Measure of the Month Newsletter
  - Post in CRNA Lounge
  - April 2018 newsletter focus was on TRAN measures
- Lead CRNA to review measures with staff at monthly staff meetings
- ACQR review every failed case with QI Physician Champion
- Q&A Session with CRNA's

- SVP & Chief Quality Officer requesting data
  - Who is ordering the transfusions
  - Why another small site was meeting threshold in this measure
    - *Majority of cases with no post lab draw and most of others drawn in PACU*
  - Time study on duration of post lab draw

Who?

- Surgeon ordering transfusion 100% of the time
- CRNA to notify MDA of order to transfuse
- Increase of notes in chart stating that both the surgeon and MDA agree to transfusion
- With the increase in communication, will it increase compliance with the measure?

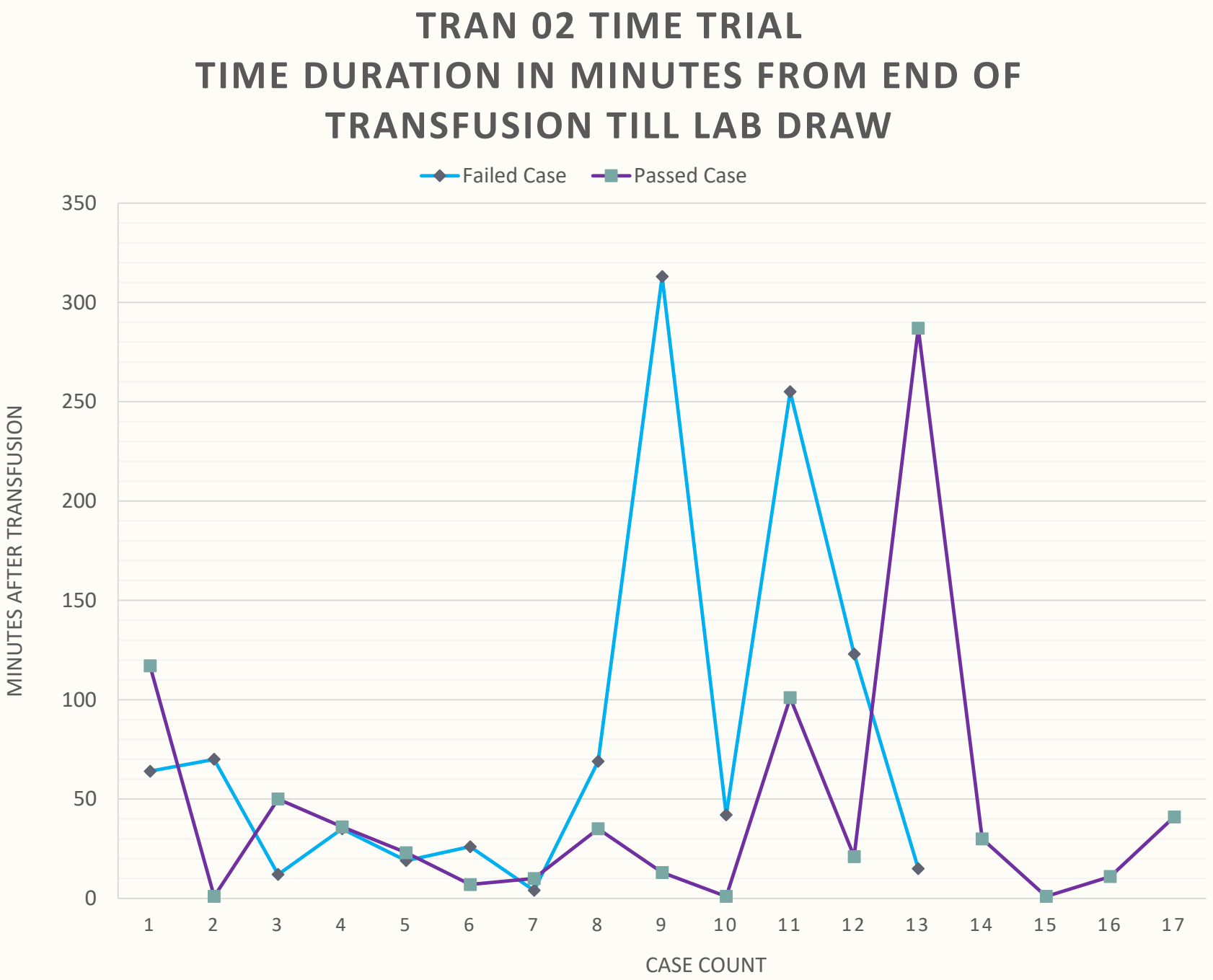
Case Study

Improved Communication

Exploratory Lap, Total Hysterectomy, Ureteral Stent insertion, Right Colectomy

- Anesthesia start 0733
- Anesthesia end 1330
- 0902 Hgb 9.5
- 1022 Hgb 6.5
- 1048 1 Unit PRBC
- 1053 Hgb 7.7
- 1124 1 Unit PRBC
- 1140 Hgb 9.9
- Total EBL 1400

0819	Mark Now incision
0933	Anesthesiologist Visit Replacing EBL with crystalloid 3:1; will recheck Hgb
0956	Anesthesiologist Visit
1035	Quick Note MDA and surgeon notified of 6.5 Hgb. PRBC 1unit ordered. Will recheck Hcg after transfusion
1048	Quick Note PRBC unit W036318904101 infusing
1100	Quick Note Dr. [redacted] requests Hgb greater than 8.0
1153	Quick Note Surgeon aware of 9.9 hgb
1210	Anesthesiologist Visit
1220	Agent Off
1220	Quick Note 3mL Bupivacaine with epi 1:100 given via epidural

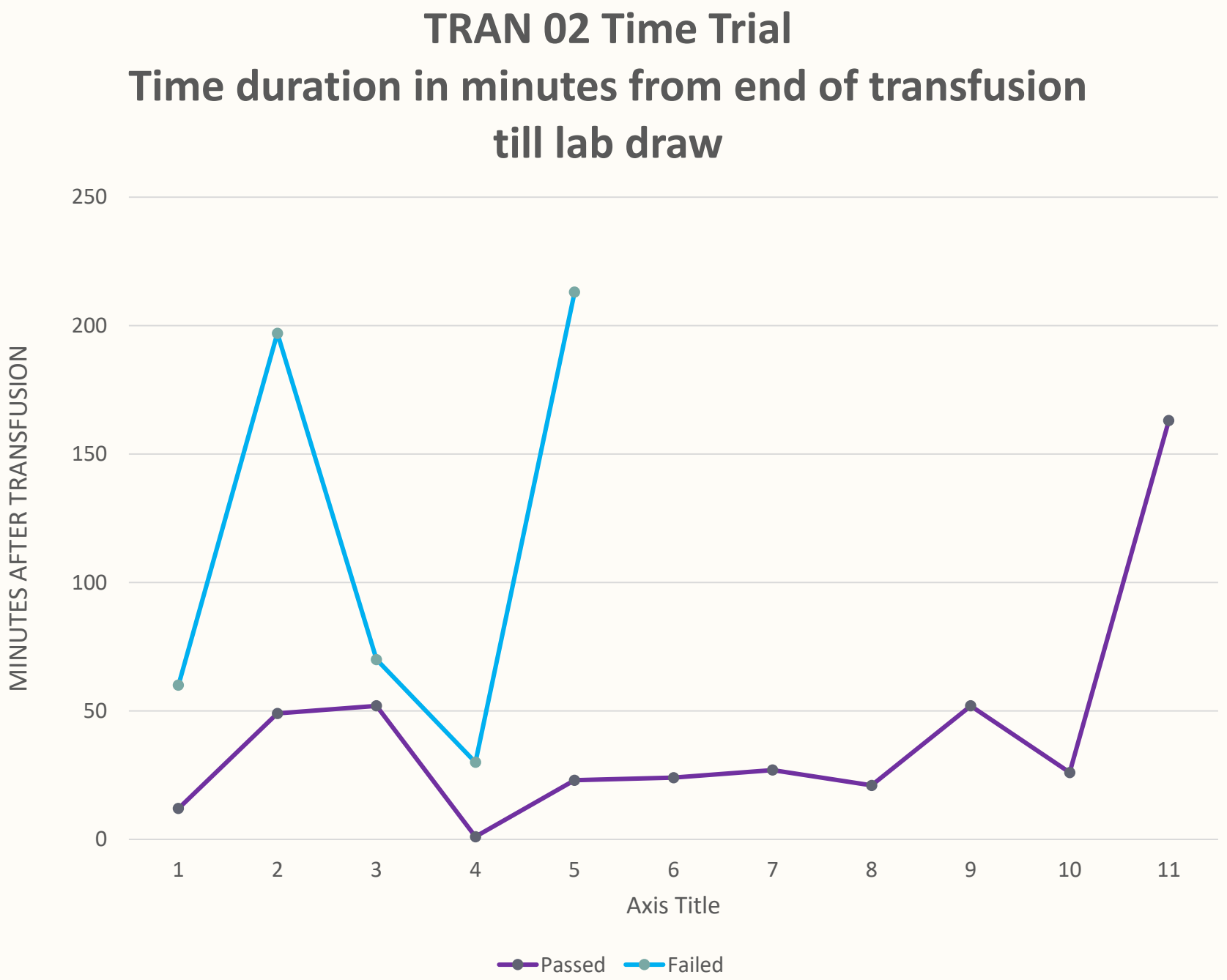


Time Trial

- **1 year time period Feb '17-Feb '18**
- **13 Failed Cases**
  - **Excluded documentation errors**
- **43 Passed Cases**
  - **Looked at 27 cases**
  - **10 with no post lab draw**

Results: Inconclusive

CRNA's stated that they would continue to draw post labs immediately after transfusion due to their policies. This may prove to show a decrease in failed cases due to majority of passed cases are below the 1 hour mark as opposed to failed cases with almost half greater than 1hour.

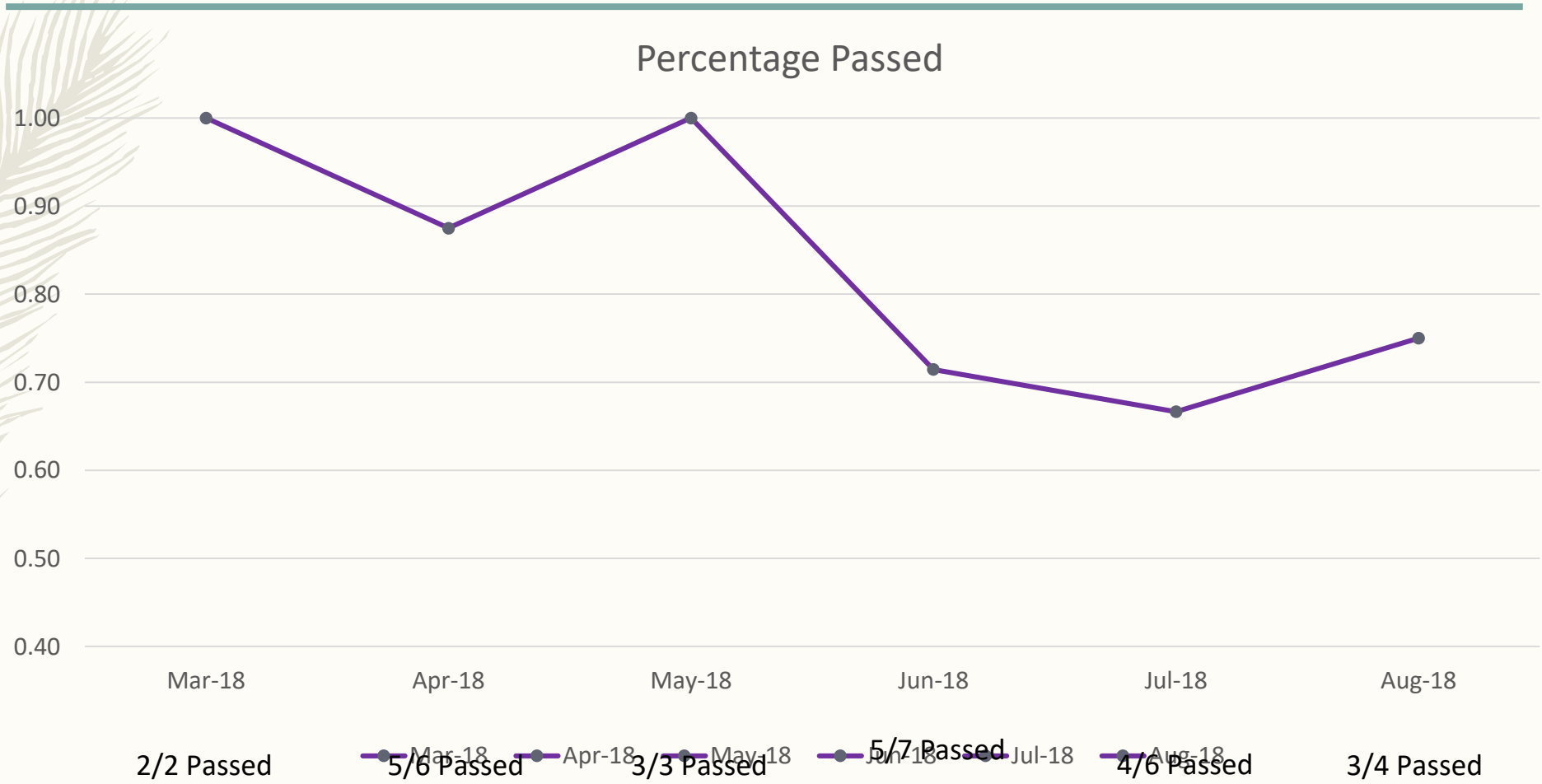


Post Education Time Trial

- **Time Period April ’18 – July ’18**
- **5 Failed Cases**
- **17 Passed Cases**
  - **6 with no post lab draw**

Results: Majority of Lab draw <1 hr post transfusion passed the measure

TRAN 02 – Current Data



2/2 Passed

5/6 Passed

3/3 Passed

5/7 Passed

4/6 Passed

3/4 Passed

Future…

- Continue to review each case
  - Staff states they continue to treat the patient not the measure
- Continue to educate
- Look for trends
- ???

Holland Hospital – Amy Poindexter

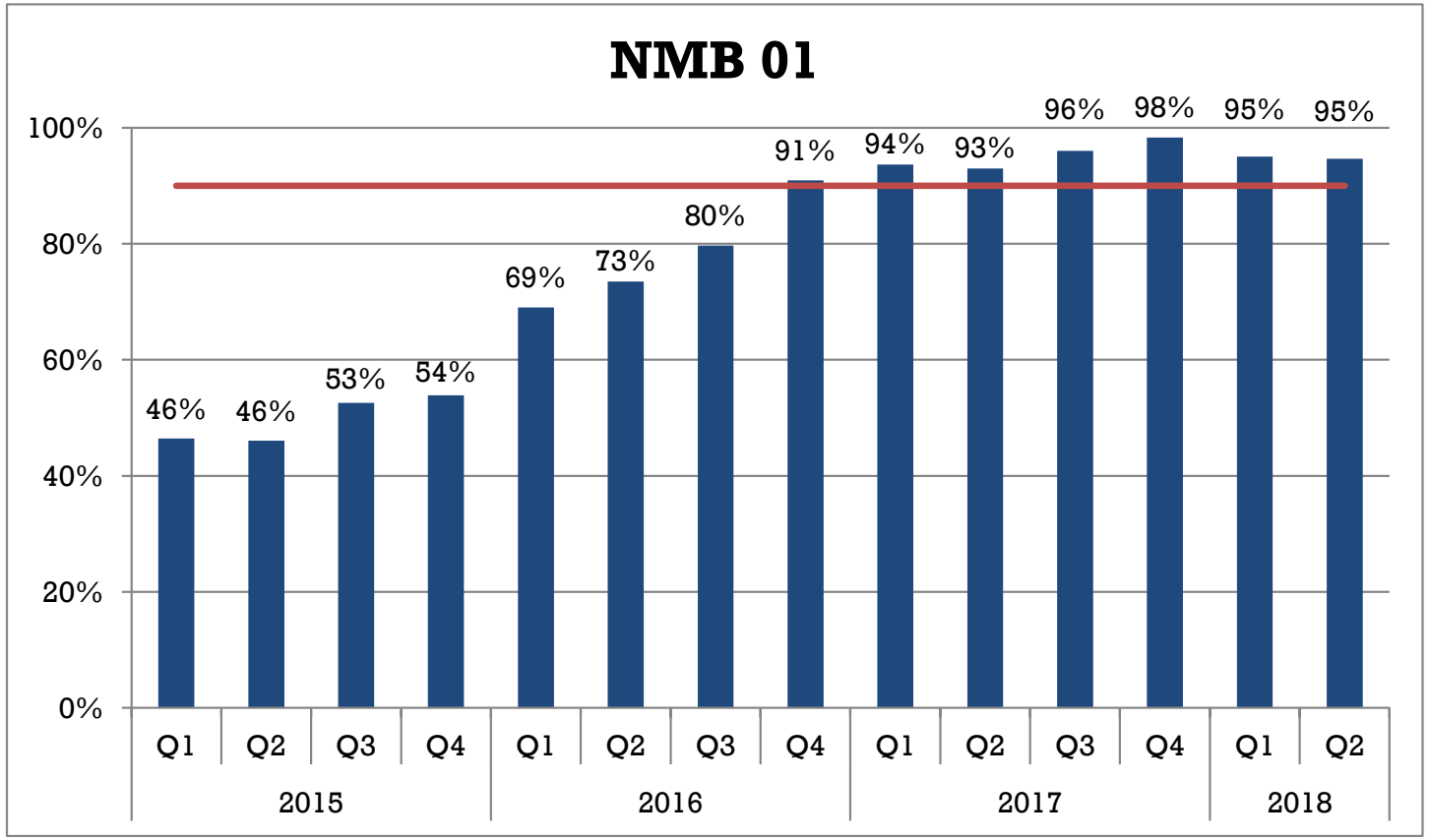
Improving NMB 01 & TEMP 02

ASPIRE

September 21, 2018

Holland Hospital

Holland Hospital

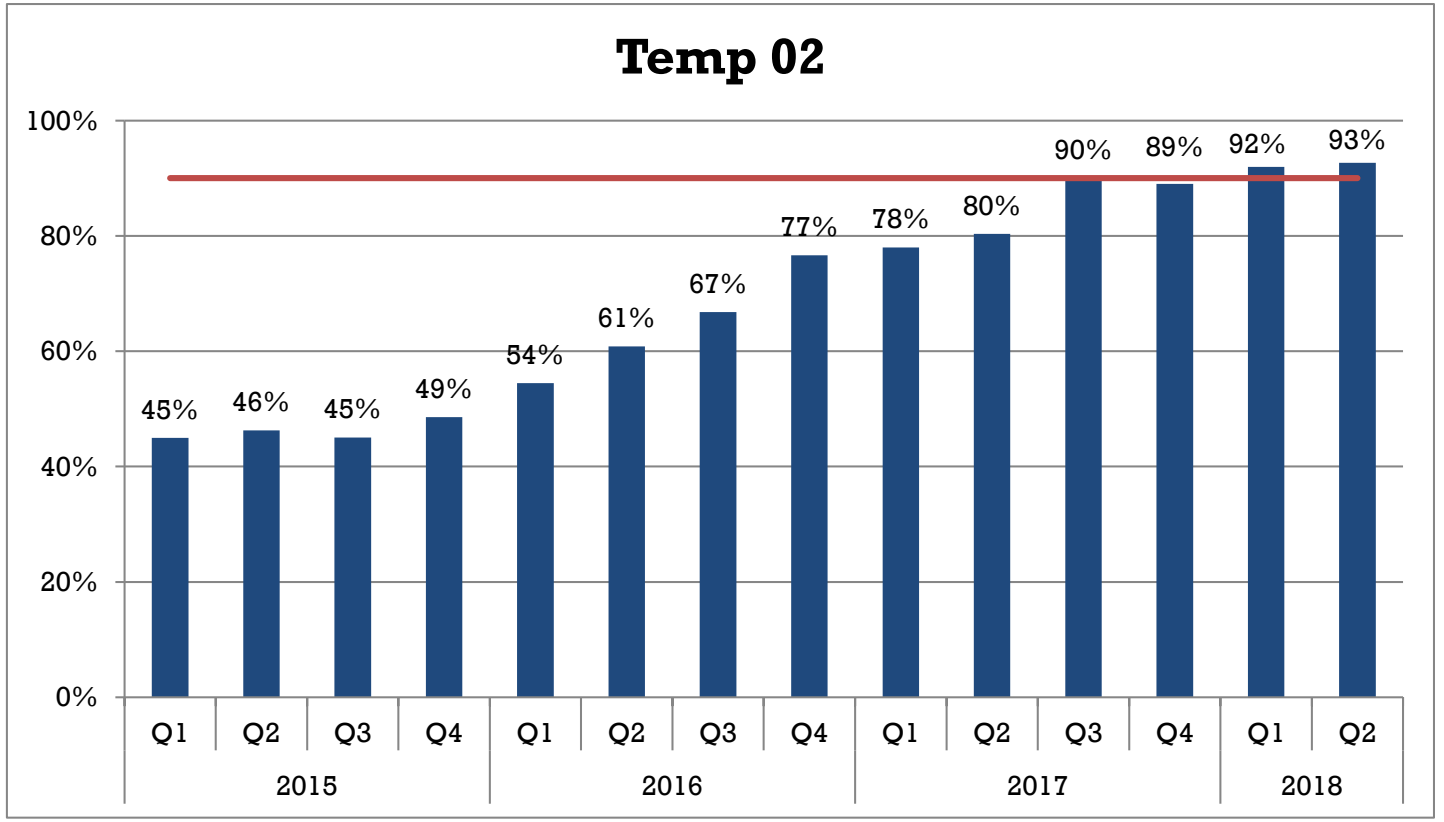


Numerator: Cases with Documentation of TOF after last dose of NMB and before extubation.
Denominator: All patients who have recived NMB and were extubated post op or in PACU.

Holland Hospital

- TOF monitoring used infrequently prior to Aspire participation
- Quality monitoring focused on complications that occurred infrequently
- Dr. Wedeven presented data to Anesthesia Journal Club early in 2016 and made sure each anesthesia cart had a monitor
- Education to all staff on TOF use
- Placed measure descriptions on each anesthesia cart
- Presentation of data to anesthesia group regularly showing goal and current performance
- Provider emails helped boost performance

ASPIRE Data



*Numerator: Cases with at least one **core** temperature documented between anesthesia start and end time*
Denominator: General Anesthesia cases > 30 minutes in length

Holland Hospital

Holland Hospital

- Infrequent documentation of core temp prior to Aspire participation
- Placed measure descriptions on each anesthesia cart
- Failed case review revealed that most fails were for lack of source documentation
- Temp source Task added to Cerner

Holland Hospital

Amy Poindexter, BSN, RN

Holland Hospital Quality Department

616-395-4462

apoindexter@hollandhospital.org

Cheryl Quinn – St. Joe Oakland

Onboarding a New QI Champion

New QI Champion

The Good Times

- Presented By: Cheryl Quinn
- Date: September 21, 2018

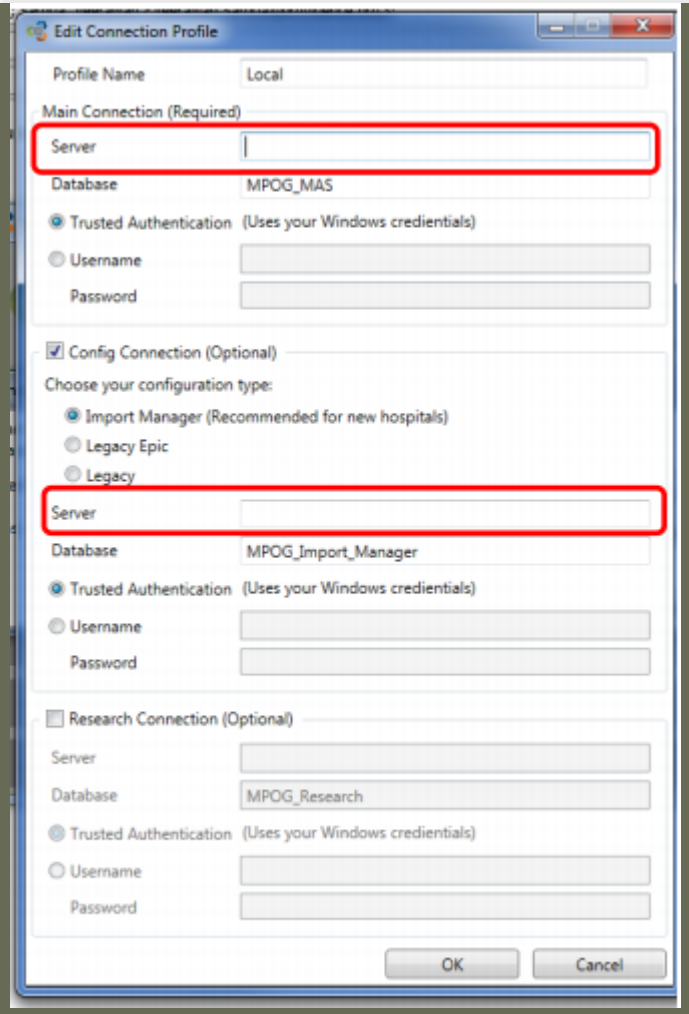
ST. JOSEPH MERCY OAKLAND
SAINT JOSEPH MERCY HEALTH SYSTEM

BeRemarkable.

Pick your champion. If at all possible ask someone you think will do a good job.

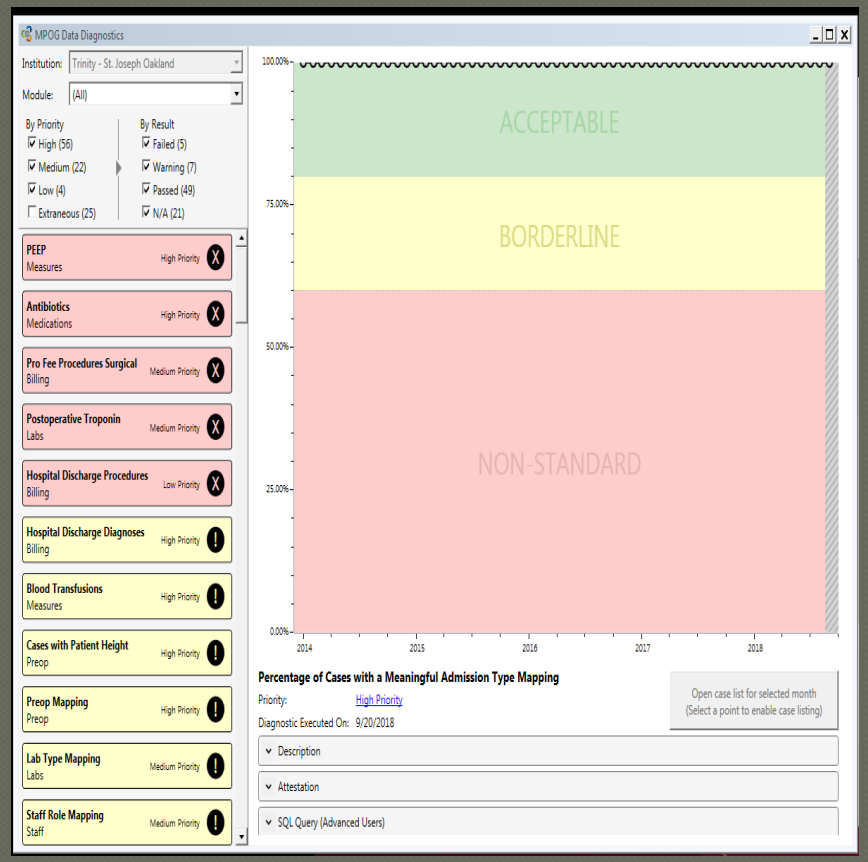
You need your IT department and your manager.

Your manager will have to request access to the MPOG suite . The IT team wants a ticket put in. You need to get your Champion on the phone with the IT department to give permission to download the MPOG suite.



- Know your Edit Connection Profile information.
- You many need a new computer.
- Your champion needs this information.
- MPOG Training Manual step by step instructions.

Show them the suite



Pay-for-performance Program (P4P)

2018 Anesthesiology Performance Improvement and Reporting Exchange (ASPIRE)
Collaborative Quality Initiative Performance Index Scorecard
Cohort 1 & 2

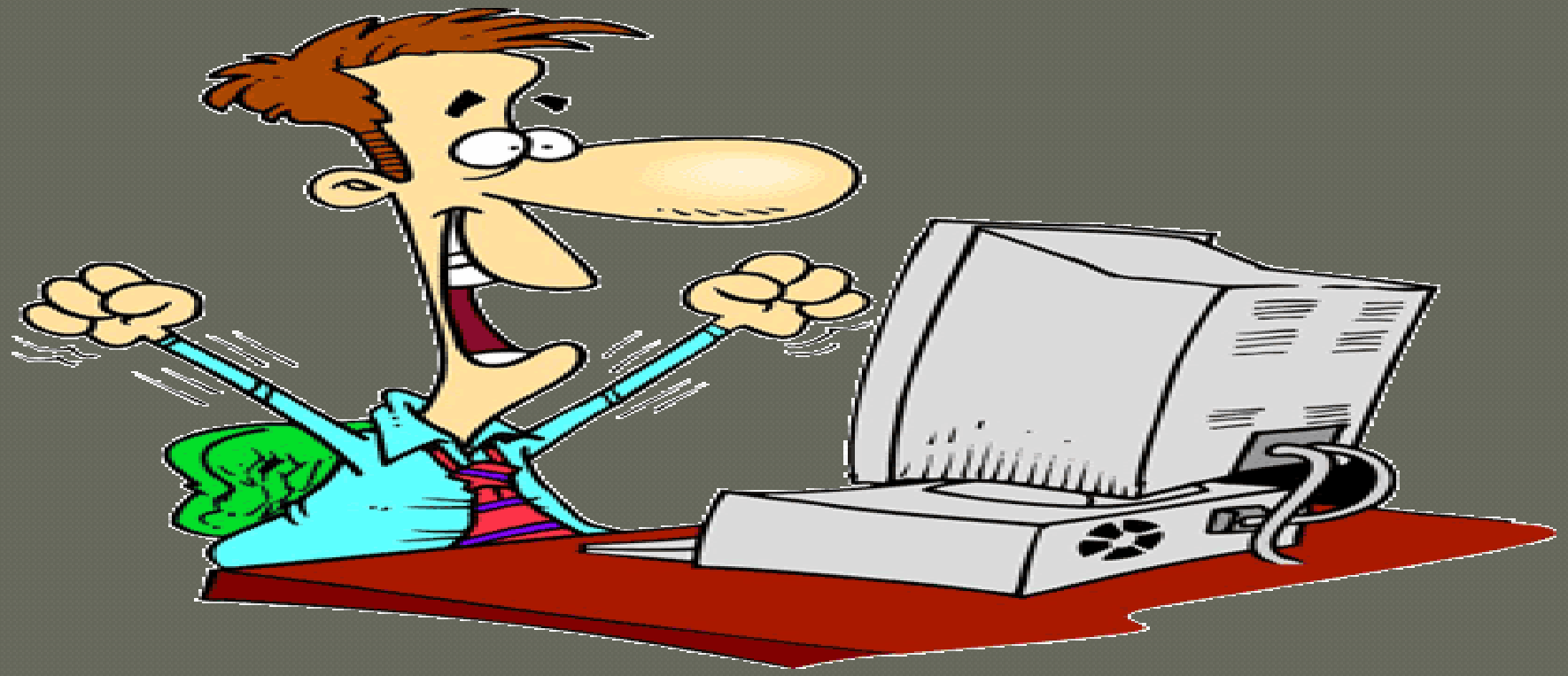
Measure #	Weight	Measure Description	Points
1	10%	Collaborative Meeting Participation: ASPIRE Quality Champion and Anesthesiology Clinical Quality Reviewer (ACQR)	
		Perfect or Nearly Peferct Attendance at Meetings	10
		Good Attendance at Meetings	5
		Attendance Needs Improvement at Meetings	0
2	10%	Attend monthly Webex ASPIRE Quality Committee Meetings	
		9 - 10 Meetings	10
		7 - 8 Meetings	5
		6 or less Meetings	0
3	5%	ACQR/ASPIRE Quality Champion perform data validation, case validation and submit data monthly by the 17th of each month	
		10-11/12 Months	5
		9 or Less Months	0
4	10%	ASPIRE Quality Champion and ACQR monthly meetings	
		12/12 Months	10
		11/12 Months	5
		10/12 Months or Less	0
5	10%	Site Based Quality Meetings: Sites to hold an onsite meeting following the ASPIRE Collaborative meetings to discuss the data and plans for quality improvement	
		3/3 Meeting	10
		2/3 Meeting	5
		1 or less Meetings	0
6	10%	Quality Inititavie project presentation at ASPIRE Monthly Quality Committee Meeting or ASPIRE Collaborative Meeting	
		Yes	10
		No	0
7	15%	Performance Measure: Pulmonary 01 (PUL 01) - percentage of cases with median tidal volumes less than 10 ml/kg (cumulative score through December 2018)	
		Performance is > 97.5%	15
		Performance is 95.0 - 97.5%	10
		Any improvement	5
		No performance improvement or decline	0

2018 Anesthesiology Performance Improvement and Reporting Exchange (ASPIRE)
Collaborative Quality Initiative Performance Index Scorecard
Cohort 1 & 2

Measure #	Weight	Measure Description	Points
8	15%	Performance Measure: Transfusion 02 (TRAN 02) - percentage of cases with a post transfusion hemoglobin or hematocrit value less than or equal to 10 g/dL or 30% (cumulative score through December 2018)	
		Performance is > 85%	15
		Performance is 80 - 85%	10
		Any improvement	5
		No performance improvement or decline	0
9	15%	Site Directed Measure: Sites choose a measure they are performing below national ASPIRE threshold by December 15, 2017 (cumulative score through December 2018)	
		Performance is > 90%	15
		Performance is 85 - 90%	10
		Any improvement	5
		No performance improvement or decline	0

Now it's time to learn Galileo

- They love the data….



How I keep myself organized

ACQR Maintenance Schedule Check List

Week 1

- Case by Case Validation (20 cases)
- Mapping of Missing Concepts
- Update Location Mapping

Week 2

- Data Diagnostics & Attestation
- Check Data Diagnostics (open case list)
- PHI scrubbing
- Look for Billing Data on the 11th

Week 3

- Failed Case Review (PUL-01 >97.5%, TRAN-02>85%, PONV >90%) 2018 Measures
- Mapping of Missing Concepts
- Upload to MPOG Central (3rd Wednesday) past 3 months of data
- After Wednesday transfer all historic data

Week 4

- Content Synchronization
- Update Provider Contacts
- Provider Feedback Emails Sent (4th Wednesday)
- Send ACQR/QI Report

Monthly QI Champion / ACQR Meeting

Monthly Quality Committee

Site Based Quarterly Meeting: May, August, October, November

Collaborative Meetings 2018 – April 20th, July 20th, September 21st, October 12th

Month of Data_____ Date of Data_____

Percent	Measure	Looking For	Example Findings	Results to be Reviewed	Failed Cases Count
%	AKI-01	^ CREAT > 0.3 POST			
%	BP-01	MEAN BP <55 / 20 MINS			
%	BP-02	>10 MIN GAP			
%	CARD-02	TROPONIN (>0.60)			
%	GLUC-01	HIGH BS RECHECK 90 MINS			
%	GLUC-02	LOW BS RECHECK 90 MINS			
%	MED-01	NALOXONE/FLUMAZENIL ADMINISTERED			
%	NMB-01	NO TOF			
%	NMB-02	NO REVERSAL NEOSTI or SUGAM			
%	**PONV-01**	2 ANTIEMETICS ADMINISTERED	**NEED 90%**		
%	PONV-02	Ages 3-17			
%	**PUL-01**	WT < 10ML/KG	**NEED 97.5%**		
%	PUL-02	WT < 8ML/KG			
%	TEMP-01	WARMING USED			
%	TEMP-02	CORE TEMP			
%	TEMP-03	30 MINS PRIOR CASE END or 15 MINS POST			
%	TOC-02	HANDOFF			
%	TRAN-01	HGB CHECKED PRIOR TO			
%	**TRAN-02**	POST 10 HGB/ 30 HCT	**NEED 85%**		

ASPIRE/ MPOG

MONTHLY CALLS 10am : September 24th (your office) Review 2019 P4P TOC-03

October 22nd

November 26th QI story presentation (Trello) PowerPoint

ON SITE MEETING: After ASA

October 12th MPOG Retreat / ASA **Dr Ellis** will have to report to staff after attending:
Pick a date: Oct 17th / Nov 2nd, 21st / Dec 7th, 19th

Schedule time at date selected. _____.

TRAN-02 84% (we need 85% to get the points)

PUL-01 99% (we need 97.5% to get the points)

PONV-01 88% (we need 90% to get the points)

Surgical quality meetings: January and July 2019

2019 ASPIRE MEETINGS : April 5th, July 26, Oct 18th in Orlando (ASA meeting).

On site meeting after each ASPIRE meeting. With all staff.

POSSIBLE Measures for 2019: PUL-03.

LUNCH BREAK

Afternoon Agenda

- Discussion Panel: ACQR/MPOG Programmer Q & A
- QI Stories
  - St. Mary Mercy Livonia
  - Mercy Health Muskegon
- Coordinating Center Feedback
- Opioid Equivalency Dashboard
- Reminders & Wrap-up

Discussion Panel: ACQR/MPOG Programmer Q & A

- Automatic transfer of monthly data?
- What new tools do you see being released over the next year?
- What information is most helpful to you when trouble shooting an issue in local?
- Dashboard display?
- Provider Contacts tool?
- Import Manager Conversion?

St. Mary Mercy Livonia – Kathleen Collins

Handoff Tool

TRANSFER OF CARE

Using ASPIRE Criteria to Improve Communication and Patient Safety

Kathleen L. Collins, CRNA, MS, ACQR
St. Mary Mercy Hospital, Livonia

MPOG ~ ASPIRE Rationale for TOC Measures (Quoted from MIPS 426):

- ***Hand-offs are a vulnerable moment for patient safety***, but required in any 24/7 healthcare system. Anesthesia providers routinely transfer patients from the operating room (OR) to the PACU, and are responsible for transmitting knowledge about patient history, a summary of intraoperative events, and future plans for hemodynamic and pain management to the new care team. ***Evidence demonstrates that this process can be facilitated by use of a standardized checklist*** to ensure completion of all key components of the transfer, and is seen as an emerging best practice in anesthesia care.1-3

- The Agency for Healthcare Research and Quality found that ***current sign-out mechanisms are generally ad-hoc, varying from hospital to hospital and unit to unit.*** According to data published by the Joint Commission, ***communication errors were indicated in 59% of reported sentinel events in 2012 and in 54% of operative/post-operative complications between 2004 and 2012.***
- A 2006 survey among residents at Massachusetts General Hospital found that 59% of respondents reported one or more patients experiencing harm as a result of ineffective patient handoff practices during their most recent clinical rotation.

Handoffs Causing Patient Harm: A Survey of Medical and Surgical House Staff

- 2006 survey of all residents in internal medicine and general surgery at Massachusetts General Hospital re: quality and effects of handoffs during recent inpatient rotations

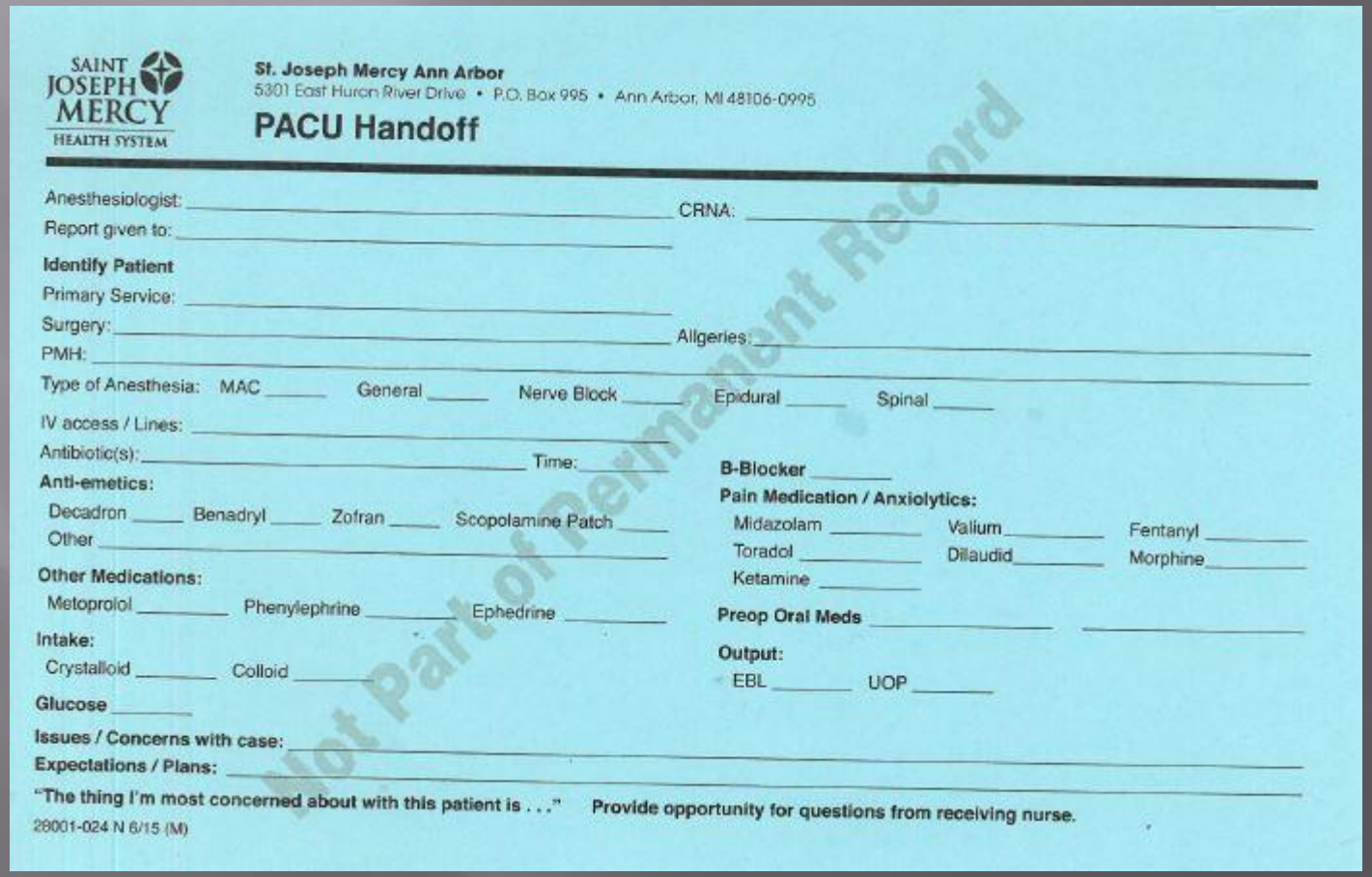
- 161 participants
  - 59% reported one or more patients had been harmed because of problematic handoffs
  - 12% reported this harm had been major

- Handoffs often marked by missing, incomplete, or inaccurate information

The Joint Commission Journal on Quality and Patient Safety
Volume 34, Issue 10, October 2008, Pages 563-570, 570a-570d

Original SJAA/A4 Handoff Form, AKA "The Blue Sheet"

- Brought to SMML by A4 (Anesthesia Associates of Ann Arbor)



SAINT JOSEPH MERCY HEALTH SYSTEM

St. Joseph Mercy Ann Arbor
5301 East Huron River Drive • P.O. Box 995 • Ann Arbor, MI 48106-0995

PACU Handoff

Anesthesiologist: _____ CRNA: _____
Report given to: _____

Identify Patient
Primary Service: _____
Surgery: _____ Allgeries: _____
PMH: _____
Type of Anesthesia: MAC _____ General _____ Nerve Block _____ Epidural _____ Spinal _____
IV access / Lines: _____
Antibiotic(s): _____ Time: _____
Anti-emetics:
Decadron _____ Benadryl _____ Zofran _____ Scopolamine Patch _____
Other _____
Other Medications:
Metoprolol _____ Phenylephrine _____ Ephedrine _____
Intake:
Crystalloid _____ Colloid _____
Glucose _____

B-Blocker _____
Pain Medication / Anxiolytics:
Midazolam _____ Valium _____ Fentanyl _____
Toradol _____ Dilaudid _____ Morphine _____
Ketamine _____
Preop Oral Meds _____ _____
Output:
EBL _____ UOP _____

Issues / Concerns with case: _____
Expectations / Plans: _____
"The thing I'm most concerned about with this patient is . . ." **Provide opportunity for questions from receiving nurse.**
28001-024 N 6/15 (M)

Not Part of Permanent Record

Blue Sheet Issues

- Too small to read
- No room to write
- Outdated, not reflective of current practice
- Not complete (missing info needed in handoff and TOC)
- Allgeries. Really??

First Draft
12-25-2017

St. Joseph Mercy LOGO/Address

PACU HANDOFF

Anesthesiologist:_____ CRNA:_____

Report Given To:_____

Identify Patient

Primary Service:_____ **Allergies**: _____

Surgery:_____ Contact Precautions: Y / N

PMH:_____

PSxH:_____

OSA: Y / N CPAP? Y / N STOP/BANG Score: _____

Anesthetic: MAC___ General: ET___ LMA___ Nerve Block_____ Epidural____ Spinal____

IV access/lines:_____ **B-Blocker** Y / N

Antibiotics:_____ Time:_____ Re-dose?_____

PONV Score: _____ Decadron ____ Benadryl ____ Zofran ____ Scopolamine patch ____

Pre-op IV meds:_____ **Pain Medications / Anxiolytics**:

Other Rx: Midazolam____ Valium____ Fentanyl ____

Metoprolol ____ Phenylephrine _____ Toradol ____ Dilaudid ____ Morphine ____

Ephedrine ____ Other: _____ Ketamine ____ Other: _____

Muscle relaxants: None ___ Drug / Time of Last Dose: _____

Reversed? Y / N Reversal / Time:_____

Glucose: _____ Treatment: _____ Intraop labs: _____

Intake: Crystalloid _____ Colloid _____

Output: EBL _____ UOP _____ Other _____

Anesthesia concerns: _____

Pain Management Plan: _____ **Anesthesia complications:** Y/ N

Comments: _____

Draft #6
Shared With SJAA/A4, February 2018

St. Joseph Mercy/SMML LOGO/Address

ANESTHESIA TRANSFER OF CARE FORM

Anesthesiologist:_____ CRNA:_____

Identify Patient:_____ Report from (POHA):_____Given To (PACU):_____

Primary Service:_____ **Allergies**: _____

PMH:_____PSxH_____

Surgery:_____

OSA: Y / N **CPAP**: Y / N **STOP/BANG Score**: ____ **B-Blocker**: Y / N **Contact Precautions**: Y / N **Preg**: Y/N

PONV Score: ____ **Pre-op PO meds**: Decadron _____ Benadryl ____ Zofran ____ Scopolamine____ Celebrex____ Gabapentin____ Acetaminophen_____Other_____

Pre-op IV meds:_____ **Prewarmed**: Y / N

Anesthetic: MAC___ GA/ET ___ GA/LMA ___ **Glidescope**____ Epidural____ Spinal____

Nerve Block_____ **Local Anes. Total**:_____

IV access/lines:_____

Antibiotics:_____ Time:_____ Re-dose:_____

Anes. Rx: Midazolam_____ Fentanyl____ Dilaudid____ Toradol_____ Morphine_____ Ketamine_____ Valium_____ **Reversal**_____

Other Rx: Ephedrine____Phenylephrine____ Metoprolol_____Other_____

Muscle relaxants: None _____ Reversed: Y / N Sugammadex: Y / N

Glucose: _____@_____ Treatment: _____ Labs: _____

Intake: Crystalloid _____ Colloid _____

IV Infusions/Pressors:_____

Output: EBL _____ UOP _____ Other_____

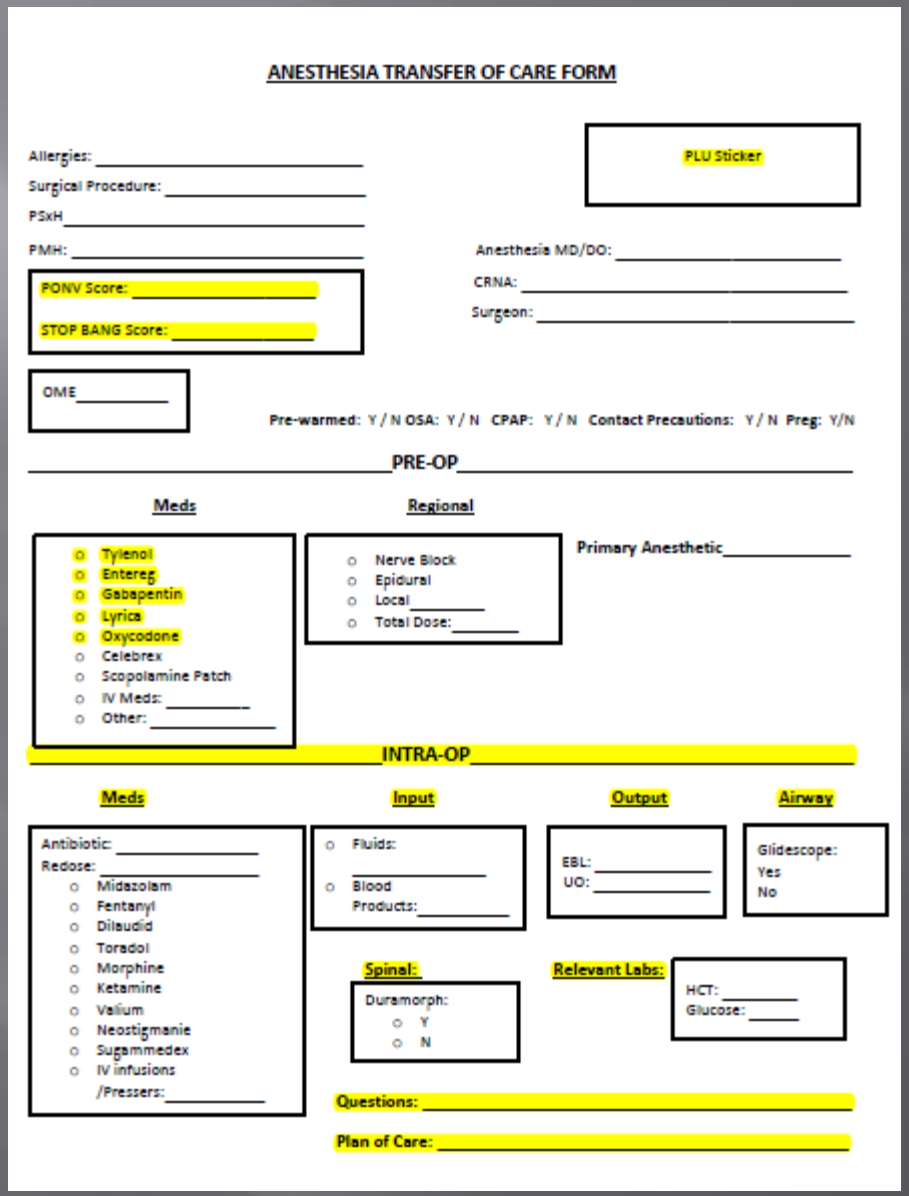
Vent Settings: VT_____ RR_____ FIO2_____ PEEP_____ Size:_____ Secured@_____ BBS Equal: Y / N

Anesthesia concerns: _____

Pain Management Plan: _____ **Anesthesia complications**: Y/ N

Comments: _____

SJAA/A4 First Draft
3-01-2018



ANESTHESIA TRANSFER OF CARE FORM

Allergies: _____

Surgical Procedure: _____

PSxH _____

PMH: _____

PONV Score: _____

STOP BANG Score: _____

PLU Sticker

Anesthesia MD/DO: _____

CRNA: _____

Surgeon: _____

OME _____

Pre-warmed: Y / N OSA: Y / N CPAP: Y / N Contact Precautions: Y / N Preg: Y/N

PRE-OP

Meds

- Tylenol
- Entereg
- Gabapentin
- Lyrica
- Oxycodone
- Celebrex
- Scopolamine Patch
- IV Meds: _____
- Other: _____

Regional

- Nerve Block
- Epidural
- Local _____
- Total Dose: _____

Primary Anesthetic _____

INTRA-OP

Meds

Antibiotic: _____

Redose: _____

- Midazolam
- Fentanyl
- Dilaudid
- Toradol
- Morphine
- Ketamine
- Valium
- Neostigmanie
- Sugammedex
- IV infusions /Pressers: _____

Input

- Fluids: _____
- Blood Products: _____

Output

EBL: _____

UO: _____

Airway

Glidescope:
Yes
No

Spinal:

Duramorph:
- Y
- N

Relevant Labs:

HCT: _____

Glucose: _____

Questions: _____

Plan of Care: _____

TOC 02 (MIPS 426)

- Description: Percentage of patients, regardless of age, who are under the care of an anesthesia practitioner and are admitted to a PACU in which a post-anesthetic formal transfer of care protocol or checklist which includes the key transfer of care elements is utilized.

MPOG PACU Audit Tool Elements:

Background
Introduction (Provider names and roles: PACU RN and anesthesia team members)
Identification of patient*
Pertinent PMH/PSH
Discussion of surgical/procedure course
Allergies
Contact Precautions
Anesthetic Management
Airway management (ETT/ LMA)
Type of anesthetic
Anesthetic Complications
Medications
Preoperative Meds
Sedations medications & amount administered. Reversal administered?
Muscle relaxants: Time/Amount administered. Reversal administered?
Pain Management Plan
PONV Risk & Meds Administered
Fluids
Vascular access
Total Intraoperative Fluids/Blood Products Administered
Intraoperative labs
Expectations/Plans
Identify primary anesthesia concerns for this patient.
Allow opportunity for questions/acknowledgement of understanding of report from receiving PACU team

TOC 03 (MIPS 427)

- Description: Percentage of patients, regardless of age, who undergo a procedure under anesthesia and are admitted to an Intensive Care Unit (ICU) directly from the anesthetizing location, who have a documented use of a checklist or protocol for the transfer of care from the responsible anesthesia practitioner to the responsible ICU team or team member

TOC 03 Supplement:

MPOG sites interested in auditing the transfer of care process can utilize the ICU Handoff Form available through the MQUARK application. More information regarding the MQUARK audit application is available on the MPOG website: https://mpog.org/apps/

MPOG ICU Audit Tool Elements:

Background
Introduction (Provider names and roles: ICU RN and anesthesia team members)
Identification of patient**, key family member(s)
Identification of responsible practitioner (primary service)
Pertinent PMH/PSH
Discussion of surgical/procedure course
Allergies
Contact Precautions
Anesthetic Management
Airway management (ETT size, device used, difficulty)
Type of anesthetic
Anesthetic Complications
Medications
Preoperative Meds
Sedations medications & amount administered. Reversal administered?
Muscle relaxants: Patient's current status. Time/Amount administered. Reversal administered?
Pain Management Plan
Fluids
Vascular access
Total Intraoperative Fluids/Blood Products Administered
Intraoperative labs
Expectations/Plans
Identify primary anesthesia concerns for this patient.
Allow opportunity for questions/acknowledgement of understanding of report from receiving ICU team

ASPIRE CRITERIA Addressed

- ASPIRE requires that the PACU RN/responsible professional be identified; we included the POHA nurse for continuity of care, so that we would know who to contact with questions re: pt prep, meds, etc., and also to allow us to ID which RNs were prewarming patients (ASPIRE **TEMP – 03**, and **Enhanced Recovery** criteria). (There is method in the madness).

- ASPIRE Measures **GLU 01** and **GLU 02** require intervention within 90 minutes of the result, with subsequent 90 minute recheck, which is why we require a time (**Glucose**: _____@_____ Treatment: _____)
  - o https://mpog.org/files/quality/measures/GLU-01_spec.pdf
  - o https://mpog.org/files/quality/measures/GLU-02_spec.pdf

- Administration of **Beta Blocker** is critical info for **SCIP QI**, is included in the surgical Time-out and needed to be added back

- **IV access** is also part of ASPIRE required TOC (added back)
- Intraop needs to include whether **muscle relaxants were used**, and if they were reversed (Sugammadex)
- The airway should also specify whether an **LMA, ETT, &/or Glidescope** were used
- There needs to be a TOTAL Local Anesthetic dose that includes LA given in the OR (not just the block in POHA)
- Include **Vent settings and ETT placement** for patients who remain intubated, formatted in any way you think best
  (VT_____ RR_____ FIO2_____
  PEEP_____ Size:_____ Secured@_____ BBS Equal: Y / N)

Final TOC Combined Draft #7:

Are you ready?

ANESTHESIA TRANSFER OF CARE FORM

PLU Sticker

Allergies: _____ Surgical Procedure: _____

Anesthesia MD/DO: _____ CRNA: _____

Surgeon: _____ PSHx: _____

PMHx: _____

Pregnant: Y / N DNAR: Y / N OSA: Y / N CPAP: Y / N Contact Precautions: Y / N

Pacemaker Y/N AICD Y/N MME: _____ PONV score: _____ STOP BANG score: _____

Pre-Op Hand Off from: _____

Pre-OP Meds

- ○ Tylenol
- ○ Diazepam
- ○ Entereg
- ○ Gabapentin
- ○ Oxycodone
- ○ Celebrex
- ○ Scop patch
- ○ Beta Blocker
- ○ IV Meds:

_____

_____

Regional

- ○ Nerve Block_____
- ○ Epidural _____
- ○ Local _____
- ○ Intra-op Local _____
- ○ Total Dose:

_____

_____

Primary Anesthetic

- ○ GA
  - ○ LMA
  - ○ ETT
  - ○ Glidescope
- ○ MAC
- ○ SAB/Epidural
  - ○ Duramorph

IV Access/Lines: _____

Antibiotic: _____ Redose: _____

Intra-Op Meds

- ○ Midazolam _____
- ○ Fentanyl _____
- ○ Dilaudid _____
- ○ Toradol _____
- ○ Morphine _____
- ○ Ketamine _____
- ○ Diazepam _____
- ○ Propofol _____
- ○ Sed. Rev. _____
- ○ NMB Rev. _____
- ○ IV Infusion/Pressors

_____

_____

Input

Fluids:

_____

Blood Products:

_____

Output

EBL: _____

UO: _____

PONV

- ○ Decadron
- ○ Zofran
- ○ Benadryl

LABS: _____

Questions/Concerns: _____

Anesth. Complx: _____

Pain Mgmnt POC: _____

PACU Handoff to: _____

ICU Handoff To: _____

ETT Size _____ secured @ _____ and primary service _____

Anesthesia Transfer of Care Form

- Started as a badly needed, ASPIRE-influenced update for St. Mary Mercy Hospital, Livonia
- Initial drafts tested by SMML CRNA staff
- Sixth draft shared with St. Joe's Ann Arbor and A4
- With input and collaboration from Ann Arbor, Chelsea, Livingston and Brighton anesthesia staff, 7 drafts were developed and modified

SAINT JOSEPH MERCY HEALTH SYSTEM

St. Joseph Mercy Ann Arbor
5301 East Huron River Drive
P.O. Box 995
Ann Arbor, MI 48106-0995

Anesthesia Transfer of Care Form

PLUE Sticker

Allergies: _____ Surgical Procedure: _____

Anesthesia MD / DO: _____ CRNA: _____

Surgeon: _____ PSHx: _____

PMHx: _____

Pregnant: Y / N DNAR: Y / N OSA: Y / N CPAP: Y / N Contact Precautions: Y / N

Pacemaker: Y / N AICD: Y / N MME: _____ PONV Score: _____ STOP BANG Score: _____

Pre-Op Hand Off From: _____

PRE-OP MEDS

- ☐ Tylenol
- ☐ Diazepam
- ☐ Entereg
- ☐ Gabapentin
- ☐ Oxycodone
- ☐ Celebrex
- ☐ Scop Patch
- ☐ Beta Blocker
- ☐ IV Meds:

_____

_____

REGIONAL

- ☐ Nerve Block _____
- ☐ Epidural _____
- ☐ Local _____
- ☐ Intra-op Local _____
- ☐ Total Dose:

_____

_____

PRIMARY ANESTHESTIC

- ☐ GA
  - ☐ LMA
  - ☐ ETT
  - ☐ Glidescope
- ☐ MAC
- ☐ SAB / Epidural
  - ☐ Duramorph

IV Access / Lines: _____

Antibiotic: _____ Redose: _____

INTRA-OP MEDS

- ☐ Midazolam _____
- ☐ Fentanyl _____
- ☐ Dilaudid _____
- ☐ Toradol _____
- ☐ Morphine _____
- ☐ Ketamine _____
- ☐ Diazepam _____
- ☐ Propofol _____
- ☐ Sed. Rev. _____
- ☐ NMB Rev. _____
- ☐ IV Infusion / Pressors

_____

INPUT

Fluids:

_____

Blood Products:

_____

OUTPUT

EBL: _____

UO: _____

PONV

- ☐ Decadron
- ☐ Zofran
- ☐ Benadryl

Labs: _____

Questions / Concerns: _____

Anesth. Complx: _____

Pain Mgmnt POC: _____

PACU Handoff to: _____

ICU Handoff to: _____

ETT Size _____ secured @ _____ and primary service _____

28001-023 R 5/18 (M)

STOP/BANG Review:

- Snoring
- Tired
- Observed Obstruction
- Pressure (HTN)
- BMI > 35
- Age > 50
- Neck > 17 in. Male; > 16 in. Female
- Gender (Male)
  - 0-2 = Low risk; 3-4 = Mod. risk; 5-8 = High risk
  - or High risk if Yes to 2 of STOP questions AND
    - Male; or BMI >35; or Neck Size > 16-17 in.

13th Time's a Charm!

- This TOC tool is now available for use throughout the St. Joseph Mercy Health System. It can be modified in future as practice changes
- It is NOT a part of the permanent record, is filled out during each case, and can be adapted for each patient and provider
- All requirements for safe, consistent TOC are provided
- You can lead a horse to water…

Different systems have different routines, preferences and needs

- Whether electronic or printed, it is essential that the TOC be consistent and thorough
- We just happen to prefer the hand-off checklist
  - All the info in one place
  - Don't have to fight over the computer to retrieve info
- If you have questions or would like more info, please contact me any time
  - Kathleen.Collins@stjoeshealth.org
  - 734-655-2369
- Many thanks to Chris Ladd, Dr. Susan Molina, Dr. Traci Coffman, and Brandy Horton for their input and feedback. This was a TEAM effort.

Mercy Health Muskegon – Joan Crawford

New Provider Orientation

MERCY HEALTH

ASPIRE/MPOG ACQR RETREAT

Mercy Health Muskegon

Get On-Board

Dr. John LaGorio, Physician Champion
Joan Crawford, ACQR

MERCY HEALTH

About our facilities:

- Trinity Health with 2 Muskegon campuses, Hackley and Mercy
- New facility under construction, 19 ORs
- Trinity will change to Epic EMR over the next 4 years

About our providers:

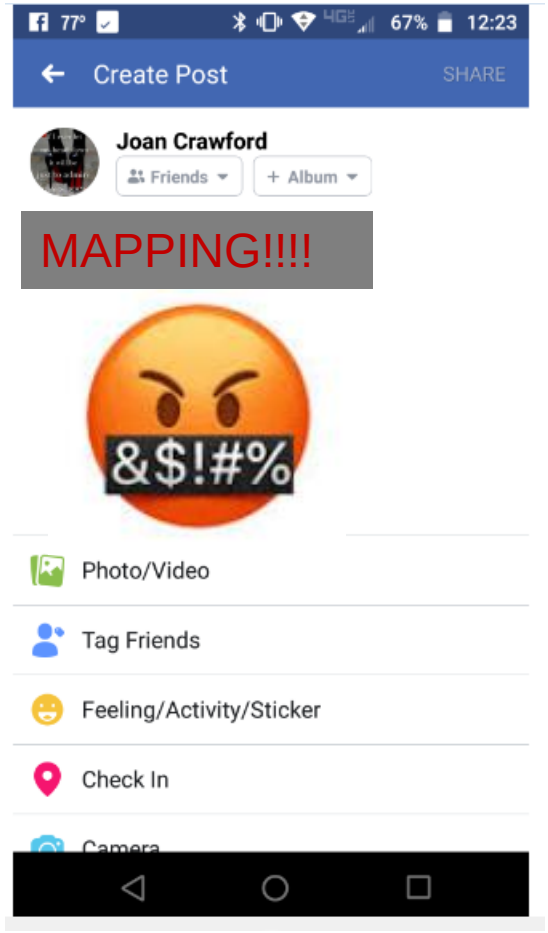
- American Anesthesiology of Michigan-Lakeshore (AAMU)
- 32 anesthesiologists and 23 CRNAs
- Perform over 2200 cases/month between Hackley and Mercy

About MPOG/ASPIRE:

- Cohort 1 (2015)
  - 4 ACQRs
  - 23 providers left
  - 38 new providers

MERCY HEALTH

About the biggest change…



MERCY HEALTH

About all that change…

- Using the Provider list in Galileo we determined
  - PUL 01: new staff comprised 44% of all of providers in this measure and were responsible for 51% of the measure fails
  - TRAN 02: new staff comprised 43% of all providers in this measure and were responsible for 55% of the measure fails
  - TEMP 01: new staff comprised 45% of all providers in this measure and were responsible for 36% of the measure fails
    - Using this Galileo tool we were able to drill down and determine one long-term provider had 23% of the institutional fails
    - The provider did not document Bair huggers in the anesthesia record although the peri-op nursing record contained this information

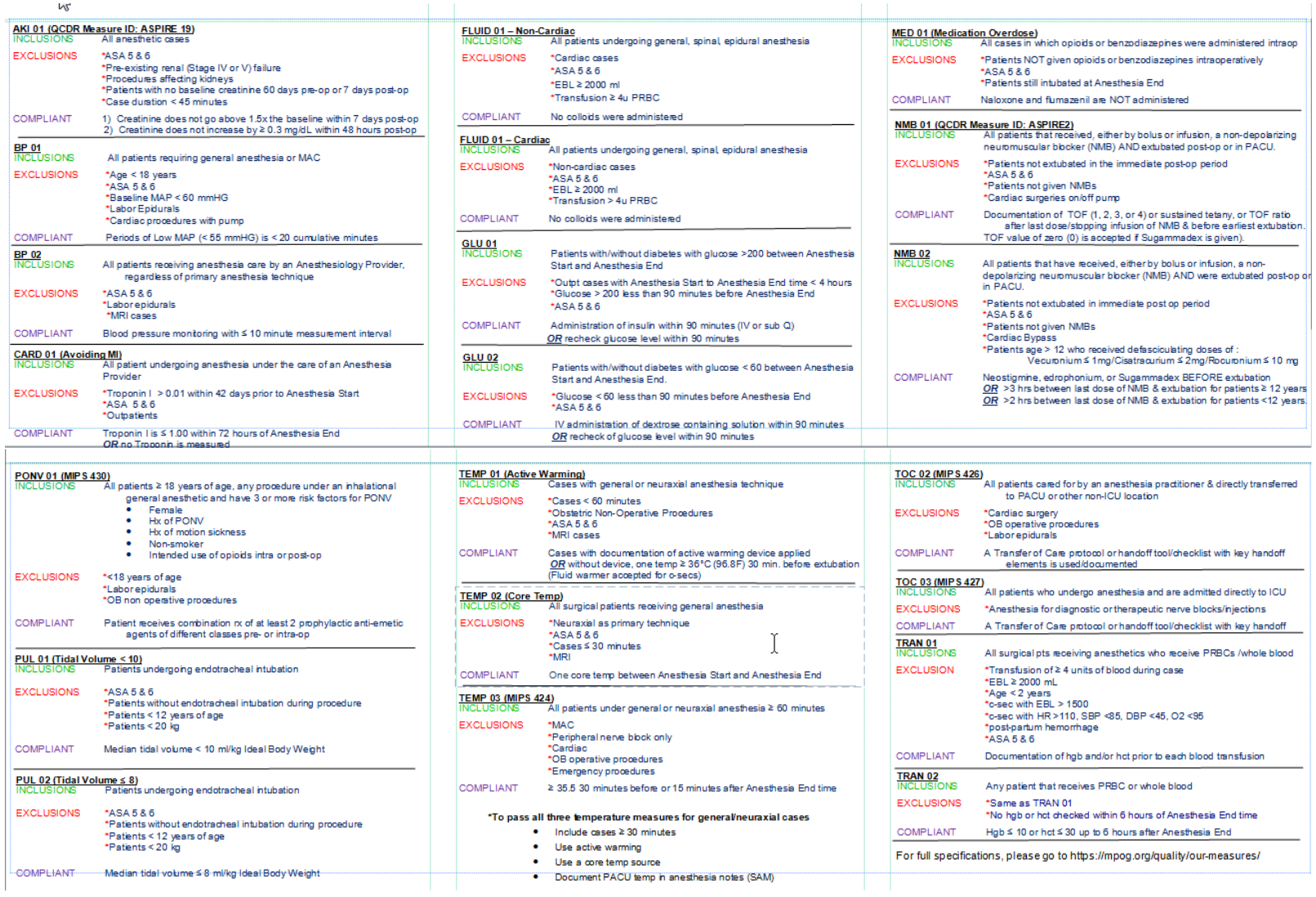
MERCY HEALTH

About improvements…

- In April 2018 (borrowing Jerri's template) we updated the pocket measure card and distributed it to both new-hires and long term providers.
- The card is a tri-fold measuring approximately 5"x5"
- Contained all the measures current at that time
  - Inclusions
  - Exclusions
  - Compliance
- Included a link to the MPOG site for full specifications

MERCY HEALTH

Pocket Measure Card



AKI 01 (QCDR Measure ID: ASPIRE 19)
INCLUSIONS: All anesthetic cases
EXCLUSIONS: *ASA 5 & 6; *Pre-existing renal (Stage IV or V) failure; *Procedures affecting kidneys; *Patients with no baseline creatinine 60 days pre-op or 7 days post-op; *Case duration < 45 minutes
COMPLIANT: 1) Creatinine does not go above 1.5x the baseline within 7 days post-op 2) Creatinine does not increase by ≥ 0.3 mg/dL within 48 hours post-op

BP 01
INCLUSIONS: All patients requiring general anesthesia or MAC
EXCLUSIONS: *Age < 18 years; *ASA 5 & 6; *Baseline MAP < 60 mmHG; *Labor Epidurals; *Cardiac procedures with pump
COMPLIANT: Periods of Low MAP (< 55 mmHG) is < 20 cumulative minutes

BP 02
INCLUSIONS: All patients receiving anesthesia care by an Anesthesiology Provider, regardless of primary anesthesia technique
EXCLUSIONS: *ASA 5 & 6; *Labor epidurals; *MRI cases
COMPLIANT: Blood pressure monitoring with ≤ 10 minute measurement interval

CARD 01 (Avoiding MI)
INCLUSIONS: All patient undergoing anesthesia under the care of an Anesthesia Provider
EXCLUSIONS: *Troponin I > 0.01 within 42 days prior to Anesthesia Start; *ASA 5 & 6; *Outpatients
COMPLIANT: Troponin I is ≤ 1.00 within 72 hours of Anesthesia End ***OR*** no Troponin is measured

FLUID 01 – Non-Cardiac
INCLUSIONS: All patients undergoing general, spinal, epidural anesthesia
EXCLUSIONS: *Cardiac cases; *ASA 5 & 6; *EBL ≥ 2000 ml; *Transfusion ≥ 4u PRBC
COMPLIANT: No colloids were administered

FLUID 01 – Cardiac
INCLUSIONS: All patients undergoing general, spinal, epidural anesthesia
EXCLUSIONS: *Non-cardiac cases; *ASA 5 & 6; *EBL ≥ 2000 ml; *Transfusion > 4u PRBC
COMPLIANT: No colloids were administered

GLU 01
INCLUSIONS: Patients with/without diabetes with glucose >200 between Anesthesia Start and Anesthesia End
EXCLUSIONS: *Outpt cases with Anesthesia Start to Anesthesia End time < 4 hours; *Glucose > 200 less than 90 minutes before Anesthesia End; *ASA 5 & 6
COMPLIANT: Administration of insulin within 90 minutes (IV or sub Q) ***OR*** recheck glucose level within 90 minutes

GLU 02
INCLUSIONS: Patients with/without diabetes with glucose < 60 between Anesthesia Start and Anesthesia End.
EXCLUSIONS: *Glucose < 60 less than 90 minutes before Anesthesia End; *ASA 5 & 6
COMPLIANT: IV administration of dextrose containing solution within 90 minutes ***OR*** recheck of glucose level within 90 minutes

MED 01 (Medication Overdose)
INCLUSIONS: All cases in which opioids or benzodiazepines were administered intraop
EXCLUSIONS: *Patients NOT given opioids or benzodiazepines intraoperatively; *ASA 5 & 6; *Patients still intubated at Anesthesia End
COMPLIANT: Naloxone and flumazenil are NOT administered

NMB 01 (QCDR Measure ID: ASPIRE2)
INCLUSIONS: All patients that received, either by bolus or infusion, a non-depolarizing neuromuscular blocker (NMB) AND extubated post-op or in PACU.
EXCLUSIONS: *Patients not extubated in the immediate post-op period; *ASA 5 & 6; *Patients not given NMBs; *Cardiac surgeries on/off pump
COMPLIANT: Documentation of TOF (1, 2, 3, or 4) or sustained tetany, or TOF ratio after last dose/stopping infusion of NMB & before earliest extubation. TOF value of zero (0) is accepted if Sugammadex is given).

NMB 02
INCLUSIONS: All patients that have received, either by bolus or infusion, a non-depolarizing neuromuscular blocker (NMB) AND were extubated post-op or in PACU.
EXCLUSIONS: *Patients not extubated in immediate post op period; *ASA 5 & 6; *Patients not given NMBs; *Cardiac Bypass; *Patients age > 12 who received defasciculating doses of : Vecuronium ≤ 1mg/Cisatracurium ≤ 2mg/Rocuronium ≤ 10 mg
COMPLIANT: Neostigmine, edrophonium, or Sugammadex BEFORE extubation ***OR*** >3 hrs between last dose of NMB & extubation for patients ≥ 12 years ***OR*** >2 hrs between last dose of NMB & extubation for patients <12 years.

PONV 01 (MIPS 430)
INCLUSIONS: All patients ≥ 18 years of age, any procedure under an inhalational general anesthetic and have 3 or more risk factors for PONV
- Female
- Hx of PONV
- Hx of motion sickness
- Non-smoker
- Intended use of opioids intra or post-op

EXCLUSIONS: *<18 years of age; *Labor epidurals; *OB non operative procedures
COMPLIANT: Patient receives combination rx of at least 2 prophylactic anti-emetic agents of different classes pre- or intra-op

PUL 01 (Tidal Volume < 10)
INCLUSIONS: Patients undergoing endotracheal intubation
EXCLUSIONS: *ASA 5 & 6; *Patients without endotracheal intubation during procedure; *Patients < 12 years of age; *Patients < 20 kg
COMPLIANT: Median tidal volume < 10 ml/kg Ideal Body Weight

PUL 02 (Tidal Volume ≤ 8)
INCLUSIONS: Patients undergoing endotracheal intubation
EXCLUSIONS: *ASA 5 & 6; *Patients without endotracheal intubation during procedure; *Patients < 12 years of age; *Patients < 20 kg
COMPLIANT: Median tidal volume ≤ 8 ml/kg Ideal Body Weight

TEMP 01 (Active Warming)
INCLUSIONS: Cases with general or neuraxial anesthesia technique
EXCLUSIONS: *Cases < 60 minutes; *Obstetric Non-Operative Procedures; *ASA 5 & 6; *MRI cases
COMPLIANT: Cases with documentation of active warming device applied ***OR*** without device, one temp ≥ 36°C (96.8F) 30 min. before extubation (Fluid warmer accepted for c-secs)

TEMP 02 (Core Temp)
INCLUSIONS: All surgical patients receiving general anesthesia
EXCLUSIONS: *Neuraxial as primary technique; *ASA 5 & 6; *Cases ≤ 30 minutes; *MRI
COMPLIANT: One core temp between Anesthesia Start and Anesthesia End

TEMP 03 (MIPS 424)
INCLUSIONS: All patients under general or neuraxial anesthesia ≥ 60 minutes
EXCLUSIONS: *MAC; *Peripheral nerve block only; *Cardiac; *OB operative procedures; *Emergency procedures
COMPLIANT: ≥ 35.5 30 minutes before or 15 minutes after Anesthesia End time

***To pass all three temperature measures for general/neuraxial cases**
- Include cases ≥ 30 minutes
- Use active warming
- Use a core temp source
- Document PACU temp in anesthesia notes (SAM)

TOC 02 (MIPS 426)
INCLUSIONS: All patients cared for by an anesthesia practitioner & directly transferred to PACU or other non-ICU location
EXCLUSIONS: *Cardiac surgery; *OB operative procedures; *Labor epidurals
COMPLIANT: A Transfer of Care protocol or handoff tool/checklist with key handoff elements is used/documented

TOC 03 (MIPS 427)
INCLUSIONS: All patients who undergo anesthesia and are admitted directly to ICU
EXCLUSIONS: *Anesthesia for diagnostic or therapeutic nerve blocks/injections
COMPLIANT: A Transfer of Care protocol or handoff tool/checklist with key handoff

TRAN 01
INCLUSIONS: All surgical pts receiving anesthetics who receive PRBCs /whole blood
EXCLUSION: *Transfusion of ≥ 4 units of blood during case; *EBL ≥ 2000 mL; *Age < 2 years; *c-sec with EBL > 1500; *c-sec with HR >110, SBP <85, DBP <45, O2 <95; *post-partum hemorrhage; *ASA 5 & 6
COMPLIANT: Documentation of hgb and/or hct prior to each blood transfusion

TRAN 02
INCLUSIONS: Any patient that receives PRBC or whole blood
EXCLUSIONS: *Same as TRAN 01; *No hgb or hct checked within 6 hours of Anesthesia End time
COMPLIANT: Hgb ≤ 10 or hct ≤ 30 up to 6 hours after Anesthesia End

For full specifications, please go to https://mpog.org/quality/our-measures/

MERCY HEALTH

About Improvements (cont)

- In July 2018 each new provider received a welcome letter from the anesthesia practice's QA Manager outlining her role in the practice's compliance, risk metrics and MPOG
- The one-pagers for the 3 MPOG measures (PUL 01, TRAN 02 and TEMP 01) were included
- A monthly score card goes out as well

MERCY HEALTH

Score Card

July-18								Jul 2017-Jun 2018			
PROVIDER	POSTOP NOTES	ANESTHESIA CONSENT			SAM ISSUES		NARC LOG	ASPIRE PASS 12 MO Rolling RATE			ICD 10 MODULE
NAME	# Incomplete Charts Including Wrong Encounter	Sign	Date	Time	# Charts Incomplete DOS	# Charts Incomplete 2 WKs	# Narcotics Issues Pharmacy	Pul-01 goal 97.5%	Temp-01 goal 90%	Tran-02 goal 90%	Incomplete ICD 10 Module
	0	0	0	0	0	0	0	98%	98%	100%	
	0	1	1	1	3	0	2	93%	90%	60%	
	0	0	0	0	1	0	0	99%	89%	33%	
	0	0	0	0	2	1	0	NA	NA	NA	
	1	0	0	0	4	0	4	98%	95%	70%	
	0	0	0	0	0	0	0	NA	NA	NA	
	0	0	0	1	0	0	0	96%	98%	75%	
	1	0	0	0	0	0	0	93%	98%	100%	
	0	0	0	1	0	0	1	96%	95%	NA	
	0	0	0	0	0	0	0	96%	74%	NA	
	1	0	0	0	0	0	3	95%	87%	100%	
	0	0	0	0	0	0	0	93%	42%	NA	
	0	0	0	0	0	0	0	99%	81%	0%	
	1	0	0	2	0	0	0	98%	97%	100%	
	0	0	0	0	0	0	0	100%	100%	NA	
	1	0	0	0	1	1	0	97%	97%	58%	
	1	0	0	0	2	0	0	92%	94%	0%	
	0	0	0	2	3	3	0	94%	92%	100%	
	0	0	0	0	0	0	0	85%	98%	NA	
	0	0	0	0	0	0	0	95%	97%	100%	
	0	0	0	0	5	5	5	92%	98%	80%	
	0	0	0	0	1	1	1	99%	95%	100%	
	0	0	0	0	0	0	2	98%	98%	91%	
	0	0	0	0	0	0	0	94%	88%	100%	
	0	0	0	0	0	0	0	97%	81%	100%	
	0	0	0	0	0	0	0	99%	96%	100%	
	1	0	0	0	0	0	0	97%	97%	100%	
	0	0	0	0	0	0	1	100%	98%	100%	
	0	0	0	0	1	0	0	79%	93%	100%	
	2	0	0	0	1	0	0	95%	82%	100%	
	1	0	0	1	1	0	1	98%	81%	67%	
	0	0	0	0	1	0	1	97%	94%	67%	
	0	1	1	1	0	0	0	98%	97%	100%	
	0	1	1	1	1	0	0	93%	94%	80%	
	0	0	0	0	0	0	3	93%	25%	25%	
	0	0	0	0	0	0	0	97%	97%	100%	
TOTAL FALLOUT	10	3	3	10	27	11	24				0
# REVIEWED CHARTS	288	300	300	300							
% FALLOUT	3%	1%	1%	3%							

MERCY HEALTH

PUL 01: Low Tidal Volume <10 mL/kg

Our institutional compliance for the past 12 months:

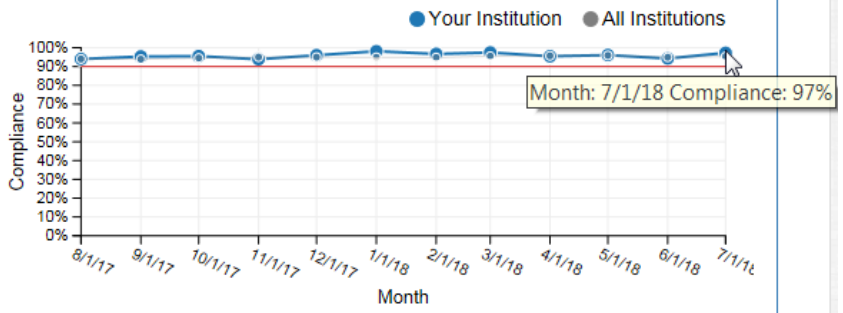
Overall Performance

96% Target 90%

Counts

PUL-01 Result	Count
Passed	7,071
Failed	305
Excluded	22,029
	29,405

Trend



Breakdown of Primary Cause

PUL-01 Result	PUL-01 Result Reason	Case Count
Excluded	Ventilation Duration	12,787
Excluded	Endotracheal Tube Used	7,981
Excluded	Patient Age	820
Excluded	Height	354
Excluded	One Lung Ventilation Used	69
Excluded	ASA Class	11

The four new providers:

Overall Performance

100% Target 90%

Counts

PUL-01 Result	Count
Passed	5
Excluded	36
	41

Overall Performance

95% Target 90%

Counts

PUL-01 Result	Count
Passed	18
Failed	1
Excluded	13
	32

Overall Performance

100% Target 90%

Counts

PUL-01 Result	Count
Passed	5
Excluded	36
	41

Overall Performance

100% Target 90%

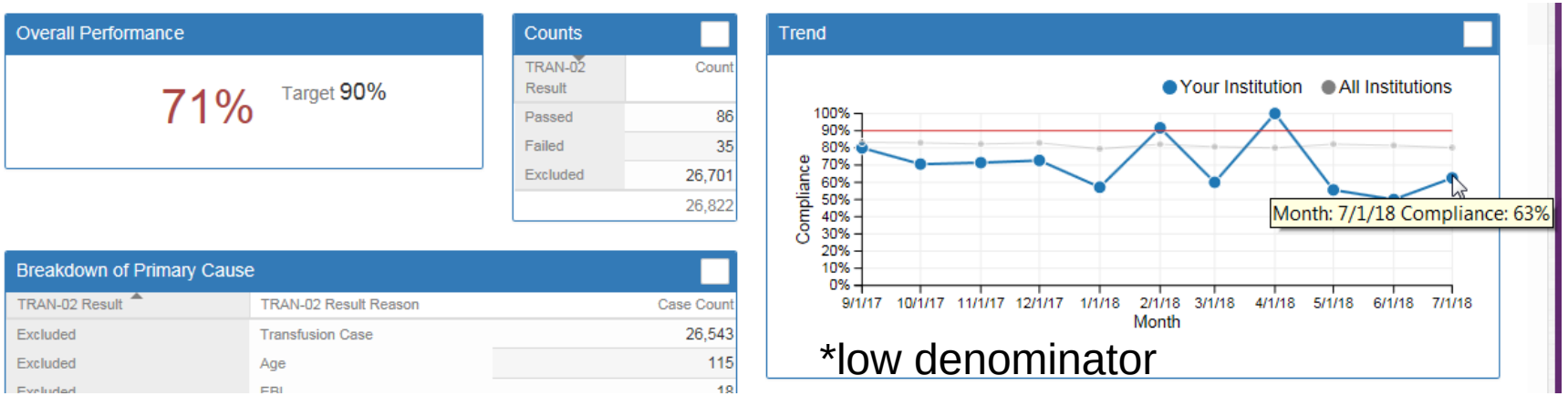
Counts

PUL-01 Result	Count
Passed	2
Excluded	1
	3

MERCY HEALTH

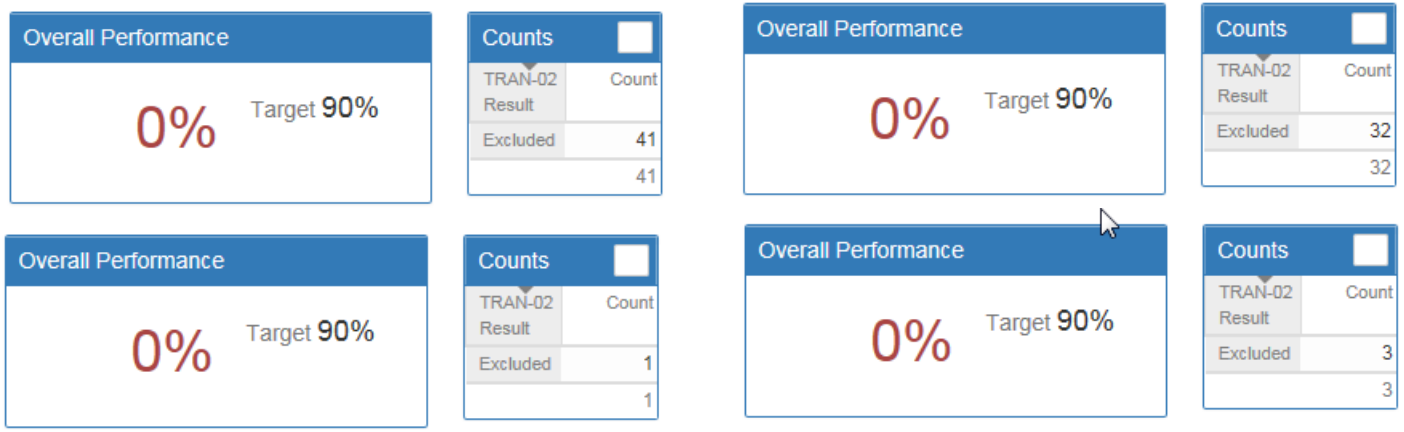
TRAN 02: Post transfusion monitoring

Our institutional compliance for the past 12 months:



*low denominator

The four new providers (no included cases):



MERCY HEALTH

TEMP 01: Active Warming

Our institutional compliance for the past 12 months:

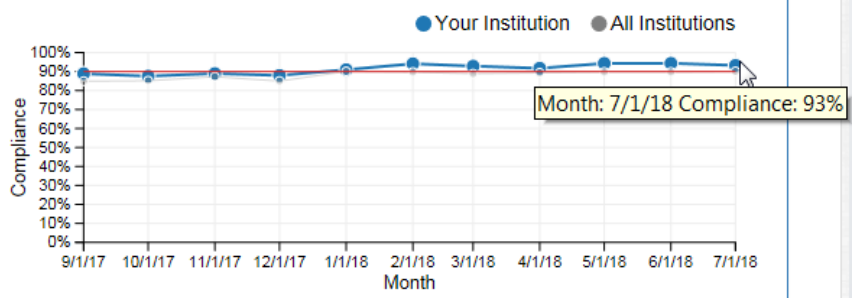
Overall Performance

91% Target 90%

Counts

TEMP-01 Result	Count
Passed	6,007
Failed	567
Excluded	20,248
	26,822

Trend



Breakdown of Primary Cause

TEMP-01 Result	TEMP-01 Result Reason	Case Count
Excluded	Case Length	19,981
Excluded	Anesthesia Technique: General o...	143
Excluded	Labor Epidural Cases	71

The four new providers:

Overall Performance

100%

Target 90%

Counts

TEMP-01 Result	Count
Passed	13
Excluded	28
	41

Overall Performance

94%

Target 90%

Counts

TEMP-01 Result	Count
Passed	17
Failed	1
Excluded	14
	32

Overall Performance

0% Target 90%

Counts

TEMP-01 Result	Count
Excluded	1
	1

Overall Performance

100%

Target 90%

Counts

TEMP-01 Result	Count
Passed	2
Excluded	1
	3

MERCY HEALTH

About the future…

- Surgical Review Committee – ACQR to begin presenting at these staff meetings, first presentation in December
- Revise Welcome Letter to include
  - links to MPOG
  - sign up for provider emails
  - link to MOCA4 participation

THANK YOU!

QUESTIONS?

Coordinating Center Feedback

- How can the CC assist sites in QI work?

Perioperative Oral Morphine Equivalence Phenotype for Anesthesia Procedures

Michael L Burns, PhD MD
Clinical Lecturer
Department of Anesthesiology
University of Michigan

DISCLOSURE:

I have no financial relationships with commercial support to disclose.

MPOG
MULTICENTER PERIOPERATIVE OUTCOMES GROUP

Background

- Two decades of rapid increase in the use of opioid medications in the United States
- Use within the hospital setting is often a focus: nursing and discharge opioid prescribing
- Little to no quantitative analysis of intraoperative opioid use and potential consequences

Goal: Gain an understanding of opioid administration intraoperatively

Rationale: By identifying provider and institutional variabilities in opioid consumption, researchers, educators, and quality innovators can be empowered to understand strategies to reduce opioid use.

Challenge: Quantifying opioid use is challenging as potencies vary across routes and agents

Method & Approach

- Created a system for assessing intraoperative/perioperative OME
- Implemented this system across the entire MPOG registry
- This work offers a method for understanding variation in intraoperative opioid administration and may allow the examination of relationships between intraoperative and postoperative opioid utilization.
- This approach is important in understanding effectiveness of opioid reduction interventions for example in enhanced recovery after surgery (ERAS) protocols

Opioid	Route	Measure Table
Morphine[1,2]	Oral	30.00
MS Contin (controlled release)	Oral	30.00
Codeine[1,2]	Oral	200.00
Hydromorphone (Dilaudid) [1,2]	Oral	7.50
Hydrocodone[2]	Oral	30.00
Oxycodone[1,2]	Oral	20.00
Oxymorphone[1,2]	Oral	10.00
Meperidine[1]	Oral	300.00
Levorphanol[1]	Oral	2.00
Tramadol[1]	Oral	120.00
Tapentadol[1]	Oral	100.00
Methadone[8]	Oral	6.00
Fentanyl[2]	transdermal	12.50
Buprenorphine (Suboxone) [3]	Sublingual	0.40
Morphine[1]	IV	10.00
Codeine[1]	IV	100.00
Fentanyl[1]	IV	0.10
Hydromorphone (Dilaudid) [1]	IV	1.50
Oxymorphone[1]	IV	1.00
Meperidine[1]	IV	100.00
Tramadol[1]	IV	100.00
Buprenorphine (Suboxone) [1]	IV	0.40
Nalbuphine[1]	IV	10.00
Butorphanol[1]	IV	2.00
Alfentanil[7]	IV	0.50
Sufentanil[5]	IV	0.01
Remifentanil	IV	0.00
Methadone[3]	IV	5.00
Hydromorphone[6]	epidural	0.30
Morphine[4]	epidural	1.00
Fentanyl[6]	epidural	0.03
Fentanyl[6]	IT	0.01
Morphine[4]	IT	0.10
Hydromorphone[6]	IT	0.06

Equianalgesic dose ratios are approximations to compare opioids - estimating oral morphine equivalents (OME)

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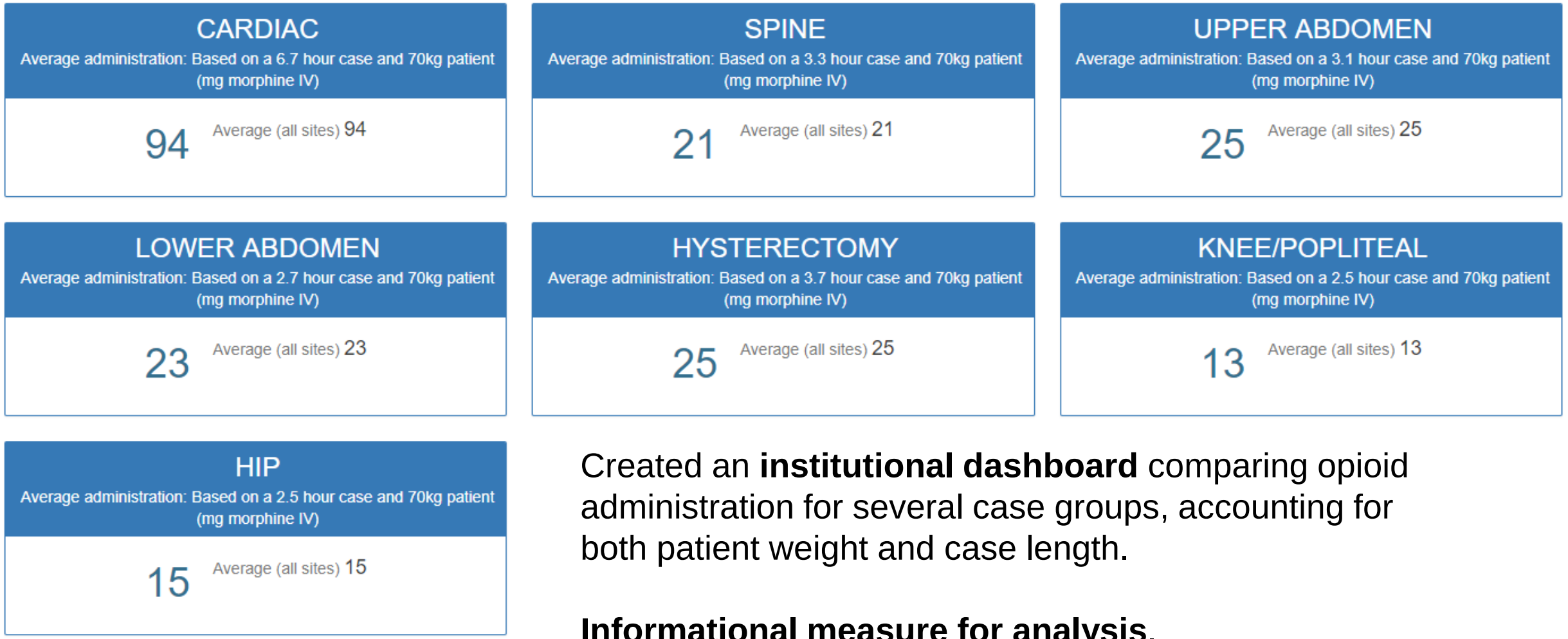
MULTICENTER PERIOPERATIVE OUTCOMES GROUP

Institutional Dashboard



Created an **institutional dashboard** comparing opioid administration for several case groups, accounting for both patient weight and case length.

Informational measure for analysis.

MPOG
MULTICENTER PERIOPERATIVE OUTCOMES GROUP

Build Details

- All cases <1 hour were assumed to be 1 hour
- Case groups are based on CPT codes
- Opioid administration was calculated from anes start to anes end
- Preoperative and PACU opioids were not included
- IV, oral, spinal, epidural, and transdermal routes were included

- Remifentanil was not included in equivalency calculations; but noted as administered

- Opioids included in the anesthetic record without a dose were not included in the calculation, but noted as “unknown”

- Average administration doses are displayed as IV (intravenous) route. For conversion to oral multiply by 3

- Average administration doses are based on average case times and patient weights

Institutional Dashboard - Overview

Overview | Provider | Case List

Lower Abdomen case group includes:

- Procedures in lower abdomen including laparoscopy; not otherwise specified (CPT: 00840)
- Procedures in lower abdomen including laparoscopy; abdominoperineal resection (CPT: 00844)
- Procedures in lower abdomen including laparoscopy; pelvic exenteration (CPT: 00848)

LOWER ABDOMEN

Average administration: Based on a 2.7 hour case and 70kg patient (mg morphine IV)

19 Average (all sites) 23

Average administration: Based on a 2.7 hour case and 70kg patient (mcg fentanyl IV)

195

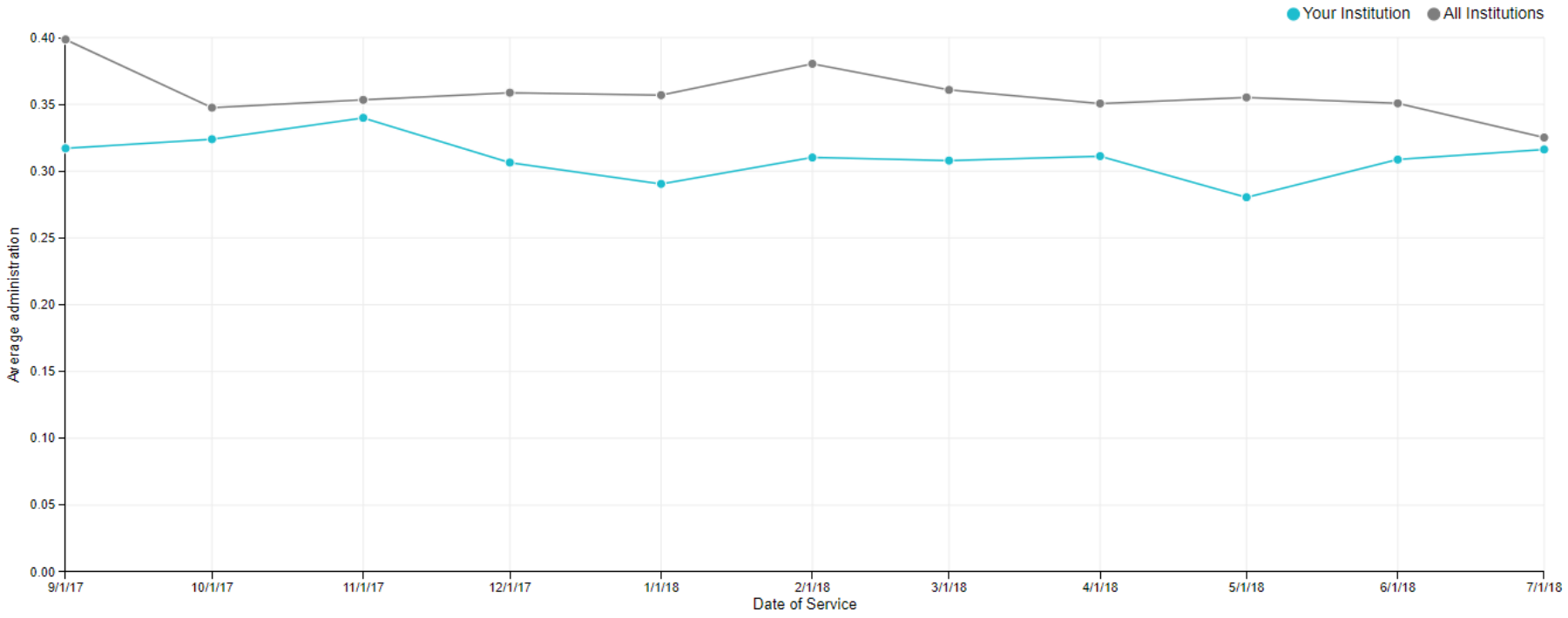
Average administration: Based on a 2.7 hour case and 70kg patient (mg morphine PO)

58

Average administration by weight and case length (mg/kg/hr PO)

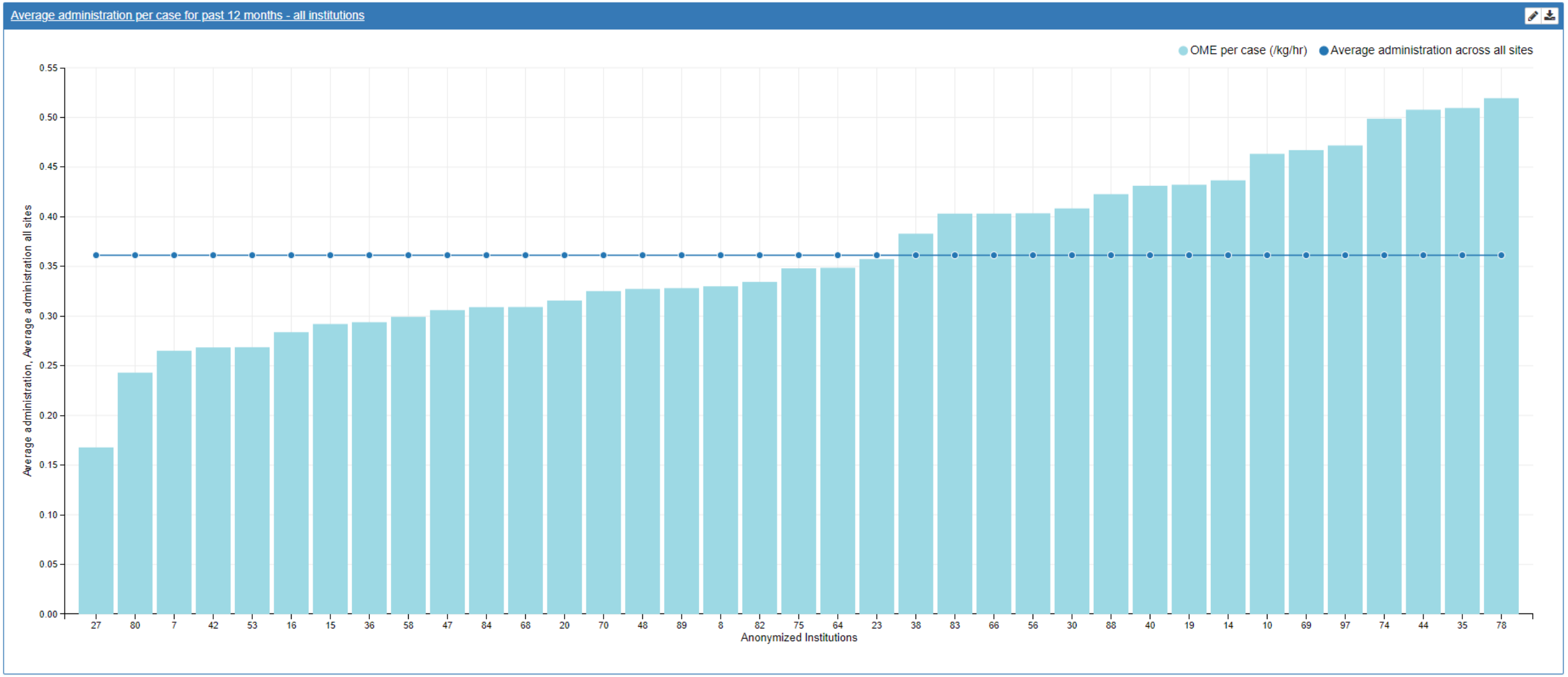
0.31

Average administration per case per month



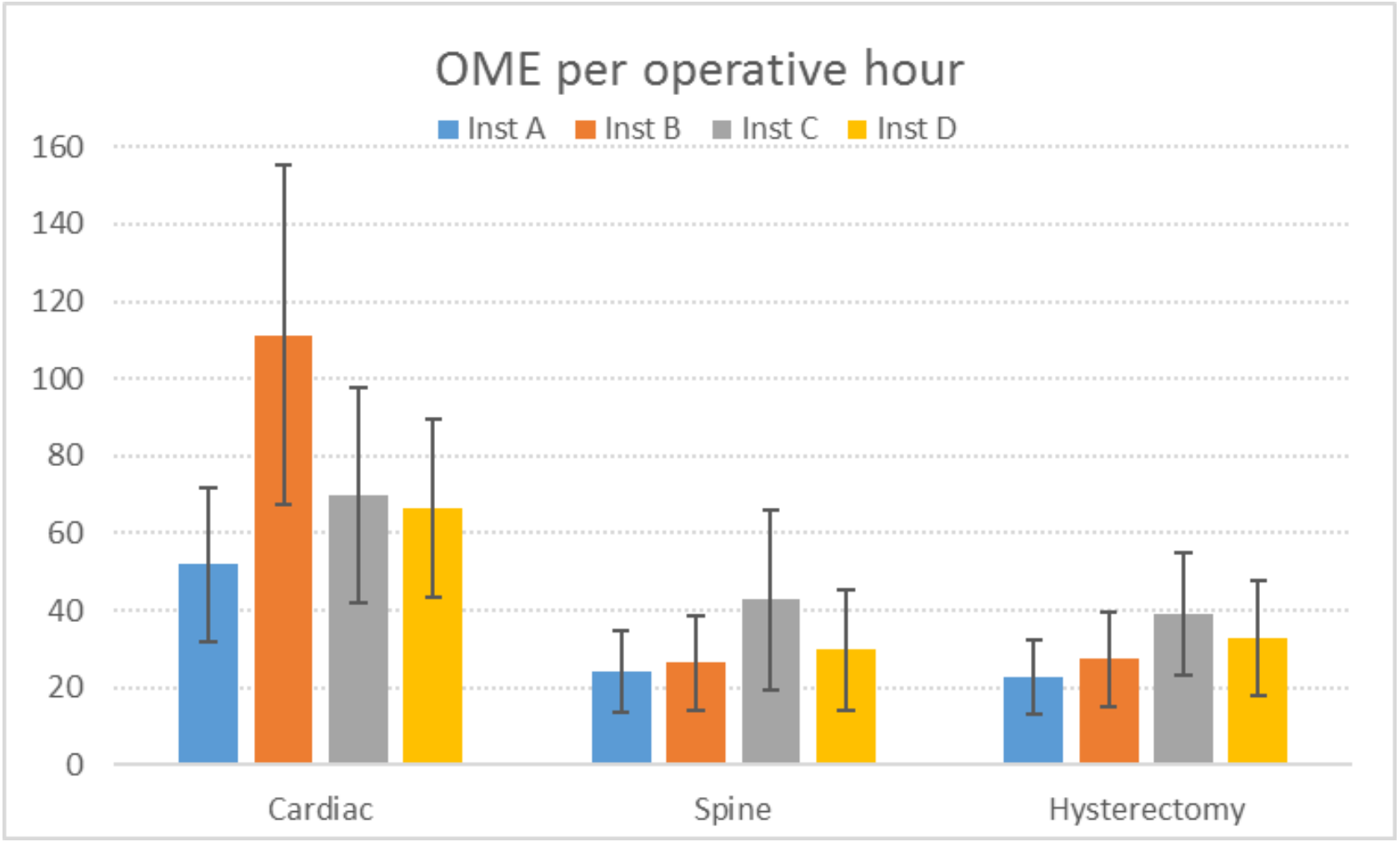
MPOG MULTICENTER PERIOPERATIVE OUTCOMES GROUP

Average OME by institution



MPOG
MULTICENTER PERIOPERATIVE OUTCOMES GROUP

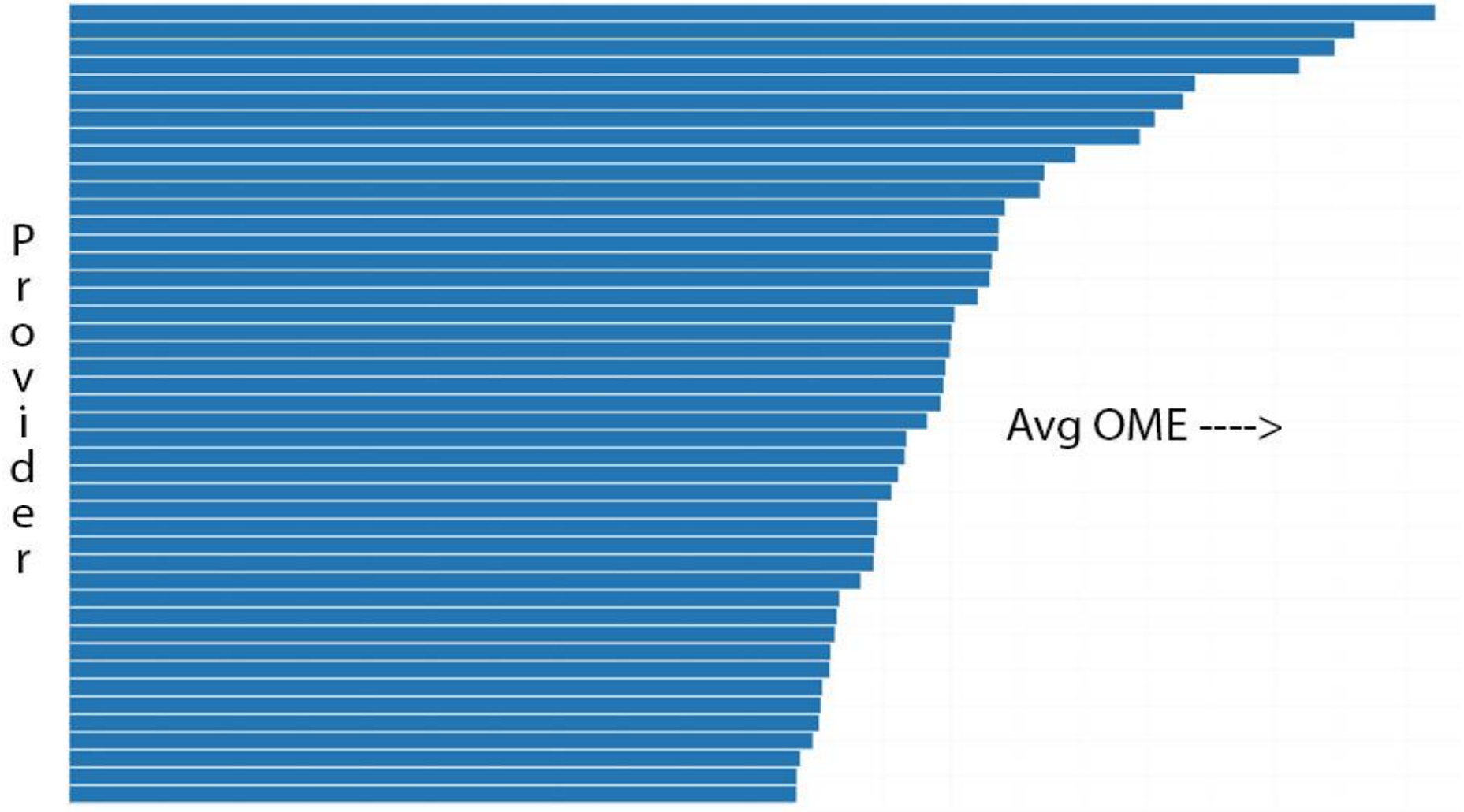
Variation in Practice



Provider Tab

This dashboard displays the intraoperative OME per case normalized on patient weight (kg) and case duration (hr) and organized by attending. The default settings display cases without remifentanil ("No" Remi) and those cases with a known opioid dose ("0" Unknown Dose). This dashboard represents cadiac cases at your institution within past 12 months. Click "View Details" for more provider information.

Individual Provider Distributions



Provider Administration Details

Remi	Unknown Dose	MPOG.Cases	Average administration	Standard Deviation	Average Case Time	ViewButton
No remi	No Unknown Dose	1	0.38	0.00	1.8	View Details
No remi	No Unknown Dose	16	0.30	0.18	4.1	View Details
No remi	No Unknown Dose	12	0.41	0.18	3.3	View Details
No remi	No Unknown Dose	24	0.33	0.10	2.7	View Details
No remi	No Unknown Dose	9	0.35	0.15	2.8	View Details
No remi	No Unknown Dose	27	0.42	0.36	3.6	View Details
No remi	No Unknown Dose	1	0.41	0.00	2.5	View Details
No remi	No Unknown Dose	4	0.28	0.21	4.6	View Details
No remi	No Unknown Dose	7	0.21	0.07	4.2	View Details
No remi	No Unknown Dose	7	0.43	0.19	2.6	View Details
No remi	No Unknown Dose	19	0.29	0.15	4.0	View Details
No remi	No Unknown Dose	2	0.42	0.13	1.6	View Details
No remi	No Unknown Dose	16	0.30	0.13	3.4	View Details
No remi	No Unknown Dose	9	0.42	0.18	2.5	View Details
No remi	No Unknown Dose	12	0.40	0.22	3.5	View Details
		Showing **1** to **15** of **127**				Next ›
		1,664	0.34	0.17	3.0	View Details

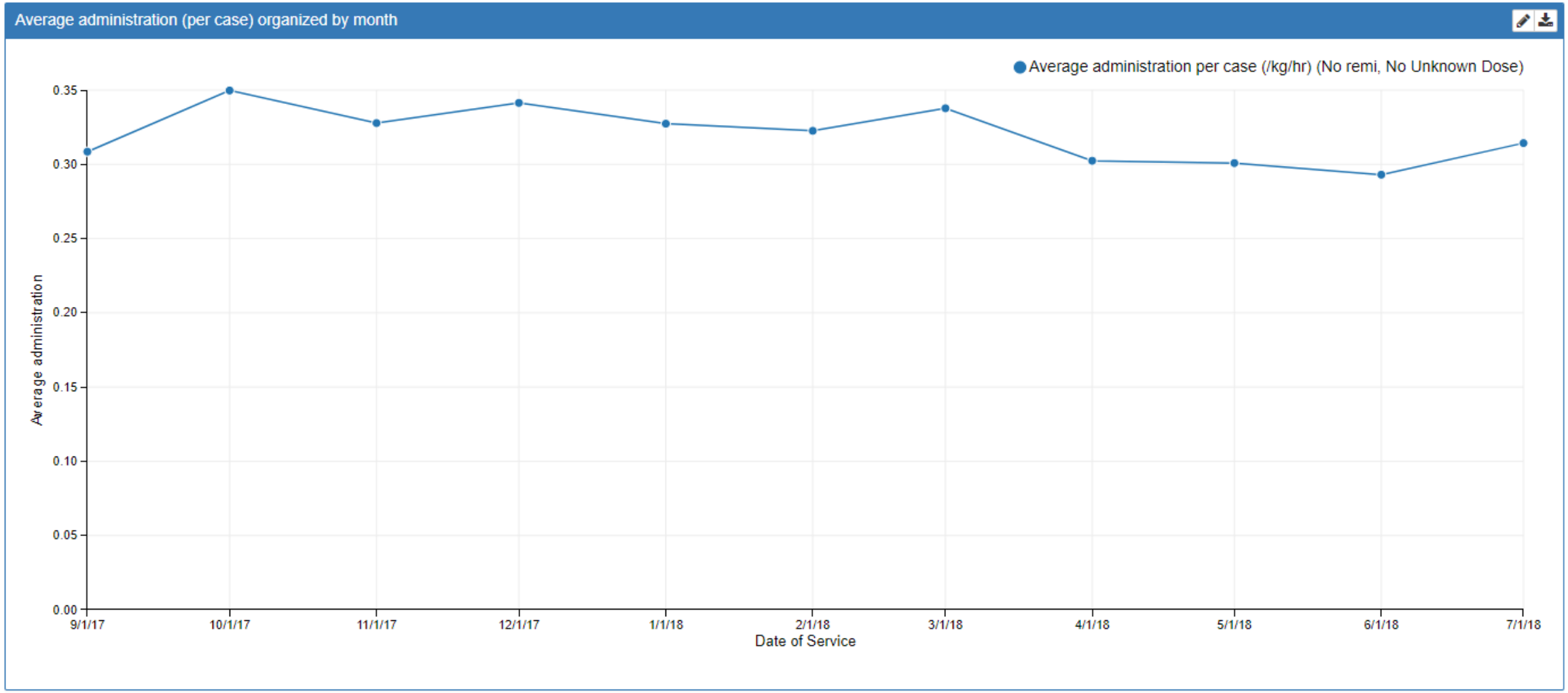
MPOG
MULTICENTER PERIOPERATIVE OUTCOMES GROUP

Case List Tab

Overview | Provider | Case List

This dashboard displays the intraoperative OME (per patient weight in kg and per case duration in hr) phenotype (average per case) organized by month. The default settings only show cases without remifentanil ("No" Remi) and without an opioid given without a known dose ("0" Unknown Dose). This dashboard is for Upper Abdomen cases at your institution within past 12 months. Click "View Details" for more specific information within each month.

Institution Case Average – by month



MPOG
MULTICENTER PERIOPERATIVE OUTCOMES GROUP

Institutional Case Average – by month (table)

Average administration (per case) organized by month

Date of Service	Remi	Unknown Dose	MPOG.Cases	Average administration	Standard Deviation	Average Case Time	ViewButton
9/1/17	No remi	No Unknown Dose	181	0.31	0.18	3.5	View Details
10/1/17	No remi	No Unknown Dose	215	0.35	0.21	3.2	View Details
11/1/17	No remi	No Unknown Dose	176	0.33	0.19	3.2	View Details
12/1/17	No remi	No Unknown Dose	201	0.34	0.19	3.2	View Details
1/1/18	No remi	No Unknown Dose	200	0.33	0.18	3.3	View Details
2/1/18	No remi	No Unknown Dose	178	0.32	0.20	3.3	View Details
3/1/18	No remi	No Unknown Dose	184	0.34	0.18	3.1	View Details
4/1/18	No remi	No Unknown Dose	195	0.30	0.19	3.3	View Details
5/1/18	No remi	No Unknown Dose	181	0.30	0.15	3.3	View Details
6/1/18	No remi	No Unknown Dose	220	0.29	0.16	3.3	View Details
7/1/18	No remi	No Unknown Dose	104	0.31	0.15	3.3	View Details
			2,035	0.32	0.18	3.3	View Details

MPOG
MULTICENTER PERIOPERATIVE OUTCOMES GROUP

View Details – List of Cases by Month

Administration (/kg/hr) by case

MPOGCaseKey	Attending	CRNA/Resident	Date of Service	Procedure	Operating Room	Anes Duration	CPT	OME	Remi	Unknown Dose	Spinal	Epidural	Neuraxial	View Case
				MIDLINE CORONARY ARTERY BYPASS GRAFT	CVC-OR 02	10.6	00567	0.19	No remi	No Unknown Dose	0	0	0	View Case
				ASCENDING ANEURYSM REPAIR WITH HYPOTHERMIC...	CVC-OR 03	13.2	00562	0.34	No remi	No Unknown Dose	0	0	0	View Case
				MIDLINE AORTIC VALVE REPLACEMENT OR REPAIR	CVC-OR 03	11.1	00562	0.22	No remi	No Unknown Dose	0	0	0	View Case
				MIDLINE AORTIC VALVE REPLACEMENT OR REPAI MID...	CVC-OR 04	7.7	00562	0.30	No remi	No Unknown Dose	0	0	0	View Case
				MIDLINE MITRAL VALVE REPAIR OR REPLACEMEN MID...	CVC-OR 04	6.6	00562	0.49	No remi	No Unknown Dose	0	0	0	View Case
				RIGHT MAZE PROCEDURE	CVC-OR 04	8.4	00562	0.53	No remi	No Unknown Dose	0	0	0	View Case
				RIGHT MITRAL VALVE REPAIR OR REPLACEMENT - MI...	CVC-OR 04	5.9	00562	0.97	No remi	No Unknown Dose	0	0	0	View Case
				MIDLINE AORTIC VALVE REPLACEMENT OR REPAI MID...	CVC-OR 01	12.1	00562	0.26	No remi	No Unknown Dose	0	0	0	View Case
				MIDLINE HEARTMATE II MIDLINE AORTIC VALVE REPL...	CVC-OR 02	8.5	00562	0.17	No remi	No Unknown Dose	0	0	0	View Case
				MIDLINE AORTIC ROOT REPAIR WITH OR WITHOUT HY...	CVC-OR 03	9.4	00562	0.20	No remi	No Unknown Dose	0	0	0	View Case
				MIDLINE AORTIC VALVE REPLACEMENT OR REPAIR	CVC-OR 03	10.8	00562	0.38	No remi	No Unknown Dose	0	0	0	View Case
				MIDLINE AORTIC ROOT REPAIR OR REPLACEMENT	CVC-OR 04	11.8	00562	0.21	No remi	No Unknown Dose	0	0	0	View Case
				MIDLINE AORTIC VALVE REPLACEMENT OR REPAIR	CVC-OR 03	7.1	00562	0.31	No remi	No Unknown Dose	0	0	0	View Case

View Case – individual case level

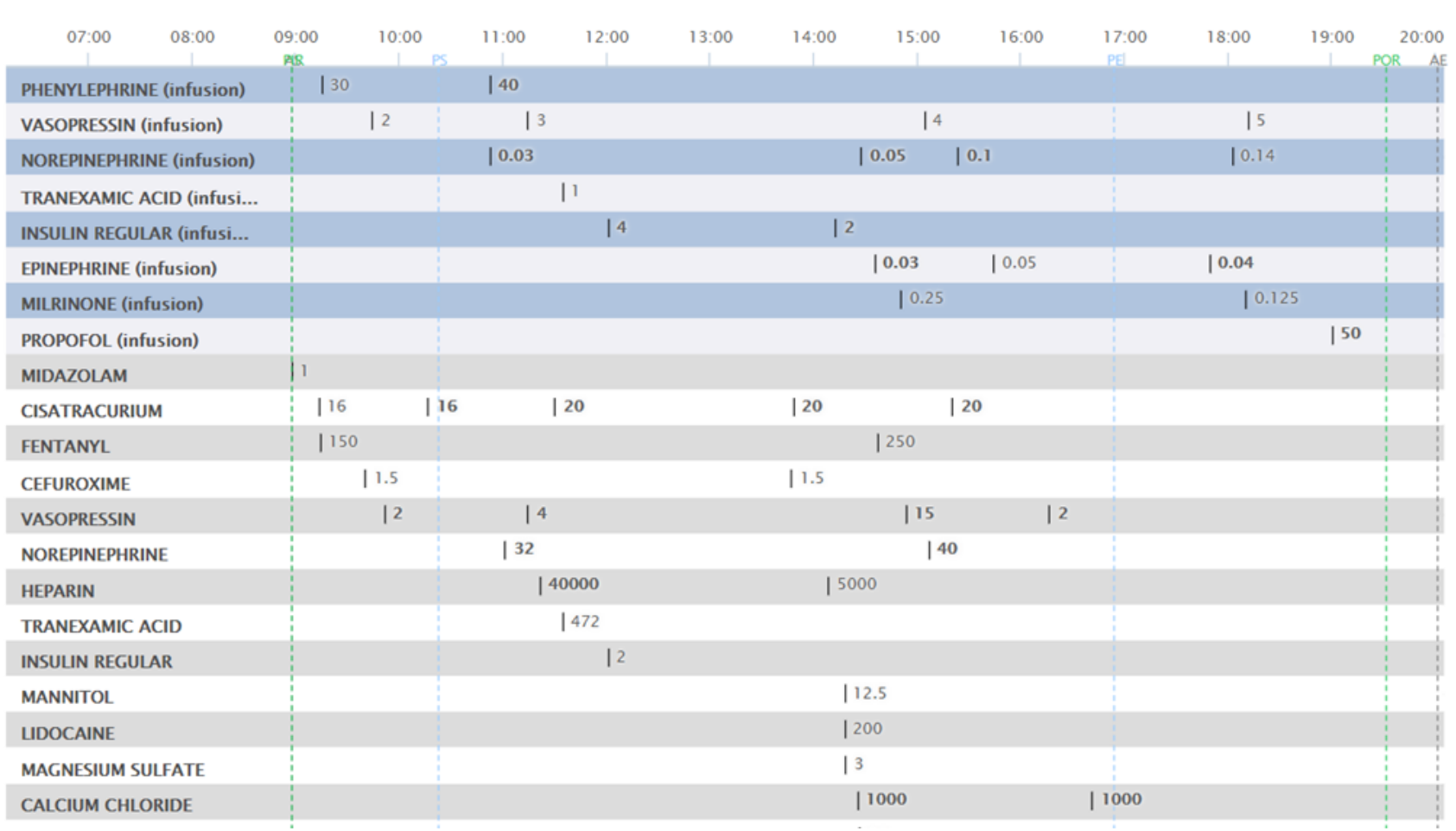
[redacted]
ASA Status: 4
49 kg, 160 cm (IBW:56.92)
Admission Type: Inpatient
Operating Room: CVC-OR 03

[redacted]
Procedure Time: [redacted]
Anes Duration: 08:58 to 20:02
Procedure: MIDLINE AORTIC VALVE REPLACEMENT OR REPAIR
Diagnosis: aortic valve endocarditis

MPOG Case ID: [redacted]
MPOG Patient ID
AIMS Case ID: [redacted]
AIMS Patient ID

view all lab values

Time	Note
21:19	Patient in Facility
07:15	Anesthesia Machine Checked
07:15	Equipment verified
07:52	Assigned PreOp
08:45	Room Ready
08:50	Patient dosed 500 mg vancomycin 10/5/2017 after dialysis. Per OR pharmacist repeat vancomycin dosing is not required intraoperatively. Next dose of vancomycin to be after next dialysis session. SSV 20462
08:53	NPO status confirmed to be solids > 8 hours and clear liquids > 3 hours
08:53	Patient identified, chart reviewed, status unchanged from preoperative evaluation
08:53	Pre-Anesthesia evaluation completed and discussed with Attending
08:58	Anesthesia Start
08:58	Patient In Room



Questions?

Reminders and Wrap-Up

- MPOG Application Suite upgrades scheduled for the week of September 24-28th, the Suite might be temporarily inaccessible during that time.
- Sites that have Import Manager and Production will both need to updated
- Update gets pushed out from MPOG Central on Wednesday, September 26th. MPOG technical team has scheduled a 30 minute meeting with each site's technical team to apply upgrade.
- Continue to update Provider Contacts
- Q & A

Thanks for joining us today! Safe travels home and don't forget our goodies!