



MPOG

MULTICENTER PERIOPERATIVE
OUTCOMES GROUP

MSQC

MICHIGAN SURGICAL QUALITY
COLLABORATIVE



**Blue Cross
Blue Shield
Blue Care Network**
of Michigan

Nonprofit corporations and independent licensees
of the Blue Cross and Blue Shield Association

Thank You

2022 Michigan Sites

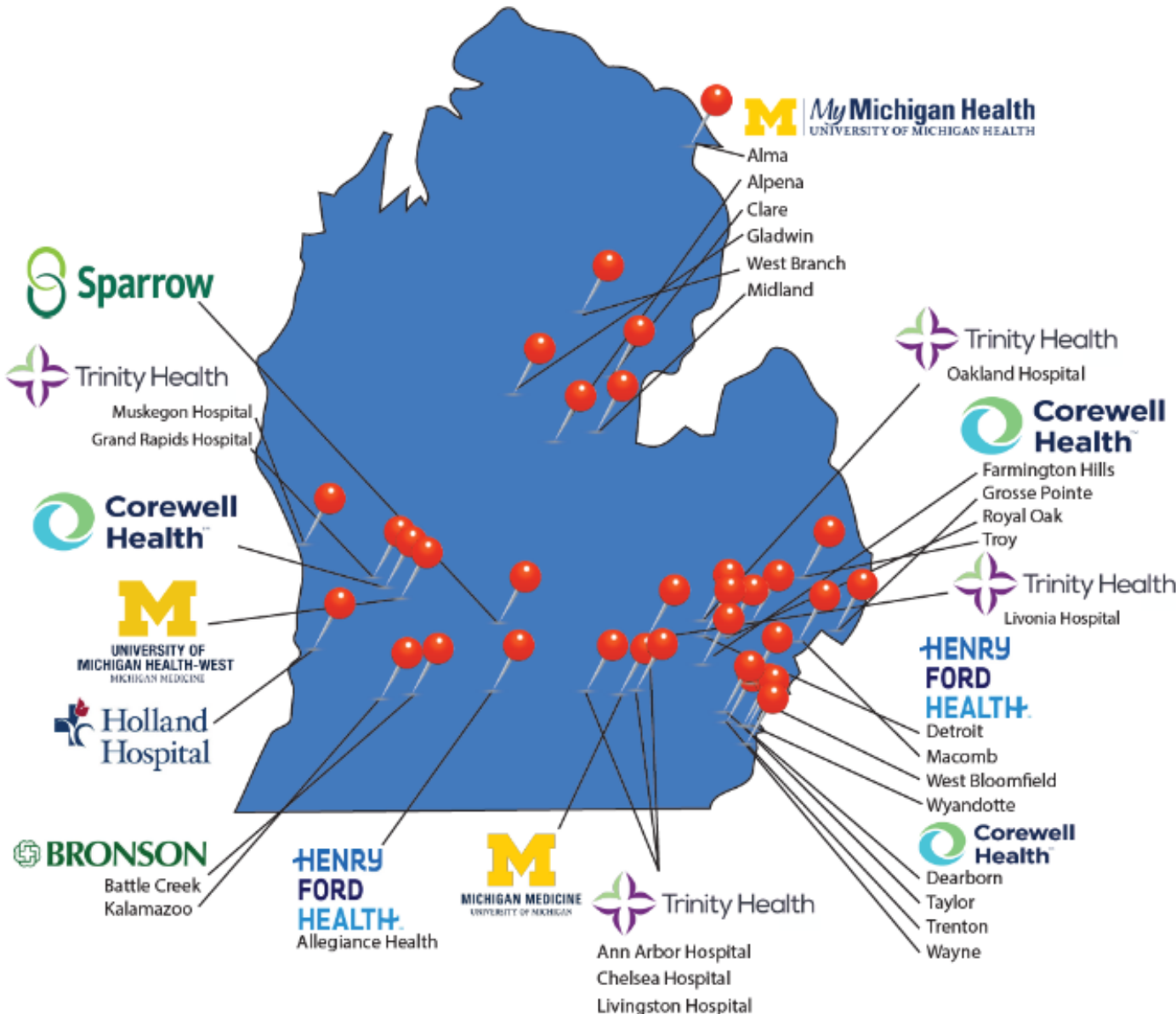
Welcome



- Alpena
- Clare
- Gladwin
- Gratiot
- West Branch



- Carson
- Clinton
- Eaton
- Ionia



Our Team



Meredith Bailey, MSN, RN
QI COORDINATOR



Nicole Barrios, MHA, RN
QI COORDINATOR



Kathryn Buehler, MS, RN
CLINICAL PROGRAM
MANAGER



Michael Burns, MD, PhD
FACULTY



Diana O'Dell, MPH
RESEARCH
FACILITATOR



Ronnie Riggat
SENIOR
ADMINISTRATIVE
ASSISTANT



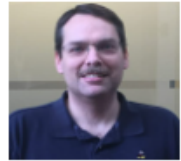
Michelle Romanowski
DEVELOPER



Sandy B. Rozek, MA
RESEARCH
FACILITATOR



David Clark
PROJECT MANAGER



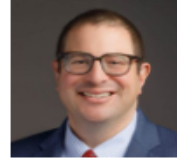
Robert Coleman
PROGRAMMER



**Douglas Colquhoun, MB
ChB, MSc, MPH**
ASSOCIATE
RESEARCH
DIRECTOR



Mark Dehring
TECHNICAL TEAM
MANAGER



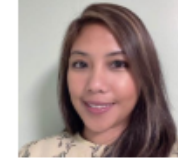
Robert Schonberger, MD
ASSOCIATE
RESEARCH
DIRECTOR



Nirav Shah, MD
QUALITY
IMPROVEMENT
DIRECTOR



Anik Sinha
DEVELOPER



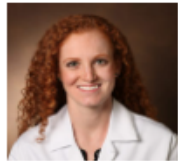
Frances Guida Smiatacz
ADMINISTRATIVE
ASSISTANT



Chris Heiden
TECHNICAL
SUPPORT LEAD



Rachel Hurwitz
RESEARCH
ASSISTANT



Allison Janda, MD
RESEARCH FACULTY,
CARDIAC QI
SUBCOMMITTEE
LEAD



Jay Jeong, MSI
DEVELOPER



John Vandervest, MS
DATA SCIENTIST



Shushma Vallamkonda
DEVELOPER



Shelley Vaughn, MPH
LEAD RESEARCH
FACILITATOR



**Andrew Zittleman, MSN,
RN**
CLINICAL
INFORMATICS
SPECIALIST



**Sachin Kheterpal, MD,
MBA**
EXECUTIVE
DIRECTOR



Tory Lacca, MBA
ADMINISTRATIVE
PROGRAM MANAGER



**Tiffany Malenfant, MSN,
RN-BC**
CLINICAL
INFORMATICS
SPECIALIST



Mike Mathis, MD
RESEARCH
DIRECTOR

SPECIALIST



Themes

Sustainability



Environmentally sustainability - how can anesthesia providers play a role in reducing greenhouse gas emissions, while potentially reducing costs?

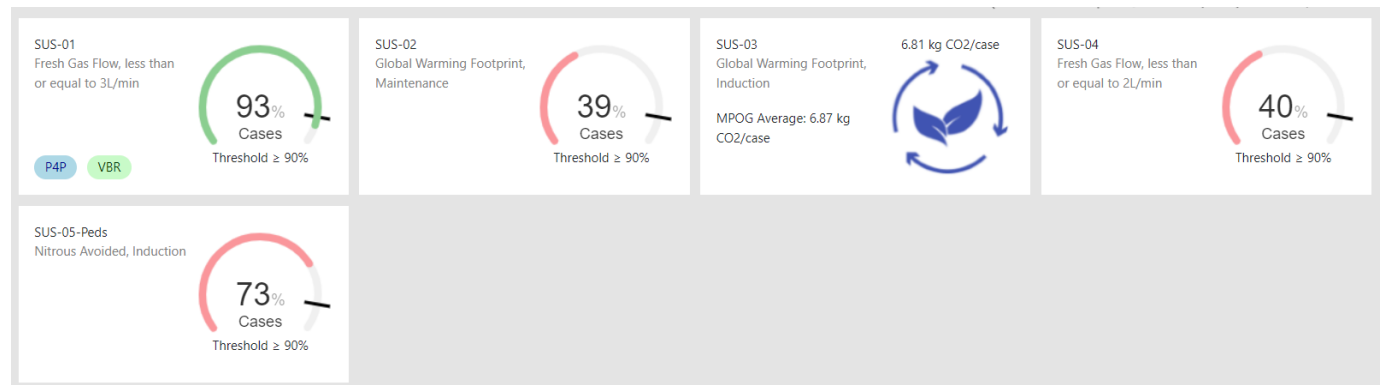
SUS 01 – low fresh gas flow

SUS 02 – global warming footprint - maintenance

SUS 03 – global warming footprint - induction

SUS 04 – lower fresh gas flow

SUS 05 (Peds) – avoiding nitrous oxide – induction



Now Available!

<https://mpog.org/toolkits/>



Acute Kidney Injury (AKI)

[Click Here](#)



Acute Respiratory Complications

[Click Here](#)



Perioperative Transfusion Stewardship

[Click Here](#)



Postoperative Nausea and Vomiting (PONV)

[Click Here](#)



Surgical Site Infection

[Click Here](#)



Sustainability Toolkit

[Click Here](#)

Virtuous
Cycle



QI

New
Data

Research

Cognition

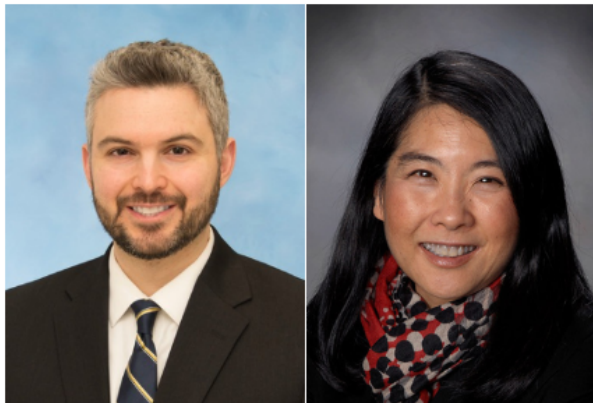


How does surgery affect cognition?	Dr. Whitlock
How often do we assess cognition in the immediate pre-operative period?	Dr. Abess and team, MPOG research project
Are we adequately assessing delirium post-operatively?	Dr. Vlisides
How can ASPIRE assess geriatric anesthetic quality?	MPOG geriatric anesthesia workgroup

FAM-HELP to prevent delirium

Researchers from the University of Michigan and Marcus Institute for Aging Research receive more than \$13 million in funding to study the prevention of delirium in older adults

The study is funded by the Patient-Centered Outcomes Research Institute.



University of Michigan's Phillip Vlides, M.D., and the Marcus Institute for Aging Research's Sharon Inouye, M.D., MPH, are co-principal investigators on a new study on preventing delirium in older patients.

For older adults, a hospital admission or major surgery includes risk of developing delirium — a complication not only marked by confusion or agitation, but also associated with prolonged hospitalization, cognitive and functional decline, and increased mortality.

A new study led by the [Hinda and Arthur Marcus Institute for Aging Research](#) at Hebrew SeniorLife, a Harvard Medical School affiliate, and the [University of Michigan Medical School Department of Anesthesiology](#) will test whether family caretaker support provided at the hospital bedside can reduce risk of delirium and its related complications and improve outcomes for patients and their families. The Patient-Centered Outcomes Research Institute ([PCORI](#)) has approved \$13.25 million in funding to support the study.

Improved feedback



Does a more targeted message in the provider feedback email improve measure compliance?

Principal Investigator - Zach Landis Lewis PhD

~Year 1 - Interviewing providers about their preferences for feedback and building a “pipeline” from/to ASPIRE provider feedback emails

~Year 2 and 3 - Conducting a trial with control (existing emails) and intervention (updated) emails

~Year 4 - disseminating results

Precision Feedback Trial

- Pilot Trial – September 2023
- 4 sites – 2 community and 2 academic
- National trial (including MI sites Spring 2024)



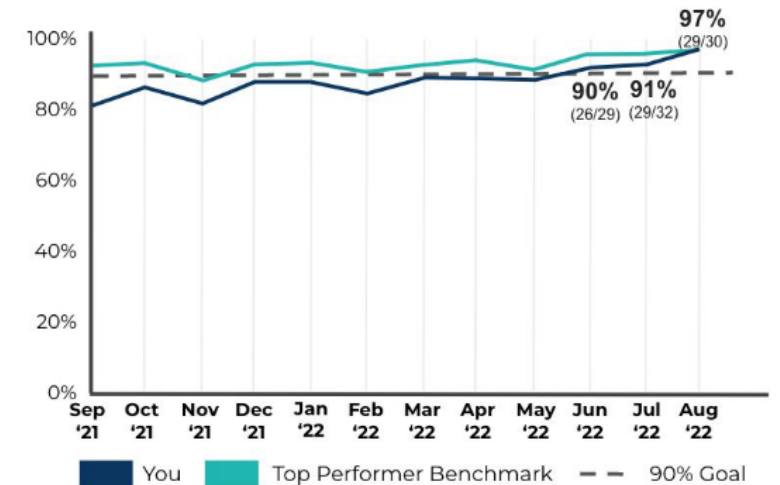
Claim MOCA® Credit

Dear Alex,

You reached the top performer benchmark this month for the measure [PUL-01: Protective Tidal volume, 10mL/Kg PBW.](#)

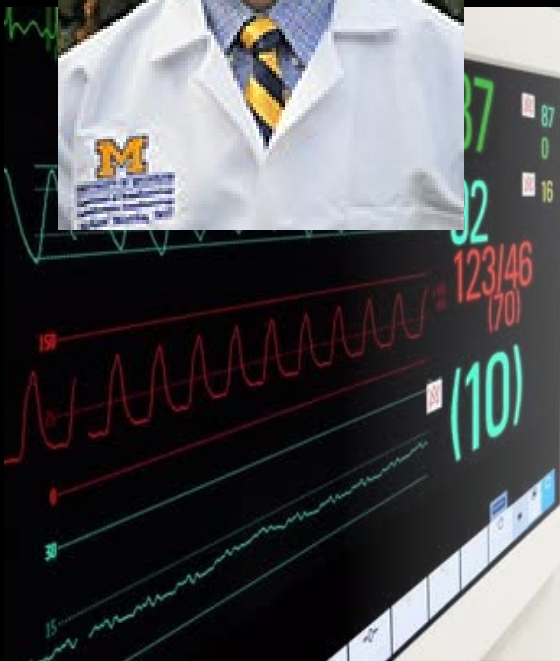
More information about the rationale for the measure PUL-01 and how it is calculated [is available here in a brief infographic \(no login required\).](#)

Below is your complete MPOG quality performance report...



CURB - AKI

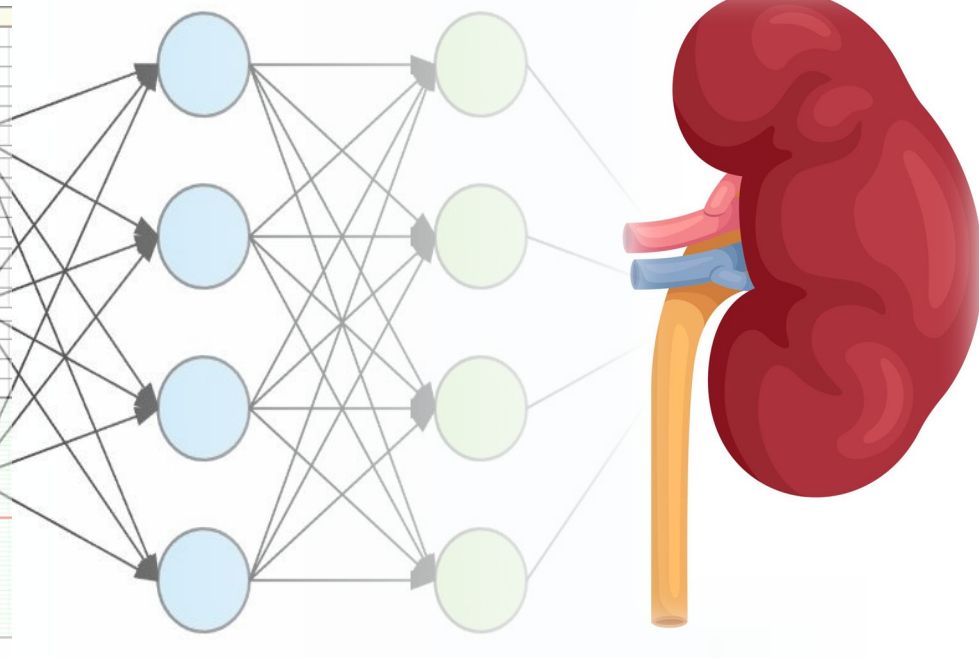
Cardiac sURgery anesthesia Best practices to reduce Acute Kidney Injury



	09:00	10:00	11:00	12:00	13:00
Oxygen (l/min)	6	1			6
Air (l/min)		2			
Desflurane (%)	4.3				
Propofol (mg)	80				
Fentanyl (µg)	50 100	100	100	50 50	
Remifentanyl (µg/kg/min)		0.2	0.3-0.4		
Nicardipine (mg)	0.4		0.4	0.5 0.5 0.5	
Landioltol (mg)				5 5 5	
Noradrenaline (µg)			50		
Noradrenaline (x 10 ⁻² µg/kg/min)			5	4-3-2-1	
Rocuronium (mg)	50				200
Rocuronium (mg/h)		25			
Magnesium (g/h)					
Oxygen saturation (%)	98	100	100	100	100
End-tidal carbon dioxide (mmHg)	31	40	39	39	40
Bispectral index	44	48	38	42	36

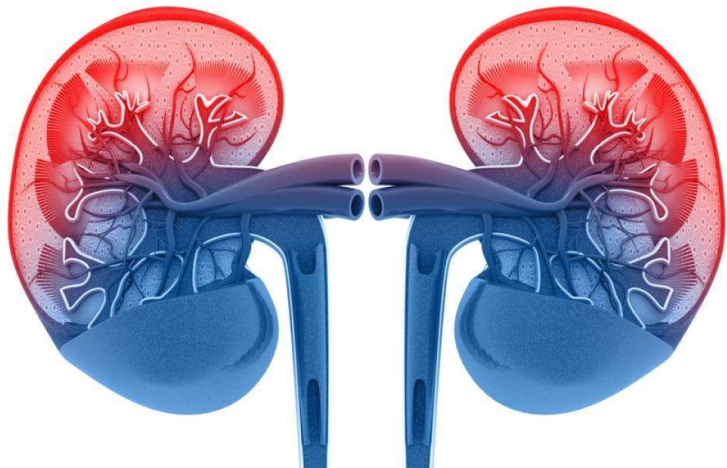
BP	CVP	HR	SpO2	T
180	180	100	38.0	
160	160	90	36.0	
140	140			
120	120			
100	100			
80	80			
60	60			
40	40			
20	20			
0	0			

CVP mmHg bpm



The Problem

15-30% of patients undergoing cardiac surgery develop acute kidney injury (AKI)

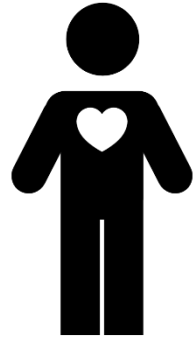


The Big Questions

- Why do these 15-30% develop AKI?
- What actions try to reduce AKI?
- Which set of actions is most effective for which patient?
- By suggesting "optimal" actions, can we improve on the status quo?




Solution: CURB-AKI



Cardiac
Surgery
Patient

Aim 1
Characterize
Practices
Related to AKI

- Fluids / Blood Products
- Hemodynamic Medications
- Insulin/glycemic control
- Thermoregulation
- ...etc.




Subgroup A Subgroup B Subgroup C ...etc.

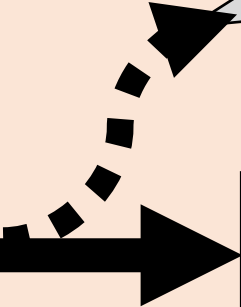
Aim 2
Estimate Impact of Individualized Care for
Heterogenous Subgroups

Acute
Kidney
Injury

Recovery



Aim 3
Disseminate &
Evaluate Precision
Feedback



Afternoon session



If you are attending the ASPIRE afternoon performance review session, please fill out a confidentiality agreement.

If you do not have one, obtain at the registration table. You'll need it to enter the auditorium.



Thank you

Congrats Sachin!



Induction into the National Academy of Medicine

Kevin K. Tremper Professor of Anesthesiology

For being an international leader in anesthesiology informatics and clinical research. His leadership of the Multicenter Perioperative Outcomes Group (MPOG), with data on more than 16 million patients from more than 50 hospitals across multiple countries and dozens of states, has transformed the field through international epidemiologic studies, national personalized quality improvement implementation, pragmatic clinical trials, and data science.