Quality Committee Meeting

May 23, 2022 @10:00 ET

Agenda

Announcements

- Matters arising
- Subcommittee Updates

Insulin Pumps

- Jing Tao, MD

Measure Updates - Final specs

- SUS 02
- SUS 03
- SUS 04
- GLU 05
- PONV 05

Meeting Minutes
February 2022

Roll Call – via Zoom or contact us

Announcements

Please join us in welcoming our new executive board members!

MORE INFO

Dr. Brian Bateman
Stanford University

Dr. Kelly McQueen
University of Wisconsin

Dr. Jill Mhyre
University of Arkansas

MPOG Featured Member May and June 2022

MORE INFO

T. Wesley Templeton, MD, FASA
Associate Professor of Anesthesiology
Director of Faculty Development
Atrium Health Wake Forest Baptist

Upcoming Events

ASPIRE Collaborative Meeting
Friday, July 15, 2022
Lansing, MI (in person)

ASPIRE Quality Committee Meeting
Monday, July 25, 2022
Virtual

May 2022 Upgrade

Active MPOG sites should have received the MPOG Suite upgrades in May 2022. If your site did not receive the upgrade, please contact MPOG Support.

Release notes at https://mpog.org/2022-may-upgrade/

Subcommittee Updates

Pediatric Subcommittee

- **Met on May 18th - 28 members attended**

- **New Measures Released**
  - NMB-03: Neuromuscular blockade dosing in patients < 5yo.
  - Pediatric Blood Management (mirror TRAN-01/02)
    - TRAN-03: Transfusion Vigilance, Pediatrics
    - TRAN-04: Overtransfusion, Pediatrics
- **Sustainability in Pediatric Anesthesia**
  - Workgroup formed; First meeting discussed measure build
  - SUS-05: Weight based Fresh Gas Flow
  - SUS-06: Nitrous use during induction
- **Unblinded Data Review**
- **Next Meeting, August 17th**

Obstetric Anesthesia Subcommittee Updates

- No update since last Quality Committee meeting
- Last meeting held on February 2022: minutes available here
- Next Meeting: **July 20, 1pm EST**

Cardiac Subcommittee

- April meeting minutes & slides available
- New post-bypass hypothermia avoidance measure has been released to the ‘All Measures’ and ‘Cardiac’ Dashboards
  - TEMP-06-C: Percentage of adult patients who undergo open cardiac surgical procedures for whom the last non-artifact body temperature prior to anesthesia end was greater than or equal to 35.5 degrees Celsius. Additional measure specification details available here.
- A countermeasure for on-bypass hyperthermia avoidance is pending release:
  - TEMP-07-C: Percentage of adult patients who undergo open cardiac surgical procedures requiring bypass, for whom the temperature did not rise above 37.5 degrees Celsius for over 5 consecutive minutes. Additional measure specification details available here.
- The next measure in development pertains to glucose management
- **Next meeting:** Scheduling poll to be sent - likely August 2022

New Smoking Cessation Measures

Smoking Cessation Measures

Created for the BCBSM value-based reimbursement (VBR) program:

1) Improve smoking status documentation within 30 days prior to surgery. Target: 70%
2) Increase the proportion of smokers who receive treatment/cessation counseling. Target: 10%

*Will be published & available on the dashboard by the end of June for all sites

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Glucose Measures – Role of Continuous Glucose Monitors

Jing Tao, MD
Memorial Sloan Kettering Cancer Center
5/23/2022

Conflict of Interest

- I have nothing to disclose

ASPIRE Glucose Measures

Glucose Management

GLU-01: High Glucose Treated, Intraop

GLU-02: Low Glucose Treated, Intraop

GLU-03: High Glucose Treated, Periop

GLU-04: Low Glucose Treated, Periop

GLU-05: Escalated High Glucose Treated

Glucose MPOG Concept IDs	
3361	POC- Glucose (Fingerstick)
3362	POC- Glucose (Unspecified Source)
3405	POC- Blood Gas - Glucose
5003	Formal Lab-Glucose, Serum/Plasma
5036	Formal Lab-Blood Gas, Glucose

GLU-01: High Glucose Treated, Intraop

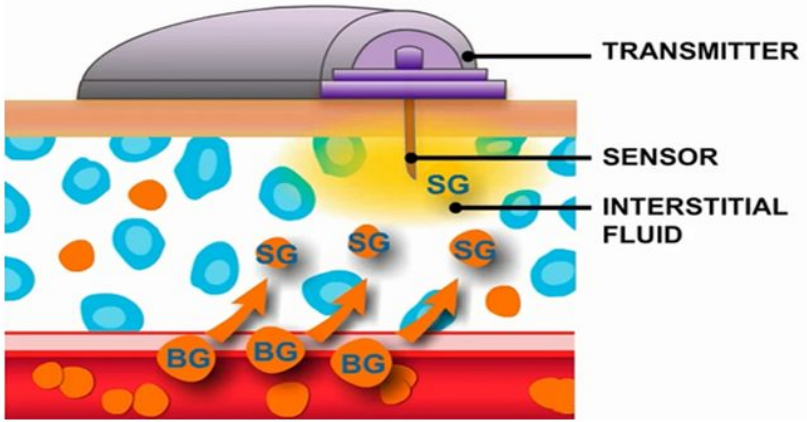
GLU-03: High Glucose Treated, Periop

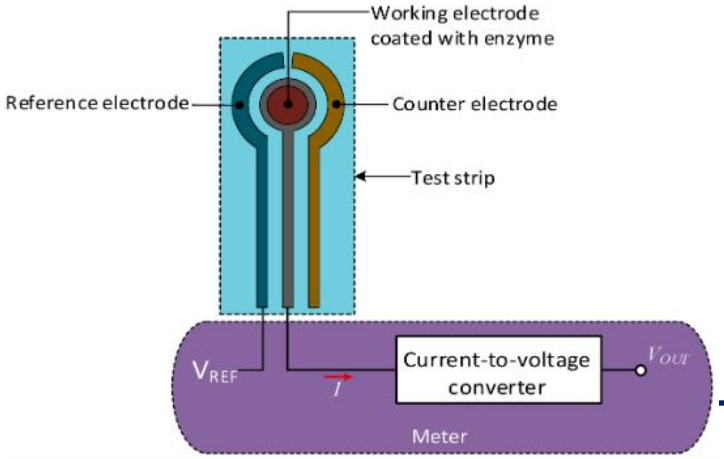
GLU-05: Escalated High Glucose Treated

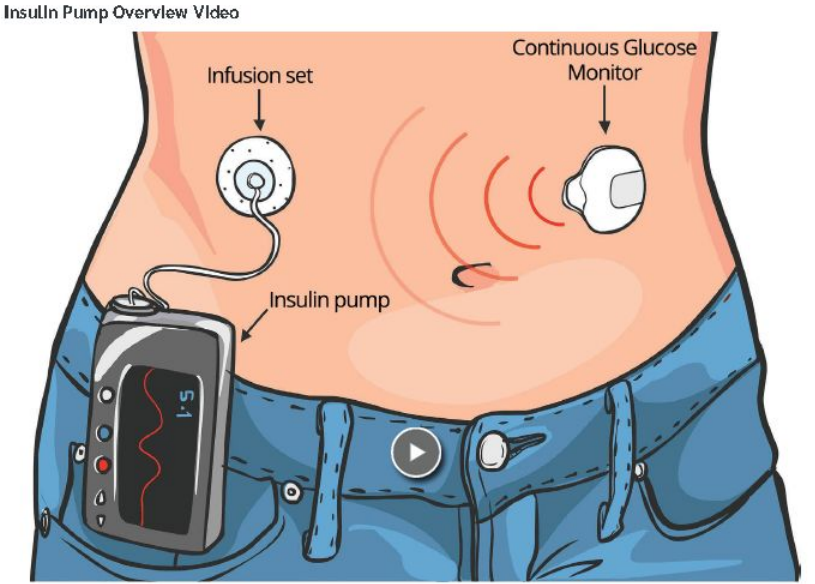
Background

- # of CGM users in 2021:
  - United states – 2 million
  - Globally – 5 million
- 2020 FDA emergency authorization for inpatient setting
- Medicare coverage
- Some Medicaid coverage

CGM: Mechanics







Dexcom
CONTINUOUS GLUCOSE MONITORING

- Age ≥2 yrs
- **<u>NO fingerstick calibration needed</u>**
- Water resistant

FreeStyle Libre

- Age ≥18 yrs
- **<u>NO fingerstick calibration needed</u>**
- Water resistant

eversense E3
Continuous Glucose Monitoring System

- Age ≥18 yrs
- Implanted sensor
- **<u>2/day fingerstick calibration needed</u>**

Medtronic
MiniMed® 670G System

- Age ≥14 yrs
- **<u>2/day fingerstick calibration needed</u>**
- Water resistant

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CASE REPORT

Use of Continuous Glucose Monitoring to Facilitate Perioperative Glycemic Management: A Case Report

Matthew DiGiusto, MD,* Risa M. Wolf, MD,† Kristin M. Arcara, MD,† and Samuel M. Vanderhoek, MD*

- Patients: 14 yo + 16 yo males
- Surgery: Pancreatectomy, splenectomy, islet autotransplantation
- Glucose monitor: Dexcom G6 vs POC vs ABG

	Dexcom G6	ABG	Glucometer
Patient A	135 mg/dL (+/- 29 mg/dL)	119 mg/dL (+/- 26 mg/dL)	102 mg/dL (+/- 11 mg/dL)
Patient B	126 mg/dL (+/- 17 mg/dL)	109 mg/dL (+/- 12 mg/dL)	103 mg/dL (+/- 14 mg/dL)

DiGiusto M et al. Use of Continuous Glucose Monitoring to Facilitate Perioperative Glycemic Management: A Case Report. A A Pract. 2021 Mar 24;15(3):e01438

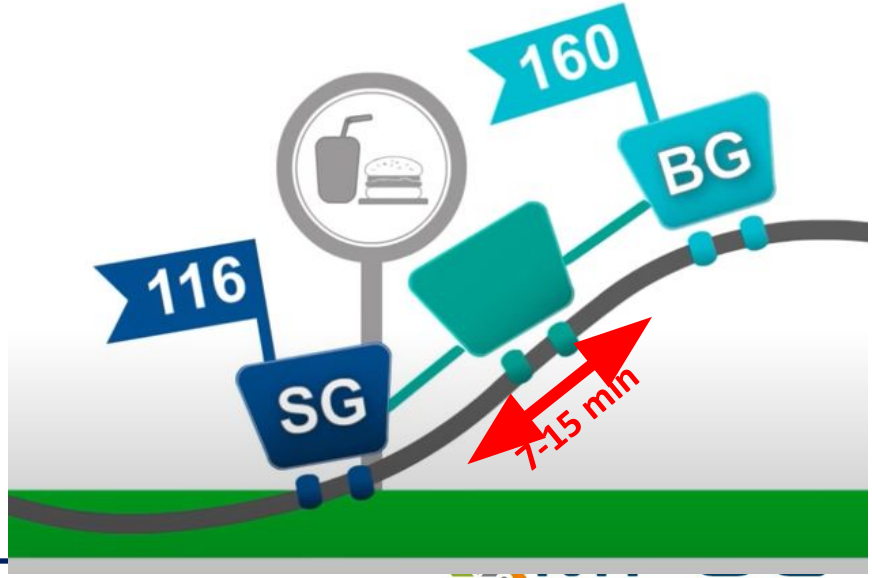
Performance of a factory-calibrated, real-time continuous glucose monitoring system during elective abdominal surgery

Afroditi Tripyla MD[1] | David Herzig PhD[1] | Dehais Joachim PhD[1] | Christos T. Nakas PhD[2,3] | Franziska Amiet[3] | Andreas Andreou MD[4] | Beat Gloor MD[4] | Andreas Vogt MD[5] | Lia Bally PhD[1]

- Patients: 200 adults
- Surgery: Abdominal surgery >2 hrs
- Glucose monitor: Dexcom G6 vs POC
- Results:
  - Mean difference = 12.7% (+/- 8.4%)
  - Median different = 9.9% (IQR 6.3-15.9%)

Tripyla A et al. Performance of a factory-calibrated, real-time continuous glucose monitoring system during elective abdominal surgery. Diabetes Obes Metab. 2020 Sep;22(9):1678-1682

Drawback: Lag Time



Drawback: Interference

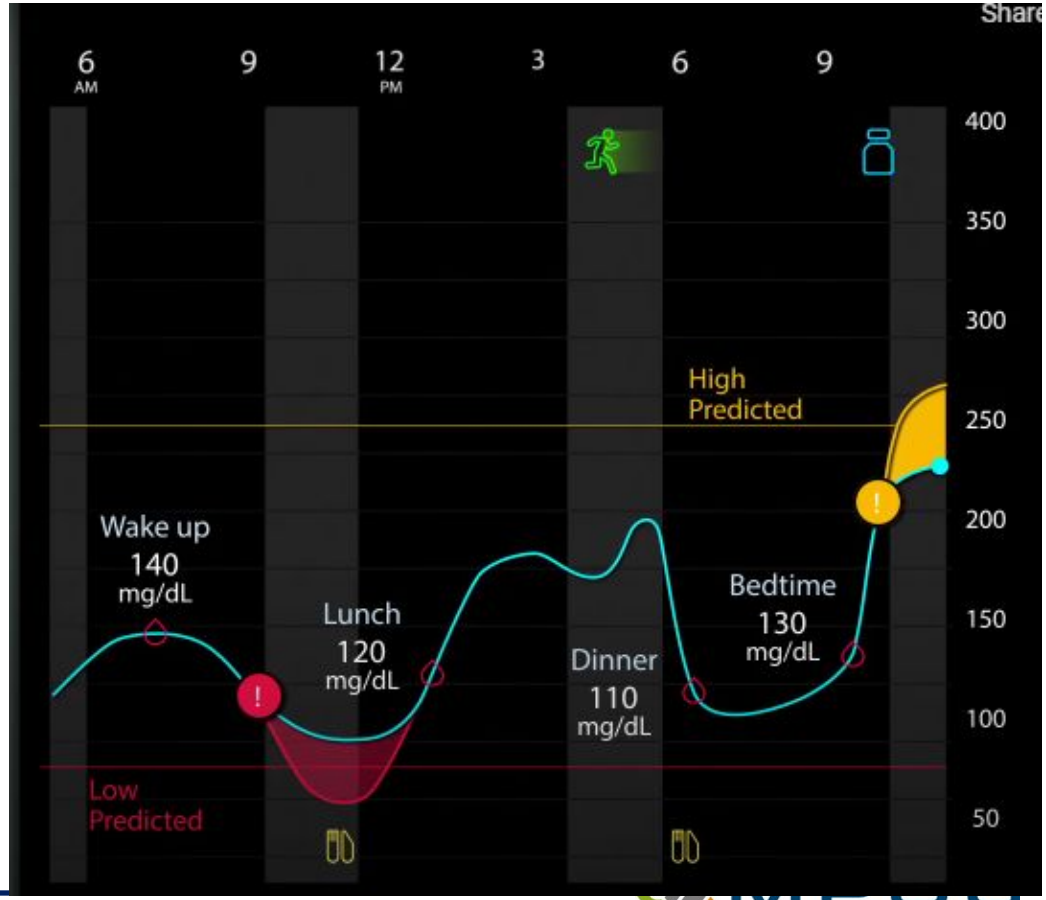
Known

- Dexcom G6:
  - Acetaminophen >4gm
- Abbot Freestyle Libre:
  - Ascorbic acid

Potential

- Skin temperature
- Skin edema
- Positioning

Benefit: Continuous Measurement with Directional Trend



What the implications for MPOG GLU measures?

How are sites tracking glucose management compliance when these are used? Issues?

Are nurses and providers entering the CGM data into the EHR?

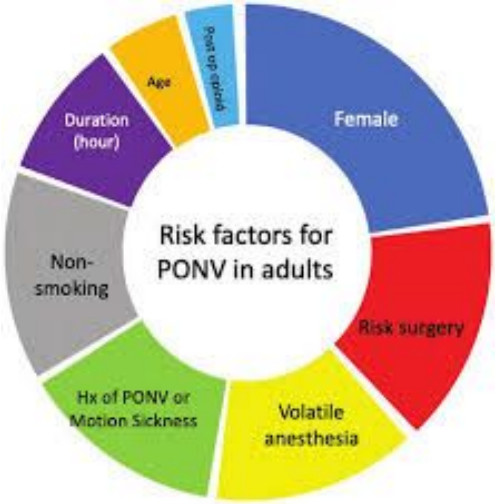
MPOG only receives data from the EHR from our sites. Options include:

1. Ask anesthesia providers to perform POC glucose testing (this is what typically happens at UM, but no official policy - still relatively rare)
2. The anesthesia provider enters glucose values into the anesthesia record using a newly created EHR variable (ie Home Glucose Monitor Value). We can create an MPOG concept to receive this data.
3. Document that a patient's CGM will be used to monitor glucose values during a case using a specific field in the EHR. We can map that local variable to an MPOG concept. (NOT Recommended)

PONV 05 Updates

PONV 05 Revisions

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



Source: Fourth Consensus Guidelines for the Management of PONV

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Updates In Progress

1. Will now only consider actual CPT codes (not predicted) to assign procedure type risk factors (cholecystectomy, laparoscopy, gynecologic procedures)

2. ERCP (only) procedures will not trigger the cholecystectomy risk factor

3. Amulsipride will be added as an acceptable antiemetic agent

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Obstetric Population Updates (per OB Subcommittee)

- Include all cesarean delivery cases, regardless of age

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

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Amisulpride

- Antidopaminergic - IV formulation recently approved for management of PONV

- In a randomized, double-blind placebo-controlled trial (n=1,147), incidence of PONV significantly lower in the amisulpride group when given with a standard antiemetic *(Kranke et al., 2018, Anesthesiology)*

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Requested revisions pending Quality Committee vote

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

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Add Procedure Exclusions?

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

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

Overall PONV incidence: 5%

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Fentanyl as a risk factor

- Remove intraop fentanyl as a risk factor for PONV? (only consider other “long-acting” opioids?)

- Or, only include intraop fentanyl administrations if they meet a certain dose threshold for the case?

- Or, do we continue to include fentanyl as a risk factor?

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Midazolam

- 4th Consensus PONV Management Guidelines do not recommend midazolam use due to possibility of sedation-related adverse effects.

- Meta-analysis of 12 RCTs (n=841) found administration of IV midazolam to be associated with significantly reduced PONV *(Grant et al, 2016, Anesth & Analg)*

- No significant difference in PONV between midazolam and ondansetron given 30 minutes before end of surgery *(Lee et al., 2007, Anaesthesia)*

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Poll

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

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