Topic: Hypoglycemia

Kick-Off Webinar
May 21, 2018
<table>
<thead>
<tr>
<th>Time</th>
<th>Agenda</th>
<th>Speakers</th>
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<tbody>
<tr>
<td>2:00 pm - 2:10 pm</td>
<td>Welcome and Introductions</td>
<td>Nerissa Legge, MS Program Manager HRET</td>
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<tr>
<td>2:10 pm - 2:40 pm</td>
<td>Project Overview</td>
<td>Steve Tremain, M.D., FACPE Improvement Advisor Cynosure Health</td>
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<td></td>
<td>Review the details of the Hypoglycemia Sprint</td>
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<td>Sprint Goals</td>
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<td>Insulin Safety</td>
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<td>2:40 pm - 2:55p.m.</td>
<td>Data</td>
<td>Steve Tremain, M.D., FACPE Maryanne Whitney, RN, CNS, MSN Improvement Advisors Cynosure Health</td>
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<td>Review pre-assessment results from Sprint Participants</td>
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<td>Discussion with Participants</td>
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<td>2:55 pm – 3:00 pm</td>
<td>Action Items</td>
<td>Nerissa Legge, MS Program Manager HRET</td>
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<td>Chart Review Tool Schedule</td>
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Why Hypoglycemia?

• Most common adverse drug event
• Unrecognized by physicians and nurses unless so low that there is obvious cognitive impairment
• 75-80% is preventable
Goals of HRET HIIN Hypoglycemia Sprint

• Create awareness of Hypoglycemia as a preventable event in most cases
• Define best practices for process improvements
• Maintain and Accelerate reduction in Hypoglycemia harm
• Create collaboration among states and hospitals
## Who is SPRINTing with us?

<table>
<thead>
<tr>
<th>Hospital Name</th>
<th>State</th>
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<tbody>
<tr>
<td>Mt. Graham Regional Medical Center</td>
<td>Arizona</td>
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<tr>
<td>Tucson Medical Center</td>
<td>Arizona</td>
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<tr>
<td>Yuma Regional Medical Center</td>
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<td>Medical Center, Navicent Health</td>
<td>Georgia</td>
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<td>Tift Regional Medical Center</td>
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<td>Methodist Hospitals</td>
<td>Indiana</td>
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<td>Labette Health</td>
<td>Kansas</td>
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<td>Kentucky River Medical Center</td>
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<td>Owensborohealth</td>
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<td>MS Baptist Medical Center</td>
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<td>CHI St. Alexius Health Devils Lake Hospital</td>
<td>North Dakota</td>
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<td>St Aloisius Medical Center</td>
<td>North Dakota</td>
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<tr>
<td>Commonwealth Health Center</td>
<td>South Pacific</td>
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</table>
Timeframe

May 2018

• Recruitment
• Informational call
• Enrollment
• Baseline data submission
• Chart Review Tool

Webinars

• 2 webinars
  • 1 Evaluation Webinar
  • Pre-assessment
  • Chart Review Tool
  • Improvement advisor/subject matter expert technical assistance call.
  • SHA Advisors (NM, OK)

July 2018

• Wrap up
• Lessons learned document (best practice implementation guide).
• Share learnings with HRET HIIN hospitals.
Meet the Support Team
Support Team

• Performance improvement subject matter experts
  – Maryanne Whitney, RN, CNS, MSN
  – Steve Tremain, M.D., FACPE

• Project manager
  – Nerissa Legge, MS

• Data analyst
  – Rich Rodriguez

• SHA Advisors
  - New Mexico Hospital Association
  - Oklahoma Hospital Association
Our progress

How would you rate your ease of data collection?

- Collecting data without too much effort: 50.00%
- Difficulty verifying every numerator: 45.00%
- Trouble finding numerators: 40.00%
- Trouble finding denominators: 35.00%
- Other: 50.00%
Data Collection

What is your method used for Numerators? (may select more than one)

- Lab report of patients meeting BGL threshold: 70.00%
- Pharmacy report of D50/other dispensed: 60.00%
- Event reporting system or eMAR: 40.00%
- Pyxis/Omnicell report of D50: 20.00%

What is your method used for denominators? (may select more than one)

- Pharmacy report of patients receiving insulin: 90.00%
- eMAR: 80.00%
- Pyxis/Omnicell report of insulin: 70.00%
- Coding to exclude POAs: 60.00%
Simplify Data Collection

- Insulin:
  - How often do you see a glucose <50 in a patient NOT on insulin?
  - Count all patients who had a glucose <50 (numerator)
  - Assume on insulin
  - Count all patients who received insulin (denominator)
  - Divide!
- –CLOSE ENOUGH
Insulin Safety: What Works

• Assessing/Readjusting home dietary intake/home insulin dosing on admission
• Target range 140 -180 !!!
• Standard orders for sudden NPO/loss of line
Insulin Safety: What Works

• Basal + Bolus + Correction for all patients who are eating
• Basal + Correction for non-critically ill patients who are NPO or on 24 hour feeds
• Correction only (Sliding Scale) for NOBODY!
Insulin Safety: What Works

• Coordination of meals and insulin
• Consideration for changing insulin regimen if glucose <100 mg/dl
• Change insulin regimen if glucose <70 mg/dl
  – Studies show that a high percentage of patients with glucose < 50 had a previous event of < 70 in the same hospitalization
Insulin Safety: What Works

• Insulin drips for critically ill patients with glucose > 180 mg/dL
Safe Glucose Levels in Hospitalized Patients

The ADA Standards of Care 2017:

The Road = 140 – 180
Rumble strip = 100
Wall = 54 mg/dl

Action at the white line keeps you from the cliff!
Even More Important When Unstable
Oh My...So Much to Do

• What should I choose to work on next?
<table>
<thead>
<tr>
<th>Process</th>
<th>Chart #1</th>
<th>Chart #2</th>
<th>Chart #3</th>
<th>Chart #4</th>
<th>Chart #5</th>
<th>Chart #6</th>
<th>Chart #7</th>
<th>Chart #8</th>
<th>Chart #9</th>
<th>Chart #10</th>
<th>Chart #11</th>
<th>Chart #12</th>
<th>Chart #13</th>
<th>Chart #14</th>
<th>Chart #15</th>
<th>Chart #16</th>
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<th>Chart #18</th>
<th>Chart #19</th>
<th>Chart #20</th>
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<tbody>
<tr>
<td>Target &lt; 140 mg/dL (see glucose correction orders for patient)</td>
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<td>Glucose &lt; 100 without regimen modification</td>
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<td>Glucose &lt; 70 without regimen modification</td>
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<td>Patient not receiving basal insulin</td>
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<td>Patient eating but not receiving bolus insulin</td>
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<td>Patient on Sliding Scale insulin alone</td>
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<td>Sudden loss of parenteral glucose</td>
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<td>Sudden NPO</td>
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<td>Sudden loss of appetite (includes nausea, vomiting, etc.)</td>
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<td>Home insulin regimen continued on admission without modification/reduction</td>
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<td>Lack of meal-insulin coordination</td>
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Instructions: (1) Mark an X in the box where a process failure occurred. You may check more than one box per chart. (2) The processes with the most common failures could be a priority focus.

Note: Do NOT spend more than 20-30 minutes per chart!
What You Told Us

What is the blood glucose threshold (if used) for numerator inclusion?

Does your hospital set dosing limits for insulin?

Does your hospital set target glucose levels at 140-180 mg/dl in the hospitalized patient?

Does your hospital seek new insulin orders for any patient with a single episode of inpatient hypoglycemia (less than 70 mg/dl)?
What You Told Us

1. Does your hospital review usual home meal intake upon admission and monitor initial insulin levels to adjust for hospital meal plan?

2. What are your error reduction strategies in place for administration of insulin products? (may select more than one)

3. Does your hospital coordinate meal and insulin times?

4. For patients on insulin, is there regular monitoring for signs and symptoms of hypoglycemia?
Next Steps
Additional Support

• Best practices
• Contact list
• Check-in calls
• SHA Advisors
Nerissa Legge, MS
Program Manager, HRET
Hypoglycemia Check-In Call Schedule

- Today, May 21 12:30pm CT
- June 21 11am CT
- July 9 11am CT
Between Now and Our next call...

- Review the best practices
- Complete the Chart Review Tool
- Determine the approach you will take
  - What do you need to do in order to improve your Hypoglycemia processes?
Questions?