KHC Hospital Improvement Innovation Network

January 31, 2018

10 to 11 a.m.

HiIN Goals:
By September 2018, hospitals in the KHC HiIN will achieve 20% reduction in all-cause harm and 12% reduction in readmissions.

Agenda

• Introductions and Announcements
• Measures & Data Update
• Sepsis & Readmissions
• Sepsis SNAP Update
• Upcoming Events
Introductions

Special Guests

Cynosure Health Improvement Advisors

- Pat Teske, RN, MHA
- Maryanne Whitney, RN, CNS, MSN
- Betsy Lee, MSPH, BSN, RN

Michele Clark
Program Director
mclark@khconline.org

Rob Rutherford
Senior Health Care Data Analyst
rrutherford@khconline.org

Special Guests
Hospital Quality and Patient Safety Leaders

- Suzanne Fletcher, BSN, RN, CMSRN
  Sepsis Coordinator
  Wesley Medical Center, Wichita, KS
  and
  KHC HIN Sepsis Improvement Advisor

- Dorothy Rice, RN, BSN, MBA
  Director of Quality, Trauma & Accreditation
  Ransom Memorial Hospital
  Ottawa, KS

Introducing SCRIPT UP

HRET HIIN
UP CAMPAIGN
A Fresh Approach to Harm Reduction

Get Up
Wake Up
Soap Up
Script Up

Foundational Questions

1. Is my patient awake enough to get up?
2. Have I protected my patient from infections?
3. Does my patient need any medication changes?
FOUR MUST-DO'S:

- Match the drug to the bug
- Follow Beers if they're up in years
- Use appropriate meds -- Less may be more
- Ask if patient needs any medication changes

Session #2 begins at 11 am TODAY

2018 Quality Improvement Fellowship

► Two tracks with Institute for Healthcare faculty offer QI training to kick-start and support projects related to the HIIN goals

► Offered from January to July 2018. Features interactive webinars and online courses on key topics in quality improvement. Simultaneous to the webinars and coursework, Fellows will apply their learning by either developing or advancing a project to improve outcomes in their own department or unit.

► Multiple Fellows are encouraged to participate from one organization. They may work as a team on a project, or individually.

Enroll by February 16
For more information, visit www.hret-hiin.org/fellowships/qifellowship/

Watch the informational webinar www.hret-hiin.org/resources/display/hret-hiin-qfellowship-informational-call-1
Summit on Quality
Call for Breakout Sessions and Poster Presentations

The Kansas Healthcare Collaborative and the Kansas Foundation for Medical Care, Inc. are now seeking applications for breakout sessions and poster presentations for the Summit on Quality to be held Friday, May 4, in Wichita.

The deadline for applications is Thursday, February 1.


---

Measures & Data Update

- Milestone 6
- Overall HIIN Progress
- Focus Areas/Sprint

Rob Rutherford
Senior Health Care Data Analyst
Kansas Healthcare Collaborative
RRutherford@khconline.org
(785) 235-0763 x1326
Milestone 6

  - For at least 70% of applicable measures

Preliminary Results

Milestone 6
KHC HIIN Data Submission

85% As of Friday, January 26, 2018

Data Submission
Monitoring Reports: Data Completion

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Adverse Events</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Hypoglycemia in Inpatient Receiving Insulin</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Inpatient Anticoagulation with Warfarin - Inpatient</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>CAUTI rates per 1,000 Catheter Days (ICUs + Other Inpatient Units)</td>
<td>1.47%</td>
<td>1.47%</td>
<td>1.47%</td>
<td>1.47%</td>
<td>1.47%</td>
<td>1.47%</td>
<td>1.47%</td>
<td>1.47%</td>
<td>1.47%</td>
<td>1.47%</td>
<td>1.47%</td>
</tr>
<tr>
<td>CAUTI rates per 1,000 Catheter Days - ICUs</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Catheter Utilization Rate: ICU &amp; Other Units (excluding NICUs)</td>
<td>55.0%</td>
<td>55.0%</td>
<td>55.0%</td>
<td>55.0%</td>
<td>55.0%</td>
<td>55.0%</td>
<td>55.0%</td>
<td>55.0%</td>
<td>55.0%</td>
<td>55.0%</td>
<td>55.0%</td>
</tr>
<tr>
<td>Catheter Utilization Rate: ICU excluding NICUs</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Preliminary Results

Current KHC HIIN Progress

- Overall 10% Reduction in Harm!
- Saved 118 lives and $8,000,000!

Harms per 1,000 Discharges

Base: 111.1  Target: 100
Project-to-Date Improvement

<table>
<thead>
<tr>
<th>Area</th>
<th>Improvement to Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>SSI HIP</td>
<td>-53%</td>
</tr>
<tr>
<td>SSI Clostr.</td>
<td>-52%</td>
</tr>
<tr>
<td>SSI Vaten.</td>
<td>-41%</td>
</tr>
<tr>
<td>VTE</td>
<td>-31%</td>
</tr>
<tr>
<td>AUE Opalad</td>
<td>-1%</td>
</tr>
<tr>
<td>CAUTI</td>
<td>-32%</td>
</tr>
<tr>
<td>C. difficile</td>
<td>-28%</td>
</tr>
<tr>
<td>MRSA</td>
<td>-9%</td>
</tr>
<tr>
<td>SST HYP</td>
<td>0%</td>
</tr>
<tr>
<td>SST Hypo</td>
<td>2%</td>
</tr>
<tr>
<td>MSSA</td>
<td>9%</td>
</tr>
<tr>
<td>SST MRSA</td>
<td>15%</td>
</tr>
<tr>
<td>Red Heart</td>
<td>3%</td>
</tr>
<tr>
<td>CLABSI</td>
<td>38%</td>
</tr>
<tr>
<td>PFI + PO Sept.</td>
<td>50%</td>
</tr>
<tr>
<td>Falls</td>
<td>15%</td>
</tr>
</tbody>
</table>

Preliminary Results

6 HRET HIIN Sprint Areas

HRET

- **ADE: Hypoglycemia** (At Target)
- **CLABSI** (Prevent 2/Mo.)
- **CAUTI** (At Target)
- **CDI** (Prevent 11/Mo.)
- **Post-Op Sepsis** (Prevent 5/Mo.)
- **MRSA** (At Target)
Falls with Injury (Prevent 51/Mo.)

All-Cause Readmissions (Prevent 245/Mo.)
Post-Op Sepsis (Prevent 5/Mo.)

Overall Sepsis Mortality (At Target)
# Kansas HIIN 2016-2017 Data Submission Schedule

<table>
<thead>
<tr>
<th>Outcome &amp; Process Measures for HACs occurring in:</th>
<th>Readmissions for index discharges in, and SSI for procedures performed in:</th>
<th>Submission Due</th>
</tr>
</thead>
<tbody>
<tr>
<td>September, 2017</td>
<td>August, 2017</td>
<td>October 31, 2017</td>
</tr>
<tr>
<td>October, 2017</td>
<td>September, 2017</td>
<td>November 30, 2017</td>
</tr>
<tr>
<td>November, 2017</td>
<td>October, 2017</td>
<td>December 31, 2017</td>
</tr>
<tr>
<td>December, 2017</td>
<td>November, 2017</td>
<td><strong>January 31, 2018</strong></td>
</tr>
<tr>
<td>January, 2018</td>
<td>December, 2017</td>
<td>February 28, 2018</td>
</tr>
<tr>
<td>February, 2018</td>
<td>January, 2018</td>
<td>March 31, 2018</td>
</tr>
<tr>
<td>March, 2018</td>
<td>February, 2018</td>
<td>April 30, 2018</td>
</tr>
<tr>
<td>April, 2018</td>
<td>March, 2018</td>
<td>May 31, 2018</td>
</tr>
<tr>
<td>May, 2018</td>
<td>April, 2018</td>
<td>June 30, 2018</td>
</tr>
<tr>
<td>June, 2018</td>
<td>May, 2018</td>
<td>July 31, 2018</td>
</tr>
</tbody>
</table>

---

# Reducing Sepsis Readmissions

Maryanne Whitney, RN, CNS, MSN  
Pat Teske, RN, MHA
Why focus on sepsis?

Common

Costly

12% of all readmissions followed a sepsis hospitalization

<table>
<thead>
<tr>
<th>Condition</th>
<th>Estimated Mean Length of Stay (95% CI)</th>
<th>Estimated Mean Length per Readmission (95% CI)</th>
<th>Percentage of Index Admissions Readmitted Within 30 Days (95% CI)</th>
<th>Percentage of Total Estimated Cost of All Readmissions (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sepsis</td>
<td>6.4 (6.4-6.5)</td>
<td>8242 (8225-8258)</td>
<td>12.2 (11.9-12.4)</td>
<td>14.5 (14.2-14.8)</td>
</tr>
<tr>
<td>Acute myocardial infarction</td>
<td>5.7 (5.6-5.8)</td>
<td>9424 (9279-9571)</td>
<td>1.2 (1.2-1.3)</td>
<td>1.4 (1.3-1.5)</td>
</tr>
<tr>
<td>Heart failure</td>
<td>6.4 (6.4-6.5)</td>
<td>9551 (9490-9613)</td>
<td>6.7 (6.5-6.8)</td>
<td>7.5 (7.3-7.7)</td>
</tr>
<tr>
<td>Pneumonia</td>
<td>6.7 (6.6-6.7)</td>
<td>9533 (9466-9600)</td>
<td>5.2 (5.0-5.3)</td>
<td>5.5 (5.4-5.7)</td>
</tr>
<tr>
<td>Chronic obstructive pulmonary</td>
<td>6.0 (5.9-6.0)</td>
<td>8417 (8355-8480)</td>
<td>4.6 (4.5-4.8)</td>
<td>4.3 (4.1-4.4)</td>
</tr>
</tbody>
</table>

**AHRQ statistical brief # 172**

**Medicare**
- CHF
- Sepsis
- Pneumonia
- COPD
- Arrhythmia
- UTI
- Acute renal failure
- AMI
- Complication of device
- Stroke

**Medicaid**
- Mood disorder
- Schizophrenia
- Diabetes complications
- Comp. of pregnancy
- Alcohol-related
- Early labor
- CHF
- Sepsis
- COPD
- Substance-use related

---

**Sepsis readmissions cost more**

Sepsis readmissions cost more due to higher LOS

<table>
<thead>
<tr>
<th>National Readmission Data*</th>
<th>Weighted Proportion of Cases in the United States</th>
</tr>
</thead>
<tbody>
<tr>
<td>Admissions associated with 30 d readmission</td>
<td>Estimated Mean Length of Stay (95% CI), d*</td>
</tr>
<tr>
<td>1,187,697</td>
<td>6.4 (6.4-6.5)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Admissions Readmitted Within 30 Days</th>
<th>Estimated Mean Cost per Readmission (95% CI), $</th>
</tr>
</thead>
<tbody>
<tr>
<td>10,070 (10,021-10,119)</td>
<td>12.2 (11.9-12.4)</td>
</tr>
<tr>
<td>9424 (9279-9571)</td>
<td>1.2 (1.2-1.3)</td>
</tr>
<tr>
<td>9,051 (8,990-9,113)</td>
<td>6.7 (6.5-6.8)</td>
</tr>
<tr>
<td>9333 (9466-9500)</td>
<td>5.2 (5.0-5.3)</td>
</tr>
<tr>
<td>8417 (8355-8480)</td>
<td>4.6 (4.4-4.8)</td>
</tr>
</tbody>
</table>

More importantly

• Worse outcomes when readmitted
  – More ICU use
  – More hospice
  – More death
• 34% in skilled care facility after discharge
• Patients spend median of 10% of days alive after discharge living in acute facility


Questions to ask?

**Why are sepsis patients being readmitted?**

**What will we do differently?**
Polling question

Where is your organization in the sepsis readmission reduction journey?

- Not looking at sepsis readmissions yet.
- Just starting to look at sepsis readmissions.
- Testing specific strategies for reducing sepsis readmissions.
- Fully implemented approach for reducing sepsis readmissions.

Readmission reduction drivers

- Use data and RCA to drive cont. improvement
- Improve standard hopscotch-based transitional care processes
- Deliver enhanced services based on need
- Collaborate with providers and agencies across the continuum

HRET HIIN Readmissions Change Package Driver Diagram

CP
Driver #1 - Data and root causes

Index admission = Sepsis

Index admission ≠ Sepsis

Data and root causes

What does the discharge disposition tell you?

How soon are your sepsis patients returning?

My Hospital

Days and Number of Occurrences

Kansas Healthcare Collaborative
Re-Admission Rate of KS Patients having an Index Admission within Kansas

<table>
<thead>
<tr>
<th>Region</th>
<th>Count</th>
<th>Re-Admission</th>
<th>Rate</th>
</tr>
</thead>
</table>
| Kansas     | 100735| 15952        | 15.8%
| Northwest  | 4508  | 735          | 16.2%
| North Central | 6478 | 991          | 15.3%
| Northeast  | 47373 | 9299         | 19.8%
| Southwest  | 3485  | 541          | 15.5%
| South Central | 33500 | 4901         | 14.6%
| Southeast  | 5291  | 755          | 14.3%

Notes: Admissions and Re-admission data was obtained from Medicare Part A claims showing an inpatient discharge date between January 1, 2016 and March 31, 2017 from a short-term care hospital, Critical Access Hospital, or Psychiatric Facility. Re-admission could occur anywhere.

Sepsis Rate of In-State Re-Admissions for KS Patients having an Index Admission anywhere

<table>
<thead>
<tr>
<th>Region</th>
<th>All Re-Admissions</th>
<th>Sepsis Re-Admissions with Sepsis Index Admissions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kansas</td>
<td>722</td>
<td>722</td>
</tr>
<tr>
<td>Northwest</td>
<td>1025</td>
<td>1025</td>
</tr>
<tr>
<td>North Central</td>
<td>1041</td>
<td>1041</td>
</tr>
<tr>
<td>Southwest</td>
<td>159</td>
<td>159</td>
</tr>
<tr>
<td>South Central</td>
<td>3598</td>
<td>3598</td>
</tr>
<tr>
<td>Southeast</td>
<td>791</td>
<td>791</td>
</tr>
</tbody>
</table>

Notes: All Re-admissions and Re-admission data was obtained from Medicare Part A claims showing an inpatient discharge date between January 1, 2016 and March 31, 2017 from a short-term care hospital, Critical Access Hospital, or Psychiatric Facility.
# Sepsis Rate of In-State Admissions for KS Patients

<table>
<thead>
<tr>
<th>Region</th>
<th>Index Admissions</th>
<th>Index Admissions with a Sepsis CMS</th>
<th>Sepsis Index Admissions Resulting in Re-Admissions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Count</td>
<td>Rate</td>
<td>Count Rate</td>
</tr>
<tr>
<td>Kansas</td>
<td>3307%</td>
<td>785%</td>
<td>8% 13%</td>
</tr>
<tr>
<td></td>
<td>With/Without DSS</td>
<td>3272%</td>
<td>13%</td>
</tr>
<tr>
<td></td>
<td>35.7%</td>
<td>6%</td>
<td>4% 12%</td>
</tr>
<tr>
<td></td>
<td>80%</td>
<td></td>
<td>12%</td>
</tr>
<tr>
<td></td>
<td>12%</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>17%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>North Central</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>4279</td>
<td>185%</td>
<td>6% 12%</td>
</tr>
<tr>
<td></td>
<td>9%</td>
<td></td>
<td>4% 12%</td>
</tr>
<tr>
<td></td>
<td>20%</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>13%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>North East</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>4758</td>
<td>341%</td>
<td>7% 10%</td>
</tr>
<tr>
<td></td>
<td>8%</td>
<td></td>
<td>4% 8%</td>
</tr>
<tr>
<td></td>
<td>18%</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>10%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>South West</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3498</td>
<td>124%</td>
<td>4% 12%</td>
</tr>
<tr>
<td></td>
<td>8%</td>
<td></td>
<td>4% 12%</td>
</tr>
<tr>
<td></td>
<td>12%</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>10%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>South East</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2202</td>
<td>293%</td>
<td>8% 10%</td>
</tr>
<tr>
<td></td>
<td>10%</td>
<td></td>
<td>4% 8%</td>
</tr>
<tr>
<td></td>
<td>10%</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>10%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Notes</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This material was prepared by the Great Plains Quality Innovation Network, the Medicare Quality Improvement Organization for Kansas, Nebraska, North Dakota and South Dakota, under contract with the Centers for Medicare & Medicaid Services (CMS), an agency of the U.S. Department of Health and Human Services. The contents presented do not necessarily reflect CMS policy. 11SOW-GPQIN-KS-GEN-177/0118

# Days from Index Admission to Sepsis Re-Admission for Kansas Patients

<table>
<thead>
<tr>
<th>Days</th>
<th>North West Kansas</th>
<th>North Central Kansas</th>
<th>North East Kansas</th>
<th>South West Kansas</th>
<th>South Central Kansas</th>
<th>South East Kansas</th>
<th>Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-4</td>
<td>40%</td>
<td>8%</td>
<td>3%</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
<td>4%</td>
</tr>
<tr>
<td>5-9</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
</tr>
<tr>
<td>10-14</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
</tr>
<tr>
<td>15-21</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
</tr>
<tr>
<td>22-28</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
</tr>
<tr>
<td>29-35</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
</tr>
<tr>
<td>36-42</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
</tr>
<tr>
<td>43-49</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
</tr>
<tr>
<td>50-56</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
</tr>
</tbody>
</table>

Days from Index Admission to Sepsis Re-Admission was not limited to any particular area. Sepsis Re-Admission occurred within the identified area at the top of the table. Admissions and Re-admission data was obtained from Medicare Part A claim files showing an inpatient discharge dates between and including 4/13/2016 to 3/31/2017 from a Short Term Care Hospital, GIP or Psychiatric Facility.

This material was prepared by the Great Plains Quality Innovation Network, the Medicare Quality Improvement Organization for Kansas, Nebraska, North Dakota and South Dakota, under contract with the Centers for Medicare & Medicaid Services (CMS), an agency of the U.S. Department of Health and Human Services. The contents presented do not necessarily reflect CMS policy. 11SOW-GPQIN-KS-GEN-177/0118
### Kansas Patient’s Most Recent Location Within 5 Days Prior To The Sepsis Re-Admission

<table>
<thead>
<tr>
<th></th>
<th>North West Kansas</th>
<th>North Central Kansas</th>
<th>North East Kansas</th>
<th>South West Kansas</th>
<th>South Central Kansas</th>
<th>South East Kansas</th>
<th>Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td>Critical Access Hospital</td>
<td>12%</td>
<td>19%</td>
<td>5%</td>
<td>18%</td>
<td>8%</td>
<td>9%</td>
<td>8%</td>
</tr>
<tr>
<td>Federally Qualified Health Center</td>
<td>15%</td>
<td>1%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Home Health Agencies</td>
<td>1%</td>
<td>1%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>At Home or Outpatient</td>
<td>20%</td>
<td>20%</td>
<td>10%</td>
<td>40%</td>
<td>30%</td>
<td>20%</td>
<td>31%</td>
</tr>
<tr>
<td>Skilled Nursing Home</td>
<td>1%</td>
<td>0%</td>
<td>1%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Long Term Care Facilities</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>1%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Home Health Agency</td>
<td>1%</td>
<td>1%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Home Health Agency &amp; Labs</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Skilled Nursing Home &amp; Labs</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Rural Dialysis Facilities</td>
<td>1%</td>
<td>1%</td>
<td>0%</td>
<td>1%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Rural Health Clinic</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>1%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Rural Health Clinic &amp; Labs</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Rural Home Care</td>
<td>11%</td>
<td>11%</td>
<td>10%</td>
<td>11%</td>
<td>10%</td>
<td>11%</td>
<td>10%</td>
</tr>
</tbody>
</table>

*Note: The data represents the percentage of patients who were admitted to the hospital within five days of discharge from a hospital. The data includes patients discharged from any hospital in the state from April 1, 2017, to March 31, 2018.*

---

### Contact Information

Michelle Sigmund, RHIT, CCS

800 SW Jackson St., Suite 700
Topeka, KS 66612

P: 785-273-2552 ext. 366

msigmund@kfmc.org
Risk factors for return

- Younger age
- Medicaid insurance, lower income, urban
- More comorbidities
  - Malignancy
  - Anemia
- Sepsis severity NOT an independent factor
- Conflicting data
  - Male gender, Black or Native American


Risk Factors for Return

- RBC transfusion, TPN and longer duration of antibiotics (main risk factors)
- Hospitalizations in prior year, length of stay
- Study showed 50% of the readmissions – unresolved or recurrent infections

What are your SEPSIS patients saying?

Take A Dive, Interview Five

- Identify 5 or more SEPSIS patients in the hospital that have been recently readmitted.
- Interview five SEPSIS patients/caregivers using the ASPIRE 2 tool.
- Aggregate interview results using the Readmission Case Review Analysis tool.
- Analyze responses for new insight regarding “why” SEPSIS patients soon returned to the hospital. What are the differences for your SEPSIS patients?

ASPIRE 2 Tool: www.hret-hiin.org/resources/display/aspire-tool-2-readmission-review-tool

Readmissions Case Review Analysis Tool: www.hret-hiin.org/resources/display/readmission-case-review-and-analysis

Polling question

Where is your organization relative to sepsis readmission data?

- Have not performed any specific analysis of our sepsis readmissions data.
- Have analyzed our sepsis readmissions data but have not yet done sepsis readmission interviews.
- Have analyzed our sepsis readmissions data and done interviews.
Driver #2 – Transitional care for all

• Whole person assessment
  – Prior to discharge “think sepsis risk” for enhanced education:
    a. Indwelling catheters?
    b. Indwelling lines?
    c. Did pt develop a secondary infection during this admission? Pneumonia, CDI, wound infection, CLABSI, CAUTI?
    d. Does patient have a wound? Open? Closed?
    e. Is the pt currently being treated for an infection (on antibiotics)?
    f. Is there significant functional decline?

Then what?

• If so, consider:
  – Medication review in the construct of worsening chronic conditions
  – Decreased time to follow up
  – Specific sepsis education and disease recognition and management
  – Focus on the social, environmental, psychological aspects of sepsis
Why educate?

- As many as 92% of all sepsis cases originate in the community
- Almost one-quarter of Americans believe that sepsis only happens in hospitals (23%)

Sepsis Alliance Awareness Survey 2017

Specific Post Sepsis Education

http://www.sepsis.org/files/SA_infographic1_square3_8.5x11_PrintReady.pdf
LIFE AFTER SEPSIS
FACT SHEET
WHAT TO EXPECT
ABOUT SEPSIS
What is sepsis?
Sepsis is a complication caused by the body’s overwhelming and life-threatening response to infection, which can lead to tissue damage, organ failure, and death.
What causes sepsis?
Any type of infection that is severe enough to cause sepsis. It is often associated with infections of the lung (e.g., pneumonia), urinary tract, skin, and soft tissue (e.g., wounds, abscesses, and cellulitis), or nearby structures (e.g., heart valves and blood vessels). Sepsis also can occur when a normally harmless microbe infects the bloodstream and travels to other areas of the body, causing tissues and organs to become infected with the microbe.
LIFE AFTER SEPSIS
What are the first steps in recovery?
After you receive care, rehabilitation usually starts in the hospital by slowly helping you to move around and then after yourself. Bathing, changing, dressing, and other activities may help you start getting back to your normal level of health as close to it as possible. Before you are discharged from the hospital, your healthcare team may talk to you about being prepared for aftercare when you return home.
How will I feel when I get home?
You have been seriously ill, and your body and mind need time to get better. You may experience the following physical symptoms upon returning home:
• General malaise, fatigue, or weakness
• Headache
• General body pain or achiness
• Difficulty breathing
• Difficulty sleeping
• Weight loss, but of appetite; food not staying normal
• Dry and sticky skin that may peel
• Fainting spells
• Heart race


POST-SEPSIS: THE NEW NORMAL
What’s normal and what should I be concerned about?
Generally, the problems described below are not due to sepsis. They are normal responses to what you have been through. Some hospital staff will follow up or still be around as you return home. This is all part of the process of getting better. When you feel better, you may have to adjust to your new way of life. If you feel like you are not getting better or you have any questions, talk to your healthcare provider.
Where can I get more information?
Sepsis Alliance (www.sepsis.org) was created to raise awareness among all healthcare providers. Sepsis Alliance offers information on a variety of sepsis-related topics. To view the full series of Sepsis Information Guides, visit sepsis.org/library


Kansas Healthcare Collaborative
Stay close post discharge

“We have learned through our data analysis and PDCA cycles that we need to get our sepsis patients to a f/u appt within 48-72 hours.

We have also used the attachment here for our post discharge phone calls, which has been revised recently based on our analysis of our sepsis population as well as other post discharge phone calls.

We know we will still have changes as we move forth but we keep working to make it better for patients as we learn from our data and processes.”

Thank you!
Dorothy Rice
Ransom Memorial Hospital, Ottawa, KS

Driver #3- Enhanced services

- Domains of problems among ICU survivors
  - Impairments in physical, cognitive, and psychological domains
  - Acceleration of chronic diseases
    - Cardiovascular disease
    - Myocardial infarction, Stroke, Atrial fibrillation
    - Chronic kidney disease
    - Dementia
    - Immunoparalysis/immunosenescence
      - Repeat episodes of infection & sepsis
  - High risk of death - ~1 in 2 or 1 in 3 likely to die at 1 year

Complications in Sepsis

- Acute Kidney Injury
- Health Care Associated Infections
- Antibiotics

- Post Sepsis Syndrome
  - Weakness & balance
    - 50% of pts with sepsis in ICU
  - Cognitive
    - Thinking and memory
  - Mental Health
    - PTSD, Anxiety

What enhanced services are needed?

- Follow up care
- Support groups
- ???
Driver #4- Community collaboration

Is their temperature above 100?
Is their heart rate above 100?
Is their blood pressure below 100?

Who can you partner with?

- SNFs
- Home health
- Home providers (MDs, NPs)
- EMS
- Community groups
- Support groups
Commitments

- What ideas did you like?
- What idea will you test in your organization?
- If you’ve already started, what’s your next test?

LISTSERVs

- HRET HIIN Readmissions
- HRET HIIN Sepsis

HRET Sign Up

www.surveymonkey.com/r/S6C6KWN

- KHC HIIN Sepsis
  Contact amiller@khconline.org
HRET HIIN

Sepsis SNAP

Sepsis Transfers from Rural/CAH to Tertiary Center

Focus: Sepsis Patients

Suzanne Fletcher
BSN, RN, CMSRN
Sepsis Coordinator
Wesley Healthcare
Quality and Infection Prevention

What is a SNAP?

- Safety Network to Accelerate Performance
- Voluntary learning networks
  - Approximately 10 hospital pairs
- Emerging best practices related to HIIN topics
- The ‘next best practice’ developed during a SNAP will be disseminated to all HRET HIIN hospitals.
Why Sepsis Transfer?

• Sepsis is one of the largest sources of preventable mortality for hospitalized patients.

• Current sepsis efforts in the HIIN focus on individual hospital performance yet there is a great opportunity to work upstream to better identify, treat and transfer septic or potentially septic patients who present to rural and critical access hospitals.

• Since mortality increases by 7.6% with every hour without broad spectrum antibiotics, a SNAP that focuses on improvement in these practices will benefit the entire HIIN to reach its goal of reducing sepsis mortality by 20% by September 2018.

SNAP Sepsis Transfer: Goals

• Implementation of an ideal transfer process in all participating hospital pairs resulting in a 20% reduction in sepsis mortality

• Learn the contextual components of implementation of ideal early identification, treatment, and transfer from rural/CAH to referral centers of patients with sepsis and septic shock so that these learnings can be used to accelerate implementation in other HIIN hospitals.

• Implementation of an ideal early identification, treatment, and transfer of septic and potentially septic patients in all participating hospital pairs.

• The group will develop an implementation guide to be used by HIIN hospitals to support them in their implementation of an ideal transfer.
Key elements of Sepsis Transfer

- Early identification of sepsis
  - rural/CAH settings
- Early treatment of sepsis
  - rural/CAH settings
  - Treat before you transfer
- Establish an ideal transfer process from rural/CAH to receiving facility
  - Communication, orders & feedback
- Collaborate with EMS providers

Timeframe

- Recruitment
  - Informational call
  - Enrollment
  - Baseline data submission

November

Monthly

- Monthly Sepsis check-in call to cover selected topic, actions taken since prior check-in call and plans for next month.
- Data submission - Adherence to sepsis bundle elements both individually and as an all-or-none measure.
- Improvement advisor/subject matter expert technical assistance call

Spring

- Wrap up
  - Share learnings with HRET HIIN hospitals.

Kansas Healthcare Collaborative
## Measurement Plan

Collect measures from participating hospitals:

1. **Rural/CAH**
   - Time of ED arrival to time of transfer
   - Time of ED arrival to time of sepsis screen
   - Compliance with sepsis screening
   - Treatment initiated and times for each; IV fluids, ABX, lactate, blood cultures per protocol

2. **Receiving facility**
   - Time of handoff to time of arrival at receiving facility
   - Sepsis mortality rate of patients identified with sepsis in the rural CAH setting
   - Timely Feedback to referring facility
   - Rate of sepsis identified after transfer
BASELINE DATA

- Nine groups of hospitals are enrolled in project
  - 7 are duets and 2 are triplets
  - Hospitals from IN, LA, MO, MS, NE, and TN

Baseline: Referring Hospitals

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Referring Facility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transfer &lt; 3 hours</td>
<td>35%</td>
</tr>
<tr>
<td>Screen &lt; 30 minutes</td>
<td>62%</td>
</tr>
<tr>
<td>Treatment time &lt; 30 minutes</td>
<td>46%</td>
</tr>
<tr>
<td>ABX within 60 minutes</td>
<td>28%</td>
</tr>
<tr>
<td>Lactate</td>
<td>36%</td>
</tr>
<tr>
<td>Cultures prior ABX admin</td>
<td>41%</td>
</tr>
<tr>
<td>Fluids delivered</td>
<td>36%</td>
</tr>
<tr>
<td>EMS transfer document</td>
<td>57%</td>
</tr>
<tr>
<td>Fluids orders for transport</td>
<td>32%</td>
</tr>
</tbody>
</table>
Baseline: Referring Hospital

<table>
<thead>
<tr>
<th>Referring Hospital</th>
<th>BL</th>
<th>Nov</th>
<th>Dec</th>
<th>Jan</th>
<th>Feb</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of patients screened for sepsis</td>
<td>995</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Number of patients seen in ED</td>
<td>6,175</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

16%

Baseline: Receiving Hospital

- Arrival <60 minutes?: 51%
- Feedback given: 27%
Barriers Encountered

- Lack of resources
- Education
- Transportation challenges

Implementation Strategies

- Keys to success
  - Sharing of resources
  - Create and share education
  - Education and protocols for EMS
  - Communication between sending and receiving nurses
  - Communication between sending and receiving physician
  - Comprehensive hand-off tool
  - Feedback between hospitals-learning loops
  - Build relationships
Resources & Upcoming Events

- New Resources
- Upcoming Events
- Wrap Up

Michele Clark
Program Director
Kansas Healthcare Collaborative
mclark@khconline.org
(785) 235-0763 x1321

Enrollment Is Now Open!
All hospitals participating in the KHC HIIN are eligible to participate. Form is available in pod below.

2018
Kansas PFAC/PFA Collaborative
Cohort 4

Two Tracks Available
Regional Training Sessions
March 14 – Topeka
March 15 - Great Bend

Tiffany Christensen
VP for Experience Innovation
The Beryl Institute

Allison Christensen
Principal Patient & Family Engagement Consultant
Tandem Healthcare Solutions

Goal:
To assist Kansas hospitals establish or build upon an active Patient and Family Advisory Council (PFAC) or engaging patient and family advisors (PFAs) to serve on a patient safety or quality improvement committee or team.

- National faculty
- Learning Sessions
- Coaching Calls
- Video Training Modules
- Online Toolkit
- ListServ®
- Private KHC web page
- Targeted site visits
Mark Your Calendars!

2018 Kansas HIIN Webinars

February 28, 2018
March 28, 2018
April 25, 2018
May 23, 2018

All webinars take place from 10:00 – 11:00 am CT
Register at www.khconline.org

Upcoming KHC Events

• Wound Assessment Workshop – Hays, KS
  February 8 - 9, 2018  1.5 days -- Starts at noon, Feb. 8.

• STRIVE Event– Wichita, KS (for 21 participating hospitals)
  March 7, 2018  Double Tree by Hilton Wichita Airport

• 2018 PFAC/PFE Collaborative Training (one day each)
  March 14 – 15, 2018  Topeka and Great Bend
Attn: Infection Preventionists

Kansas STRIVE Learning Event

March 7, 2018
DoubleTree by Hilton Wichita Airport

Presented by KHC and HRET with partners KDHE and KFMC for the 21 Kansas hospitals participating in STRIVE

Save the Date
Infection Prevention Conference
March 8, 2018
DoubleTree by Hilton Wichita Airport

More information will be available in January 2018.

Presented by:
Kansas Hospital Association
In cooperation with members of the
Association for Professionals in Infection Control and Epidemiology
Wichita, Kansas City and Heart of America Chapters

Upcoming Events

Collaborative program to enhance the recovery of surgical patients

AHRQ Safety Program for Improving Surgical Care and Recovery

A collaborative program to enhance the recovery of surgical patients is funded and guided by AHRQ and conducted by the Johns Hopkins Medicine Armstrong Institute for Patient Safety and Quality in collaboration with the American College of Surgeons. There's no cost to participate.

To learn more, register for one of three one-hour webinars.

Feb. 1 at 2 pm CT,
Feb. 5 at 3 pm CT, or
Feb. 8 at 11 am CT

Contact iscr@facs.org for additional information.

https://qi.facs.org/iscr/Improving_Surgical_Care_and_Recovery_fact_sheet_FINAL.pdf
Recorded HRET HIIN Webinars

UP Campaign:  WAKE UP | Managing Pain, Avoiding Oversedation

UP Campaign:  GET UP | Early Mobility Matters

Culture of Safety:  Building an Integrated Approach to Address Disruptive Behaviors

Falls:  How to Implement the Fall TIPS® Tool

Physician Event:  Portfolio Program (MOC IV) Overview

To watch past recordings, click here!
www.hret-hiin.org/events/past-events.shtml

Questions?
Contact your KHC Team
Please provide feedback to this webinar
Let us know your next steps.

https://www.surveymonkey.com/r/KHC-HIIN-013118