MEMORIAL HOSPITAL OF SWEETWATER COUNTY

WE HAVE A CLEAR VISION FOR VALUE IMPROVEMENT
WE IMPROVE VALUE THROUGH INTERDISCIPLINARY TEAMS
ORGANIZATIONAL CULTURE
WE GROUND OUR IMPROVEMENT IN A CLEAR BENEFIT TO OUR PATIENTS
WE VIEW VALUE AS A RATIO QUALITY+/SERVICE/COST
MEMORIAL’S SEPSIS MANAGEMENT

PROJECT TEAM & SCOPE


18 and over – inpatients and Observation - ED, Acute Care, Surgical, Obstetrical

MEASURES & MONITORING

<table>
<thead>
<tr>
<th>Type</th>
<th>Measure</th>
<th>Baseline</th>
<th>Q3 2015</th>
<th>Q4 2015</th>
<th>Q1 2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality</td>
<td>Reduce Mortality - MHSC sepsis mortality</td>
<td>15.76%</td>
<td>11.8%</td>
<td>6.63%</td>
<td>7.94%</td>
</tr>
<tr>
<td>Quality</td>
<td>Reduce Mortality - U of U sepsis transfers</td>
<td>14.89%</td>
<td>11%</td>
<td>26%</td>
<td>8.3%</td>
</tr>
<tr>
<td>Service</td>
<td>Sepsis Bundle Adherence - 3 hr bundle</td>
<td>68.82%</td>
<td>88%</td>
<td>55%</td>
<td>59.5%</td>
</tr>
<tr>
<td>Cost</td>
<td>Sepsis early recognition</td>
<td>44%</td>
<td>80%</td>
<td></td>
<td>77%</td>
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</tbody>
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PROBLEM & GOAL STATEMENTS

1. Reduce Memorial Hospital of Sweetwater County (MHSC) sepsis mortality per 1,000 patient days by 2016
2. Reduce mortality rate among patients transferred to University of Utah (U of U) by 25% by September 2016
3. Increase sepsis bundle adherence (3 hour bundle), to 80% adherence by September 2016
4. Increase sepsis early recognition through increase in ability among nurses and providers to identify sepsis by September 2016

ANALYSIS & INVESTIGATION

• Analyze data to determine focus areas: decrease sepsis mortality rate (MHSC and transfers to U of U), improve adherence with sepsis 3 hour bundle guidelines, improve ability for early recognition of sepsis by nurses and providers
• Initiate internal MHSC sepsis management team 6/17/2015
• Initiate sepsis screening tools into electronic medical record to assist early recognition strategies- start 6/17/2015, utilized
• Review baseline data, identify areas of opportunity, and set goals
• Align improvement strategies with evidence based practice guidelines, Surviving Sepsis Campaign

IMPROVEMENT DESIGN & IMPLEMENTATION

• Sepsis management team - start 6/17/15
• Initiate sepsis screening tools into electronic medical record to assist early recognition strategies- start 6/17/2015, utilized in EHR 10/6/2015
• Review sepsis protocol to include nurse driven initiation of NICOH- start 7/29/2015, approved NCOH 8/15, initiated on units, workflow of process changed per feedback from units
• Order sets for 3 hour and 6 hour bundle into electronic medical record- start: 10/6/2015, ongoing modification per feedback
• Screens all patients for sepsis upon arrival to ED- start: 7/29/2015
• Ongoing meetings to address workflow, new practice findings, front line feedback, etc.

REPORTING

SEPSIS EDUCATION PROGRAM

• Providers and clinical personnel encouraged to complete sepsis education program
• Physician champions providing education on different stages of sepsis to employees
• Hands on NICOH review, improved NICOH familiarity (non-invasive cardiac output monitor)

QUADRAMED SEVERE SEPSIS ALGORITHM

(Example of Electronic Medical Record Screening Tool)

NIHSS Sepsis Management Ongoing Data Collection

<table>
<thead>
<tr>
<th>Period</th>
<th>April 2015</th>
<th>May 2015</th>
<th>June 2015</th>
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<tbody>
<tr>
<td>Sepsis Cases</td>
<td>127</td>
<td>124</td>
<td>136</td>
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<tr>
<td>Sepsis Mortality</td>
<td>15.75%</td>
<td>17.06%</td>
<td>15.75%</td>
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<tr>
<td>Sepsis Average Length of Stay</td>
<td>5.962</td>
<td>4.991</td>
<td>5.962</td>
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