Surgical site infections (SSI) are a noted cause of peri-surgical morbidity 1

- Advances in infection control practices to improve:
  - Operating room ventilation
  - Sterilization methods
  - Surgical technique
  - Availability of antimicrobial prophylaxis
- SSIs remain a substantial cause of 1
- Morbidity
- Prolonged hospitalization
- Death
- Midwestern Outpatient Surgery Center (OSC) did not have
- Process for identifying risk for a surgical site infection
- Process to report risk to the care team
- Van Walraven & Musselman tool aligns with health status & comorbidity criteria 2
- Organizational quality metrics
  - Increase in SSI rates from 2021 (0%) to 2022 (1.1%)
- Reinforced need to explore prevention techniques that could reduce the prevalence of surgical site infections

The purpose of this Quality Improvement (QI) project was to evaluate the implementation of a standardized workflow process including the Van Walraven & Musselman Surgical Site Infection Risk Score (SSIRS) tool

Specific Aims:
- Staff Satisfaction
- Staff Perception of Score’s Value
- Nurse Completion of SSIRS tool
- Nurse Accuracy of SSIRS tool

The Promoting Action on Research Implementation in Health Services (PARIHS) model (see Figure 1) guided this quality improvement project 3

- Interdisciplinary collaboration was utilized during the planning process
  - Gap identified and plan for improvement developed (see Figure 2)
  - SSIRS scoring tool identified (see Figure 3)
- Collaborative development of risk score spectrum (see Figure 4)
- Staff education on the process was completed and a pre-implementation survey distributed prior to implementation
- Implementation date February 15, 2023 — March 15, 2023
- Staff followed the implementation plan (see Figure 5)

Surgical Site Infection Risk Score (SSIRS) Index: The Estimated Probability of SSIs Development by Percentage

<table>
<thead>
<tr>
<th>Question #</th>
<th>Pre-Survey</th>
<th>Post-Survey</th>
<th>Comparison</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Pre-Survey: Importance of tool before implementation</td>
<td>Post-Survey: Importance of tool after implementation</td>
<td>Direct</td>
</tr>
<tr>
<td>2</td>
<td>Willingness to implement tool before project</td>
<td>Willingness to implement tool after project</td>
<td>Direct</td>
</tr>
<tr>
<td>3</td>
<td>Perceived confidence level in tool use before project</td>
<td>Confidence level in tool use after project</td>
<td>Direct</td>
</tr>
<tr>
<td>4</td>
<td>Perceived level of workload increase after project</td>
<td>Level of workload increase after project</td>
<td>Direct</td>
</tr>
<tr>
<td>5</td>
<td>Thoughts of tool accuracy before project</td>
<td>Thoughts of tool accuracy after project</td>
<td>Direct</td>
</tr>
<tr>
<td>6</td>
<td>Thoughts of informational value from tool before project</td>
<td>Thoughts of informational value from tool after project</td>
<td>Direct</td>
</tr>
</tbody>
</table>

**RESULTS**

- # Of Scores Documented Correctly
- # Of Scores Documented Incorrectly
- # Of Scores Documented in Total

<table>
<thead>
<tr>
<th>Question #</th>
<th>Pre-Implementation Survey Question Mean</th>
<th>Post-Implementation Survey Question Mean</th>
<th>z score</th>
<th>p value</th>
<th>Statistically Significant (p&lt;0.05)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>3.29</td>
<td>2.57</td>
<td>0.69</td>
<td>0.097</td>
<td>No</td>
</tr>
<tr>
<td>2</td>
<td>3.43</td>
<td>2.57</td>
<td>0.86</td>
<td>0.005</td>
<td>No</td>
</tr>
<tr>
<td>3</td>
<td>3.57</td>
<td>2.57</td>
<td>2.09</td>
<td>0.036</td>
<td>Yes</td>
</tr>
<tr>
<td>4</td>
<td>3.86</td>
<td>2.57</td>
<td>3.90</td>
<td>&lt;0.001</td>
<td>Yes</td>
</tr>
</tbody>
</table>

- Results from the pre- & post-implementation surveys proved inconclusive as there was no statistical significance in the average mean score of each question when compared
- Although not statistically significant (p=0.94), staff perception of increased workload with tool implementation decreased from 3.29 to 2.57

**NURSING IMPLICATIONS**

- Initial oral feedback indicates that the workflow process and dissemination to staff to promote surgical care
- Midwestern OSC Charge Nurse identified as project champion to complete chart reviews

**CONCLUSIONS**

- Initial oral feedback indicates that staff perceived the workflow process and design to be successful
- The specific data extracted from the pre-implementation and post-implementation surveys were deemed non-statistically significant
- Data was clinically significant as it provided valuable insight into using an SSIRS risk tool and its benefits in this Midwestern OSC
- Positive feedback from stakeholders-OSC staff, clinicians, leadership, and infection control