Improving Early Sepsis Recognition: Resocializing Intensive Care Unit Nurses in a Large Hospital on the Inpatient Sepsis Bundle Checklist

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Improving Early Sepsis Recognition: Resocializing Intensive Care Unit Nurses in a Large Hospital on the Inpatient Sepsis Bundle Checklist

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NURS 653-01: Internship

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December 1, 2023
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Abstract

**Problem:** In order to lower sepsis morbidity and mortality rates through early recognition and treatment, this quality improvement project sought to raise sepsis awareness and bundle compliance within the Intensive Care Unit.

**Context:** Clinical Nurse Leader (CNL) students completed a microsystem assessment of the Intensive Care Unit at Hospital X in Northern California. This unit cares for patients with sepsis, organ failure, respiratory failure, different types of shock, acute kidney injury, and traumatic brain injury.

**Interventions:** The implemented intervention included a refresher huddle on sepsis bundle awareness. Though the intervention was ineffective, the students did offer recommendations to the leadership team for future consideration. The suggested solutions included equipping sepsis bundle sheets throughout the unit and frequent sepsis refresher huddles.

**Measures:** Following the evaluation of the microsystem, the CNL students gathered information to examine the rates of problems connected to sepsis bundle adherence. The pre-intervention survey measured the knowledge and awareness of the sepsis bundle while the post-intervention survey measured the effectiveness of the refresher meeting.

**Results:** Fourteen registered nurses in the ICU were surveyed for this QI project. The results revealed that 42% (n=6) of nurses surveyed were aware of the sepsis bundle, and the remaining 8 nurses were unaware. With 68% of nurses having no knowledge of the sepsis bundle, this demonstrates a need for increased sepsis bundle awareness and compliance.

**Conclusion:** The pre-intervention survey concluded the lack of sepsis bundle awareness and adherence. This may be due to multiple factors such as staff turnover rate and lack of sepsis protocol training. Furthering this project and increasing sepsis protocol training has the potential
to expand sepsis bundle compliance leading to early sepsis recognition and treatment and improved morbidity and mortality rates.

Keywords: sepsis, sepsis bundle, sepsis ICU, septic shock, sepsis bundle compliance, and sepsis detection
Introduction

Each year in the United States, approximately 1.7 million adults are affected by sepsis; a life-threatening organ dysfunction caused by a dysregulated host response to an infection (van der Poll et al., 2021). Of these 1.7 million adults diagnosed with sepsis annually, nearly 300,000 die. Sepsis is one of the leading causes of death in the world as it often goes undetected and misdiagnosed. A delay in the diagnosis of sepsis can lead to long-term complications and death. Two of the most critical aspects of treatment for patients with suspected sepsis are the swift diagnosis through sepsis bundle adherence such as the one recommended by the Surviving Sepsis Campaign (SSC) and the administration of antibiotics.

Sepsis bundled care typically consists of monitoring patients serum lactate and blood cultures, BP and MAP, administering intravenous (IV) antibiotics, and a fluid bolus within the first 3 hours of suspected sepsis; a delay in any of these steps can lead to poor outcomes (Semanco et al., 2022). For example, antibiotic order-to-infusion delays are frequent and are linked to higher mortality rates (Taylor et al., 2021). When the outcome of sepsis is hospital mortality, it is primarily due to the following: recognition time and antibiotic administration time (Taylor et al., 2021). Within hospitals, the initiation and promotion of sepsis bundle adherence could aid in the early diagnosis and treatment of sepsis and reduce patient morbidity and mortality.

Problem Description

Hospital X is a non-profit healthcare organization located in Northern California. Of the many diseases treated at Hospital X, sepsis is commonly one of them. As sepsis is a leading cause of increased cost, complications, and death, it is paramount that healthcare professionals are aware of diagnostic and treatment guidelines. Hospital X utilizes a sepsis bundle in the ICU
which comprises steps to follow for the first 3 and 6 hours of suspected sepsis. As the hospital aims to increase the quality of care and decrease costs and complications, it is vital for quality improvement and education to bridge any gaps to help reach these goals.

To gather data on sepsis bundle awareness, a survey was performed. As the collection of data began in September which is Sepsis Awareness Month, the survey on bundle adherence was followed by resocializing ICU nurses on the awareness of the sepsis bundle. Nurses are in a prime position to identify sepsis early by screening patients for sepsis, a skill that should be embedded into their daily practice (Edwards & Jones, 2021). However, compliance with the sepsis bundle remains low. Observations conducted at Hospital X found high sepsis rates and potential complications due to sepsis bundle nonadherence and fallouts. A fallout in this context is the noncompliance or late compliance of any step within the sepsis bundle. To prevent fallouts and improve bundle adherence, this Quality Improvement (QI) project gathered data on the knowledge and awareness before and after a refresher of the sepsis bundle checklist in the Intensive Care Unit (ICU).

**PICOT Question**

To establish the position of this QI project, a Patient, Intervention, Comparison, Outcome, and Time (PICOT) question was created. The PICOT question was stated as follows: In the Intensive Care Unit, what is the effect of a sepsis checklist resocialization, as compared to no sepsis checklist resocialization on fallouts within the fourth quarter of 2023?

**Rationale**

To implement change for this microsystem, Roger’s Five-Stage Change Theory was adopted. This change theory involves 5 stages; stage 1: reason for the change, how it will occur, and who it will involve, stage 2: persuade employees to accept the change, stage 3: decide to
adopt the change by analyzing the data, stage 4: implement the change on a permanent basis, stage 5: confirm adoption of the change by the employees (Mohammadi et al., 2018). Stage 1 of this QI project consisted of improving prompt sepsis recognition and diagnosis by sepsis bundle compliance as the reason for change, it would occur through resocializing the sepsis bundle, and it would involve the ICU nurses. Stage 2, persuading the nurses to accept this change was simple as the change only consisted of bringing awareness to the bundle during the pre-shift huddle. Stage 3, it was decided that adopting the change of resocializing nurses on the bundle as the only attempt to increase compliance would not be effective as shown by the data. Stage 4, it was discussed and brought up to the nurses that this change could become permanent through continuous awareness of the bundle by posting the bundle in various places throughout the unit. Stage 5, the change was not confirmed as adopted by the employees but with continuous resocialization, it could potentially be.

**Literature Review**

Literature reviews are essential for nursing research as they help the researcher create a strong study to effectively present important results (Maggio et al., 2016). For this project, a literature review was conducted from August to October 2023 using the Cumulative Index to Nursing and Allied Health (CINAHL) and SCOPUS databases. Search field entries consisted of “sepsis”, “sepsis bundle”, “sepsis ICU”, “septic shock”, “sepsis bundle compliance”, and “sepsis detection” for peer-reviewed journals published from 2015 to 2022. The Johns Hopkins Research Evidence Appraisal Tool was used to grade the evidence levels from Level I to V (Dang et al., 2022).
Available Knowledge

To support this study, a comprehensive literature review of evidence-based practice on sepsis bundle adherence and treatment was carried out. The Johns Hopkins Evidence-Based Practice for Nurses and Healthcare Professionals: Model and Guidelines (See Appendix B) (Dang et al., 2022) was used to assess the quality of articles. The studies included in the literature review are used to support the research of this project and all specify the importance of early sepsis detection and treatment through bundled care.

The driving forces supporting this QI project are the high rates of sepsis, the often delay in diagnosis, and the possible increased morbidity and mortality rates due to sepsis. Though individuals can recover from sepsis, these patients can experience considerable, long-lasting cognitive and functional deficits, longer hospital stays, and higher rates of readmission (Ferguson et al., 2019). Due to these findings, there is a need for nurses to be educated on identifying sepsis, as well as, when and how to use the sepsis bundle to prevent a delay in diagnosis and treatment. Efforts focused on multidisciplinary bundle elements are necessary to achieve full compliance with sepsis bundle targets (Bruce et al., 2015).

In the Global Burden of Disease Statistics, sepsis is frequently treated as a "junk code" (Kim & Park, 2019). The majority of deaths caused by sepsis are categorized as the underlying infections they have, not as sepsis. Hence, it is possible that the impact of sepsis is underestimated (Kim & Park, 2019). All clinical staff members should be required to receive sepsis training since it enhances nurses' attitudes, knowledge, and confidence regarding sepsis screening, and management, and leads to sepsis bundle adherence and evidence-based care. (Edwards & Jones, 2021). Furthermore, the rate of in-hospital sepsis-related mortality can be decreased by implementing a sepsis program that emphasizes nurse-directed early sepsis
detection and treatment before the onset of septic shock, in addition to standard bundle adherence (Ferguson et al., 2019).

**Specific Project Aim**

The specific aim of this project was to increase awareness and adherence to the sepsis bundle checklist to reduce bundle fallouts and sepsis-related complications in the ICU at Hospital X. Data was collected on the awareness of the sepsis checklist before and after resocializing the nurses on these units. The data was collected twice over a one-month period by participating in the unit huddle. During the huddles, the Clinical Nurse Leader (CNL) students conducted a pre and post-intervention survey on sepsis bundle awareness and recorded the data by a show of hands. After the pre-intervention survey, the students refreshed the nurses on the sepsis bundle checklist and where to locate it.

**Methods**

**Project Overview**

A Plan, Do, Study, Act (PDSA) cycle (See Appendix C) was utilized to implement this QI project. Data was collected twice at Hospital X by the CNL students, using this data, the students created a PICOT question and specific aim statement. A literature review (See Appendix B) regarding sepsis and sepsis bundle adherence was conducted. A Root Cause Analysis (See Appendix D) and 5 P Assessment were used to complete an evaluation of the ICU. A Strengths, Weaknesses, Opportunities, and Threats (SWOT) Analysis (See Appendix E) was performed. Data was collected twice during nursing huddles through conducting a pre and post-intervention survey. Following the collection and analysis of the data, interventions were decided upon. The students created a Cost-Benefit Analysis (CBA) (See Appendix F) to exhibit
the potential cost-saving benefits for Hospital X. A Gantt Chart was generated to display and organize the project’s timeline (See Appendix G).

**Microsystem Assessment**

The 5 P assessment of purpose, patients, professionals, process, and patterns was utilized to observe the knowledge and adherence of the sepsis bundle on the unit. This project aimed to increase staff awareness of the sepsis bundle, to potentially improve sepsis rates. The patient population in the ICU at Hospital X consisted of those being treated for sepsis, organ failure, respiratory failure, different types of shock, acute kidney injury, and traumatic brain injury. The healthcare workers providing care in this unit included physicians, nurse practitioners, registered nurses, respiratory therapists, physical and occupational therapists, nursing assistants, and nurse managers. Patients being treated for sepsis were updated on their care through pre-shift huddles, handoff reports, physician and nurse rounds, and EHR charting. It was observed that the sepsis bundle was encouraged and available for the nurses to use, though it was inconsistently utilized and unknown.

**Plan, Do, Study, Act (PDSA) Cycle**

The planning process of the PDSA cycle was first conducted. The topic of sepsis awareness was thought of for the month of September, as Sepsis Awareness Month initiated the planning of this project. A PICOT question and specific aim statement were created for the ICU. A script and survey were developed on the awareness of the sepsis bundle. The second phase of the PDSA cycle was the application process. A Root Cause Analysis (RCA), along with a 5 Ps was carried out to assess the microsystem and knowledge of the sepsis bundle. A survey was conducted twice amongst nurses in the ICU on whether they knew of the sepsis bundle or not. The third phase of the cycle consisted of collecting and comparing the data. If the data proves to
be successful, then the final phase of the PDSA cycle, the act phase, will be completed. The act phase would involve the continuation of resocializing ICU nurses on the sepsis bundle with frequent monitoring for any needed alterations.

**Root Cause Analysis (RCA)**

Sepsis is a common cause of increased costs, complications, and death in hospitals around the world. Hospital X identified an increase in sepsis bundle fallouts and noncompliance amongst several units, to determine the possible causes for this issue, a Root Cause Analysis (RCA) was performed. To showcase the RCA, a fishbone diagram was developed. Possible reasons for noncompliance and fallouts with the sepsis bundle included lack of awareness, education, and staff turnover rate. Lack of awareness of the sepsis bundle can be due to infrequent sepsis education, and a lack of sepsis bundles posted throughout the unit such as the breakroom, nursing station, and bathroom. The high staff turnover rate also impacts sepsis bundle compliance as frequent travel and float pool nurses potentially have no knowledge of the unit’s sepsis bundle or the locale.

**Strengths, Weaknesses, Opportunities, and Threats (SWOT) Analysis**

A SWOT analysis was organized to assess the sepsis bundle adherence by nurses in the ICU. Strengths of the unit include the nurse's knowledge of the recognition and treatment of sepsis, the availability and support of staff along with strong leadership, and the sepsis bundle readily available at the nursing station. The weaknesses identified within this microsystem were less than 50% of nurses were aware of the sepsis bundle, along with an absence of sepsis bundle education and training. Despite these weaknesses, there are possible opportunities for improvement such as a potential increase in sepsis bundle compliance, improved patient care and outcomes, decreased morbidity and mortality, and reduced hospital spending. Threats to this
change included hesitancy and resistance to change by the nurses, costs to resocialize the sepsis bundle, and staff turnover such as travel and float pool nurses.

Cost-Benefit Analysis (CBA)

To calculate the potential costs associated with this QI project, a CBA was performed. The total estimated cost of sepsis resocialization, sepsis information binder, and flyers were compared to the total average cost of 30 patients receiving sepsis-related care. The estimated cost of sepsis resocialization is free and the cost of sepsis flyers is estimated at around $100 per year compared to an average cost of over $1,000,000 to treat patients with sepsis.

Timeline

To manage time for this QI project, a Gantt Chart was created. This chart used objectives from the PDSA cycle and ran through the course of the project from August 2023 to November 2023. Due to time restraints and barriers, the timeline of this project was cut short. As shown in the Gantt chart, project planning and implementation required the most time, greater preparation for this may have better executed the project. It is recommended for future projects to organize and adjust a timeline by preparing for any possible restrictions and barriers.

Intervention

The intervention of sepsis bundle resocialization implemented at Hospital X proved to be unsuccessful. After the pre-intervention survey, it was revealed that 6 out of 10 nurses were aware of the sepsis bundle. Upon inquiring about bundle awareness, the CNL students then resocialized the nurses. Following the student's return for the post-intervention survey, it was discovered that 0 nurses surveyed were aware of the bundle. This finding proved the intervention on resocialization to be ineffective. Though fewer nurses knew of the bundle, the number of
fallouts in relation to the sepsis bundle remained zero. This could potentially be due to the resocialization of the sepsis bundle, but due to a lack of sufficient data, it cannot be determined.

**Study of Interventions**

After implementing the resocialization of the sepsis bundle, the CNL students will evaluate the effectiveness of the intervention. By viewing and comparing the data results the students can determine the success rate of sepsis bundle resocialization. Depending on the effectiveness of the intervention, the implemented change can stay in place or a new intervention can be created and executed. As the goal of this project was to increase bundle awareness and compliance through the resocialization of ICU nurses, it is recommended a new intervention be executed and evaluated.

**Measures**

The measures of this QI project comprised a pre and post-intervention survey on sepsis bundle awareness. The data collected from the survey was quantitative, as the method of research relied on an experimental survey in which nurses were asked about their knowledge of the sepsis bundle. The majority of quantitative research is deductive, testing particular hypotheses based on broad principles through the use of survey and experimental techniques. It excels at developing and extending hypotheses about the relationships between various occurrences through inductive reasoning (Gilmartin-Thomas et al., 2018). Due to the barrier of different populations being surveyed for the pre and post-intervention, it is recommended for future projects to conduct different measures of research for better results.

**Results**

Fourteen registered nurses in the ICU were surveyed for this QI project. The results showed that only 42% (n=6) of the nurses surveyed were aware of the sepsis bundle. The
remaining 8 nurses did not know of the bundle, demonstrating more than half of the nurses surveyed were unaware. The pre-intervention survey was conducted on September 20th, in which ten nurses participated, of the ten nurses, 6 knew of the bundle and 4 did not. The post-intervention survey was conducted on October 26th. 4 nurses were surveyed this day, all of whom were unaware of the bundle. As there was no improvement in sepsis bundle awareness, the script shared during the pre-intervention survey proved to be ineffective. However, it was reported that the ICU had no fallouts after the pre-intervention survey. This could potentially be due to the sepsis bundle refresher shared with the nurses but because the post-intervention fallouts were not collected, there is no way of comparing.

Discussion

Limitations

There were many limitations to this study which prohibited the success of the QI project and implementation. Time restraints and hospital strikes created difficulties with scheduling which therefore affected the amount of data collected and changes implemented. The survey and script conducted on the nurses' knowledge of the sepsis bundle lacked structure. Upon conducting the survey, there were differences in sample sizes which created a barrier. The pre-intervention survey was conducted on the morning shift staff while the post-intervention survey was conducted on the night shift staff. Finally, the sample size of nurses surveyed was small, due to this, it is recommended the intervention be tested under different conditions and variables.

Summary

An absence of sepsis awareness was revealed through an increase in noncompliance with the sepsis bundle at Hospital X. After the CNL students developed a PICOT question and
specific aim statement, a script was developed to provide the ICU nurses with awareness of the microsystem’s sepsis checklist. The script consisted of a survey and resocialization of the bundle. The findings of this study found that more than half of the nurses surveyed were unaware of the sepsis bundle before and after the intervention. This is suspected to be attributed to a lack of sepsis education and training, resources, and staff turnover rates. While the intervention was ineffective, the study found that there is a need for education and training on sepsis bundle awareness and compliance.

**Conclusion**

With the collaboration of the CNL students, quality nurse consultant, and sepsis champion nurse, a need for sepsis bundle adherence and resocialization was identified in the ICU at Hospital X. This study has the potential to reduce sepsis-related morbidity and mortality in the ICU by raising awareness on the importance of sepsis bundle compliance. To further enhance this study it is recommended to explore different conditions and variables on sepsis bundle awareness. The expanding body of evidence-based practice indicating its potential for early sepsis detection, timely treatment, and lower rates of morbidity and mortality can be strengthened by the extension of QI projects investigating the benefits of improved sepsis education and resources on bundle adherence.
References


https://doi.org/10.15171/hpp.2018.03

https://doi.org/10.4037/ccn2022608


Appendix A

Statement of Determination

Student Project Approval: Statement of Determination

Title of Project

Improving Early Sepsis Recognition: Resocializing Intensive Care Unit Nurses in a Large Hospital on the Inpatient Sepsis Bundle Checklist

Brief Description of Project:

The aim of this quality improvement project is to improve sepsis-related morbidity and mortality rates in the Intensive Care Unit at Hospital X. Nurses will be resocialized on the sepsis bundle to raise awareness and increase bundle compliance. Data will be collected by surveying the nurses on their knowledge of the sepsis bundle. This data can potentially reveal the gaps within the microsystem to improve sepsis rates through early recognition and treatment.

To qualify as an Evidence-based Change in Practice Project, rather than a Research Project, the criteria outlined in federal guidelines will be used: (http://answers.hhs.gov/ohrp/categories/1569)

This project meets the guidelines for an Evidence-based Change in Practice Project as outlined in the Project Checklist (attached). Students may proceed with implementation.

Comments:

Signature of Supervising Faculty  
(date) 12/3/2023

Signature of Student (12/1/2023)
### Appendix B

**Literature Synthesis Table**

<table>
<thead>
<tr>
<th>Study Authors</th>
<th>Objective &amp; Design</th>
<th>Sample &amp; Setting</th>
<th>Results</th>
<th>Level of Evidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bruce, Maiden, Fedullo, &amp; Kim (2015)</td>
<td>This retrospective study assessed patient charts for sepsis protocol adherence, which included serum lactate measurement and blood cultures prior to administering antibiotics.</td>
<td>This study was conducted on 195 patients who were diagnosed with severe sepsis or septic shock in the emergency department.</td>
<td>Compliance with the sepsis protocol bundle improved antibiotic administration time. There was no significant difference in the setting’s mortality rate.</td>
<td>Level III (Dang et al., 2022)</td>
</tr>
<tr>
<td>Edwards &amp; Jones (2021)</td>
<td>This randomized controlled trial studied the effects of sepsis training on knowledge and skills among registered nurses.</td>
<td>This study was conducted on registered nurses from 16 different acute medical and surgical units.</td>
<td>Nurses with sepsis training were more knowledgeable and confident in screening patients for sepsis than nurses without sepsis training.</td>
<td>Level III (Dang et al., 2022)</td>
</tr>
<tr>
<td>Ferguson, Coates, Osborn, Blackmore, &amp; Williams (2019)</td>
<td>This retrospective cohort took place over 7 years and studied the outcomes of early recognition and treatment of sepsis through bundle adherence.</td>
<td>The sample size was 17,000 patients with sepsis in the emergency department setting.</td>
<td>Sepsis bundle adherence increased from 40.5% to 73.7% with an improved triage to antibiotic time, as well as a decrease in sepsis mortality.</td>
<td>Level III (Dang et al., 2022)</td>
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<td>Kim &amp; Park</td>
<td>This randomized</td>
<td>This study had a</td>
<td>Increased</td>
<td>Level II</td>
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<tr>
<td>Year</td>
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<td>Sample Size</td>
<td>Outcome</td>
<td>Level</td>
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<td>-----------</td>
<td>---------------------------------------------------------------------------------</td>
<td>--------------------------------------------------</td>
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<td>---------</td>
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<tr>
<td>2019</td>
<td>Controlled trial studied the prevention and early recognition of sepsis through increased awareness of sepsis bundles.</td>
<td>Sample size of 4446 patients with sepsis in emergency departments and intensive care units.</td>
<td>Awareness of sepsis and sepsis bundles improved patient outcomes.</td>
<td>(Dang et al., 2022)</td>
</tr>
<tr>
<td>2022</td>
<td>This was a retrospective study that assessed the impact of sepsis protocol, including an RRT on patients with potential sepsis.</td>
<td>This study had a sample size of 32 patients with suspected sepsis in an acute care setting.</td>
<td>A delay in antibiotic administration and recognition of sepsis were associated with increased mortality.</td>
<td>Level III</td>
</tr>
<tr>
<td>2021</td>
<td>This was a retrospective cohort that studied the recognition and administration of antibiotic time on sepsis.</td>
<td>This study had a sample size of 20,026 adults with suspected sepsis in twelve different emergency departments.</td>
<td>A delay in antibiotic administration and recognition of sepsis were associated with increased mortality.</td>
<td>Level III</td>
</tr>
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</table>
Appendix C

Plan, Do, Study, Act (PDSA) Cycle

**PLAN**
- Created PICO question and a specific aim statement
- Developed a script and survey on awareness of the sepsis bundle
- Collaborated with stakeholders at Hospital A on the awareness of the Sepsis bundle checklist

**DO**
- Developed a Root Cause Analysis
- Assessed the ICU unit with the 5Ps
- Conducted an initial and post survey assess the nurses awareness of the Sepsis bundle checklist

**ACT**
- Continued the involvement of resocializing the Sepsis Bundle Checklist
- Monitored for frequent changes to see if the implementation needed to be adjusted

**STUDY**
- Continued to collect data and compare data from initial intervention and post-intervention
Appendix D

Root Cause Analysis

**FISHBONE DIAGRAM**

**Process**
- Ineffective communication channels on sharing updates regarding the sepsis bundle checklist
- Improper ways of integration of the checklist into existing workflows
- Complexity of the high level and time consuming checklist procedures
- Insufficient resources of the sepsis checklist made aware on the unit, such absence in the inpatient sepsis binders and on the bulletin board

**Tools**
- Lack of technological advances for the implementation to be tracked among staff
- Lack of automated reminders on the electronic medical record to utilize and complete the checklist
- Lack of awareness about the important use of the sepsis bundle checklist
- Lack of training and education on the implementation of the sepsis checklist on the unit

**Environment**

**People**

**Lack of Sepsis Checklist Utilization**
Appendix E

Strengths, Weaknesses, Opportunities, and Threats (SWOT) Analysis

**Strengths**
- Staff are knowledgeable and well-educated on sepsis recognition and treatment
- Sepsis bundle is available for staff at the nursing station
- Supportive staff and leadership

**Weaknesses**
- Less than 50% of nurses knew of the sepsis bundle checklist
- Lack of sepsis bundle adherence training
- Several travel nurses were unaware of the sepsis bundle and where it was located

**Opportunities**
- Increase compliance of the sepsis bundle
- Improve patient care and outcomes
- Decrease mortality and morbidity rates due to sepsis
- Reduce hospital costs

**Threats**
- Cost to resocialize nurses of the sepsis bundle
- Staff hesitancy and resistance to change
- Time restraints on informing nurses of the sepsis bundle
- Staff turnover; float pool and travel nurses

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Appendix F

Cost Benefit Analysis (CBA)

Estimated Cost of Sepsis Bundle Resocialization:

$0 per year

Estimated Cost of Sepsis Flyers:

$100 per year

**Total Estimated Cost: $100 per year**

**Compared To:**

The Total Average Cost of 30 patients receiving Sepsis Care related to Sepsis Complications total:

**$1,200,000 (40,000 x 30 patients)**
## Appendix G

### Gantt Chart

<table>
<thead>
<tr>
<th>Task Title</th>
<th>Start Date</th>
<th>End Date</th>
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<th>September Week</th>
<th>October Week</th>
<th>November Week</th>
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<td>Project Planning</td>
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<td>2 3 4</td>
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<td>Coordinate with stakeholders to visit the facility</td>
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<td>Project Implementation</td>
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<tr>
<td>Conduct pre-survey with non-clinical departments</td>
<td>9/8/23</td>
<td>9/13/23</td>
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<tr>
<td>Perform non-clinical department staff education on sepsis</td>
<td>9/8/23</td>
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<td>3 4</td>
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<tr>
<td>Conduct pre-survey with inpatient (Med-Surg &amp; ICU) staff</td>
<td>9/14/23</td>
<td>9/20/23</td>
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<tr>
<td>Perform inpatient (Med-Surg &amp; ICU) staff re-education on sepsis bundle checklist</td>
<td>9/14/23</td>
<td>9/20/23</td>
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<tr>
<td>Place sepsis resources (binder and checklist copies) on the Med-Surg unit</td>
<td>9/14/23</td>
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<tr>
<td>Project Evaluation and Synthesis</td>
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<tr>
<td>Meet with relevant staff to solidify plan for post-survey</td>
<td>10/5/23</td>
<td>10/12/23</td>
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<td>Coordinate with stakeholders to visit the facility</td>
<td>10/19/23</td>
<td>10/25/23</td>
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<tr>
<td>Conduct post-survey with non-clinical departments</td>
<td>10/25/23</td>
<td>10/25/23</td>
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<tr>
<td>Conduct post-survey with inpatient (Med-Surg &amp; ICU) staff</td>
<td>10/25/23</td>
<td>10/26/23</td>
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<td>Data analysis</td>
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