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### Sepsis Social Hour: Resocialization of the Inpatient Handoff Sepsis Bundle Checklist on a Medical-Surgical Unit

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RESOCIALIZING THE INPATIENT HANDOFF SEPSIS BUNDLE CHECKLIST ON A  
MEDICAL-SURGICAL UNIT

**Sepsis Social Hour: Resocialization of the Inpatient Handoff Sepsis Bundle Checklist on a  
Medical-Surgical Unit**

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NURS 653: Internship

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November 29, 2023

RESOCIALIZING THE INPATIENT HANDOFF SEPSIS BUNDLE CHECKLIST ON A  
MEDICAL-SURGICAL UNIT

TABLE OF CONTENTS

Section I: Abstract .....4

Section II: Introduction .....5

    Problem Description .....6

    PICO Question .....7

    Search Strategy .....8

    Literature Review.....8

    Specific Project Aim .....10

Section III: Methodology .....11

    Project Overview .....11

    Microsystem Assessment .....11

    Plan, Do, Study, Act (PDSA) Cycle .....12

    Root Cause Analysis (RCA) .....13

    Strengths, Weaknesses, Opportunities, and Threats (SWOT) Analysis .....13

    Cost-Benefit Analysis (CBA) .....14

    Timeline of Project .....14

    Intervention .....14

RESOCIALIZING THE INPATIENT HANDOFF SEPSIS BUNDLE CHECKLIST ON A  
MEDICAL-SURGICAL UNIT

Measures of Intervention .....15

Ethical Considerations .....15

Section IV: Results .....15

Section V: Discussion .....15

    Limitations .....17

    Summary .....17

    Conclusion .....18

Section VI: References ..... 20

Section VII: Appendices ..... 22

    Appendix A: Inpatient Handoff Sepsis Bundle Checklist (IHSBC) ..... 22

    Appendix B: Sepsis Awareness Month Flyer ..... 23

    Appendix C: Literature Review ..... 24

    Appendix D: Plan, Do, Study, Act (PDSA) Cycle ..... 26

    Appendix E: Strengths, Weaknesses, Opportunities, and Threats (SWOT) Analysis .... 27

    Appendix F: Cost-Benefit Analysis (CBA) ..... 28

    Appendix G: Gantt Chart ..... 30

    Appendix H: Interventions to Encourage Utilization of IHSBC ..... 31

    Appendix I: Root Cause Analysis ..... 32

# RESOCIALIZING THE INPATIENT HANDOFF SEPSIS BUNDLE CHECKLIST ON A MEDICAL-SURGICAL UNIT

## Abstract

**Problem:** Sepsis presents a significant healthcare challenge that demands early recognition and intervention to reduce mortality and morbidity rates. Preliminary data collected at Hospital A identified gaps in the Medical-Surgical Unit's awareness and utilization of the Inpatient Handoff Sepsis Bundle Checklist (IHSBC).

**Context:** A gap in knowledge and implementation of the IHSBC was identified in the Medical-Surgical Unit which necessitates the implementation of measures to enhance staff comprehension and use of the checklist.

**Interventions:** A resocialization approach was delivered to reinforce the checklist's importance which included reintegrating the checklist in the morning staff huddles, communicating with the nurse educator, and providing readily accessible copies of the checklist on the unit.

**Measures:** Data was collected through microsystem assessments and verbal pre- and post-surveys to determine staff familiarity with the checklist. Quantitative and qualitative data were collected to measure improvements in knowledge.

**Results:** Preliminary data in September 2023 displayed low staff awareness (25%) and recall (12.5%) of the IHSBC. Following resocialization efforts in October 2023, awareness improved to 60%.

**Conclusion:** Resocialization efforts positively influenced staff awareness of the IHSBC, demonstrating the potential for improved utilization. Ongoing education and communication, most especially targeting travel nurses, are recommended to further enhance checklist application, ultimately contributing to improved sepsis care compliance and reduced sepsis fallouts.

# RESOCIALIZING THE INPATIENT HANDOFF SEPSIS BUNDLE CHECKLIST ON A MEDICAL-SURGICAL UNIT

## **Sepsis Social Hour: Resocialization of the Inpatient Handoff Sepsis Bundle Checklist on a Medical-Surgical Unit**

Sepsis remains a significant healthcare obstacle and ranks as the sixth leading cause of hospitalization in the United States (Gyang et al., 2015). Sepsis is defined as a systemic inflammatory response to an infection that is most commonly initiated by bacterial infections and can result in life-threatening organ dysfunction (Hunt, 2019). According to the Centers for Disease Control and Prevention (CDC), sepsis affects about 1.7 million adults in the United States, leading to approximately 270,000 fatalities every year (CDC, 2023). Its prevalence indicates that early recognition and intervention are critical in reducing morbidity and mortality rates. Sepsis can manifest in the following ways: fever or hypothermia, tachycardia to maintain circulation, altered mental status, hypotension, and tachypnea with rapid shallow breathing (Hunt, 2019). Affected lab values include an elevated white blood cell count indicating infection, lactic acidosis due to a buildup of lactic acid attributed to an inadequate amount of oxygen to tissues, and organ dysfunction (Hunt, 2019). In some cases, sepsis can progress to septic shock which carries a higher risk of mortality.

Early intervention plays a pivotal role in improving sepsis outcomes. Once sepsis is suspected, there are key interventions, some of which are included in the Sepsis Six care bundle. Sepsis Six was developed by a district general hospital and includes the following interventions: providing oxygen to keep SATS above 94%, taking blood cultures, IV antibiotics, fluid resuscitation to restore fluid volume, and measuring lactate and urine output (Bleakley & Cole, 2020). Sepsis protocols have been adopted by numerous hospitals in response to the high occurrence of the condition. For example, a renowned hospital in Northern California utilizes an existing protocol called early goal-directed therapy (EDGT) that comprises infusion of fluids,

## RESOCIALIZING THE INPATIENT HANDOFF SEPSIS BUNDLE CHECKLIST ON A MEDICAL-SURGICAL UNIT

vasopressor administration, blood cell transfusion, and addressing oxygen supply (Zhang et al., 2017). Given the rapid progression of sepsis, it is crucial to enhance the education of medical professionals regarding management to improve patient outcomes.

### **Problem Description**

Hospitals worldwide grapple with the enduring issues of sepsis, a challenge shared by Hospital A in Northern California. In response to the persistent rise of sepsis, Hospital A established a thorough strategy for screening and delivering effective treatments to patients within the hospital who are identified as being susceptible to the disease. Hospital A emphasizes early detection to combat sepsis mortality and utilizes regional dashboards to compare sepsis bundle compliance with other interconnected hospitals. Hospital A's sepsis program involves early goal-directed therapy (EDGT) in which the current sepsis bundle includes checking lactate, providing 30 mL/kg of intravenous fluids (Lactated Ringers), blood cultures before the initiating antibiotics, repeating lactate after fluid resuscitation, and giving pressors for refractory hypotension. After the implementation of Hospital A's sepsis program, mortality decreased from 46.5% to 30.5%.

EDGT and management of sepsis is essential in preventing further complications of the disease including septic shock and an increase in mortality and medical costs. A preliminary survey carried out in the Medical-Surgical Unit at Hospital A revealed a potential for enhancing nurses' understanding of sepsis tools. Preliminary data before resocialization revealed a gap in both knowledge and utilization of the Inpatient Handoff Sepsis Bundle Checklist (IHSBC) (See Appendix A). 25% of staff members verbally expressed knowledge of the IHSBC and 12.5% recalled prior teaching on the IHSBC. In addition, Medical-Surgical Units were observed to have an absence of sepsis binders with copies of the Inpatient Handoff Sepsis Bundle Checklist

## RESOCIALIZING THE INPATIENT HANDOFF SEPSIS BUNDLE CHECKLIST ON A MEDICAL-SURGICAL UNIT

readily available. Though Hospital A is meeting compliance at 81% in comparison to its target benchmark of above 75%, the preliminary data collected within the Medical-Surgical unit in September of 2023 suggests the need to increase IHSBC knowledge and implementation.

### **PICO Question**

Among staff in a Northern California Medical-Surgical Unit (P), what is the effect of resocializing an Inpatient Handoff Sepsis Bundle Checklist (I), in comparison to no resocialization (C), on increased bundle utilization (O)?

### **Conceptual Framework**

To guide the project, the CNL students utilized Lewin's Change Theory. Lewin's Change Theory is a conceptual framework that involves three processes: unfreezing, changing, and refreezing (Burnes, 2020). The first process is unfreezing and preparing an organization for a change. Unfreezing involved creating awareness, communicating outcomes, and coordinating hospital visits during the months of August to September with staff and relevant stakeholders. The project began in September with participation in sepsis awareness month. At Hospital A, CNL students created posters to disseminate to hospital staff (See Appendix B). However, upon entering the unit, the focus shifted from handing out posters to directly speaking with staff and collecting data. As for the changing phase, CNL students resocialized the IHSBC in the Medical-Surgical Unit by reintegrating and emphasizing the importance of the checklist during the morning staff huddle and directly communicating with the unit's nurse educator and in-house supervisor. The last phase of refreezing entailed reinforcing the importance of the checklist in the microsystem as well as ensuring that the staff has the appropriate resources to encourage consistent use of the checklist.



# RESOCIALIZING THE INPATIENT HANDOFF SEPSIS BUNDLE CHECKLIST ON A MEDICAL-SURGICAL UNIT

## **Search Strategy**

This quality improvement project included peer-reviewed evidence-based practices from multiple databases such as PubMed, Cumulative Index to Nursing and Allied Health (CINAHL), and Scopus. Search terms included: “sepsis,” “resocialization,” “sepsis checklist,” “sepsis education,” “sepsis checklist utilization,” “sepsis bundle,” “sepsis bundle compliance,” and “medical surgical sepsis checklist.” Though there was difficulty in finding articles directly related to the theory of resocialization, adequate evidence portrayed a correlation between bundle checklist compliance, sepsis rates, and education. The Johns Hopkins Research Evidence Appraisal Tool was used to determine the level of evidence (Dang et al., 2022).

## **Literature Review**

A literature review was performed and included various evidence-based practices to support this quality improvement project. The quality of evidence was assessed by applying the John Hopkins Evidence-Based Practices for Nurses and Healthcare Professionals: Model and Guidelines (Dang et al., 2022). The evidence-based articles include observational, systematic, retrospective, and methodological studies (See Appendix C). Across all of the articles, there was a consistent finding that the use and adherence to sepsis checklists can facilitate early detection, ultimately leading to reduced hospitalization durations.

The utilization of a paper-based sepsis screening tool has proven to be an effective method for early sepsis detection. In an observational study involving both medical and surgical patients, it was determined that the impact of sepsis screening tools reduces rates of patient mortality. There were a total of 2,143 screening tests that were completed in 169 surgical and 76 medical patients and the tool involves identifying SIRS criteria, possible sources of infection,

## RESOCIALIZING THE INPATIENT HANDOFF SEPSIS BUNDLE CHECKLIST ON A MEDICAL-SURGICAL UNIT

and objective signs of organ dysfunction (Gyang et al., 2015). The screening tool was 92% accurate for early identification of sepsis in a medical and surgical unit setting.

Implementing a checklist communication tool can significantly improve prompt treatment of sepsis. A systematic study performed in the emergency department of a level two trauma center conveyed that a nursing protocol called Detect, Act, Reassess, Titrate (DART) improved the administration time of the collection of lactate levels, blood cultures, and delivery of antibiotics (Moore et al., 2019). Data was compared and collected between the period before the intervention and the period after implementing the sepsis checklist. This analysis included elements such as compliance with the 3-hour bundle requirements, length of hospital stay, and time taken for screening (Moore et al., 2019). The study indicated that compliance with the sepsis checklist decreased hospital stay by 2.5 days and overall adherence to inpatient reporting metrics increased from 30% to 80% (Moore et al., 2019).

Adhering to management bundles for severe sepsis and septic shock is correlated with increased chances of survival. An observational study included a total of 4,582 patients diagnosed with severe sepsis or septic shock across three Los Angeles County hospitals (Milano et al., 2018). The study centered on examining the link between adherence to sepsis bundles and in-hospital mortality. It was found that the overall mortality rate was lower for patients who received bundle-adherent care compared to those who did not. Mortality rates were lower in the population that received bundled care (17.9%) in comparison to those who did not receive it (20.4%) (Milano et al., 2018). The findings indicate that mortality rates are correlated with proper bundle use and adherence.

In addition to the improvement of mortality rates associated with sepsis bundle adherence, it is a practical tool that can be used for late-onset sepsis. In a methodological study

## RESOCIALIZING THE INPATIENT HANDOFF SEPSIS BUNDLE CHECKLIST ON A MEDICAL-SURGICAL UNIT

conducted to determine the impact of an assessment tool, it was found that the tool empowers nurses, clarifies team roles, and improves timely antibiotic administration (Perkins et al., 2022). The review analyzed three NICUs in Florida with a total of 158 beds and involved a multidisciplinary team including advanced practice providers, staff nurses, respiratory therapists, pharmacists, and unit secretaries (Perkins et al., 2022). When comparing data, the usage of the sepsis bundle checklist was effective in detecting neonatal late-onset sepsis in a NICU setting. The study suggests that assessment tools such as these are imperative to standardizing the process of both evaluation and management of sepsis.

While the use of sepsis bundles has demonstrated the ability to reduce morbidity and mortality rates, additional training is required to ensure the effective adoption and execution of sepsis bundles. A systematic review of six studies revealed a relationship between increased sepsis protocol compliance and staff education (Taj et al., 2020). With a partial implementation of the sepsis protocol, sepsis-related mortality rates decreased by 22.6% (Taj et al., 2020). The research findings indicate that the key obstacle to sepsis protocol implementation is the insufficient resources required for successful execution. Similarly, an observational study performed in the emergency department revealed a discrepancy in sepsis bundle utilization among daytime and night admissions. The study gathered data obtained from an eleven-institution multicenter registry that focused on septic shock. A total of 2,049 patients were included in the analysis, revealing comprehensive staff education and consistent compliance across all shifts could lead to enhanced sepsis rates (You et al., 2022).

### **Specific Project Aim**

The specific aim of this quality improvement project is to enhance bundle utilization and adherence to the Inpatient Handoff Sepsis Bundle Checklist in the Medical-Surgical Unit at

## RESOCIALIZING THE INPATIENT HANDOFF SEPSIS BUNDLE CHECKLIST ON A MEDICAL-SURGICAL UNIT

Hospital A, ultimately improving sepsis care compliance and fallout rates. Data was collected through a combination of direct and indirect methods. The microsystem was assessed for the availability of readily available sepsis-related resources and staff were asked to self-report their use of the IHSBC. The process began with assessing the use of the checklist prior to resocialization to determine the gaps in knowledge of the resources meant to reduce sepsis-related complications. By implementing this quality improvement project, the number of fallouts is estimated to be decreased by 3% by November 2023.

### **Methodology**

#### **Project Overview**

A Plan, Do, Study, Act (PDSA) Cycle was used to implement the quality improvement project (See Appendix D). By speaking with stakeholders at Hospital A, CNL students were able to gather information to formulate a PICO question, an aim statement, and a 5 P microsystem assessment. In addition, a Strengths, Weaknesses, Opportunities, and Threats (SWOT) analysis was conducted to identify and address factors that impact checklist utilization (See Appendix E). Cost-saving strategies were identified using a cost-benefit analysis (CBA) of the microsystem (See Appendix E). To ensure organization and timely implementation of the quality improvement project, a Gantt chart was developed (See Appendix F).

#### **Microsystem Assessment**

The 5 Ps of the microsystem assessment includes the following key elements: purpose, patients, professionals, process, and patterns. The 5 Ps is used as a structural framework to evaluate the quality of care within the microsystem. The purpose of this study was to increase utilization of the Inpatient Inpatient Handoff Sepsis Bundle Checklist in the Medical-Surgical Unit. The patients in the microsystem include those with various diagnoses such as sepsis, CHF,

## RESOCIALIZING THE INPATIENT HANDOFF SEPSIS BUNDLE CHECKLIST ON A MEDICAL-SURGICAL UNIT

COPD, and pneumonia. The interdisciplinary team includes registered nurses, nurse managers, physicians, respiratory therapists, physical and occupational therapists, dietitians, EKG technicians, and patient care technicians. As for the process, registered nurses are responsible for adhering to sepsis protocols of identification, assessment, and management. This quality improvement project emphasized registered nurses as they typically have the initial patient contact and can serve as early identifiers of sepsis. Patterns in this microsystem involve communication through handoff reports and shift huddles.

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

The first step of the Plan, Do, Study, Act (PDSA) Cycle is to discuss the objectives of the quality improvement project. This began with clearly defining that the goal is to enhance bundle utilization and adherence to the Inpatient Handoff Sepsis Bundle Checklist in the Medical-Surgical Unit at Hospital A. Planning also involved conducting a baseline assessment to determine current bundle use, identifying the multidisciplinary team which includes nurses, physicians, quality improvement specialists, and other stakeholders, and establishing specific, measurable, achievable, relevant, and time-bound (SMART) goals for improvement. A PICO question and specific aim statement were also developed based on the preliminary data collection. The second phase is the implementation of the action plan by reintroducing and reinforcing the use of the checklist in the microsystem. To encourage the use of the checklist, copies were placed on the unit and the educational board in the staff break room (See Appendix G). Microsystems were assessed using the 5Ps and a SWOT analysis. The study phase encompassed collecting data on the utilization of the checklist, gathering feedback from staff members regarding their experience with the checklist, and analyzing the data. The last phase is

## RESOCIALIZING THE INPATIENT HANDOFF SEPSIS BUNDLE CHECKLIST ON A MEDICAL-SURGICAL UNIT

continuously communicating the benefits of using the checklist and the improvements it brings in sepsis care and establishing a system for ongoing monitoring and evaluation of its usage.

### **Root Cause Analysis (RCA)**

An RCA using a fishbone diagram serves as a valuable visual tool in this quality improvement initiative as it allows for the identification and analysis of potential factors that contributed to checklist underutilization (See Appendix H). The lack of the sepsis checklist utilization may be attributed to potential factors such as People, Environment, Process, and Tools. Applying the fishbone diagram is essential in uncovering the specific challenges and barriers that may hinder adherence to the checklist. By identifying barriers, the CNL students were able to implement effective strategies that will ultimately enhance the use of the checklist while also improving patient outcomes in the Medical-Surgical units at Hospital A.

### **Strength, Weakness, Observation, Timeline (SWOT) Analysis**

A SWOT analysis was used as a strategic planning tool to assess the microsystem and the likelihood of success in increasing utilization and compliance with the checklist. Notable strengths encompass knowledgeable staff that are informed and educated on sepsis recognition, current sepsis awareness month flyer resources on the unit, and communication between the interdisciplinary team. For example, the nurse educator and quality nurse consultants (QNCs) collaborate closely, implementing changes to a smoother process within the unit. Weaknesses in assessing checklist compliance encompass a lack of checklist awareness and the failure to inform travel nurses about the checklist during their orientation. Opportunities for improvement are increased application of the checklist and a decrease in the following: hospital costs, sepsis-related complications, mortality, and morbidity. Threats to the change are time constraints to inform staff about the checklist, hesitancy to use the checklist, and the cost allocated to

## RESOCIALIZING THE INPATIENT HANDOFF SEPSIS BUNDLE CHECKLIST ON A MEDICAL-SURGICAL UNIT

resocialize staff. The SWOT analysis was integral in informing the quality improvement's internal and external factors of implementation.

### **Cost-Benefit Analysis (CBA)**

To assess the practicality of the quality improvement project, a CBA was developed. The total annual estimated cost to resocialize the checklist, including printing out physical copies of the checklist to place on the unit as well as curating a binder filled with sepsis resources, was compared to the total average cost of patients receiving sepsis care related to sepsis complications (Paoli, 2018).

### **Timeline**

To enhance the organization and time management for this quality improvement initiative, a Gantt Chart was implemented. The chart covers the entire duration of the project, extending from August 2023 to November 2023.

### **Intervention**

The purpose of this quality improvement project was to resocialize the use of the Inpatient Handoff Sepsis Bundle Checklist. To do this, key steps involved attending the Medical-Surgical staff huddle to reinforce the implementation of the checklist in the microsystem. Copies of the checklist were brought into the morning shift staff huddle and a verbal survey was conducted to collect input from the staff about their experience and familiarity with the checklist. Resocializing the checklist also included speaking to several stakeholders about its use on the unit; CNL students spoke to the unit's nurse educator and in-house supervisor regarding the absence of sepsis-related information readily available on the unit. In addition, copies of the checklist were dispersed around the unit.

# RESOCIALIZING THE INPATIENT HANDOFF SEPSIS BUNDLE CHECKLIST ON A MEDICAL-SURGICAL UNIT

## **Measures of Intervention**

To determine the efficacy of the resocialization of the checklist, CNL students conducted a verbal post-survey, individually speaking to staff members in the Medical-Surgical Unit. In addition to the verbal post-survey, the quality nurse consultant's role is to quarterly observe checklist utilization in conjunction with sepsis rates in the Medical-Surgical unit. After obtaining such data, the QNC will assess trends and work with the interdisciplinary team to identify gaps in sepsis bundle checklist utilization, establish systems for auditing sepsis care compliance, as well as empower and collaborate with the team to establish measurable outcomes and benchmarks.

## **Ethical Considerations**

This project initiative aligns with the criteria for an evidence-based QI project and does not fulfill the requirements for approval from the institutional review board.

## **Results**

The purpose of this project is to increase utilization of the Inpatient Handoff Sepsis Bundle Checklist through resocializing among Medical-Surgical staff at Hospital A. The process began with collecting preliminary data in September 2023 in which 25% of morning shift staff verbally expressed knowledge and 12.5% recalled prior teaching of the IHSBC. In addition to quantitative data, qualitative data was also collected and some key responses included “recognize it,” “remember it,” and “told about it two weeks ago.” A noticeable gap in knowledge and awareness of the checklist was observed.

However, following the resocialization initiative through re-educating staff on the importance of the checklist, there was a significant improvement. In October, 60% of the surveyed staff demonstrated verbal awareness of the checklist. The surveyed staff included



## RESOCIALIZING THE INPATIENT HANDOFF SEPSIS BUNDLE CHECKLIST ON A MEDICAL-SURGICAL UNIT

registered nurses and an assistant nurse manager. 40% of the surveyed respondents communicated that they were travel nurses and did not receive information about the checklist during orientation and training. 20% of the surveyed nurses were hesitant in their response with familiarity of the checklist. Key responses included “used as a tool and guide,” “do not fill it out,” “seen it before,” “not really,” and “used for handoff.” Additionally, 20% of the staff were not aware of the sepsis binder resource located in the unit.

### **Discussion**

The findings from this quality improvement initiative provide insight into the effort of resocializing the Inpatient Handoff Sepsis Bundle Checklist to increase its utilization among the Medical-Surgical staff at Hospital A. The initial data collected in September 2023 revealed a knowledge gap with only 25% of the morning shift staff expressing awareness of the checklist and 12.5% recalling previous teaching on the checklist. Qualitative data provided insight into the degrees to which staff were familiar with the checklist, with responses ranging from recognition to hesitancy in understanding the checklist and its importance. Following the resocialization efforts, there was a marked improvement noted in October 2023 with 60% of the staff conveying verbal awareness of the checklist. It is essential to highlight that 40% of the respondents identified as travel nurses which highlights a challenge in the dissemination of information during orientation and training. Some of the staff were hesitant to respond whether they had seen or used the checklist, indicating the need for continued education and reinforcement of the checklist. Moreover, since 20% were unaware of the sepsis binder resource within the unit, this suggests an opportunity for improved communication within the interdisciplinary team. The initial resocialization has shown positive results in increasing awareness, however, ongoing efforts are needed to ensure sustained improvement.

## RESOCIALIZING THE INPATIENT HANDOFF SEPSIS BUNDLE CHECKLIST ON A MEDICAL-SURGICAL UNIT

### **Limitations**

Several limitations require further consideration. A limitation involves the surveying process, with morning staff being surveyed during the initial round in September 2023 and evening shift staff during the second round in October 2023. This discrepancy may introduce variability in responses due to potential differences in shift dynamics, workload, or communication. However, it is important to note that implementing resocialization initiatives was provided to utilize a cohesive approach through targeted re-education and awareness campaigns. Furthermore, surveying different shifts can acknowledge the diversity of the Medical-Surgical Unit which allows for a more comprehensive approach to resocializing the checklist. Another limitation is the short duration of the resocialization effort, highlighting the ongoing necessity to reinforce the importance of the checklist among staff.

### **Summary**

The quality improvement project aimed to enhance the utilization of the Inpatient Handoff Sepsis Bundle (IHSBC) among Medical-Surgical staff at Hospital A. The preliminary data collected in September 2023 indicated a knowledge gap as only 25% of the morning shift staff expressed awareness of the checklist and 12.5% recalled previous teaching on the checklist. Qualitative responses revealed that there were varying degrees of familiarity with the checklist such as recognition to hesitancy. However, after re-educating the staff on the checklist's importance, there was a notable improvement in October 2023 as 60% of staff demonstrated verbal awareness of the checklist. It was found that 40% of the respondents identified as travel nurses which shed light on training discrepancy and communication gaps.

## RESOCIALIZING THE INPATIENT HANDOFF SEPSIS BUNDLE CHECKLIST ON A MEDICAL-SURGICAL UNIT

The findings from this project are relevant to the rationale and specific aim to improve IHSBC utilization. The results reveal an initial knowledge gap among staff which the resocialization aimed to address. Based on information collected from Hospital A, it is more likely that the utilization of the checklist will be better utilized by the nurses. The project anticipates a 3% decrease in sepsis fallouts by November 2023. Though there was a prominent improvement, further research needs to be performed to determine whether improvements in IHSBC awareness will directly correlate to a decrease in sepsis fallouts. The resocialization initiative which involved re-education on the checklist's importance was essential in bridging the lack of awareness. Various challenges were encountered such as the lack of information for travel nurses as well as unawareness of resources, which portrayed the importance of interventions in improving communication. Contributors to successful change include increasing verbal awareness through open communication amongst the interdisciplinary team.

### **Conclusions**

The quality improvement project aimed at increasing the utilization of the Inpatient Handoff Sepsis Bundle Checklist through resocialization. The resocialization efforts, which involved targeted re-education and awareness campaigns, addressed the initial knowledge gap found in September 2023. The findings highlight the importance of continued education and communication between the interdisciplinary team to reinforce the importance of the checklist. The potential for spread is evident in the outcomes collected in October 2023 as 60% of the staff demonstrated verbal awareness of the checklist. The implications for practice are also significant as increased awareness of the bundle can contribute to improved sepsis care compliance and potentially lead to a decrease in sepsis fallouts. Improving overall communication is crucial as it emphasizes the need to highlight available resources within the unit, including the sepsis binder

## RESOCIALIZING THE INPATIENT HANDOFF SEPSIS BUNDLE CHECKLIST ON A MEDICAL-SURGICAL UNIT

and copies of the checklist. Recommendations for future research include continued education and reinforcement, most especially targeting travel nurses during orientation and training.

# RESOCIALIZING THE INPATIENT HANDOFF SEPSIS BUNDLE CHECKLIST ON A MEDICAL-SURGICAL UNIT

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## RESOCIALIZING THE INPATIENT HANDOFF SEPSIS BUNDLE CHECKLIST ON A MEDICAL-SURGICAL UNIT

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RESOCIALIZING THE INPATIENT HANDOFF SEPSIS BUNDLE CHECKLIST ON A  
MEDICAL-SURGICAL UNIT

**Appendix A**

Inpatient Handoff Sepsis Bundle Checklist (IHSBC) at Hospital A

**Patient:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**Time Zero (discovery of sepsis):** \_\_\_\_\_

**Initial Lactate Result:** \_\_\_\_\_

**Time Zero to 3-hour bundle elements:**

Target fluid bolus (actual or ideal wt based) completed  
Remaining volume to be given: \_\_\_\_\_

NICOM (Noninvasive Cardiac Output Monitor) indicated?  
NA    Competed    Need

**Time Zero to 6-hour:**

Repeat lactate if initial lactate >1.9  
Due to be collected: \_\_\_\_\_

Check BP/MAP x2 1hr post fluids  
Last BP/MAP: \_\_\_\_\_

Provider notified for persistent hypotension  
(if SBP<100 or MAP <65)

Vasopressor ordered/given (in ED or ICU only)

Appendix B

Sepsis Awareness Month Flyer

# SEPSIS AWARENESS MONTH

*September 2023*

**THIS SEPTEMBER, TAKE THE TIME TO KNOW THE SIGNS**

More than 80% of sepsis patients are 50 years of age or older.

**T I M E**<sup>™</sup>

TEMPERATURE that's abnormal    Signs of an INFECTION    MENTAL DECLINE    Feeling EXTREMELY ILL

**For every hour treatment is delayed, the risk of death increases by as much as 8%. If you suspect sepsis, seek urgent medical care.**

**SEPSIS** » SAY SEPSIS SAVE LIVES  
**SEPTEMBER**  
SepsisAwarenessMonth.org



**THIS SEPTEMBER, TAKE THE TIME TO KNOW THE SIGNS**

More children die of sepsis than pediatric cancers.

**Any Child Who:**

- Feels abnormally cold to the touch
- Looks mottled, bluish, or has very pale skin
- Has a rash that does not fade when pressed
- Is breathing very fast
- Has a convulsion (seizure)
- Is very lethargic or difficult to wake up

**A Child Under 5 Who:**

- Is not eating
- Is vomiting repeatedly
- Has not urinated in 12 hours

**For every hour treatment is delayed, the risk of death increases by as much as 8%. If you suspect sepsis, seek urgent medical care.**

**SEPSIS** » SAY SEPSIS SAVE LIVES  
**SEPTEMBER**  
SepsisAwarenessMonth.org





RESOCIALIZING THE INPATIENT HANDOFF SEPSIS BUNDLE CHECKLIST ON A MEDICAL-SURGICAL UNIT

Appendix C

Literature Review

Study Authors	Objective and Design	Sample and Setting	Results	Level of Evidence
Gyang, Shieh, Forsey, & Maggio (2015).	This observational study determined the impact of sepsis screening tools to help reduce patient mortality rates.	The study involved 39 patients who screened positive for sepsis in a non-ICU setting.	Using a sepsis screening tool is a key part of the nursing assessment. It has proven beneficial in the early detection of sepsis among patients in medical-surgical categories.	Level III (Dang et al., 2022)
Moore, Vermuelen, Taylor, Kirhara, Wahome (2019).	This systematic study involved implementing a nursing protocol called “Detect, Act, Reassess, Titrate (DART), which served as a checklist communication tool.	The study analyzed the effectiveness of the nursing protocol checklist communication tool in a level-2 trauma center in the emergency department.	The implementation of a DART checklist communication tool significantly improved the administration time of collecting lactate levels and blood cultures as well as antibiotics given. The emergency department length of stay also improved with a decrease of 2.5 days.	Level II (Dang et al., 2022)
Milano, Desai, Eiting, Hofmann, Lam, Menchine, & (2018).	This multicenter, retrospective, observational study investigated the outcome of patients who received sepsis bundle-adherent care compared to patients who did not receive sepsis bundle-adherent care. The outcomes measured were in-hospital mortality, in-hospital	This study reviewed 4,582 patients diagnosed with severe sepsis or septic shock at three Los Angeles County hospitals.	The overall mortality rate was lower for patients who received bundle-adherent care compared to those who did not.	Level II (Dang et al., 2022)

RESOCIALIZING THE INPATIENT HANDOFF SEPSIS BUNDLE CHECKLIST ON A MEDICAL-SURGICAL UNIT

	mortality by source of infection, and the location of sepsis declaration.			
Perkins, Brandon, & Khan (2022).	This methodological study examined the development of an assessment tool designed to facilitate the detection of sepsis in a NICU setting.	This review analyzed 3 NICUs with a total of 158 beds.	The utilization of a sepsis checklist was found to be a practical tool used by nursing and the multidisciplinary team. In addition, it may encourage the timely identification and treatment of infants with sepsis.	Level V (Dang et al., 2022)
Taj, Brenner, Sulaiman, & Pandian (2020)	This systematic review investigated whether compliance with sepsis protocols affects the length of hospital stay and mortality.	This review analyzed six studies related to sepsis bundle protocol in the emergency department.	Simplified sepsis protocols are essential to improving mortality rates related to sepsis, however, training needs to be set in place for successful implementation.	Level II (Dang et al., 2022)
You, Park, Chung, Lee, Jeon, Kim, Shin, Jo, Kang, Choi, Suh, Ko, Han, Kong (2022).	This observational study determined the relationship between emergency department admission and adherence to the sepsis bundle in patients with septic shock.	This study used data from a multicenter registry for septic shock from 11 institutions and a total of 2,049 patients enrolled.	The study revealed that compliance with the sepsis bundle was higher during night admissions versus daytime admissions. Increasing the rate of compliance for daytime admissions could improve overall sepsis rates.	Level III (Dang et al., 2022)

# RESOCIALIZING THE INPATIENT HANDOFF SEPSIS BUNDLE CHECKLIST ON A MEDICAL-SURGICAL UNIT

## Appendix D

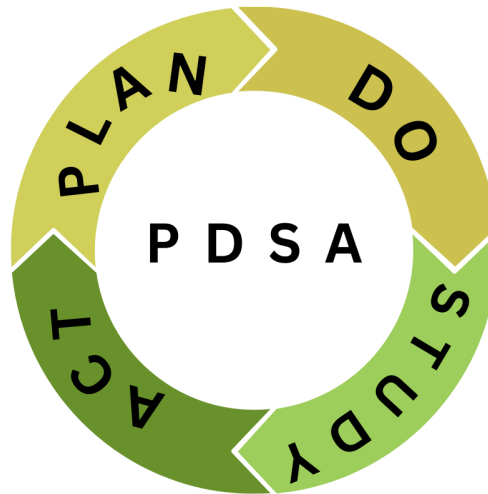
### Plan, Do, Study, Act (PDSA) Cycle

#### PLAN

- Collaborated with stakeholders at Hospital A regarding knowledge of the Inpatient Handoff Sepsis Bundle Checklist
- Created a PICO question and specific aim statement
- Created a script to present during the preliminary data collection

#### ACT

- Continue to collect and observe data post-intervention and implement necessary adjustments



#### DO

- Assessed the Medical-Surgical Units using the 5Ps
- Performed a SWOT analysis
- Placed Inpatient Handoff Sepsis Bundle Checklist in the microsystem
- Collected qualitative and quantitative data

#### STUDY

- Analyze data from post resocialization
- Will analyze the effect of resocialization on checklist utilization and compliance

RESOCIALIZING THE INPATIENT HANDOFF SEPSIS BUNDLE CHECKLIST ON A MEDICAL-SURGICAL UNIT

**Appendix E**

SWOT Analysis

**STRENGTHS**

- Staff are knowledgeable and informed on sepsis recognition and management
- Sepsis awareness month flyers are available as a resource on the unit
- Nurse educator works closely with quality nurse consultants
- Best Practice Alerts notifies nurses if a patient is exhibiting S/S related to sepsis
- Supportive leadership

**WEAKNESSES**

- Less than 50% of nurses had knowledge regarding the Inpatient Handoff Sepsis Bundle Checklist
- Staff are able to override the Best Practice Alerts
- Lack of sepsis bundle compliance re-training
- Resistance or hesitancy to change from some staff nurses
- The unit has several travel nurses who were not oriented on the checklist due to time constraints

**OPPORTUNITIES**

- Increase utilization of the Inpatient Handoff Sepsis Bundle Checklist
- Improve patient care
- Decrease the number of complications related to sepsis
- Decrease sepsis mortality/morbidity rate
- Reduce hospital costs

**THREATS**

- Time constraints to inform nurses of bundle checklist
- Cost allocated to resocialize nurses
- Staff turnover and burnout
- Some nurses are reluctant to use the bundle checklist
- Lab does not get a list of sepsis patients which may affect early recognition

RESOCIALIZING THE INPATIENT HANDOFF SEPSIS BUNDLE CHECKLIST ON A  
MEDICAL-SURGICAL UNIT

**Appendix F**

Cost-Benefit Analysis (CBA)

Estimated Cost of Sepsis Resocialization:

\$0.00 per year

Estimated Cost of Sepsis Information Binder and Flyers:

\$100.00 per year

**Total Estimated Cost: \$100.00 per year**

**Compared To:**

The Total Average Cost of 30 Patients Receiving Sepsis-Care Related to Sepsis Complications:

**\$1,200,000.00**

# RESOCIALIZING THE INPATIENT HANDOFF SEPSIS BUNDLE CHECKLIST ON A MEDICAL-SURGICAL UNIT

## Appendix G Gantt Chart

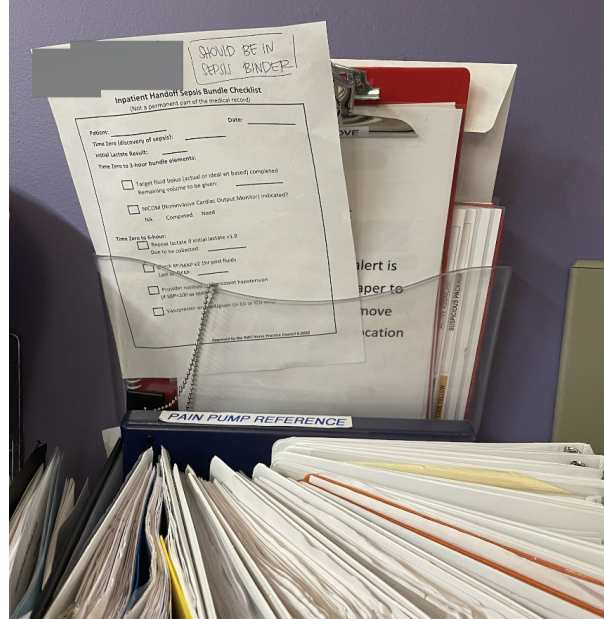
Task Title	Start Date	End Date	August	September	October	November
			Week 3 4	Week 1 2 3 4	Week 1 2 3 4	Week 1 2 3 4
<b>Project Initiation</b>						
Research of literature	8/17/23	8/31/23	█	█		
Synthesis of literature	8/24/23	8/31/23	█	█		
Compliation of literature review	8/31/23	9/6/23		█		
<b>Project Planning</b>						
Poster creation	9/6/23	9/12/23		█		
Script creation	9/6/23	9/12/23		█		
Microsystem assessment	9/8/23	9/20/23		█		
Coordinate with stakeholders to visit the facility	9/1/23	9/20/23		█		
<b>Project Implementation</b>						
Conduct pre-survey with non-clinical departments	9/8/23	9/13/23		█		
Perform non-clinical department staff education on sepsis	9/8/23	9/13/23		█		
Conduct pre-survey with inpatient (Med-Surg & ICU) staff	9/14/23	9/20/23		█		
Perform inpatient (Med-Surg & ICU) staff re-education on sepsis bundle checklist	9/14/23	9/20/23		█		
Place sepsis resources (binder and checklist copies) on the Med-Surg unit	9/14/23	9/20/23		█		
<b>Project Evaluation and Synthesis</b>						
Meet with relevant staff to solidify plan for post-survey	10/5/23	10/12/23		█		
Coordinate with stakeholders to visit the facility	10/19/23	10/25/23			█	
Conduct post-survey with non-clinical departments	10/25/23	10/25/23			█	
Conduct post-survey with inpatient (Med-Surg & ICU) staff	10/25/23	10/26/23			█	
Data analysis						█

# RESOCIALIZING THE INPATIENT HANDOFF SEPSIS BUNDLE CHECKLIST ON A MEDICAL-SURGICAL UNIT

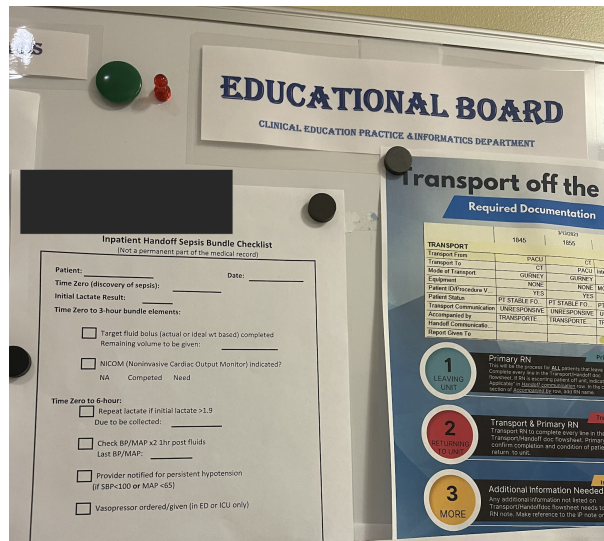
## Appendix H

### Interventions to Encourage Utilization of the IHSBC

Placing the Inpatient Handoff Sepsis Bundle Checklist on the Medical-Surgical Unit:

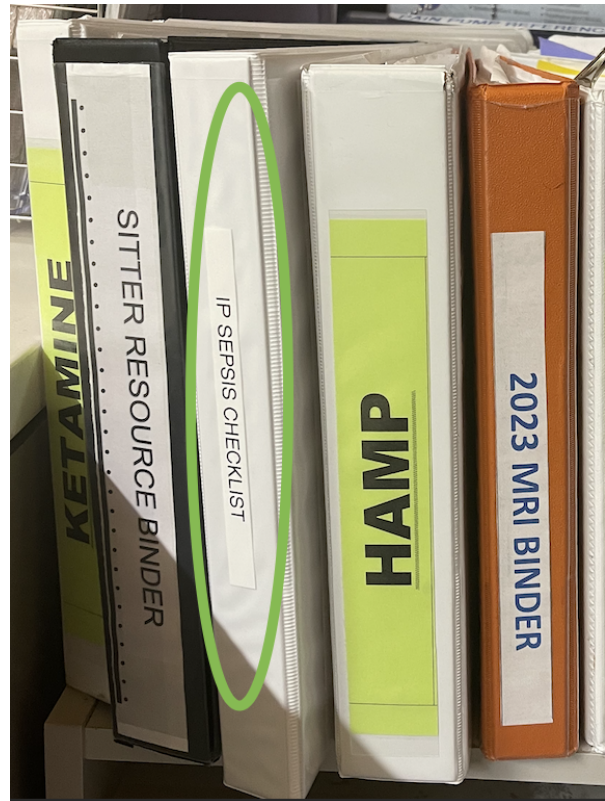


Placing the Inpatient Handoff Sepsis Bundle Checklist on the educational board in the Medical-Surgical Unit break room:

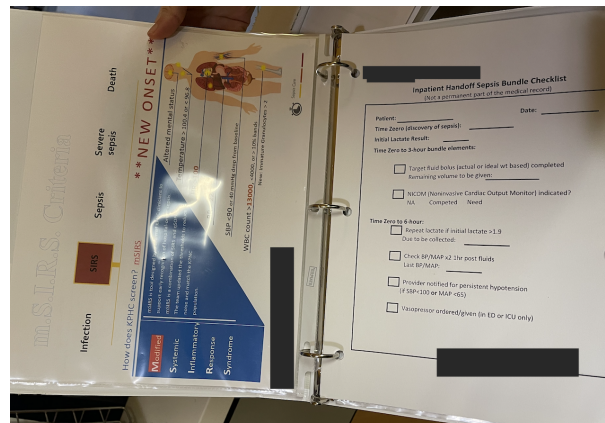


# RESOCIALIZING THE INPATIENT HANDOFF SEPSIS BUNDLE CHECKLIST ON A MEDICAL-SURGICAL UNIT

New sepsis binder found on the unit post-resocialization of the Inpatient Handoff Sepsis Bundle Checklist during Sepsis Awareness Month:



Post-resocialization of the Inpatient Handoff Sepsis Bundle Checklist during Sepsis Awareness Month—New sepsis binder found in the Medical-Surgical Unit, including multiple copies of the checklist:





RESOCIALIZING THE INPATIENT HANDOFF SEPSIS BUNDLE CHECKLIST ON A MEDICAL-SURGICAL UNIT

Appendix I  
Root Cause Analysis

ROOT CAUSE ANALYSIS:  
FISHBONE DIAGRAM

