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## Staff Education on Early Sepsis Recognition for Medical-Surgical Nurses in the Acute Care Setting

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# Walden University

College of Nursing

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has been found to be complete and satisfactory in all respects,  
and that any and all revisions required by  
the review committee have been made.

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Walden University  
2026

Executive Summary: Staff Education Project  
Staff Education on Early Sepsis Recognition for Medical-Surgical Nurses in the Acute

Care Setting

by

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Executive Summary Submitted in Partial Fulfillment  
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## Summary

In this staff education project, I targeted early sepsis recognition and response among medical-surgical nurses. The practice gap at the site was nurses' limited knowledge of sepsis indicators and screening tools, which contributed to delayed escalation of care. The practice-focused question guiding the project was "Does educating medical-surgical nurses on early sepsis recognition and response improve knowledge of early sepsis recognition and response?" I applied the analysis, design, development, implementation, and evaluation (ADDIE) and Johns Hopkins Evidence-Based Practice (JHEBP) models to design a structured sepsis education program for nursing staff. I searched for peer-reviewed literature via databases accessed through the Walden University Library, including PubMed, CINAHL, and ProQuest. Twenty-eight articles were identified, and 11 were used in the project. Fourteen medical-surgical nurses working across all shifts voluntarily participated in five in-person education sessions and completed pre- and post-education surveys. Nurses' pre-existing knowledge was moderate, with a pretest mean score of 9.07 (SD = 1.73; 45%), and the posttest mean score was 16.93 (SD = 1.64; 85%), marking a 40 percentage point improvement in knowledge. Conclusions support integrating sepsis education into routine competency programs. Implications for nursing practice include improved clinical vigilance, equitable care delivery, and reduced disparities in sepsis outcomes, contributing to positive social change through safer, more timely patient care across diverse populations.

## **Background**

Sepsis is a life-threatening medical emergency attributed to dysregulated host response to infection and remains a leading cause of morbidity and mortality in hospitalized patients in the United States (Garvey, 2024). Nationally, sepsis accounts for nearly one-third of all hospital deaths, with patient outcomes strongly dependent on timely recognition and initiation of evidence-based interventions (Garvey, 2024). Despite the availability of national guidelines, standardized screening tools, and sepsis care bundles, delays in early identification and treatment continue to occur, particularly in medical-surgical settings where patients often present with subtle clinical changes rather than overt shock (Tuttle et al., 2023). Nurses are uniquely positioned to detect early deterioration due to their continuous patient monitoring; however, evidence consistently demonstrates gaps in nurses' knowledge, confidence, and clinical reasoning related to early sepsis recognition and response. Cross-sectional and systematic review studies report persistent deficits in nurses' understanding of sepsis definitions, early warning signs, screening criteria, and escalation processes, contributing to delayed intervention and poorer outcomes (Abdalfafith et al., 2025; Chua et al., 2022; Edwards & Jones, 2021; Hamad et al., 2025; Rababa et al., 2022). Studies further indicated that a structured, evidence-based education improves nurses' knowledge, confidence, and adherence to sepsis protocols (Gripp et al. 2020; Gustad et al. 2024), supporting education as a critical strategy for addressing this national practice gap.

At the selected practice site, internal data showed that only 49% of medical-surgical nurses accurately identified early sepsis, and only 68% of affected patients

received appropriate interventions within the recommended 3-hour window, falling short of the organizational benchmark of 85%. These findings underscore a practice gap driven by inconsistent knowledge and application of early sepsis recognition and response among nursing staff, despite the availability of sepsis protocols and screening tools such as NEWS2 and MEWS. This gap directly affects patient safety outcomes and undermines organizational quality improvement goals related to sepsis mortality reduction and bundle compliance. The purpose of this project is to implement a structured staff education program to improve nurses' knowledge of early sepsis recognition and response using standardized screening tools and evidence-based sepsis bundles. The practice-focused question guiding the project was “Does educating medical-surgical nurses on early sepsis recognition and response improve knowledge of early sepsis recognition and response?”

### **Staff Education Project Development**

In this staff education doctoral project, I aimed the design, planning, and execution of a structured staff education program at improving early sepsis recognition and response among nurses. I was guided by the ADDIE framework and the JHEBP model. The objective of the project was to improve the knowledge gap related to early sepsis indicators, standardized screening tools, and timely escalation of care to enhance adherence to evidence-based sepsis bundles and strengthen patient safety outcomes in an inpatient setting.

### **Analysis**

During the analysis, I conducted a needs assessment using organizational quality data, informal stakeholder input, and baseline knowledge assessment results to identify

gaps in nursing knowledge and practice related to sepsis. Internal reports revealed suboptimal early sepsis recognition rates and delayed initiation of the recommended intervention within the three-hour bundle timeframe. Feedback from nursing leadership and staff indicated inconsistent understanding of the sepsis definition, early warning signs, and the application of screening tools such as the Modified Early Warning Score (MEWS) and National Early Warning Score 2 (NEWS2). An organizational readiness assessment revealed strong administrative support for implementing the change, stakeholders' confidence in sustaining the momentum, and staff willingness to participate in and manage the politics of implementing the change. A SWOT analysis identified strengths (established educational structure, supportive EHR, strong QI culture), weaknesses (inconsistent training participation, limited staff time, knowledge deficits), opportunities (national focus on sepsis, standardizing protocols, embedding education into competencies), and threats (competing priorities, staff resistance, limited IT support, and policy changes). Key stakeholders included medical-surgical nurses, unit managers, nurse educators, hospital administrators, and interdisciplinary providers who acknowledged the urgency of the practice gap and endorsed the education intervention as a feasible and necessary strategy.

### **Design and Development**

I focused the design and development phases on creating an evidence-based, clinically relevant educational program aligned with national sepsis guidelines. Educational objectives emphasized early identification of sepsis, appropriate use of screening tools, nurse-specific responsibilities within the three-hour sepsis bundle, and

timely communication and escalation processes. A structured PowerPoint presentation (Appendix A) was developed and supported by peer-reviewed literature from PubMed, CINAHL, and ProQuest. Eleven evidence-based articles were appraised using the JHEBP model, and findings were summarized in an individual evidence summary tool, which supported the conclusion that structured education enhances nurses' knowledge, confidence, and decision-making regarding sepsis recognition and management. Key content themes included sepsis definition, early warning signs, standardized screening tools (NEWS2, MEWS, qSOFA), SBAR communication, Golden Hour interventions, sepsis bundle responsibilities, and CMS SEP-1 standards. The SBAR was selected as the standardized communication framework for escalation of care because it is embedded in the organization's rapid response and provider notification process.

I designed the educational materials in collaboration with two content experts, including a nurse educator and a nurse manager, both specializing in sepsis screening and management. The materials included an 18-slide PowerPoint presentation (Appendix A), pre- and post-education knowledge surveys (Appendix B), supplemental forms (Appendix C) to measure learning outcomes, and the content experts' evaluation (Appendix D). An action meeting was held with my preceptor and faculty advisor to kick off the implementation phase.

### **Implementation**

Following completion of the ethics pledge and committee approval, the project was implemented over 2 days and included five in-person sessions to accommodate day and night shift nurses. A total of 14 nurses (three licensed vocational and 11 registered

nurses) participated in the project. Each session lasted 30-45 minutes and was held during designated education periods in the unit conference room to minimize workflow disruptions and ensure access to patient care. For each session, participants completed a pre-education knowledge survey using a self-generated identifier, attended standardized sepsis education, and completed a post-education survey. The sessions were delivered using a blended teaching format that combined didactic instruction with interactive case discussion to promote practical application of sepsis recognition and response concepts.

### **Evaluation**

The evaluation phase focused on measuring changes in nurses' knowledge following the structured sepsis education intervention, using descriptive and inferential statistical methods. Content experts evaluated the educational materials. Pre- and post-intervention survey data were entered into the Statistical Package for the Social Sciences (SPSS) and summarized using descriptive statistics, including frequencies, means, and standard deviations. These were displayed in a data chart to illustrate baseline knowledge levels and post-intervention improvement. Knowledge change was further analyzed using a paired t test to determine whether the difference between pre- and post-intervention mean scores was statistically significant. This analytic approach allowed comparison of individual nurse performance over time while controlling for within-subject variability.

## **Results**

### **Content Expert Evaluation**

Two content experts (a nurse educator and a nurse manager) independently reviewed the educational materials and the results. The nurse educator evaluated the

materials for alignment with adult learning principles, clarity of learning objectives, and appropriateness for medical-surgical nurses. Feedback emphasized that the content was well-structured, logically sequenced, and appropriate for nurses with varying levels of experience, with minor suggestions to strengthen clarity around early escalation cues. The nurse educator analyzed the magnitude of knowledge change and noted that the improvement in posttest scores reflected meaningful learning gains consistent with adult education outcomes.

The nurse manager focused on clinical accuracy, alignment with current sepsis guidelines, and consistency with organizational sepsis protocols and quality metrics. The content expert confirmed that the education appropriately reflected evidence-based sepsis screening tools, nurse-specific responsibilities within the 3-hour bundle, and documentation expectations tied to CMS SEP-1 measures. The nurse manager reviewed the results and emphasized that the gains in knowledge related to screening tools and bundled responsibilities were clinically significant and likely to support improved compliance with sepsis quality benchmarks.

### **Pretest and Posttest Survey Results**

Descriptive analysis showed that baseline knowledge was moderate, with a mean pretest score of 9.07 (SD = 1.73), representing approximately 45% accuracy. Pretest scores ranged from 6 to 12, indicating variability in baseline understanding of early sepsis recognition and response. Post-education results showed substantial improvement. The mean posttest score increased to 16.93 (SD = 1.64), corresponding to approximately 85% accuracy. Posttest scores ranged from 14 to 19, with most participants demonstrating

strong mastery of early recognition principles and nurse-driven interventions. The mean improvement score was 7.86 points, reflecting a 40 percentage point gain in knowledge, which exceeded the project benchmark of a minimum 20% improvement. Item-level review indicated that questions related to early physiologic indicators and screening tools improved most, while documentation-related items were comparatively more challenging. Aggregate pretest and posttest scores are presented in Table 1 and Figure 1.

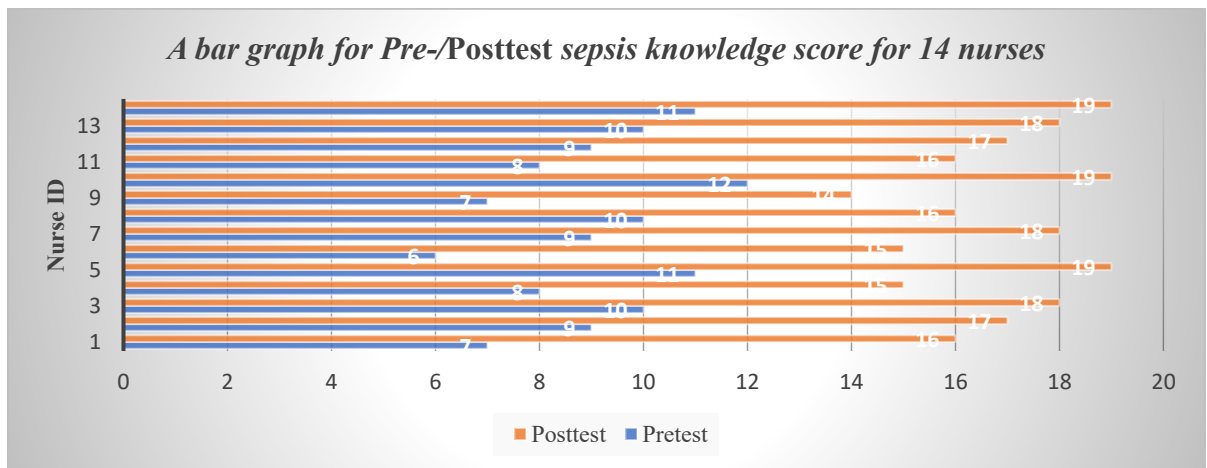
**Table 1:**

*Pretest-Posttest Survey Data for Medical-Surgical Nurses (N = 14)*

Nurse ID	Pretest	Posttest	Improvement
1	7	16	9
2	9	17	8
3	10	18	8
4	8	15	7
5	11	19	8
6	6	15	9
7	9	18	9
8	10	16	6
9	7	14	7
10	12	19	7
11	8	16	8
12	9	17	8
13	10	18	8
14	11	19	8

**Figure 1:**

*Pre-Posttest Sepsis Knowledge Score for 14 nurses*



**Paired *t* Test Analysis**

Inferential statistical analysis was conducted using a paired-samples t-test to determine whether the observed improvement in knowledge scores was statistically

significant. Results demonstrated a highly significant difference between pretest and posttest scores,  $t(13) = 34.01, p < .001$ , with a 95% confidence interval ranging from 7.36 to 8.36. These findings confirm that the educational intervention produced a statistically and clinically meaningful improvement in nurses' sepsis knowledge.

Additionally, a strong positive correlation was observed between pretest and posttest scores ( $r = 0.87, p < .001$ ), indicating that nurses with varying baseline knowledge levels all benefited from the education. The paired  $t$ -test results are summarized in Table 2, supporting the effectiveness of structured, evidence-based sepsis education in enhancing early recognition and response competencies among medical-surgical nurses.

**Table 2**

*Paired Sample t Test*

		Paired Differences				<i>t</i>	df	Sig. (2-tailed)	
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower				Upper
		Pair 1	Posttest-Pretest	7.857	.864				.231

### Strengths and Limitations

A key strength of this staff education project was the use of a structured, evidence-based educational intervention guided by the ADDIE model, which ensured systematic development, implementation, and evaluation of the sepsis education program. The inclusion of standardized screening tools (NEWS2 and MEWS), case-based learning,

and a clear delineation of nursing responsibilities within the three-hour sepsis bundle enhanced clinical relevance and applicability to bedside practice. Additionally, paired pre- and post-knowledge assessments allowed accurate measurement of individual knowledge change, strengthening the validity of the findings. Content expert review by a nurse educator and a nurse manager further enhanced the rigor, accuracy, and clinical credibility of the educational materials, supporting reliable knowledge translation into practice.

Several limitations should be considered when interpreting the project findings. First, the sample size was small ( $N= 14$ ), which limits generalizability to other units or organizations. However, the consistency of improvement across all participants and the large effect size mitigate this limitation to some extent. Additionally, the project relied primarily on knowledge-based assessments rather than direct patient outcome measures. While improved knowledge is a necessary precursor to practice change, the absence of longitudinal data linking education to clinical outcomes, such as reduced sepsis mortality or time-to-treatment, limits conclusions regarding direct patient impact. Moreover, participation was limited to nurses who were available and willing to complete both assessments, introducing potential selection bias. Finally, the short postimplementation time did not allow for long-term knowledge retention evaluation. Despite these limitations, the statistically significant improvements observed suggest the education intervention was effective and meaningful within the project scope.

This project holds significance beyond the local practice setting because delayed recognition of sepsis remains a widespread national and global patient safety concern.

The findings reinforce the value of structured, evidence-based nursing education as a scalable strategy to improve sepsis preparedness across acute care settings. Moreover, the demonstrated effectiveness of standardized education, screening tools, and role clarification supports broader adoption in similar medical-surgical environments facing variability in sepsis recognition and response. Additionally, the project aligns with national quality initiatives focused on early detection, timely intervention, and adherence to evidence-based sepsis bundles. By contributing to the growing body of DNP scholarship on implementation science and staff education, this project offers a replicable model that can inform future quality improvement initiatives aimed at reducing sepsis-related morbidity and mortality across diverse healthcare organizations.

### **Conclusions**

The sepsis staff education project had a meaningful positive impact on the organization by improving nurses' knowledge of early sepsis recognition, screening, and timely response, which are critical to patient safety and quality outcomes. Enhanced nurse preparedness supports more consistent use of standardized screening tools and sepsis bundles, contributing to improved clinical decision-making, reduced delays in care escalation, and alignment with organizational quality and patient safety initiatives. Strengthening frontline nursing competence also reinforces interdisciplinary communication and supports a culture of evidence-based practice.

Further recommendations include integrating sepsis education into annual competency validation, onboarding programs for newly hired nurses, and ongoing refresher training using simulation and case-based learning. Expanding audit-and-

feedback mechanisms to monitor sustained knowledge retention and bundle compliance may further strengthen long-term outcomes. Additionally, embedding electronic decision-support tools within the electronic health record could reinforce early recognition and prompt timely interventions.

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## Appendix A: Education PowerPoint Presentation

# Early Recognition and Management of Sepsis in the Medical-Surgical Unit

Subtitle: Staff Education

Nadine N Udom

Walden University- DNP Project

September 28, 2025

## Learning Objectives

- ▶ By the end of this session, participants will be able to:
- ▶ Describe the pathophysiology, risk factors, and early clinical indicators of sepsis.
- ▶ Apply standardized sepsis screening tools (NEWS2, MEWS) accurately to identify patients at risk.
- ▶ Integrate screening results into patient assessments and EHR documentation using organizational protocols.
- ▶ Demonstrate effective escalation of care through structured SBAR communication.
- ▶ Evaluate personal knowledge improvement through participation in pre- and post-surveys.
- ▶ Reflect on confidence and readiness to recognize and manage early sepsis in daily practice.
- ▶ Note: All objectives align with the pre/post knowledge survey to measure learning

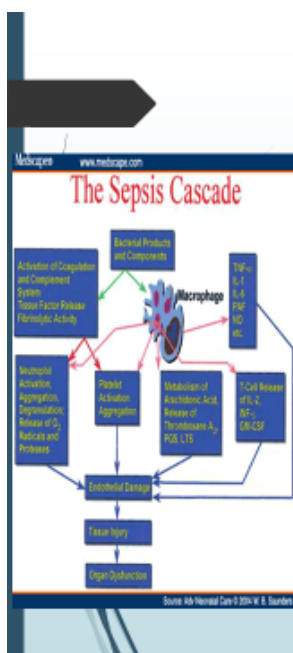
## Introduction

- Sepsis is a life-threatening condition resulting from the body's dysregulated response to infection (Jarczak et al., 2021).
- Early recognition and timely intervention significantly improve survival rates and outcomes.
- Evidence-based screening tools such as NEWS2 and MEWS enhance early detection accuracy.
- Effective team communication and SBAR escalation are critical for rapid clinical response.
- Standardized organizational protocols promote consistency and improve compliance with national sepsis guidelines.
- Continuous education empowers nursing staff to deliver high-quality, evidence-based care for patients at risk of sepsis.

## Brief Summary of Evidence

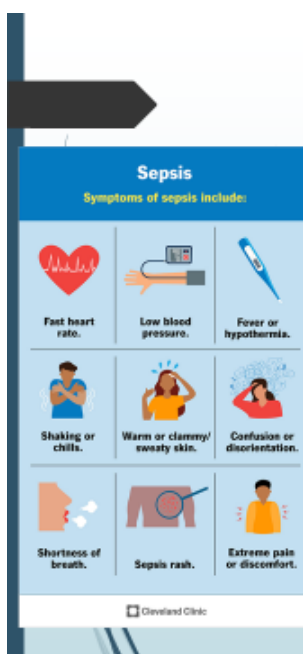
- Early recognition of sepsis reduces mortality and improves patient outcomes.
- Educational programs enhance nurses' knowledge and screening accuracy (Khallaf et al., 2025).
- Standardized tools like NEWS2 and MEWS improve early detection rates.
- Simulation and case-based learning strengthen clinical decision-making.
- SBAR communication training improves escalation and response times.
- Ongoing education ensures long-term knowledge retention and protocol adherence.

## Sepsis Pathophysiology




- ▶ Local infection triggers systemic immune activation.
- ▶ Cytokine storm amplifies inflammation and damages tissues.
- ▶ Increased vascular permeability causes fluid leakage into tissues.
- ▶ Vasodilation leads to hypotension and reduced organ perfusion.
- ▶ Microthrombi form due to coagulation cascade activation.
- ▶ Tissue hypoxia and metabolic acidosis develop.
- ▶ Progression to septic shock with multi-organ dysfunction (Arora et al., 2023).

## Early Warning Signs of Sepsis



- ▶ Tachycardia ( $>100$  bpm): Early response to infection and tissue hypoperfusion.
- ▶ Hypotension (SBP  $< 100$  mmHg): Vasodilation and fluid leakage reduce perfusion.
- ▶ Fever or hypothermia ( $\geq 100.4^{\circ}\text{F}$  or  $\leq 96.8^{\circ}\text{F}$ ): Immune dysregulation signals systemic infection (Arora et al., 2023)
- ▶ Altered mental status: Reduced cerebral perfusion or inflammatory cytokines affect cognition.
- ▶ Elevated lactate ( $>2$  mmol/L): Indicator of tissue hypoxia and anaerobic metabolism.

## Risk Factors For Sepsis



**S** Suppressed immune system (SICU, immunosuppressive therapy, steroids, chemotherapy, radiation)

**E** Extreme age (elderly/neonate)

**I** Injury or invasive procedure


**P** Prolonged hospitalization

**I** Invasive devices (catheters, central lines, trachea)

**C** Chronic diseases (diabetes, asthma, kidney, and liver)

- Age extremes-elderly and neonates are more vulnerable.
- Immunocompromised status- HIV, chemotherapy, steroids, transplant recipients.
- Chronic illnesses- diabetes, COPD, chronic kidney disease, cancer.
- Recent surgery or invasive procedures- postoperative wounds, endoscopy, intubation.
- Indwelling medical devices- urinary catheters, central lines, ventilators.
- Delayed or inappropriate antibiotic use- untreated infections escalate risk.
- Severe trauma or burns- compromised skin barrier increases infection entry (Bladon et al., 2024)
- Interactive Prompt: What risk factors have you most often observed in your unit?

## Early Warning Signs of Sepsis



**Sepsis**  
Symptoms of sepsis include:

- Fast heart rate.**
- Low blood pressure.**
- Fever or hypothermia.**
- Shaking or chills.**
- Warm or clammy/sweaty skin.**
- Confusion or disorientation.**
- Shortness of breath.**
- Sepsis rash.**
- Extreme pain or discomfort.**

Cleveland Clinic

- Tachycardia (>100 bpm): Early response to infection and tissue hypoperfusion.
- Hypotension (SBP < 100 mmHg): Vasodilation and fluid leakage reduce perfusion.
- Fever or hypothermia ( $\geq 100.4^{\circ}\text{F}$  or  $\leq 96.8^{\circ}\text{F}$ ): Immune dysregulation signals systemic infection (Arora et al., 2023)
- Altered mental status: Reduced cerebral perfusion or inflammatory cytokines affect cognition.
- Elevated lactate (>2 mmol/L): Indicator of tissue hypoxia and anaerobic metabolism.

## Standardized Screening Tools

Tool	Primary Use	Parameters Assessed	Threshold/Action	Color Code
NEWS2 (National Early Warning Score 2)	Early recognition in acute care	RR, O <sub>2</sub> sat, Temp, SBP, HR, LOC, supplemental O <sub>2</sub>	≥5 = Urgent review ≥7 = Emergency response	● 0–4 ● 5–6 ● ≥7
MEWS (Modified Early Warning Score)	Hospital ward monitoring	HR, SBP, RR, Temp, LOC	≥5 = Trigger rapid response	● 0–3 ● 4–5 ● ≥6
qSOFA (Quick Sequential Organ Failure Assessment)	Non-ICU bedside assessment	RR ≥22, SBP ≤100, altered mentation	≥2 = High risk – escalate immediately	● 0–1 ● ≥2
SOFA (Sequential	ICU evaluation of	Respiration,	Increase ≥2	● High-risk

## Applying Screening Tools

- Introduce the purpose of each screening tools (NEWS2, MEWS, qSOFA, SOFA) and their role in early recognition.
- Step-by-step walkthrough by demonstrating how to enter vital signs and assign weighted scores.
- Show how to interpret the total score against escalation thresholds
- Walk through a mock patient chart with abnormal vitals, learners calculate the score in real time
- Debrief as a group: discuss accuracy, miscalculations, and escalation decisions.
- Highlight integration into Electronic Health Record (EHR) workflows
- Reinforce limitations as screening tools support but do not replace clinical judgment.

## Escalation of Care: SBAR

**SEPSIS and SBAR handover**

Resuscitation Council UK  
NHS.uk

- **S- Situation:** Clearly state suspected sepsis based on abnormal vitals or screening score.
- **B- Background:** Provide relevant infection history, comorbidities, surgical history, or indwelling devices.
- **A - Assessment:** Report objective findings, screening score (NEWS2/MEWS), labs (lactate, WBC, cultures), and clinical picture (hypotension, altered mental status, urine output).
- **R- Recommendation:** Suggest next steps such as urgent labs, blood cultures, IV fluids, broad-spectrum antibiotics, or activation of rapid response team (Barker et al., 2025)
- **Best Practice:** Use concise, structured communication to ensure providers receive complete, actionable information.

## Organizational Sepsis Protocol

**Sepsis Hour-1 Bundle**

- 1 Measure lactate.
- 2 Obtain blood cultures before administering antibiotics.
- 3 Administer broad-spectrum antibiotics.
- 4 Begin rapid IV fluid resuscitation.
- 5 Apply vasopressors if hypotensive.

NursingCenter

- Activate protocol with positive sepsis screening result
- “Golden Hour”: Cultures → Antibiotics → Fluids (60 mins) (Gavelli et al., 2021)
- Follow 3-hour sepsis bundle per CMS SEP-1
- Target  $\geq 85\%$  compliance hospital-wide
- Notify provider and rapid response immediately
- Reassess vitals, urine output, and lactate (Evans et al., 2021)
- Document all actions and communication in EHR

## Essential Documentation Elements After Responding to Sepsis

- ▶ Patient's vital signs and trends post-sepsis intervention
- ▶ Time and results of sepsis screening and lab work
- ▶ Interventions initiated and timing of each action taken
- ▶ Provider notifications and escalation details with exact times
- ▶ Fluid resuscitation type, volume, and administration rate
- ▶ Antibiotics administered, dose, route, and timing documented
- ▶ Patient response and clinical changes during treatment course

## Simulation Scenario 1

- ▶ Case 1: Timely Recognition → Stabilization
- ▶ Patient: 68-year-old male, post-op day 2 after bowel resection.
- ▶ Initial presentation: Temp 100.9°F, HR 110, BP 98/62, RR 24, O<sub>2</sub> sat 93% on room air.
- ▶ Nurse action: Performed sepsis screening with NEWS2 = 6. Activated rapid response within 10 minutes.
- ▶ Interventions: Blood cultures drawn, broad-spectrum antibiotics started, 30 mL/kg fluids administered, oxygen applied.
- ▶ Outcome: BP stabilized to 110/70, HR decreased to 92, patient transferred to step-down for closer monitoring.

## Simulation Scenario 2

- Case 2: Delayed Recognition → ICU Transfer
- Patient: 74-year-old female, admitted with pneumonia.
- Initial presentation: Temp 100.4°F, HR 105, BP 102/68, RR 22, mildly confused.
- Nurse action: Documented vitals but did not perform sepsis screening. Provider notified 4 hours later when BP dropped to 85/54 and urine output < 15 mL/hr.
- Interventions: Rapid response activated late, lactate found at 5.2, patient started on vasopressors and transferred to ICU.
- Outcome: Progressed to septic shock requiring intubation and prolonged ICU stay.

## Evaluation Plan



- Pre- and post-education surveys will assess participants' learning and confidence in sepsis recognition and response.
- Simulation and case-based evaluations will validate participants' ability to apply NEWS2, MEWS, and SBAR effectively.
- Post-training audits will monitor adherence to the hospital's 3-hour sepsis bundle for continuous quality improvement.
- Participant feedback will help refine future educational sessions and enhance staff engagement.
- Evaluation results will guide ongoing reinforcement of sepsis management protocols.
- Success benchmark: Demonstrated improvement in applied skills, communication accuracy, and timely intervention rates.

## Reflection & Peer Debriefing Questions

- ▶ What strategies can enhance timely recognition of sepsis in our unit?
- ▶ How confident do you feel applying NEWS2 or MEWS to identify early sepsis indicators?
- ▶ In what ways can structured SBAR communication improve team coordination and response?
- ▶ How will you integrate sepsis screening into your routine patient assessments?
- ▶ What collaborative practices can strengthen nurse–provider communication during escalation of care?
- ▶ What insights did you gain from the simulation scenarios about effective sepsis management?
- ▶ What actions will you take personally or as a team to sustain consistent sepsis response practices?

## Key Takeaways

- ▶ Sepsis is a time-sensitive emergency: Early recognition and response can prevent progression to septic shock.
- ▶ Consistent use of screening tools is vital: NEWS2, MEWS, or qSOFA should be applied systematically to detect sepsis early.
- ▶ Effective SBAR communication: Structured, concise escalation improves provider response and reduces delays in treatment.
- ▶ Nursing role is critical: Bedside vigilance and timely action significantly impact patient survival and recovery.
- ▶ The “Golden Hour” matters: Interventions within the first hour, fluids, cultures, antibiotics, are lifesaving.
- ▶ Team-based approach: Collaboration with rapid response teams and providers strengthens outcomes.

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## Appendix B: Pre/Post Anonymous Questionnaire

### Instructions

Check the correct answer (s). Some questions may have more than one correct answer.

Each correct answer equals one point.

1. Which of the following best defines sepsis?
  - Life-threatening organ dysfunction from a dysregulated host response to infection
  - Localized infection without systemic effect
  - Any infection requiring antibiotics
  - Viral illness only
2. Which physiological response is central to sepsis development?
  - Cytokine storm and endothelial dysfunction
  - Fluid overload
  - Bradycardia
  - Decreased metabolism
3. Which patient is at the highest risk for developing sepsis?
  - 70-year-old with diabetes and pneumonia
  - 25-year-old with ankle sprain
  - 35-year-old with hypertension
  - 50-year-old athlete with muscle strain
4. Which are considered early warning signs of sepsis? (Select all that apply)

- Tachycardia >100 bpm
  - Respiratory rate >22
  - Systolic BP <100 mmHg
  - Normal oxygen saturation
5. What is the primary purpose of using a sepsis screening tool such as NEWS2 or MEWS?
- To standardize early recognition and trigger a timely response
  - To replace provider judgment
  - To calculate daily acuity for staffing
  - To confirm the infection source
6. A NEWS2 score of 6 indicates which nursing action?
- Immediate escalation to the provider or rapid response team
  - Continue routine monitoring
  - Recheck vitals in 6 hours
  - No action needed
7. Which combination of lab findings supports a sepsis diagnosis?
- Lactate >2 mmol/L and WBC >12,000
  - Hemoglobin 14 g/dL and normal creatinine
  - Platelet 250,000 and glucose 90 mg/dL
  - Normal lactate and WBC

8. Within the "Golden Hour" of sepsis management, which interventions are essential? (Select all that apply)
- Obtain blood cultures
  - Administer broad-spectrum antibiotics
  - Delay fluids until the ICU
  - Initiate IV fluid bolus 30 mL/kg
9. When escalating care using SBAR, which element represents "Assessment"?
- Vital signs, screening score, and clinical impression
  - Infection history
  - Nurse's emotional reaction
  - Recommendations for follow-up
10. Which statement best represents the "Recommendation" step in SBAR for sepsis?
- I recommend starting fluids and antibiotics immediately.
  - I am worried but unsure what to do.
  - Vitals are stable now.
  - Patient seems fine.
11. Which nursing action demonstrates proper escalation for suspected sepsis?
- Notify the provider immediately using SBAR format
  - Wait for the next scheduled rounds
  - Document and recheck later

Assigning a task to unlicensed staff

12. What should the nurse do after a positive sepsis screen? (Select all that apply)

Document findings and the time of notification

Reassess the patient frequently

Ignore if the provider is unavailable

Confirm next steps with the provider

13. What is the nurse's role in the sepsis bundle?

Early recognition, rapid communication, and initiation of protocols

Ordering antibiotics independently

Waiting for lab confirmation

Transferring the patient immediately without assessment

14. Which documentation elements are essential after responding to sepsis? (Select all that apply)

Time of recognition and screening score

Communication with the provider

Type of IV fluid and response

Personal reflections

15. Which clinical tool is recommended for assessing sepsis risk in a medical-surgical patient?

NEWS2

MEWS

qSOFA

All the above

16. What is the correct sequence of the “Golden Hour” interventions for sepsis management?

Obtain blood cultures → Administer antibiotics → Begin IV fluids

Start IV fluids → Wait for provider orders → Draw labs

Give oxygen → Perform ECG → Start antibiotics

Draw blood cultures → Send patient for imaging → Administer antibiotics

17. Which component of the 3-hour sepsis bundle is primarily the nurse’s responsibility?

Early recognition and timely initiation of fluids

Diagnosing the source of infection

Prescribing antibiotics

Interpreting imaging results

18. What is the minimum target compliance rate for the sepsis bundle according to CMS SEP-1 standards?

50%

68%

85%

95%

19. During a simulation, a nurse correctly applies the SBAR format. What demonstrates effective communication?
- Clearly states screening results, vital signs, and recommendation for rapid response
  - Uses general language like “the patient doesn’t look good.”
  - Avoid giving recommendations to the provider
  - Waits until shift change to report findings
20. After completing sepsis education, what is the best indicator of knowledge transfer into practice?
- Improved screening accuracy and timely escalation of care
  - Increased satisfaction with the training session
  - Reduced nurse workload
  - Higher patient census on the unit



**Section 2: Case Reflection (Practice Exercise)**

**Scenario:** A 68-year-old post-op male develops fever, tachycardia, and hypotension.

Using the sepsis recognition framework (NEWS2/MEWS and SBAR), complete the sections below.

- Illness Severity

(Is the patient stable, unstable, or at risk of deterioration)

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- Patient Summary

(Include age, history, key symptoms, and vital signs)

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- Action List:

(List immediate nursing actions/interventions following recognition.)

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- Synthesis by Receiver:

(How should findings be communicated using SBAR?)

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**Section 3: Case Reflection 2 (Practice Exercise)**

**Scenario:** 74-year-old female, admitted with pneumonia.

Using the sepsis recognition framework (NEWS2/MEWS and SBAR), complete the sections below.

- Illness Severity

(Is the patient stable, unstable, or at risk of deterioration)

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- Patient Summary

(Include age, history, key symptoms, and vital signs)

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- Action List:

(List immediate nursing actions/interventions following recognition.)

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- Synthesis by Receiver:

(How should findings be communicated using SBAR?)

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**Section 4: Debrief Prompt**

- **What were the key differences in nursing actions between scenario 1 and scenario 2?**

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- **How did timely screening and escalation affect outcomes?**

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- **What lessons can be applied to your unit's daily practice?**

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**Section 5: Key Learning Points**

- Three early warning signs of sepsis:

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➤ Screening tools used in your facility:

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➤ “Golden Hour” priorities (list 3):

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➤ Role of the nurse in sepsis escalation:

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➤ One improvement you can apply to your daily practice:

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**Section 6: Reflection**

- What did you learn about early recognition and rapid response?

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- How confident are you in applying the sepsis protocol after this training?

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- What barriers might exist in your unit, and how can you address them?

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**Appendix D: Content Expert Survey Form**

**Content Validity Assessment of NURS 8512 Pre-Post Test Survey**

Survey Item	Poor	Fair	Neutral	Very Good	Excellent
Question 1					
Question 2					
Question 3					
Question 4					
Question 5					
Question 6					
Question 7					
Question 8					
Question 9					
Question 10					
Question 11					
Question 12					
Question 13					
Question 14					
Question 15					
Question 16					
Question 17					
Question 18					
Question 19					
Question 20					