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Research Article

Role of Nurses in Identifying Early Care Escalation Needs

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Abstract:

The registered nurse occupies a unique and indispensable position as the healthcare system's primary sentinel against patient deterioration. Through their constant presence at the bedside, nurses engage in continuous, holistic surveillance that transcends the intermittent collection of vital signs. This role leverages advanced clinical judgment, a skill honed by experience and education, to synthesize objective data with nuanced

Nursing Surveillance;
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subjective findings—such as subtle changes in behavior, patient-reported unease, or family concerns. This integration allows nurses to identify subtle deviations from a patient's established baseline, often recognizing the early, insidious signs of complications like sepsis, respiratory distress, or neurological decline long before they reach a critical threshold. Their hands-on, around-the-clock monitoring provides a dynamic and longitudinal view of the patient's condition, making them the most reliable detector of nascent crisis and the essential initiator of the escalation cascade. Upon identifying a potential risk, the nurse's role pivots from detection to action, encompassing structured communication, interprofessional collaboration, and steadfast advocacy. Utilizing frameworks like ISBAR (Identity, Situation, Background, Assessment, Recommendation), nurses translate their concerns into clear, actionable reports to physicians or rapid response teams, thereby bridging the gap between observation and intervention. This process requires both assertiveness to navigate clinical hierarchies and a deep-seated ethical commitment to patient safety. Ultimately, the nurse acts as the patient's guardian, coordinating the initial response and advocating relentlessly for the necessary level of care. Their pivotal function is therefore systemic, transforming individual vigilance into a robust organizational safety net that prevents failure-to-rescue events, improves outcomes, and safeguards patient lives.

1. Introduction

Patient deterioration, particularly in general ward settings, is frequently not a sudden event but a gradual process marked by subtle deviations in physiological and behavioral parameters. Studies consistently reveal that signs of deterioration are often present for hours before a catastrophic event such as cardiac arrest or irreversible organ damage [1]. The "failure to rescue" phenomenon, defined as the inability to save a hospitalized patient who experiences a complication, is heavily influenced by delays in detection and response. These delays can stem from system failures, cognitive biases, or breakdowns in communication. It is here that the nurse's unique position becomes paramount. Nurses constitute the largest segment of the healthcare workforce and are the providers with the most continuous, direct patient contact. This proximity affords them an intimate, longitudinal perspective on the patient's condition, enabling them to discern nuanced changes that might be missed during episodic physician rounds or intermittent monitoring.

The concept of "care escalation" refers to the process of recognizing a patient whose condition is deviating from the expected trajectory and initiating appropriate actions to secure a higher level of intervention or expertise. This process is multi-stage, beginning with detection, moving through reporting and response, and culminating in effective intervention. While the entire chain must be robust, the initial link—detection—is the most vulnerable and the most dependent on nursing expertise. Early escalation is not merely about activating a rapid response team (RRT) or Medical Emergency Team (MET); it encompasses a spectrum of actions, from consulting a senior nurse or charge nurse, to promptly informing the attending physician, to advocating for increased monitoring or a change in treatment plan. The nurse's judgment in determining the urgency and appropriate pathway for escalation is a critical filter that determines the efficiency of the entire system.

Historically, nursing assessment was often relegated to a task-oriented collection of vital signs. However, the evolution of nursing science and the paradigm of holistic care have established that nursing assessment is a sophisticated, dynamic, and analytical process. It involves the synthesis of objective data (e.g., vital signs, laboratory results) with subjective findings gathered through therapeutic communication, observation of patient behavior, family concerns, and an understanding of the patient's baseline. This holistic assessment is the bedrock upon which early identification is built. A number alone, such as a slightly elevated respiratory rate, gains clinical significance when the nurse correlates it with the patient's increased work of breathing, restlessness, and a family member's comment that "he just doesn't seem himself." This pattern recognition is a cognitive skill honed through experience and education.

Furthermore, the implementation of structured early warning score (EWS) systems, such as the National Early Warning Score (NEWS) or the Modified Early Warning Score (MEWS), has formalized and standardized aspects of the detection process [2]. These tools assign weighted scores to physiological parameters, providing an aggregate indicator of a patient's risk. However, these tools are not autonomous; their efficacy is entirely dependent on accurate and timely data collection by nurses, and crucially, on the nurse's clinical judgment to "override" the score when their holistic assessment suggests a concern that the numerical value does not capture. The tool is an aid to, not a replacement for, expert nursing judgment. In fact, an over-reliance on scoring systems without contextual

interpretation can lead to alarm fatigue or missed deterioration in patients whose early signs are behavioral rather than purely physiological.

The importance of this nursing function is underscored by a compelling body of evidence. Research has demonstrated that proactive surveillance by nurses and the use of rapid response systems led by nurses can significantly reduce rates of in-hospital cardiac arrests and mortality [3]. Conversely, analyses of sentinel events often reveal a common thread: missed nursing assessments or a lack of assertive communication of concerns. The cost of late escalation is measured not only in human tragedy but also in substantial financial burdens for healthcare systems due to prolonged hospital stays, complex ICU admissions, and the management of avoidable complications [4].

2. Clinical Judgment and Holistic Assessment in Nursing Surveillance

The ability to identify a patient at risk is rooted in the nurse's capacity for sound clinical judgment, a complex process that integrates knowledge, experience, intuition, and critical thinking. This is far more than a routine checklist; it is a dynamic, analytical reasoning process that allows the nurse to interpret patient data, understand its significance for a specific individual, and decide on a course of action. Benner's model, moving from novice to expert, aptly describes how this judgment evolves. The expert nurse, through years of situated learning, develops an almost intuitive grasp of clinical situations, recognizing patterns and subtle cues that may elude less experienced colleagues or automated systems [5- 9]. This expertise is fundamental to early detection, as the initial signs of deterioration are often vague and non-specific.

Holistic assessment is the primary mechanism through which nurses gather the data necessary for clinical judgment. This assessment is continuous, occurring with every patient interaction, and encompasses far more than the traditional "vital signs." A truly comprehensive nursing assessment includes a systematic evaluation of physiological, psychological, social, and environmental factors. The nurse assesses not just the blood pressure reading, but the patient's skin color, temperature, and capillary refill; not just the oxygen saturation percentage, but the effort of breathing, use of accessory muscles, and breath sounds; not just the Glasgow Coma Scale score, but the patient's level of anxiety, coherence of speech, and ability to maintain eye contact. This approach recognizes the patient as a biopsychosocial whole, where anxiety may exacerbate tachycardia, or pain may lead to hypertension and confusion, mimicking other causes of deterioration.A critical component of this assessment is the establishment of a patient-specific baseline. What is "normal" for one patient may be a sign of crisis for another. The nurse achieves this by reviewing the patient's history, engaging in therapeutic conversation, and actively involving the patient and family in defining their typical status. For instance, a chronic obstructive pulmonary disease (COPD) patient may have a baseline oxygen saturation of 88-92%, and a resting tachycardia of 100 beats per minute. For this patient, a "normal" oxygen saturation of 96% might be unachievable, while a drop to 84% or a new onset of agitation could be the critical early warning signs. The nurse's knowledge of this individual baseline is what allows them to identify clinically significant deviations that might otherwise be dismissed if compared to population-based norms [10].

The nurse's role also involves the astute monitoring and interpretation of trends. A single set of abnormal observations may be an anomaly; a trend showing a gradual increase in respiratory rate or a progressive drop in blood pressure over several hours is a powerful predictor of decline. Nurses, through their frequent contact, are uniquely positioned to capture these trends. They connect the dots between observations, linking a slight increase in temperature with a subtle decrease in urine output and a change in mentation, constructing a narrative of impending sepsis long before it meets formal diagnostic criteria. This synthesis of disparate data points into a coherent clinical picture is a core nursing skill that drives early escalation [11].

Finally, holistic assessment incorporates listening to the patient and, importantly, to their family. The statement, "I'm just not feeling right," or a family member's concern that "Mom is more sleepy than usual," should be treated as a vital sign. These subjective reports are often the first indicators of trouble. The nurse who cultivates a trusting relationship and actively listens to these concerns validates them as crucial clinical data. Dismissing "soft" findings in favor of "hard" numerical data is a common pitfall that can delay escalation. The expert nurse integrates both, understanding that the patient's and family's perceptions are integral to the holistic assessment and can trigger the decision to seek a higher level of review or intervention [12].

3. Structured Tools and Parameters: Enhancing, Not Replacing, Nursing Judgment

To support and standardize the surveillance process, healthcare institutions have widely adopted structured assessment tools and early warning

systems. The most prevalent of these are Early Warning Score (EWS) systems, such as the National Early Warning Score (NEWS2), which provide a standardized method for tracking physiological parameters and generating a score that corresponds to a risk level and a prescribed clinical response [2]. These tools typically aggregate points assigned to deviations in respiratory rate, oxygen saturation, temperature, blood pressure, heart rate, and level of consciousness. Their implementation has been a significant step forward in creating a common language for patient risk and reducing variability in assessment practices.

The nurse's role in relation to these tools is multifaceted and active. First, nurses are responsible for the accurate and timely collection of the raw data. The reliability of any EWS is entirely dependent on the precision of the measurements entered. This requires not only technical skill but also clinical discernment—for example, ensuring an oxygen saturation reading is not compromised by poor perfusion or nail polish, or that a respiratory rate is counted for a full minute in a resting patient, not estimated. Second, and more critically, nurses are responsible for interpreting the score within the full clinical context. A foundational principle of most EWS protocols is the mandate for "clinical concern." This means that if a nurse has a concern about a patient's condition, even if the aggregate score falls below the formal escalation threshold, they must still act upon that concern and escalate care. This clause formally acknowledges the supremacy of holistic nursing judgment over an algorithmic score.

This interaction between tool and clinician can sometimes lead to tension. Alarm fatigue is a genuine risk when numerous patients trigger low-level alerts, potentially desensitizing staff. Conversely, a patient with a borderline score but significant subjective complaints may be overlooked. The skilled nurse navigates this by using the EWS as a cognitive aid—a prompt for closer attention and a communication tool—rather than as an absolute arbiter of clinical urgency. For instance, a NEWS2 score of 3 might trigger a routine review, but if that score is driven by a new-onset confusion in an elderly post-operative patient, the nurse's assessment would rightly elevate the urgency, prompting immediate action for potential delirium or other complications [13].

Beyond aggregate scores, nurses are the frontline monitors of specific, high-risk parameters. For patients at risk of neurological decline, nurses perform meticulous neurological assessments, checking pupil reactivity, limb strength, and speech. For post-operative patients, they vigilantly monitor pain, surgical site integrity, and return of gastrointestinal function. For patients on complex medication regimes, such as insulin infusions or vasoactive drugs, nurses constantly titrate therapy based on precise physiological parameters. In each of these scenarios, the nurse is not just collecting data; they are analyzing it in real-time, making micro-adjustments, and deciding when the pattern warrants summoning additional expertise. The monitoring of trends in parameters like urine output, central venous pressure, or pain scores provides a continuous stream of data that feeds into the nurse's ongoing assessment and forms the basis for proactive escalation before a single parameter reaches a critical threshold [14].

4. The Critical Bridge: Communication, Collaboration, and Assertiveness

The most astute clinical assessment is rendered futile if it is not effectively communicated. Identifying an early care escalation need is only the first step; the nurse must then successfully bridge the gap between identification and response through clear, timely, and assertive communication. This step is often where the process fails, due to hierarchical structures, gender dynamics (as nursing remains a female-dominated profession), fear of being wrong, or simply poorly designed communication protocols. Therefore, the nurse's role as a communicator and collaborator is as vital as their role as a clinical detective.

Effective communication in this context requires structure and clarity. Tools like ISBAR (Identity, Situation, Background, Assessment, Recommendation) provide a proven framework for organizing information when calling a physician or activating a rapid response team [15]. Using ISBAR ensures that crucial information is conveyed logically and concisely: who the patient is, why the nurse is concerned, the relevant background, the current assessment findings, and what the nurse believes is needed. This reduces ambiguity and focuses the conversation on actionable data. For example, instead of saying, "Mr. Smith in bed 4 doesn't look good," an ISBAR report would be: "I am calling about Mr. Smith in room 402, a 68-year-old post-op day 1 from a colectomy. I'm concerned he is showing early signs of sepsis. His background includes type 2 diabetes. In the last two hours, his temperature has risen to 38.5°C, his heart rate has increased from 85 to 115, and he's become confused. His blood pressure is stable at 130/80 but his respiratory rate is 24. I've given him 2L of oxygen and his saturation is now 96%. I recommend you review him immediately and consider starting blood cultures and

antibiotics." This structured approach commands attention and facilitates a rapid, appropriate response.

Interprofessional collaboration is the cornerstone of the response phase. Early escalation often involves mobilizing a team—the charge nurse, the attending physician, a respiratory therapist, or a critical care outreach team. The nurse functions as the coordinator and central source of information for this nascent team. They must be able to articulate their findings, provide a succinct handover, and collaborate in the initial management while maintaining responsibility for their other patients. This requires strong interpersonal skills, professional respect, and a shared mental model of patient safety where all team members feel empowered to speak up. A culture of psychological safety, where a nurse feels comfortable expressing concern without fear of reprimand or ridicule, is essential for early escalation to occur consistently [16].

However, nurses frequently encounter barriers to assertive communication. The historical hierarchy between medicine and nursing can still create an environment where a nurse may hesitate to "bother" a physician, especially at night or if the signs are subtle. This is where the concept of graded assertiveness becomes crucial. Techniques like the "Two-Challenge Rule," where a concern is stated twice if initially ignored, or the use of "CUS" words ("I am **C**oncerned, I am **U**ncomfortable, this is a **S**afety issue"), provide nurses with verbal tools to escalate their communication in the face of resistance [17]. Ultimately, the nurse must be prepared to invoke chain-of-command policies if their professional judgment indicates a patient is at risk and their concerns are not being addressed. This advocacy is a fundamental ethical duty of the nursing profession, placing the patient's welfare above all other considerations.

5. Leadership, Advocacy, and the Systems Context

The nurse's role in early escalation extends beyond the individual patient interaction into the realms of leadership and systems advocacy. Staff nurses demonstrate clinical leadership at the point of care by making decisions, mobilizing resources, and directing other care team members during the initial response to a deteriorating patient. The charge nurse or clinical nurse specialist plays a pivotal role in creating an environment where early escalation is the norm. They do this by mentoring novice nurses, supporting staff who have escalated care, conducting post-event debriefings to improve processes, and modeling assertive communication. Their leadership helps to build a unit culture that values vigilance and proactive intervention over passive observation [18].

Nurse advocacy in this context is multifaceted. At the patient level, it is advocating for the patient's need for a higher level of care or expert review. At the team level, it may involve advocating for adequate staffing ratios and skill mix, as there is clear evidence that nurse understaffing is correlated with increased failure-to-rescue rates and missed care, including surveillance activities [19]. A nurse who is responsible for too many patients cannot possibly perform the frequent, in-depth assessments necessary to detect subtle early changes. Therefore, advocating for safe staffing is inherently linked to the ability to perform this core safety function.

Furthermore, nurses are uniquely positioned to identify and advocate for improvements in system-level processes that facilitate early escalation. They can provide frontline feedback on the usability of EWS charts, the functionality of communication devices, and the effectiveness of rapid response systems. They can participate in quality improvement projects aimed at reducing response times, improving documentation, or refining escalation protocols. By collecting and presenting data on "near-miss" events or delays in care, nurse leaders can drive meaningful changes in hospital policy and infrastructure. For instance, nurse-led initiatives have been instrumental in implementing changes such as dedicated emergency call numbers, standardized response teams, and improved monitoring equipment on general wards [20].

The systems context also includes the physical and technological environment. Nurses advocate for and utilize tools that enhance surveillance, such as continuous pulse oximetry or telemetry for at-risk patients, and electronic health records (EHRs) that automatically calculate EWS and flag abnormalities. However, they must also be vigilant against the pitfalls of technology, such as alarm fatigue from multiple devices or EHR interfaces that hinder rather than help clinical workflow. The nurse's role is to be a critical end-user, providing essential feedback to ensure that technological systems are designed to support, not supplant, clinical judgment and to streamline, not complicate, the escalation process.

6. Education, Competence, and Sustaining Excellence

The ability to consistently identify early signs of deterioration is not an innate skill; it is a complex competency that must be cultivated through robust education, ongoing training, and the systematic maintenance of clinical competence. Pre-licensure

nursing education must move beyond teaching vital signs as isolated tasks and instead embed the concepts of holistic assessment, clinical reasoning, and situation awareness throughout the curriculum. Students need to learn how to "connect the dots" between pathophysiology, pharmacology, and physical assessment to anticipate and recognize complications [21].

For practicing nurses, continuous professional development is non-negotiable. Regular training in acute care skills—such as advanced cardiovascular life support (ACLS), neurological assessment, and sepsis recognition—is essential. However, knowledge alone is insufficient. High-fidelity simulation training has emerged as a gold standard for developing and maintaining the crisis resource management skills required for early escalation. Simulation scenarios that replicate the deteriorating patient on a medical-surgical ward allow nurses to practice the entire sequence in a safe environment: from initial assessment and pattern recognition, through structured communication using ISBAR, to team mobilization and initial intervention [22]. These simulations build not only technical skills but also the confidence and assertiveness needed to act decisively in real situations.

Competence is also sustained through reflective practice and mentorship. Post-event debriefings, whether after a rapid response call or a sentinel event, are powerful learning tools. A non-punitive debrief focused on systems and processes, rather than individual blame, allows the team to analyze what worked well and where breakdowns occurred. Senior nurses mentoring junior colleagues by shadowing them, discussing assessment findings, and role-modeling communication with physicians are invaluable for transferring the tacit knowledge of expert practice. Furthermore, certification in specialized areas like critical care, medical-surgical, or progressive care nursing signifies a nurse's commitment to and achievement of a higher standard of knowledge directly applicable to monitoring and managing at-risk patients [23].

Healthcare organizations have a responsibility to invest in this education and to create a culture of learning. This includes providing protected time for training, funding certification, and ensuring access to simulation resources. Competency must be regularly assessed and documented. By prioritizing the development of this specific nursing competency, institutions directly invest in their patient safety infrastructure, as a highly skilled and confident nursing workforce is the most effective early warning system available.

7. Technology and the Future of Nursing Surveillance

Technology is rapidly transforming the landscape of patient monitoring and holds significant promise for augmenting the nurse's role in early identification. Advanced monitoring systems now go beyond intermittent spot checks to provide continuous, non-invasive streams of data. Wireless wearable devices can track vital signs like heart rate, respiratory rate, and oxygen saturation continuously, transmitting data to central stations or the EHR. "Smart" beds can monitor patient movement, heart rate, and respiratory effort through embedded sensors. These technologies offer the potential to detect deviations the moment they occur, even when a nurse is not in the room, and to establish highly personalized baselines for individual patients [24].

The integration of artificial intelligence (AI) and machine learning (ML) into clinical decision support systems represents a frontier with profound implications. Algorithms can be trained on vast datasets to identify complex, multivariate patterns predictive of deterioration—patterns that may be too subtle for humans to discern reliably. An AI system could analyze continuous vital sign data, laboratory trends, medication administration records, and even nursing note text to generate a real-time risk score for conditions like sepsis, respiratory failure, or clinical deterioration in general. For the nurse, such a system could act as a powerful "second opinion," flagging at-risk patients for intensified assessment [25].

However, the integration of these technologies into nursing practice requires careful navigation. The risk of alarm fatigue is magnified with continuous monitoring; intelligent, tiered alarm systems that filter out artifacts and prioritize genuine alerts are essential. More fundamentally, there is a danger that over-reliance on technology could lead to the de-skilling of nurses or the erosion of holistic assessment. If a nurse begins to trust the algorithm over their own senses and intuition, they may miss the contextual, behavioral cues that technology cannot capture. The nurse's role will evolve to become that of an interpreter and integrator—synthesizing the output of intelligent systems with their own direct observations and human interactions to form a complete clinical picture [26].

The future will likely see the nurse as the central hub of a technology-augmented surveillance network. They will manage alerts, validate machine-generated concerns with hands-on assessment, and use the extra time afforded by automated monitoring to focus on complex patient and family interactions. Technology will not replace the nurse but will instead elevate their practice, freeing them from purely mechanical data

collection and enabling them to focus on higher-order analysis, decision-making, and compassionate care. The core nursing skills of judgment, communication, and advocacy will become more, not less, important in this technologically advanced environment.

8. Ethical and Professional Imperatives

The duty to identify and act upon early care escalation needs is deeply rooted in the ethical and professional foundations of nursing. The primary ethical principles of beneficence (doing good) and non-maleficence (avoiding harm) create a positive obligation for nurses to vigilantly monitor patients and take action to prevent foreseeable harm. This aligns perfectly with the nursing profession's core commitment to patient advocacy. When a nurse recognizes a subtle change and escalates care, they are advocating for the patient's right to timely and appropriate treatment, thereby safeguarding their well-being [27].

This role also carries significant professional responsibility and accountability. Nursing practice acts and professional standards worldwide explicitly include components related to assessment, monitoring, and appropriate reporting. A failure to adequately assess a patient or to communicate significant findings can be considered a breach of professional standards and, in cases where harm results, may lead to legal liability for negligence. This legal and professional accountability underscores the seriousness of this function. It is not a discretionary part of the job but a mandatory standard of care [28].Navigating ethical dilemmas is also part of this terrain. A nurse may face situations where a patient or family refuses escalation of care (e.g., a "Do Not Resuscitate" order that is misinterpreted as "do not treat"). In such cases, the nurse has an ethical duty to ensure the patient's wishes are informed and accurately documented, while also clarifying that comfort care does not negate the need for vigilant monitoring and appropriate interventions for symptoms like pain or dyspnea. Similarly, nurses may encounter conflicts when resource constraints, such as ICU bed shortages, create pressure not to escalate. In these instances, the nurse must remain the patient's advocate, ensuring that triage decisions are made transparently and ethically, and that the patient continues to receive the best possible care within the available resources [29].

Ultimately, the work of surveillance and early identification carries a psychological weight. Nurses who are constantly vigilant for signs of deterioration, who bear the responsibility of initiating emergency responses, and who sometimes witness poor outcomes despite their best efforts, are at risk for moral distress and burnout. Healthcare systems must acknowledge this burden and provide adequate support through mechanisms like peer support programs, counseling services, and healthy work cultures that recognize and value this critical, often stressful, aspect of nursing work [30].

9. Conclusion

In conclusion, the nurse's role in identifying early care escalation needs is a complex, multifaceted, and indispensable component of modern healthcare safety and quality. It is a role that synthesizes deep clinical knowledge with intuitive pattern recognition, anchored in a holistic, patient-centered approach to assessment. Nurses serve as the primary surveillants, using both structured tools and their own expert judgment to detect the earliest whispers of patient decline. This detection is only the beginning; they must then act as skilled communicators and collaborators, bridging professional hierarchies with assertiveness and structured tools like ISBAR to ensure their concerns trigger an effective response.

Furthermore, this role extends into leadership and advocacy, where nurses work to shape unit culture, influence systems, and champion safe staffing and effective protocols. Maintaining excellence in this domain requires a steadfast commitment to education, simulation, and reflective practice. As technology advances with continuous monitoring and artificial intelligence, the nurse's role will evolve to become the essential human integrator of data, the contextual interpreter who ensures technology serves rather than dictates clinical care. Underpinning all of this is a profound ethical and professional imperative to protect patients from harm.The evidence is unequivocal: empowered, educated, and supported nurses are the most effective early warning system. Their constant presence at the bedside, their skilled eyes and ears, and their unwavering advocacy form the strongest defense against failure-to-rescue. Investing in nursing education, fostering a culture of psychological safety, and designing systems that empower nursing judgment are not merely operational improvements; they are foundational strategies for saving lives. The nurse, truly, is the sentinel at the bedside, whose vigilance is the first and most crucial link in the chain of survival for the deteriorating patient.

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References

1. Thursky K, Lingaratnam S, Jayarajan J, et al. Implementation of a whole of hospital sepsis clinical pathway in a cancer hospital: impact on sepsis management, outcomes and costs. BMJ Open Qual . 2018;7:e000355.
2. Tedesco ER, Whiteman K, Heuston M, et al. Interprofessional Collaboration to Improve Sepsis Care and Survival Within a Tertiary Care Emergency Department. J Emerg Nurs. 2017;43:532–8.
3. Boussina A, Shashikumar SP, Malhotra A, et al. Impact of a deep learning sepsis prediction model on quality of care and survival. NPJ Digit Med. 2024;7:14.
4. Mak S, Thomas A. Steps for Conducting a Scoping Review. J Grad Med Educ. 2022;14:565–7.
5. Jacobs JL. Implementation of an Evidence-Based, Nurse-Driven Sepsis Protocol to Reduce Acute Care Transfer Readmissions in the Inpatient Rehabilitation Facility Setting. Rehabil Nurs. 2020;45:57–70.
6. Westphal GA, Pereira AB, Fachin SM, et al. An electronic warning system helps reduce the time to diagnosis of sepsis. Rev Bras Ter Intensiva. 2018;30:414–22.
7. Evans L, Rhodes A, Alhazzani W, et al. Surviving sepsis campaign: international guidelines for management of sepsis and septic shock 2021. Intensive Care Med. 2021;47:1181–247.
8. Benson L, Hasenau S, O'Connor N, et al. The impact of a nurse practitioner rapid response team on systemic inflammatory response syndrome outcomes. Dimens Crit Care Nurs. 2014;33:108–15.
9. Brusco NK, Sykes K, Cheng AC, et al. A state-wide implementation of a whole of hospital sepsis pathway with a mortality based cost-effectiveness analysis from a healthcare sector perspective. PLOS Glob Public Health. 2023;3:e0000687.
10. Burkey J, Wood S, Hermon A, et al. Improving outcome of sepsis on the ward: introducing the "Sepsis Six" bundle. Nurs Crit Care. 2019;24:33–9.
11. Cull J, Brevetta R, Gerac J, et al. Epic Sepsis Model Inpatient Predictive Analytic Tool: A Validation Study. Critical Care Explorations. 2023;5:e0941.
12. Lopez-Bushneil K, Demaray WS, Jaco C. Reducing sepsis mortality. Medsurg Nurs. 2014;23:9–14.
13. Presseau J, McCleary N, Lorencatto F, et al. Action, actor, context, target, time (AACTT): a framework for specifying behaviour. Implement Sci. 2019;14:102.
14. Roney JK, Whitley BE, Long JD. Implementation of a MEWS-Sepsis screening tool: Transformational outcomes of a nurse-led evidence-based practice project. Nurs Forum. 2020;55:144–8.
15. Campaign SS. History of the suviving sepsis campaign: the society of critical care medicine. [24-Mar-2025]. Available.
16. Taj M, Kassamali SA, Khan Jiwani B, et al. Outcomes of evidence-based modified sepsis protocol in an emergency department in Tanzania. Int Emerg Nurs. 2022;64:101197.
17. Singer M, Deutschman CS, Seymour CW, et al. The Third International Consensus Definitions for Sepsis and Septic Shock (Sepsis-3) JAMA. 2016;315:801–10.
18. Cranston T, Thompson K, Bowles KH. The Role and Initiatives Led by the Sepsis Coordinator to Improve Sepsis Bundle Compliance and Care Across the Continuum. Crit Care Nurs Clin North Am. 2023;35:413–24.
19. Moxham L, McMahon-Parkes K. An evaluation of the impact of advanced nurse practitioner triage and clinical intervention for medically expected patients referred to an acute National Health Service hospital. J Clin Nurs. 2020;29:3679–86.
20. Biederman S, Batheja A, Bednar S, et al. Toward Standardization and High Reliability: Improved Sepsis Screening in Emergency Department Triage Across an Academic Health System. Jt Comm J Qual Patient Saf. 2024;50:809–16.
21. Organisation WH Strengthening the nursing and midwifery agenda globally. 2025
22. Covidence . Covidence. Melbourne, Australia: Veritas Health Innovation; 2025. Available.
23. Arksey H, O'Malley L. Scoping studies: towards a methodological framework. Int J Soc Res Methodol. 2005;8:19–32.
24. Torsvik M, Gustad LT, Mehl A, et al. Early identification of sepsis in hospital inpatients by ward nurses increases 30-day survival. Crit Care. 2016;20:244.
25. Powell ES, Bond WF, Barker LT, et al. In Situ Simulation for Adoption of New Technology to Improve Sepsis Care in Rural Emergency Departments. J Patient Saf. 2022;18:302–9.
26. Levy MM, Evans LE, Rhodes A. The Surviving Sepsis Campaign Bundle: 2018 update. Intensive Care Med. 2018;44:925–8.

27. Group P Preferred reporting items for systematic reviews and meta-analyses extension for scoping reviews (PRISMA-ScR) checklist. 2018
28. Judd WR, Stephens DM, Kennedy CA. Clinical and economic impact of a quality improvement initiative to enhance early recognition and treatment of sepsis. Ann Pharmacother. 2014;48:1269–75.
29. Bruce HR, Maiden J, Fedullo PF, et al. Impact of nurse-initiated ED sepsis protocol on compliance with sepsis bundles, time to initial antibiotic administration, and in-hospital mortality. J Emerg Nurs. 2015;41:130–7.
30. Stellpflug C, Pierson L, Roloff D, et al. Continuous Physiological Monitoring Improves Patient Outcomes. Am J Nurs. 2021;121:40–6.