

Early Recognition of Sepsis-Induced Hypotension in DSU

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Background

- Sepsis, a clinical syndrome of dysregulated host response to infection leading to life-threatening organ dysfunction, is a leading cause of global morbidity and mortality
- Contributes to an estimated 30-50% of inpatients deaths in the United States
- It is further estimated that 80% of all sepsis deaths could have been prevented with earlier diagnosis and initiation of medical treatments
- A retrospective analysis of patients with sepsis and septic shock demonstrated an association of improved mortality if fluid was given in the first 3 hours, rather than later

Purpose

The aim of this project is to achieve sepsis-induced hypotension resolution within three hours through improved nursing knowledge and early recognition of sepsis

Methods

- Education was provided to staff regarding sepsis pathophysiology, early recognition, and prompt treatment
- Nurses utilized existing tools: Sepsis Early Detection and Treatment Algorithm, SJO Severe Sepsis Hypotension & Septic Shock CODE SEPSIS: NICOM Passive Leg Raise (PLR) Fluid Resuscitation Pathways Algorithm, and the Noninvasive Cardiac Output Monitoring (NICOM) device

Results

- Pre- and post-education surveys demonstrated improved nursing knowledge: 56% Pre-Education | 97% Post-Education
- Results demonstrate improvement from December 2023 to June 2024, 49% of patients identified with sepsis-induced hypotension achieved resolution within three hours versus 32% from December 2022 to June 2023

Discussion

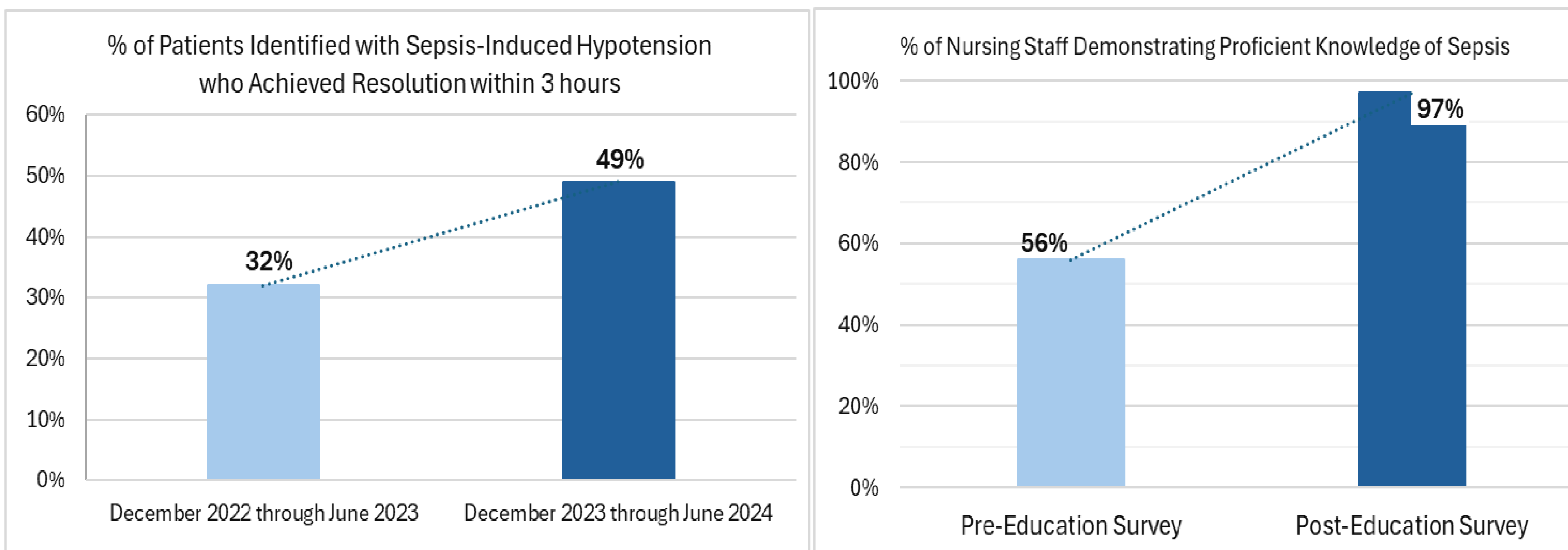
- Education was provided to DSU nurses during a mandatory annual session. This included sepsis early recognition and prompt treatment
- Essential to include contract RNs in ongoing education
- Delays in the resolution of sepsis-induced hypotension were related to multiple comorbidities & change in acuity requiring higher level of care

Implications for Practice

- Staff education can impact the time in which sepsis-induced hypotension can be resolved
- Ongoing education can identify deficits in practice
- Prompt treatment produced resolution of sepsis-induced hypotension within three hours

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References available upon request.