

PROJECT TITLE: It Takes a Village: Reducing Sepsis Mortality through Early Sepsis Screening in the Community

AUTHOR: Catherine Druce-Smith, RN

HOSPITAL: Harrison Medical Center, Bremerton, WA

The Problem:

Sepsis is the 10th leading cause of death in patients age 65 and older. In April 2016 during review of sepsis mortality cases at Harrison Medical Center, it was noted that 60% of these patients came from skilled nursing facilities (SNF). We recognized an opportunity to reduce sepsis mortality in patients admitted from SNFs by implementing community sepsis education.

Project Goals:

Our goal was to reduce Sepsis Mortality by 10% in 6 months by implementing community sepsis education. Teaching Early Sepsis Screening to SNF Care Team members and Emergency Medical Services (EMS) personnel in Kitsap County would result in earlier recognition of SNF patients with possible sepsis, priority transportation to the hospital, and potential reduction in mortality.

Actions Taken:

Key stakeholders were identified to support Early Sepsis Screening in Kitsap County, both in the community and at Harrison. These stakeholders included Emergency Department Educators, SNF administrators, SNF care team members (RNs and CNAs) and local EMS providers.

1. Sepsis Education Day, held by Harrison Educators and the Sound Hospitalist Chief, was provided at no cost for SNF Care Team Members and EMS personnel on June 16, 2016. The focus was on sepsis as a time-sensitive diagnosis.
2. Education included a Power Point presentation on sepsis, focusing on early signs of sepsis, and instruction on how to use a Sepsis Screening Tool; this tool was also taught to ER intake staff at Harrison Hospital.

Results:

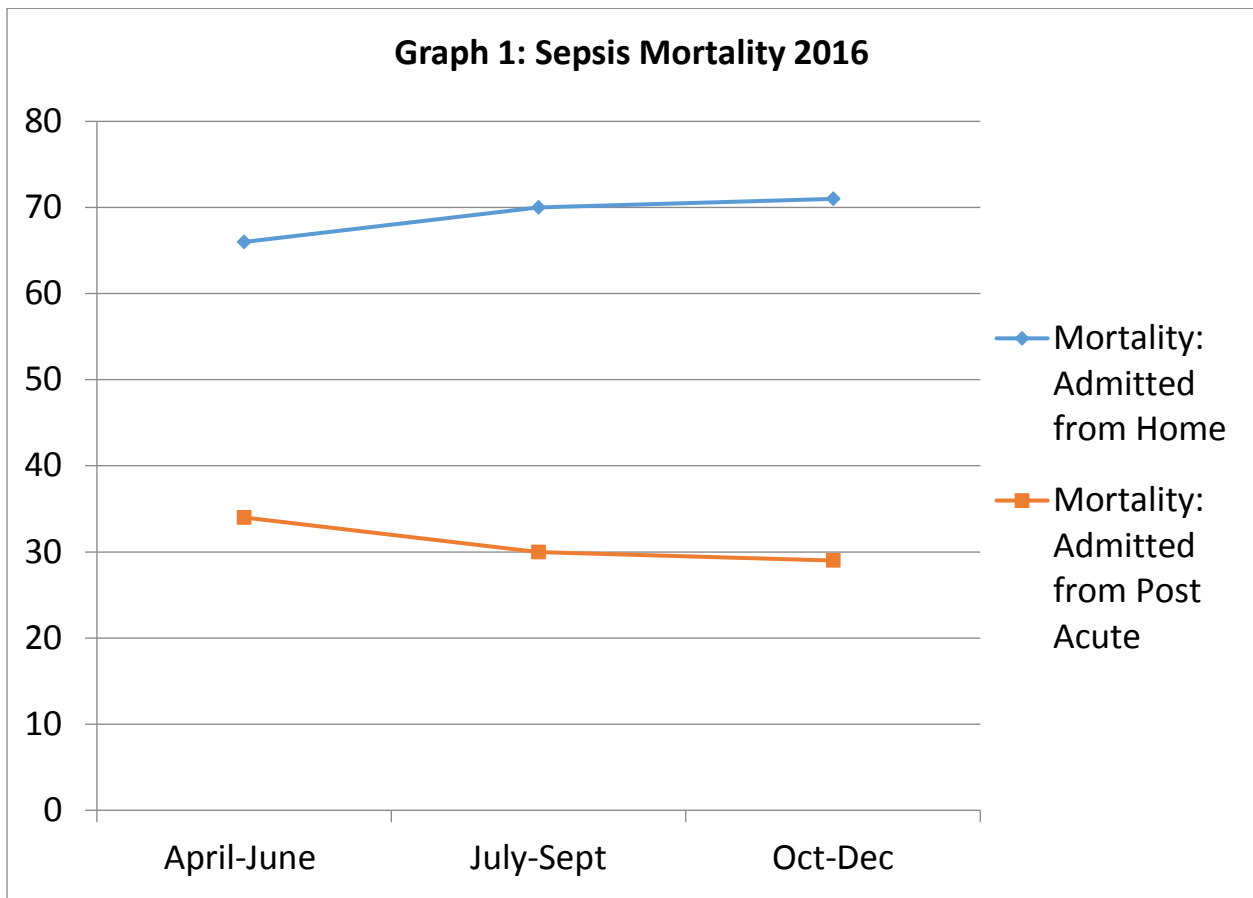
- In the six months following targeted Sepsis Education for SNF and EMS personnel, we saw a 5% reduction in sepsis mortality in SNF patients admitted to Harrison Medical Center (*See Graphs 1 and 2*)
- A Sepsis Screening Tracking Tool was implemented in all local SNFs to assist the care team at each facility, and a copy came with each patient when transferred to Harrison ER

Lessons Learned:

- This was the first time sepsis education was provided to EMS and SNF care team members, and not everyone received the training during the Sepsis Education Day on June 16, 2016
- We expect decrease in knowledge over time and have planned a second education day, which will also include Assisted Living and Adult Family Homes in Kitsap County, as we recognized many patients originate from these sites of care upon admission to Harrison with a diagnosis of sepsis
- SNFs can wait up to 2 hours for a lab draw by an off-site provider, and can wait up to 8 hours for a lactic acid result.
- As overall mortality in the SNF patient population was 30%, this clearly identified the need for Advanced Care Planning (ACP) in this patient population. (*See Table 1*)

Future Plans:

- Harrison Hospital Lab Services has agreed to provide rapid lactate measurements to local SNFs
- SNF nurses will be trained on how to draw blood, to include lactate, CBC and blood cultures, to reduce turn-around time for this vital information
- Education on recognizing early sepsis will be provided for local adult family homes, group homes and “non-medical” team members at SNFs such as housekeepers, who often interact with residents more frequently than primary care team members.
- This education can easily be replicated across the organization and demonstrates our core value of partnering with the communities we serve.
- We will continue to track sepsis mortality in SNF patients admitted to Harrison Hospital, and hope to see further reduction in mortality rates with ongoing education and emphasis on sepsis as a time-sensitive diagnosis.
- Additional education is planned for the community (urgent care centers and PCP offices, including education about the Sepsis Screening Tool), as mortality in patients presenting from home was over 2 times higher in this patient population.



Graph 2: Mortality Results Following Sepsis Education

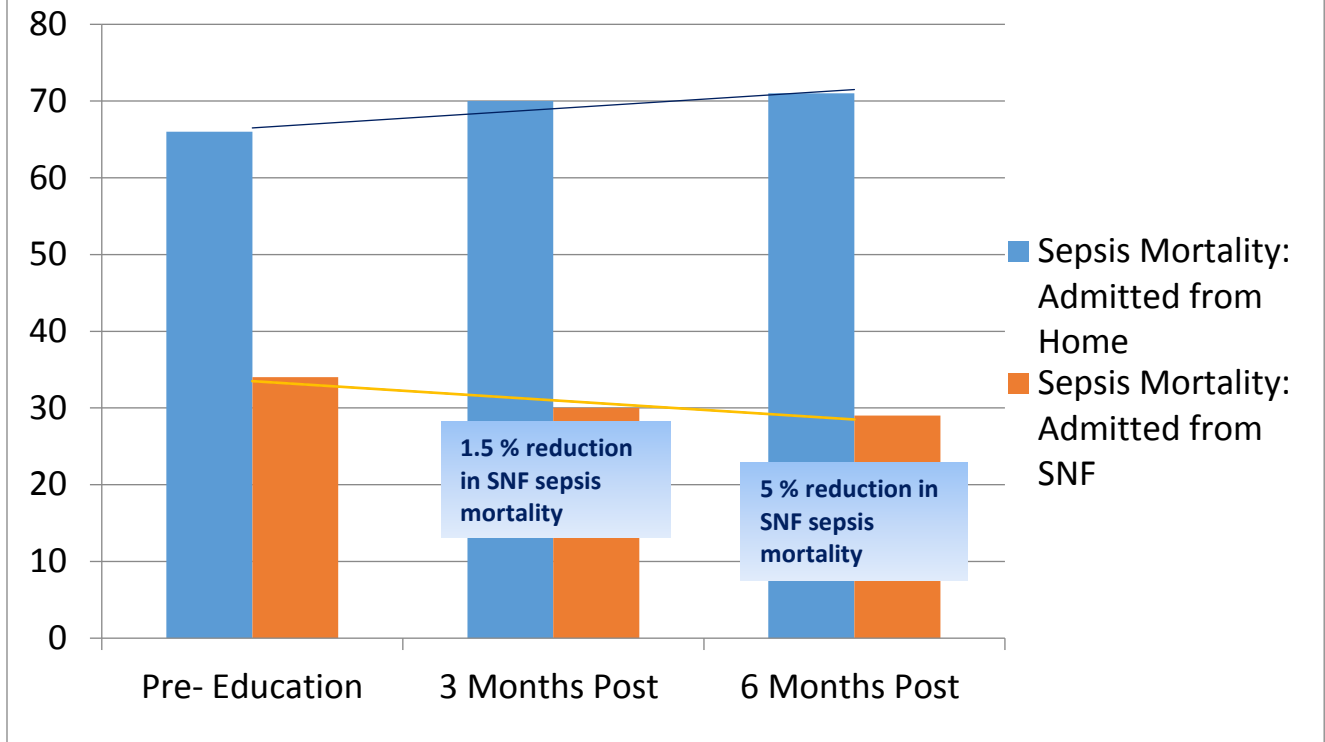


Table 1: Sepsis Mortality Patients April 2016-December 2016

Quarter	Total Sepsis Patients	Total Sepsis Mortality	Sepsis Mortality: Admit from Home	Sepsis Mortality: Admit from SNF
Q2	285	38 (13.3%)	25 (66%)	13 (34%)
Q3	330	47 (14.2%)	33 (70%)	14 (30%)
Q4	386	58 (15%)	41 (71%)	17 (29%)
Total	1001	143 (14.3%)	99 (69%)	44 (31%)