

CONFERENCE ABSTRACT

Pathway Granularity and solutions to Barriers to Sepsis diagnosis and treatment on a Surgical Ward

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Background: “Sepsis is a life threatening condition that arises when the body’s response to an infection injures its own tissues and organs. Sepsis leads to shock, multiple organ failure and death especially if not recognised early and treated promptly. Sepsis remains the primary cause of death from infection despite advances in modern medicine, including vaccines, antibiotics and acute care. Millions of people die of sepsis every year worldwide.”

(Merinoff Symposium - Czura, 2011)

Staff on this busy 35 bedded surgical ward acknowledged that they had concerns with patients deteriorating due to sepsis and the processes around the current management of this cohort of patients. The staff on this ward recognized that the number of patients deteriorating needing escalation of care that were managed at ward level due to lack of intensive care bed capacity had increased.

Methods: We commenced with a baseline audit of 8 patient charts from November 2015 which identified that the response time by a doctor once contacted by ward staff to review a patient deteriorating from sepsis was 53 minutes. Other methods we used during our project were brainstorming workshops, process mapping of current state and open discussion around what could benefit patient outcomes. Using the model for improvement Plan, Do Study, Act (PDSA), the ideas identified were tested to identify workable solutions that would promote and change the culture around sepsis management. Our project consisted of a three tiered intervention:

Education sessions for multidisciplinary staff

Introduction of a dedicated trolley for sepsis management

Process pathway improvement for biochemistry samples

This involved multiple PDSA cycles within each of the above areas.

Results: After a five month intervention period working with the team a further 25 charts were audited. The results identified the doctor's response time to review the patient had decreased from 53 minutes to 30.91 minutes.

Discussion: Financial and business planning will hopefully allow us to expand this project across all surgical specialties. This model is transferable to other hospitals.

Financial Implication: Currently in the acute hospital setting there is a bed capacity crisis with an increasing demand for Intensive Care / High dependency beds. The national average length of stay for patients with severe sepsis is 26 days. The hospital cost per 24 hours for a bed on ward X is €1316 and an Intensive Care Bed is €1722. The daily demands from waiting lists, patient flow and budget constraints optimizing patient centered care and outcomes is vital.

Conclusions: Our project has proved successful in improving the prompt management of the patient with sepsis. It has allowed interdisciplinary staff to come together with a common problem and agree a mutual goal. It has empowered staff to engage in their own quality improvement process, generate their ideas, and initiate tests of change to develop workable solutions.

Keywords: quality improvement; multidisciplinary; measurement; process mapping; pdsa
