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NHS
Southport and Ormskirk Hospital
NHS Trust

IMPROVING CARE FOR PATIENTS WITH SEPSIS IN AN ACUTE TRUST

Sepsis is a life-threatening condition which has in recent years become a high priority for healthcare providers. Early recognition and prompt management of sepsis can improve outcomes for patients, reducing the risk of mortality and morbidity. This could potentially **save 14,000 lives and result in 400,000 fewer days in hospital for patients every year, according to estimates by the Sepsis Trust.**

BACKGROUND

Southport and Ormskirk Hospital NHS Trust provides acute hospital services to 258,000 people across Southport, Formby and West Lancashire. Acute care is provided at Southport and Formby District General Hospital and Ormskirk and District General Hospital. Sepsis accounts for around 1,200 acute admissions to the trust each year.

The Advancing Quality (AQ) sepsis programme offers a structured approach to embedding evidence-based care to improve consistency in the diagnosis and treatment of sepsis and deliver improved clinical outcomes and patient experience. Care delivery is assessed using a standardised measure set which also supports national sepsis reporting. Southport and Ormskirk Hospital NHS Trust are using the AQ sepsis bundle to monitor care delivery after implementing improvement initiatives.

AIMS

Southport and Ormskirk Hospital NHS Trust wanted to improve the recognition and treatment of sepsis across the organisation, using the Advancing Quality's sepsis measure set as an improvement framework. Specific aims were

- Standardisation of the treatment of sepsis for all patients acutely admitted to hospital
- Improving care delivery in line with best practice, as defined by AQ measures aligned to national guidelines
- Reduce mortality related to sepsis.

AQ SEPSIS PROGRAMME MEASURES

- National Early Warning Score (NEWS2) recorded within 1 hour of hospital arrival
- Blood cultures taken within 1 hour of sepsis diagnosis
- Antibiotics administered within 1 hour of sepsis diagnosis
- Serum lactate taken within 1 hour of sepsis diagnosis
- IV fluids commenced within 1 hour of sepsis diagnosis
- Senior review or assessment by Critical Care within 2 hours of sepsis diagnosis

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ACTION ONE: LEADERSHIP

The trust appointed an Associate Medical Director for Patient Safety who has provided senior leadership for this programme of work, taking responsibility for the delivery of improvement initiatives and engaging clinicians.

Dedicated safety nurses have been introduced within the Emergency Department to provide additional support for the care of critically ill patients. The trust have also tested and implemented a nominated 'Sepsis Doctor' for each shift, identified by a red lanyard, to ensure clear management plans are in place for patients identified as having sepsis.

ACTION TWO: PATHWAY REDESIGN

The sepsis pathway was redesigned with the expertise, input and ownership of clinicians from all specialties to ensure it supported the management of varied patient cohorts, as well as reflecting national guidance. The introduction of a critical care outreach service in 2019 has supported the embedding of the new pathway across the organisation and prioritised the care of the deteriorating patient.

As part of the pathway redesign, the trust also reviewed frontline processes and tried several change initiatives. One successful initiative was to introduce a syringe bolus strategy to deliver the initial dose of antibiotics for sepsis patients, to support timely administration within the one hour target, in accordance with the AQ measures.

ACTION THREE: USE OF DATA

The trust established regular reporting of their AQ sepsis data and quarterly mortality figures to the trust board so issues can be escalated at a senior level to drive improvement initiatives and a reduction in mortality.

ACTION FOUR: COMMUNICATION

The trust trialled and subsequently implemented the use of sepsis stickers in case notes to ensure the sepsis care pathway is instigated and all staff involved in the patient's care are aware of the patients' status.

The trust also worked with the North West Ambulance Service to pilot pre-alerts for patients coming into hospital with suspected sepsis, to allow assessment and treatment to begin as soon as possible after arrival.

RESULTS

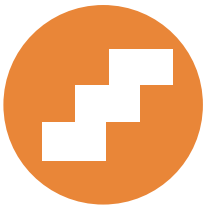
The trust achieved the agreed target for the AQ measures in 2019. Almost all patients had a NEWS2 recorded within an hour of arrival, showing that this has been successfully embedded in the trust. Around 85% of patients received antibiotics and intravenous fluids within one hour of diagnosed or suspected sepsis, and over 70% had blood cultures and serum lactate tests taken. In-hospital sepsis mortality decreased during 2019, dropping below the average for providers participating in the AQ programme.

The requirement for AQ data collection was suspended as a result of Covid-19 for the first four months of 2020, however the Trust continued to submit data to monitor progress against the sepsis measures. All processes across the Trust were affected by the pandemic throughout the year, but despite this, all patients have had a NEWS2 recorded within an hour of arrival, and around 80% of patients received antibiotics within an hour of diagnosed or suspected sepsis.

LEARNING

- Strong leadership at a senior level and a collaborative approach across teams has helped to drive and sustain improvement.
- A willingness to test and implement innovative ideas and new ways of working has led to sustained improvement in some areas of sepsis care.
- Systematic use of data for the AQ sepsis measures has helped demonstrate the effectiveness of changes in care.

NEXT STEPS



- The trust will continue to use AQ data to monitor care delivery and patient outcomes to identify improvement opportunities and monitor the effectiveness of change initiatives.
- Work needs to continue to ensure the care pathway is fully embedded, despite staff changes and seasonal fluctuations, and that all aspects of the initial sepsis care bundle are delivered in tandem to maximise the benefits to patients.

FURTHER INFORMATION

This case study has been produced by the Advancing Quality Alliance in conjunction with Southport & Ormskirk Hospital NHS Trust.

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