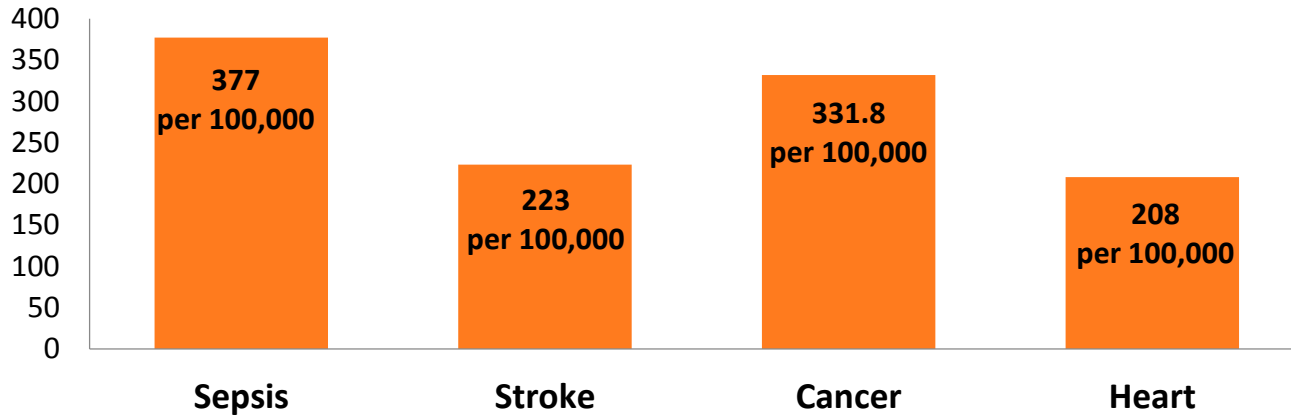


Survive Sepsis improvement Collaborative



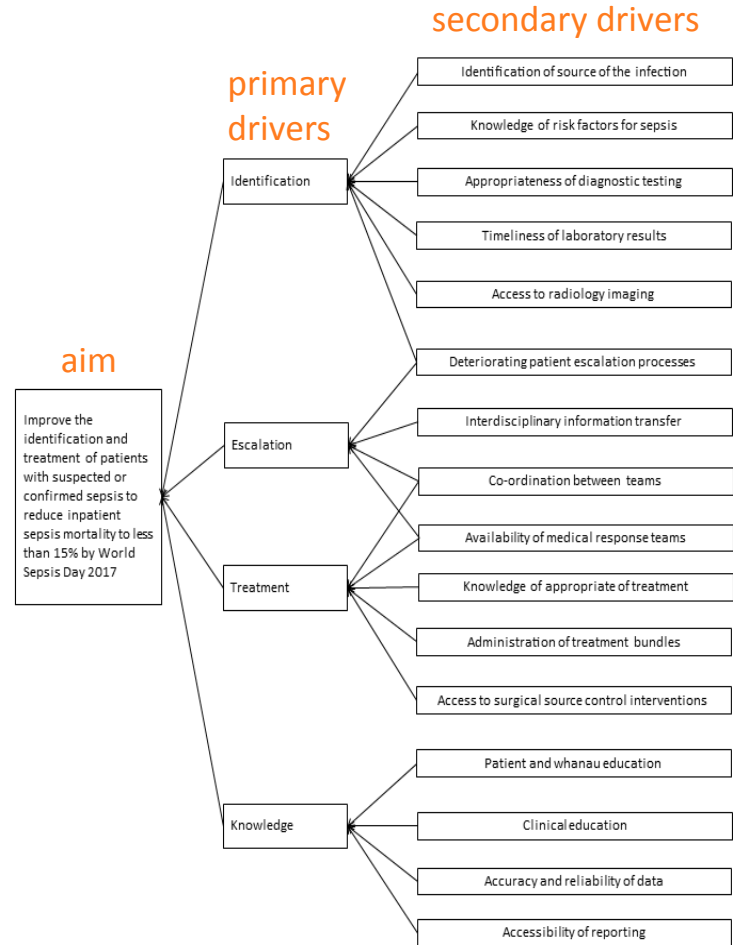
Kelly Bohot @kellybohot08, kelly.bohot@waitematadhb.govt.nz
Quality improvement scientific symposium – Auckland – 2017

“sepsis is defined as life-threatening time critical organ dysfunction caused by a dysregulated host response to infection”

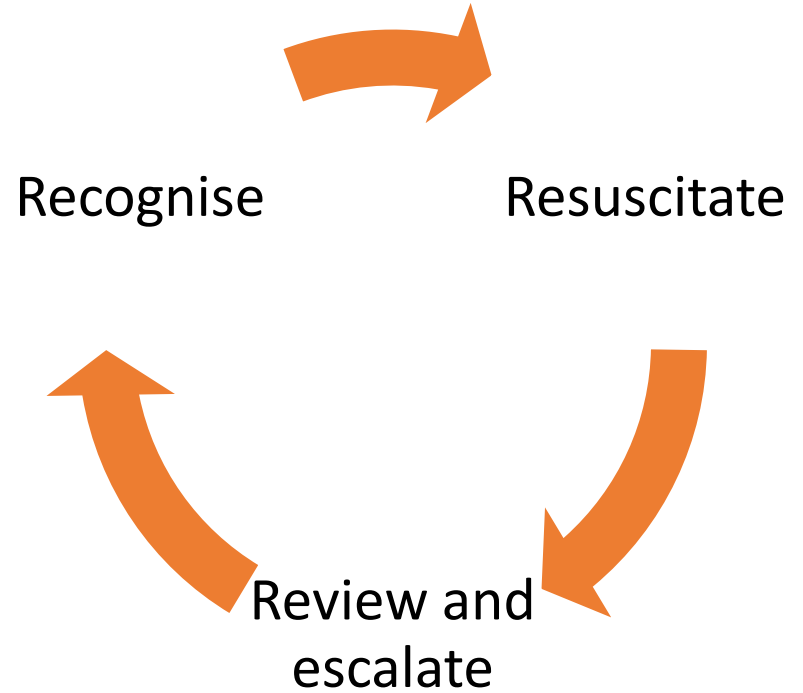


opportunity

Aim: improve identification and treatment of patients with suspected or confirmed sepsis to reduce inpatient sepsis mortality to less than 15% by World Sepsis Day 2017



project overview



best practice guidelines

Adult Inpatient Suspected Sepsis Guidelines

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Overview

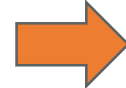
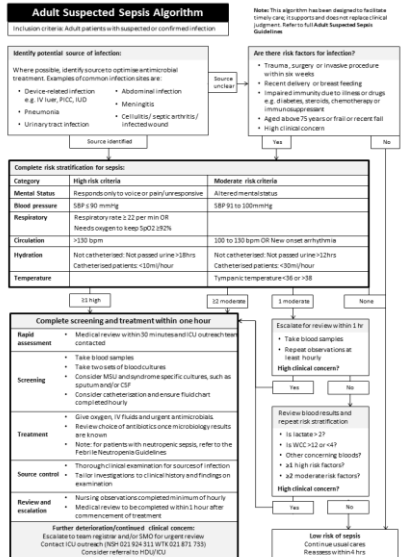
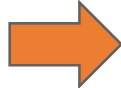
Purpose
The purpose of this document is to provide guidance to clinicians relating to the identification and treatment of adult patients with suspected or confirmed sepsis. The guidelines have been designed to facilitate timely care, it supports and does not replace clinical judgment.

Scope
This document applies to all staff involved in the care of adult inpatients with suspected or confirmed sepsis.

Definition¹
Sepsis is defined as life-threatening organ dysfunction caused by a dysregulated host response to infection.

Organ dysfunction can be represented by an increase in the Sequential [Sepsis-related] Organ Failure Assessment (SOFA) score of 2 points or more, and is associated with a qSOFA² point mortality greater than 10%. Patients with an infection and two or more clinical indicators of systemic blood pressure of

¹ Singer I, et al. (2016) Sepsis: Definition for research and clinical care. *Critical Care Medicine*.
² Singer I, et al. (2016) Sepsis: Definition for research and clinical care. *Critical Care Medicine*.



SEPSIS Suspected Assessment

Maria, Lia
NHI: HIGHTEMP888
Female, 01-May-1965, 52y
Ward / Bed : TGN /

Heart Rate	Resp Rate	ACVPU	SBP	DBP	O2 Sats	% O2	Temperature
119	20	A	112	63	99	0	0

Assess for SEPSIS

Does the patient have any of the following signs of infection?

- Productive cough
- Dysuria signs, urgency frequency pain
- Device related infection
- Abdomen pain / distension
- Wound infection / Cellulitis
- Infection but unclear source

SEPSIS RESULT

NO
 YES

High Risk. Complete screening and treatment within one hour

Rapid assessment
Medical review within 30 minutes and ICU outreach team contacted

Screening
• Take blood samples
• Take two sets of blood cultures
• Consider MSU and/or urine specific IgG cultures, such as sputum and/or CSF
• Consider catheterisation and ensure fluid chart completed hourly

Treatment
• If sepsis suspected, intravenous antibiotics administered within one hour per GDHB antimicrobial guidelines.
• Give oxygen, IV fluids and urgent antimicrobials. Refer to guidelines
• Review choice of antibiotics once microbiology results are known

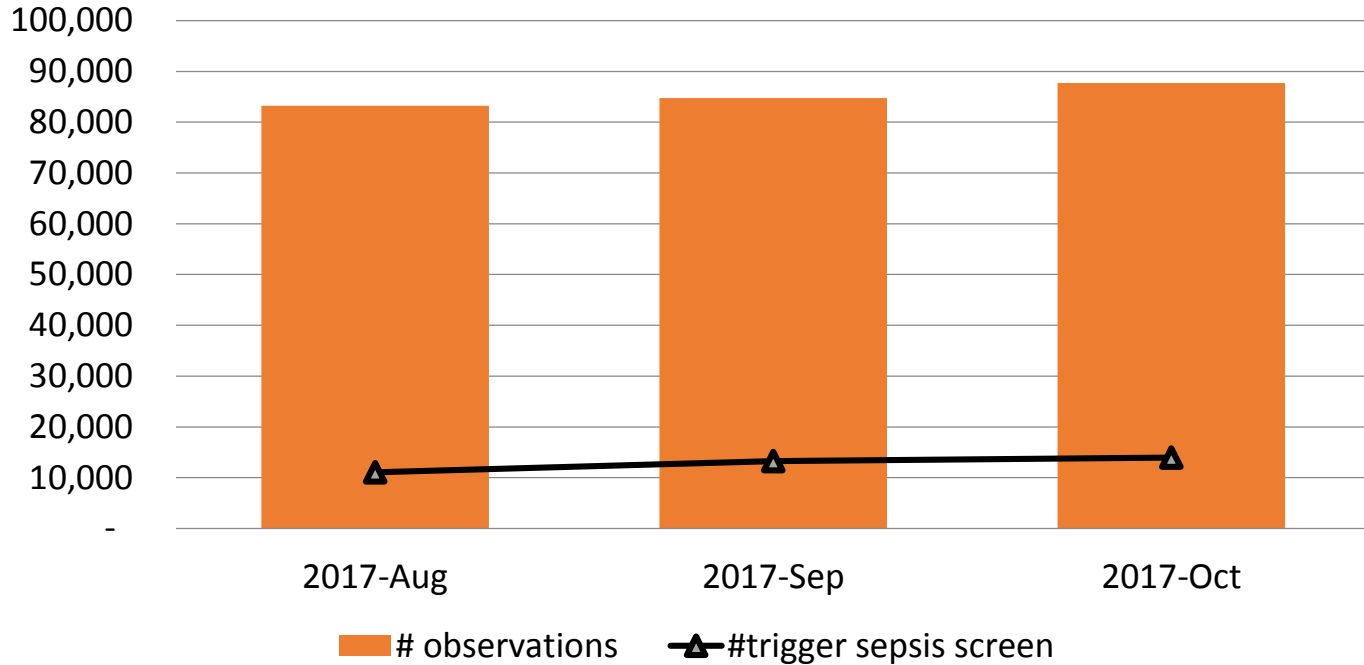
Source control
• Thorough physical examination for sources of infection
• Tailor investigations to clinical history and findings on examination

Review and escalation
• Nursing observations completed minimum of hourly
• Medical review to be completed within 1 hour after commencement of treatment

Further deterioration/continued clinical concerns
Escalate to team for urgent review
Contact ICU outreach (NSH-021 824 311) or ITU (021 875 733)
Consider referral to HDU/ICU



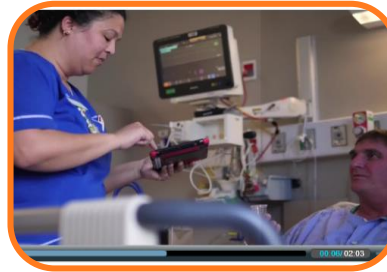
proportion of patients with screen



clinical education



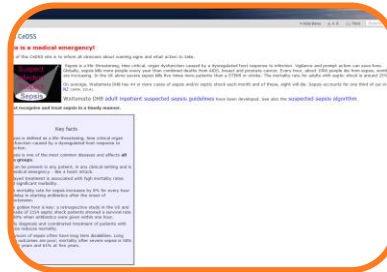
cascade learning sessions



videos for handover



Kahoot quiz



clinical e-decision support

Sepsis one was awesome. Short and succinct and ended with a good quiz

Love the quiz

288 staff played Kahoot

2,000 visits to sepsis CeDSS site



ward based improvement activities

Suspected Sepsis Clinical Notes Page

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Shared documentation

Early diagnosis of sepsis can be challenging. There is no single diagnostic laboratory test.

Mortality and morbidity from sepsis can be reduced by timely identification and treatment. Communication between nurses and doctors is essential to timely identification and treatment of suspected sepsis

Why consider the suspected sepsis clinical notes page?

The suspected sepsis clinical notes page aims to improve communication and co-ordination of activities between nurses and doctors through use of a single clinical notes page which includes a task check list



Feedback

Nurses and doctors have told us it is helpful to document in a single place and that the checklist aids decision making



Next steps

Publish via Waitemata DHB's controlled documents process



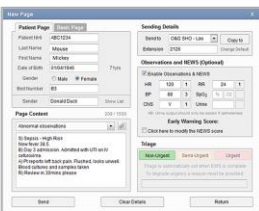
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Contact: i3@waitematadhb.govt.nz



Paging Convention

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Use of ISBAR tool in smartpage

ISBAR is an effective communication tool which could be integrated into escalations after hours to facilitate earlier review and treatment for patients with sepsis

- I Identify
- S Situation
- A Assessment
- R Recommendations

Why should we consider using ISBAR?

"Patients with a confirmed or suspected infection, and significant risk factors, have a high risk of poor outcomes. Clinical teams should respond with urgency". ISBAR contributes to better triaging of patients for house officers who are often inundated with jobs when on call



Feedback

House officers are happy to receive longer text messages from nurses as long as it contains relevant information. It is often appreciated when nursing staff are proactive and recommend stat IVF



Next steps

Hospital-wide initiative to roll out a change to smartpage where the free text field is sectioned into S B A R for escalations



¹ Waitemata DHB Adult Inpatient Suspected Sepsis Guidelines

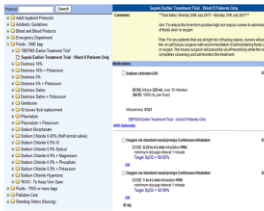
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Earlier Treatment

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ePrescribing sepsis protocol

Delays in sepsis treatment are associated with higher levels of morbidity and mortality

In cases of suspected sepsis every hour delay in administration of antibiotics results in 7.6% decrease in survival up to 6 hours

Why consider earlier treatment?

The earlier treatment protocol was initiated to reduce the time between identification and treatment of sepsis to an hour or less



How it works

The ePrescribing sepsis protocol reduces prescribing time by approximately 3 minutes. The doctor is able to prescribe patients at high risk of sepsis with 250 ml IV fluids and/or 2L oxygen as appropriate using the sepsis tool



Next steps

The ePrescribing sepsis protocol is now available in ePrescribing



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Contact: i3@waitematadhb.govt.nz



Sepsis Kit

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A trolley or tool box containing:

- IV line insertion – IV luer, luer locks
- Single-use tourniquets
- Blood culture bottles
- ABG syringe
- Blood collection bottles – Biochem, FBC, Coag
- MSU, faecal and sputum collection pots
- Pre-filled blood/non-blood products
- Sepsis guidelines/checklist

Why should you consider using a sepsis kit?

Collecting equipment to complete a sepsis screen can be time consuming, especially if you are working on an unfamiliar ward. A survey of 14 ward staff indicated it can take more than 30 minutes to gather the necessary equipment



Feedback

Nurses and House Officers told us they like the kit and feel it will save them time. Some wards have chosen to add the equipment to their pre-existing line trolleys and some have preferred the tool box



Next steps

To work with wards to standardise the current line trolleys across the wards in both North Shore Hospital and Waitakere Hospital to include all the required equipment for a sepsis screen or to implement the sepsis kit where a line trolley is not in use



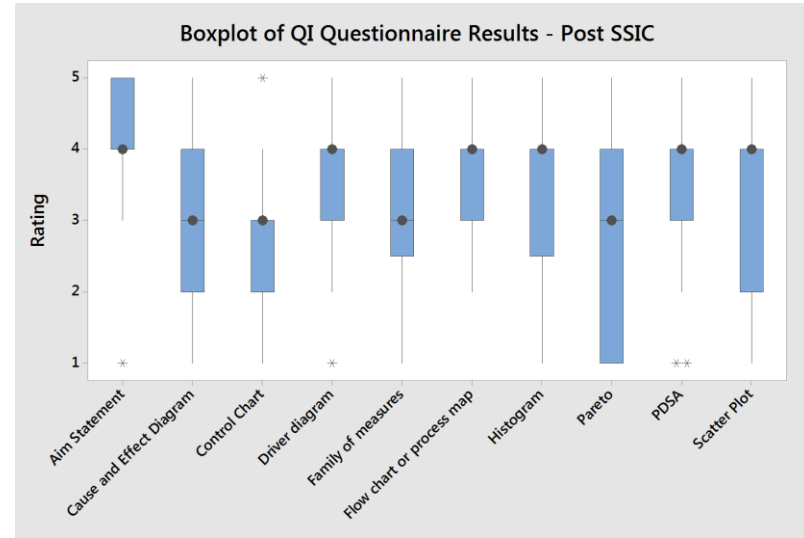
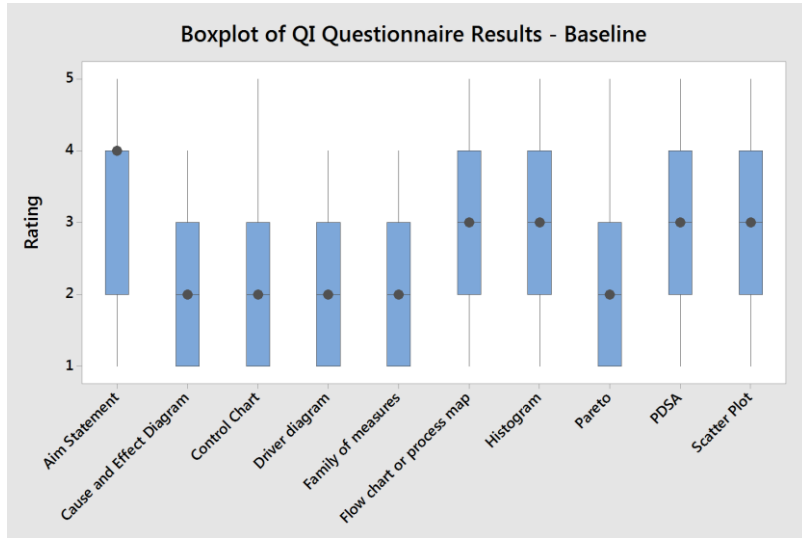
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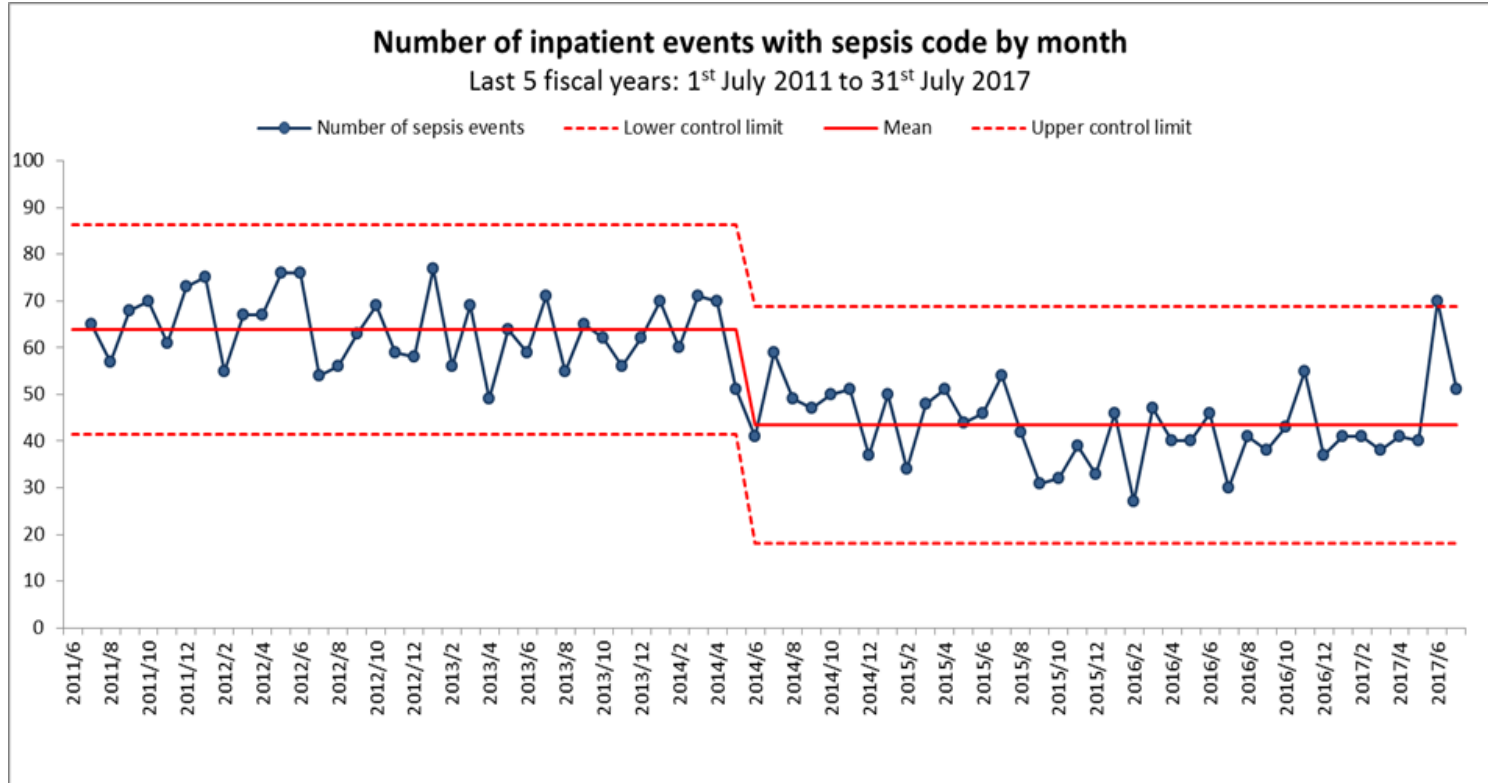


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building quality improvement capability



measures



learnings



David Grayson
@sasanof



Great attendance & interest to hear @WaitemataDHB CEO Dr Bramley share why we care about #sepsis #WSD16 #WDHBPX



6:43 PM - 12 Sep 2016



innovation

Waitemata DHB

Survive Sepsis

Improvement Collaborative

September 13 2017 | World Sepsis Day

Starfish movie screening & project celebration event

Come along to hear about the improvement work and enjoy the first Australasian screening of 'Starfish' – a true story about a family thrown into turmoil when the husband develops sepsis

Wednesday September 13 2017

Whenua Pupuke Auditorium

4:30-7:30pm



RSVP i3events@waitematadhb.govt.nz by Friday 8 September

www.world-sepsis-day.org

[Facebook.com/WorldSepsisDay](https://www.facebook.com/WorldSepsisDay)

[Twitter.com/WorldSepsisDay](https://twitter.com/WorldSepsisDay)

#WDHBPX #i3Qi #sepsis



i3

next steps

- review adult inpatient suspected sepsis guidelines and complete maternity and paediatric guidelines
- complete project evaluation
- ongoing monitoring of sepsis measures via Qlik

references

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Langley GL, Moen R, Nolan KM, Nolan TW, Norman CL, Provost LP. [*The Improvement Guide: A Practical Approach to Enhancing Organizational Performance*](#) (2nd edition). San Francisco: Jossey-Bass Publishers; 2009.