

National Suspicion of Sepsis (SOS) Insights Dashboard Webinar 2

Exploring the work of the Suspicion of Sepsis Dashboard

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Dashboard
developed by



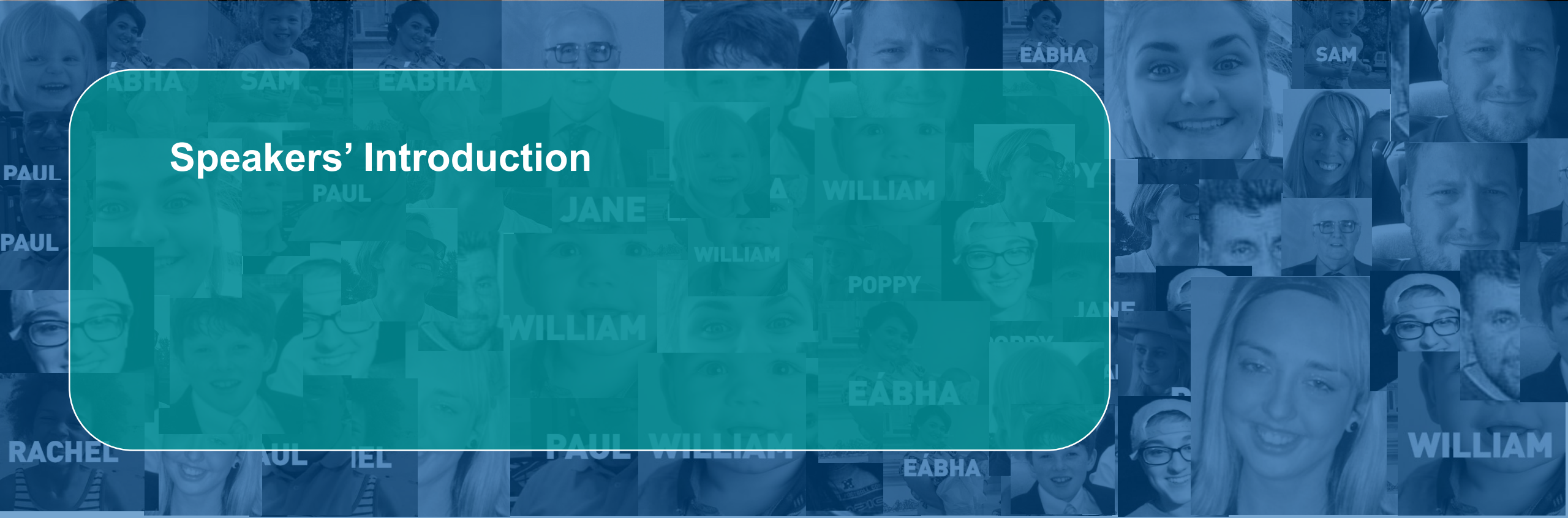
- Welcome housekeeping
- Speaker introduction
- Key insights from the SOS Dashboard
- Data update– Trends, themes and patterns
- Q&A
- Offers for collaboration
- Close

Outcomes

1. Develop a working knowledge of the SOS dashboard
2. Develop skills on harvesting intelligence from the dashboard to drive quality improvement
3. Be aware of a useful framework for applying SOS data insight to quality improvement
4. Be aware of the opportunities for collaboration on it's further development

*Open and free access to all. Unleashes the power of data.
Potentially saving thousands of lives.*

Speakers' Introduction



Key Insights from the SOS Dashboard

Kate Cheema

Interim Associate Director
Transformation Analytics & Health Economics, South Central &
West CSU

SOS Dashboard Access

www.sos-insights.co.uk

- Retrospective data
- It is free at point of access
- Data is completely anonymised
- No data interoperability issues
- No patient consent issues

Data update– Trends, themes and patterns

Julia Wilkins



www.sos-insights.co.uk

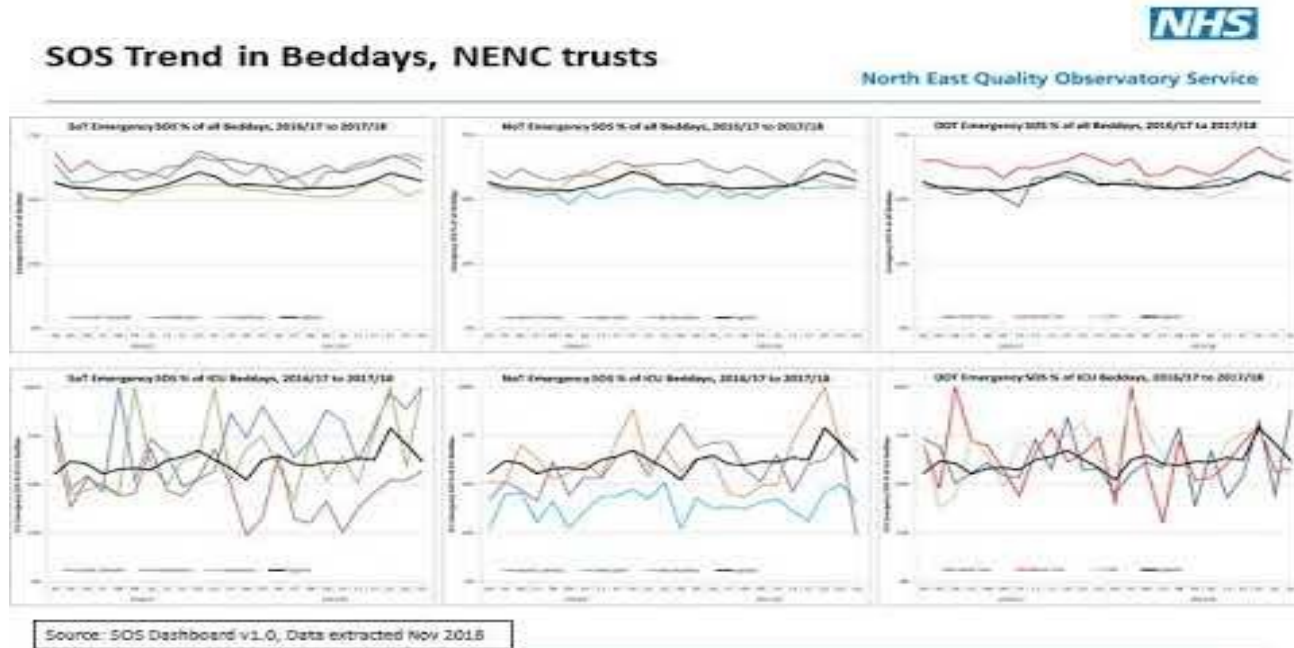


Q & A

Offers & Collaboration

- Bespoke reports
- Collaboration on specific projects
- Professional Organisations
- March 14th webinar

NENC-North East and North Cumbria – how they are using it



Better Knowledge Better Care Better Outcomes

Interested in Collaborating ?

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Interested in Collaborating ?

THANK YOU

The SOS Dashboard Tool

The AHSN Network



Welcome to the Suspicion of Sepsis (SOS) Insights Dashboard

Suspicion of sepsis¹ (SOS) describes emergency admissions with infection that can cause sepsis. It is based on a validated set of 200 ICD10 codes that can be used to create reports from NHS administrative data. In England, SOS is the admission code in 1.9 million emergency admissions per year and is responsible for 25-38% of emergency admissions. An SOS code confers three to six times the mortality of non-SOS codes and SOS is the cited reason for admission in 60% of patients who die.²

More recent analysis of HES admissions data in March 2018, that excludes emergency admissions with a length of stay of less than one day, reveals that the percentage of all emergency admissions that contains an SOS code is 38% and the percentage of emergency bed days that contains an SOS code rises to nearer 50%.

We have constructed a national dashboard for SOS codes and a sepsis subset based on two of the SOS ICD10 codes – A40 and A41. The dashboard provides insights into the numbers of emergency admissions, rates of survival, and lengths of stay linked with a range of different factors – admissions with a length of stay of less than one day have been excluded. The data are provided over a number of years to facilitate measurement of the impact of improvement strategies, focussed on the use of measurement in improvement to support local teams in determining the innovations to be shared and in identifying best practice.

The dashboard is not just an information tool to be viewed in isolation; it is accompanied by strong narrative and supporting materials to enable as wide an audience as possible to engage with and use the analysis appropriately in order to benefit patients.

**Patient
Safety
Collaborative**

The SOS dashboard is not intended as a league table for comparing Trusts but it is designed to enable organisations to see an overall picture of hospital patients coded in the SOS category, allowing them to assess the scale at a local, regional, and national level. The dashboard provides intelligence to clinicians and managers as to whether interventions and innovations in sepsis / infection care are improving outcomes for patients. It will also help clinicians and managers plan and prepare local services better - understanding the level of sepsis and ensure adequate provision. The dashboard can also provide insights, such as recognising which types of infection most frequently lead to deterioration in patients or enabling assessment of organisations against themselves over time.

Start



Suspicion of Sepsis



Watch Dr Matthew Inada-Kim's thoughts on why this dashboard is so important to healthcare professionals in their understanding of Sepsis

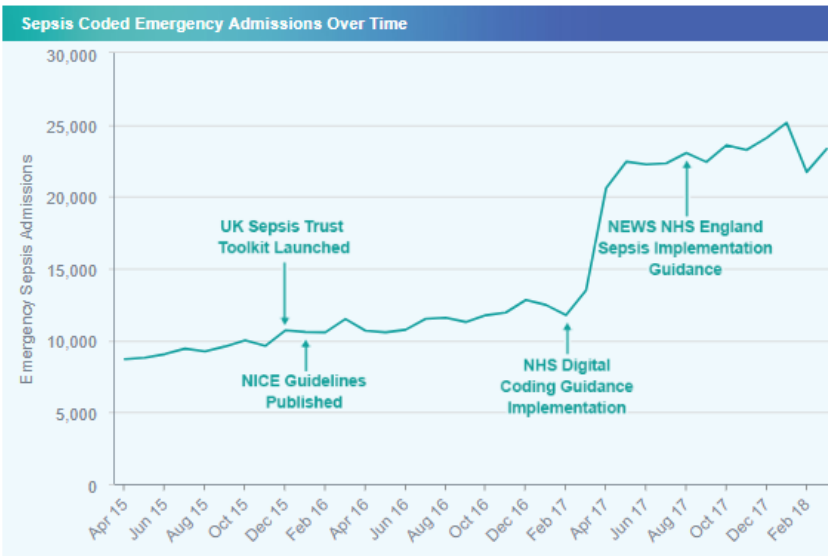
Sepsis is the severe end of infection or 'infection with badness' and is a massive healthcare problem with high estimated mortality and burden, but one without a gold standard diagnostic test or a stable definition. Patients with infection define their level of 'badness' by where they are cared for, with less unwell patients remaining at home, whilst those who are more compromised being admitted to acute hospitals as emergency admissions (SOS).

Determining sepsis numbers and outcomes in a population from NHS administrative data has been an extremely challenging and wicked problem, compounded by:

- The absence of a single, stable sepsis definition
- The absence of a gold standard test for sepsis
- Poor consistency of practice amongst clinicians and coders - clinicians have not reliably documented sepsis, even when treating patients with obvious evidence.

As a consequence, attempts to measure sepsis over time have shown large swings in numbers recorded based on the variable interplay between these three factors.¹ This dashboard displays hospital episode statistics (HES) data from NHS Digital and should be interpreted with the above observations in mind.

Please navigate through this dashboard by clicking the navigation tabs below which will provide both data and narrative for SOS and sepsis activity from admissions and inpatient bed days, through to post discharge insights both in terms of readmissions and survival:



Admissions page

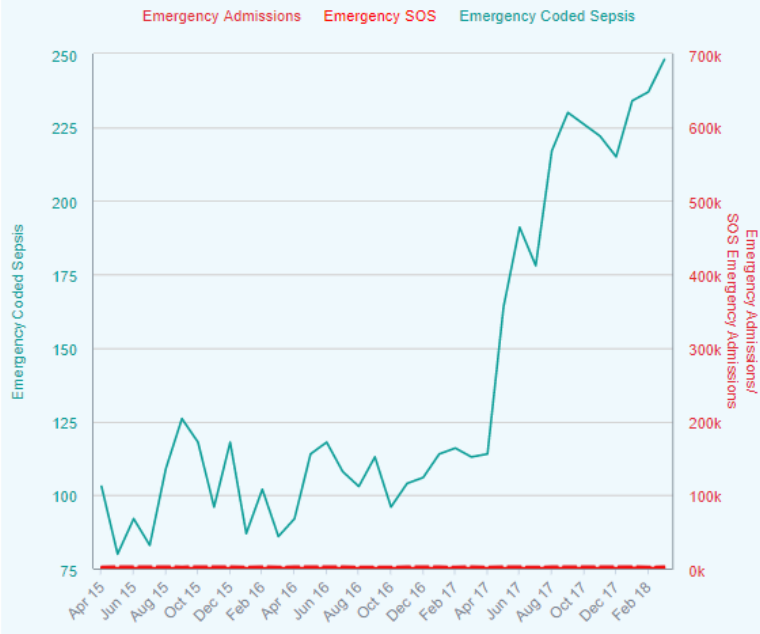
SOS Coded Sepsis

Dashboard developed by  IMPERIAL COLLEGE HEALTH PARTNERS

Admissions. This page contains key measures that will help you understand trends and makeup of suspicion of sepsis or sepsis admissions. Insight into the volume and nature of admissions is critical in being able to better understand the patterns in demand both in hospitals and across populations. By looking for change in these patterns at a high and more granular level we can more successfully plan interventions that can help us manage demand or appropriately manage patients with suspicion of sepsis or sepsis. These measures also enable us to see whether there has been any impact of interventions implemented at this stage of the pathway.

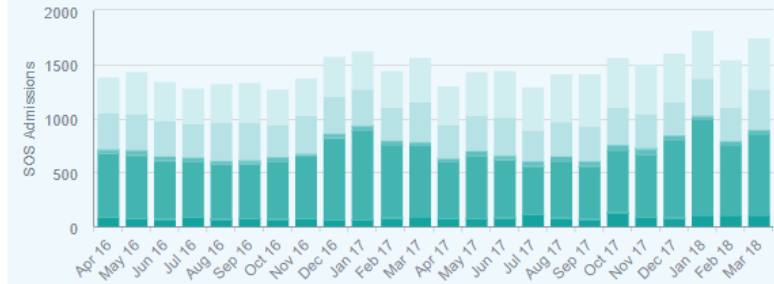
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Emergency SOS, Coded Sepsis & Emergency Admissions

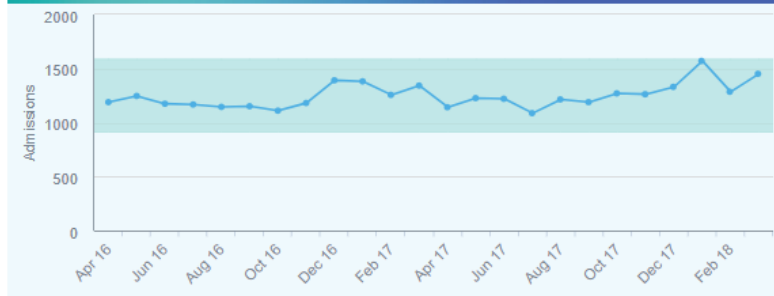


All Infection Categories

Emergency SOS Admissions



Emergency SOS Admissions



Bed days

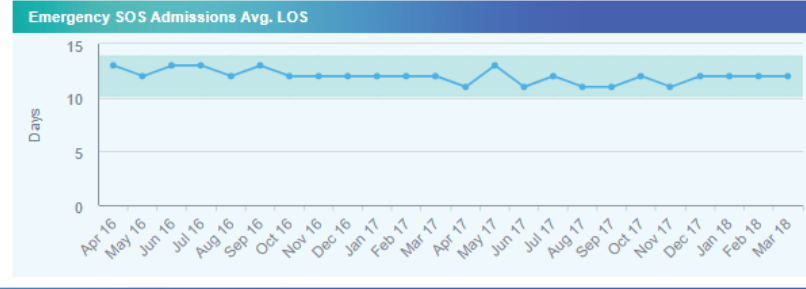
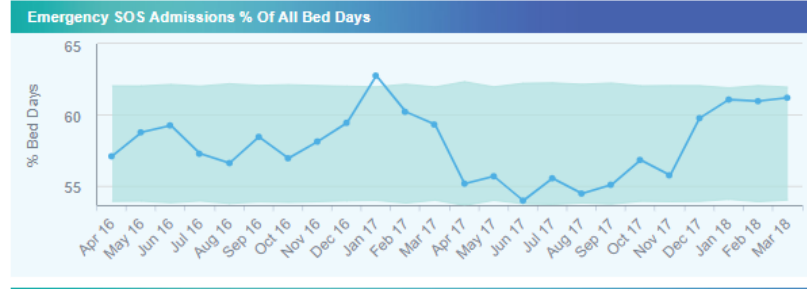
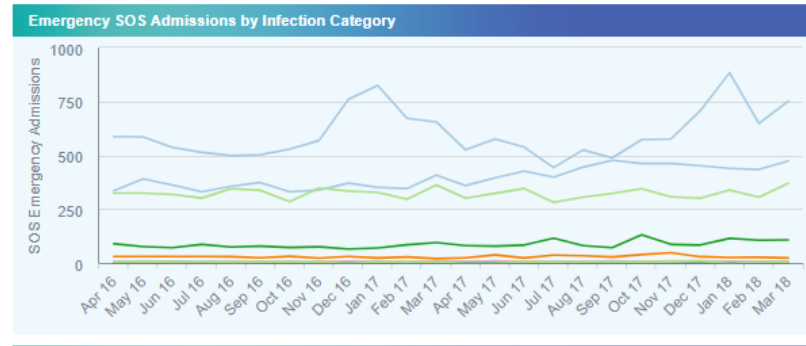
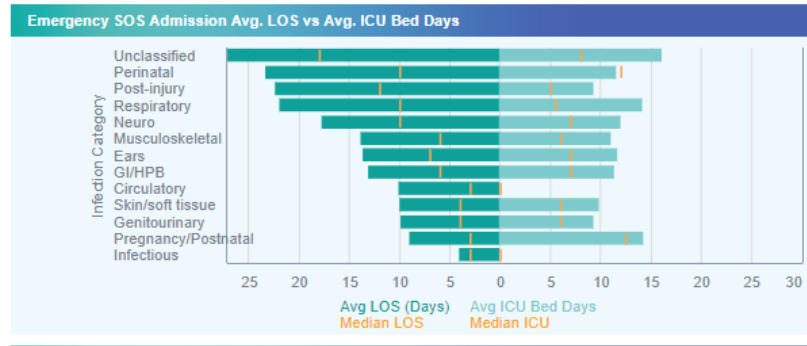
SOS Coded Sepsis

Dashboard developed by IMPERIAL COLLEGE HEALTH PARTNERS

Bed days. This page enables a view of key measures that provides insight into what happens to patients with suspicion of sepsis or sepsis when they are in hospital. Insight into trends in bed day utilisation for these patients and the type of bed days they use at both a high and granular level can support the planning of interventions to shorten length of stay through improvements in clinical quality and management of patients with suspicion of sepsis or sepsis. These measures also enable us to see whether there has been any impact of interventions implemented at this stage of the pathway.

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All Infection Categories



Discharge

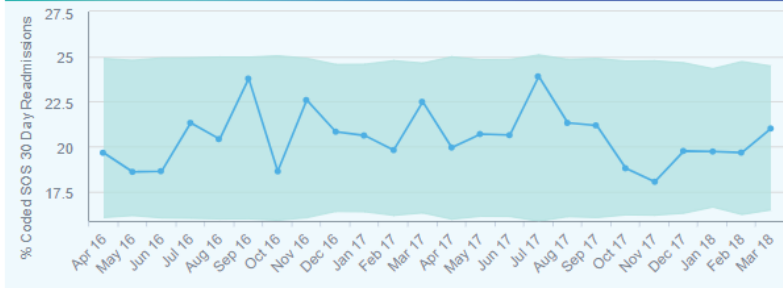
SOS Coded Sepsis

Dashboard developed by IMPERIAL COLLEGE HEALTH PARTNERS

Discharge. This page enables a view of key measures that provide a view of what happens to patients with suspicion of sepsis or sepsis at the point of discharge. By understanding trends in key measures such as mortality you are able to better plan interventions that can influence these key outcomes as well as assess how such interventions have impacted them.

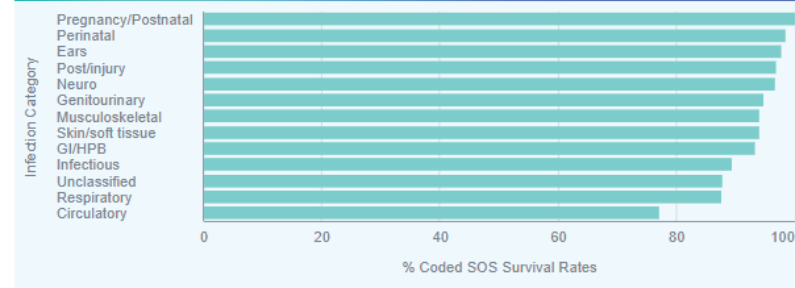
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Emergency SOS % 30 Day Readmissions

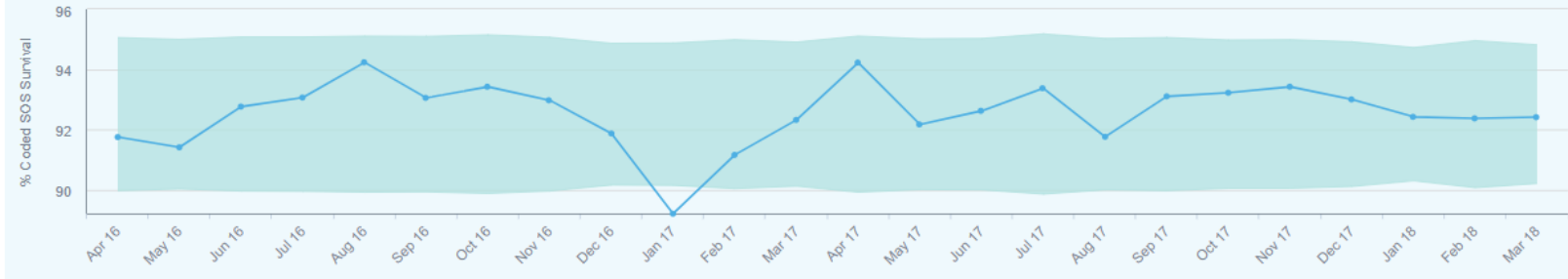


All Infection Categories

% Emergency SOS Admission Survival by Infection Category



Emergency SOS Admissions % Survival Rates



Improvement

Signposting - Improving patient outcomes

During the development of the Suspicion of Sepsis Insights Dashboard clinicians have been sharing resources that they have found helpful to support their focus on improving patient outcomes.

Please find a list of these below:

If you have any further resources that you would like to share please contact the team through the using the feedback box found at the bottom right of your screen.

[Imperial College Health - Project Page - Suspicion of Sepsis](#)

[NHS Improvement - Patient safety collaboratives](#)

[NHS Improvement - Patient Safety Measurement Unit](#)

[NHS England Policy - Sepsis guidance implementation advice for adults. NHS England, 13 Sept 2017](#)

[RCGP Research Paper - Tidswell R, Singer M Sepsis – thoughtful management for the non-expert. RCGP Clinical Medicine, 2018.](#)

[BMJ Research Paper - Inada-Kim M, Page B, Maqsood I, et al Defining and measuring suspicion of sepsis: an analysis of routine data BMJ Open, 2017](#)

[JAMA Network Research Paper – Singer M, Deutschman CS, Seymour CW, et al The Third International Consensus Definitions for Sepsis and Septic Shock \(Sepsis-3\). JAMA Network, 2016.](#)

[UCLPartners AHSN – News Release - Successful patient safety programmes reduce deaths from acute kidney injury and sepsis](#)

[The Intensive Care Society](#)