

IMPROVING SEPSIS MANAGEMENT IN THE EMERGENCY DEPARTMENT

**AN ORGANISATIONAL
QI INITIATIVE**

PRESENTED BY:

Princy Kuriak
CSF, Deteriorating Patient

DATE:

10th February 2026



**LOUTH
HOSPITALS**
OLOL | LCH | COTTAGE
NURSING



PATHWAY
DESIGNATED
AMERICAN NURSES
CREDENTIALING CENTER

LOUTH HOSPITALS

Our Lady of Lourdes' Hospital (443 beds)

Louth County Hospital (61 beds)

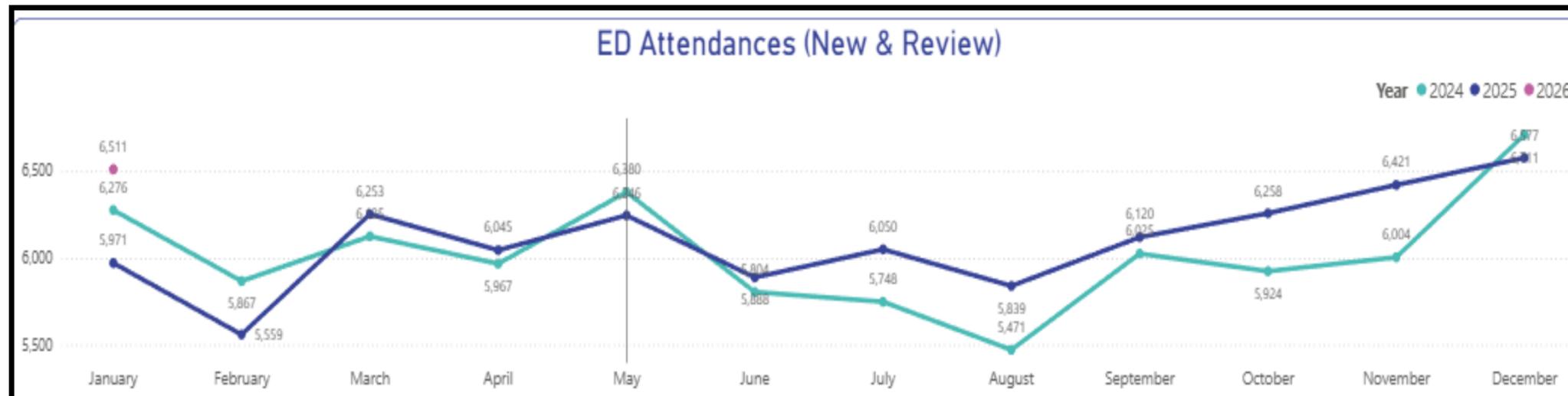
Cottage Community Hub (14 beds)

Total **518** beds

As of 2025:

95% of all admissions were via the Emergency Department

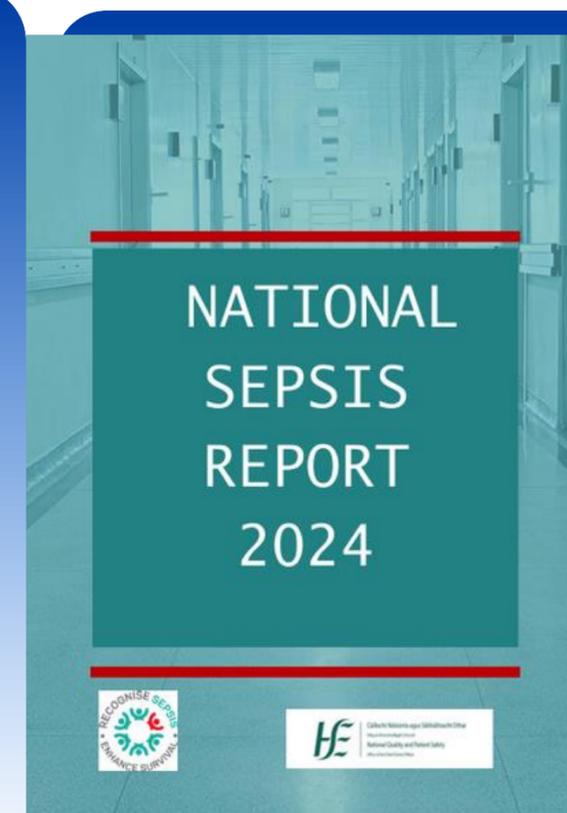
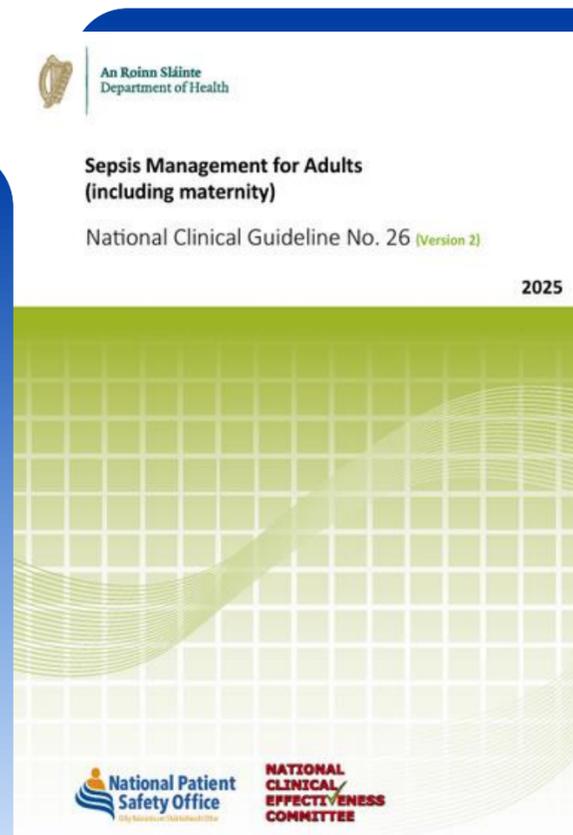
Total ED Attendances- **72,677** (average of **200** patients/ day)



SEPSIS- MEDICAL EMERGENCY

SEPSIS is a time-critical medical emergency associated with significant morbidity and mortality. Evidence consistently demonstrates that early identification and timely initiation of appropriate treatment significantly improves patient outcomes

Surviving Sepsis Campaign 2021



PROJECT BACKGROUND



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In September 2024, the National Sepsis Programme, in partnership with the National Centre for Clinical Audit (NCCA) introduced the Emergency Department (ED) Sepsis Metrics. This Quality Improvement (QI) project describes how Louth Hospitals used the National Audit Tool for Sepsis, Patient Safety Investigation (PSI) and structured QI methodology to achieve sustained improvement in Sepsis management in the ED.

National Audit Tool- ED Sepsis Metrics

Patient Safety investigation

Structured QI Methodology

ED SEPSIS METRICS

Minimum of 10 charts audited monthly and reported to the HSE BIU

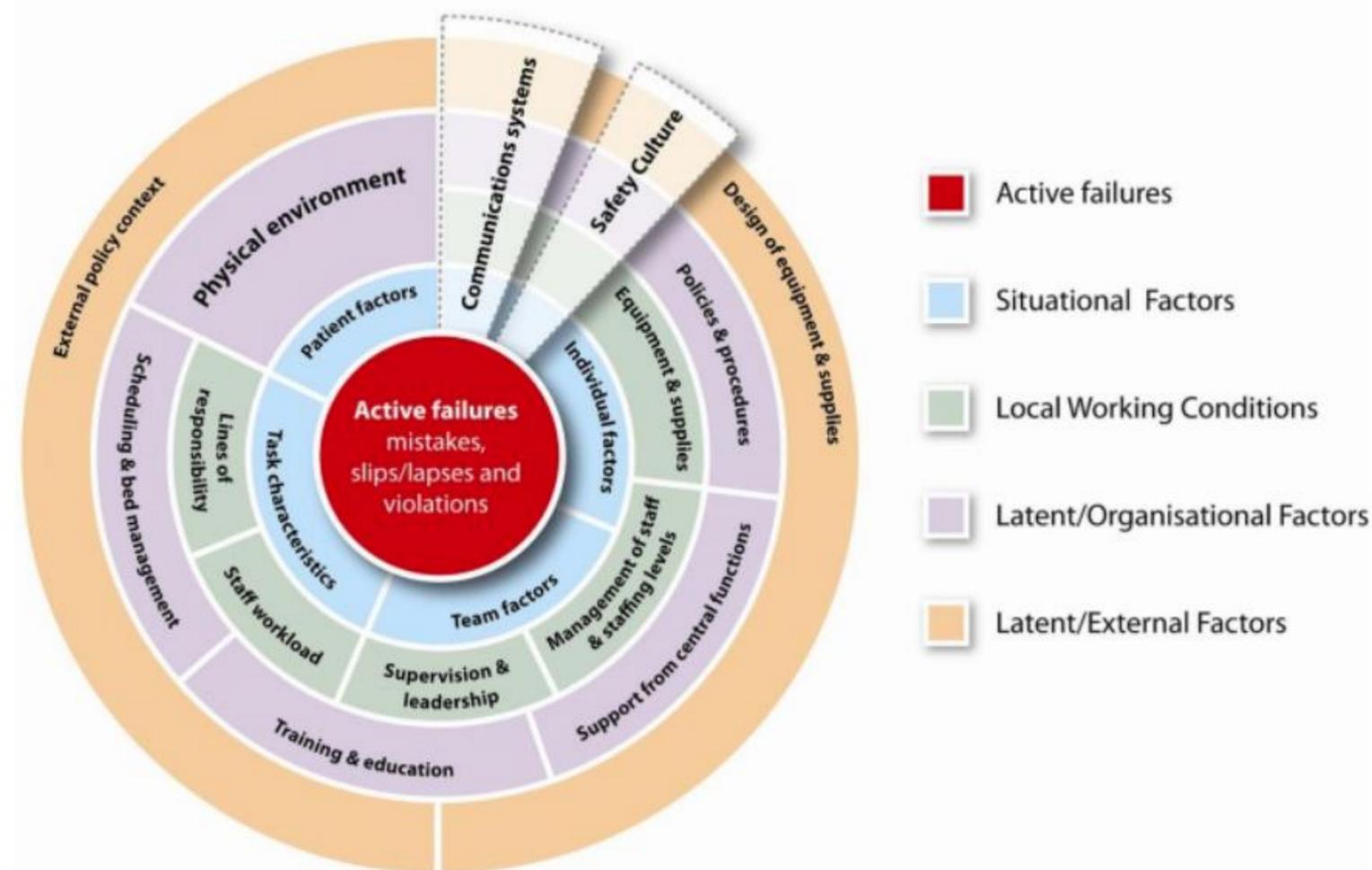
Audit Tool assess 11 key criteria

Early recognition, escalation, timely treatment of suspected SEPSIS

Findings from the audit reviewed at the Quarterly DPC Meetings

PSI- YORKSHIRE CONTRIBUTORY FACTORS FRAMEWORK

The Yorkshire Contributory Factors Framework

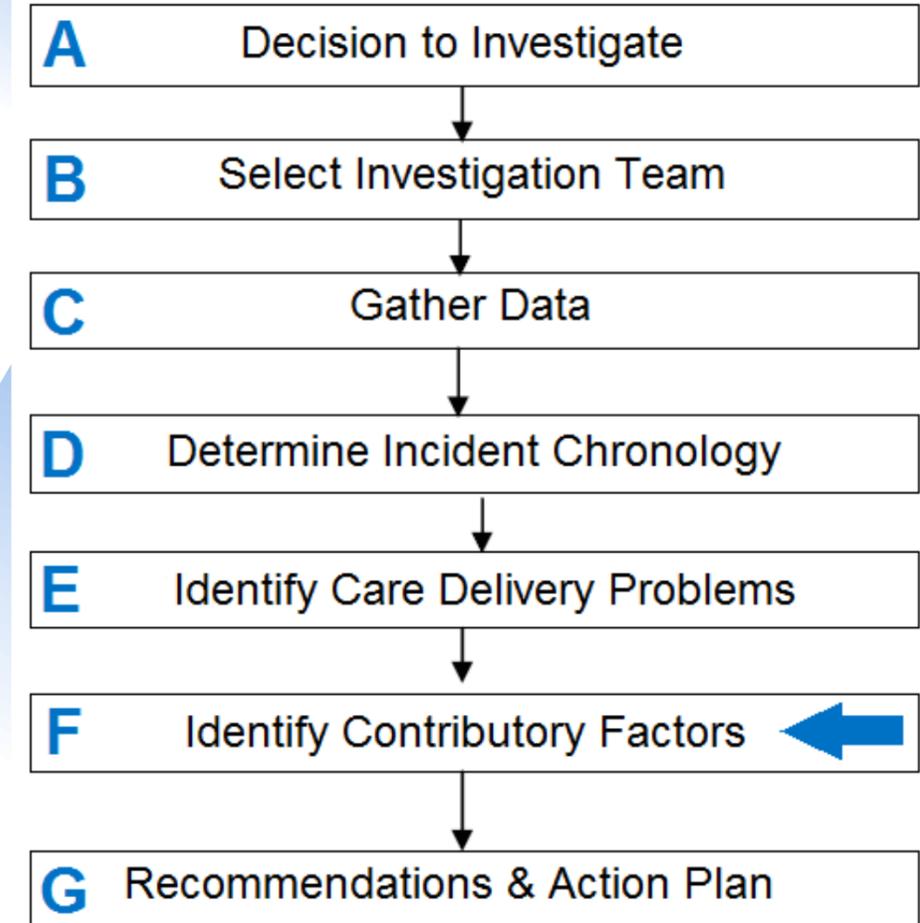


Lawton R, McEachan RRC, Giles SJ, et al
Development of an evidence-based framework of factors contributing to patient safety incidents in hospital settings: a systematic review
BMJ Quality & Safety 2012;21:369-380.

PSI- YORKSHIRE CONTRIBUTORY FACTORS FRAMEWORK

In March 2025, ED Sepsis Metrics declined in performance and overall compliance decreased to 56%. Concurrently, concerns were raised by the Out-of-hours ADON to the DON regarding deteriorating patients admitted from the ED to ward prompting a Patient Safety Investigation (PSI)

- ✓ INVESTIGATION TEAM FORMED BY DON
- ✓ PRACTICE DEVELOPMENT & ED
- ✓ CHART REVIEW & REPORT COMPLETED
- ✓ ACTION PLAN & QI PROJECT LAUNCHED



Adapted from "Systems Analysis of Clinical Incidents
- The London Protocol" by S. Taylor-Adams & C. Vincent

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MEET THE QI PROJECT TEAM MEMBERS



Ciaran Conlon
ADON, Practice
Development



Blessy Varghese
ADON, Emergency
Department



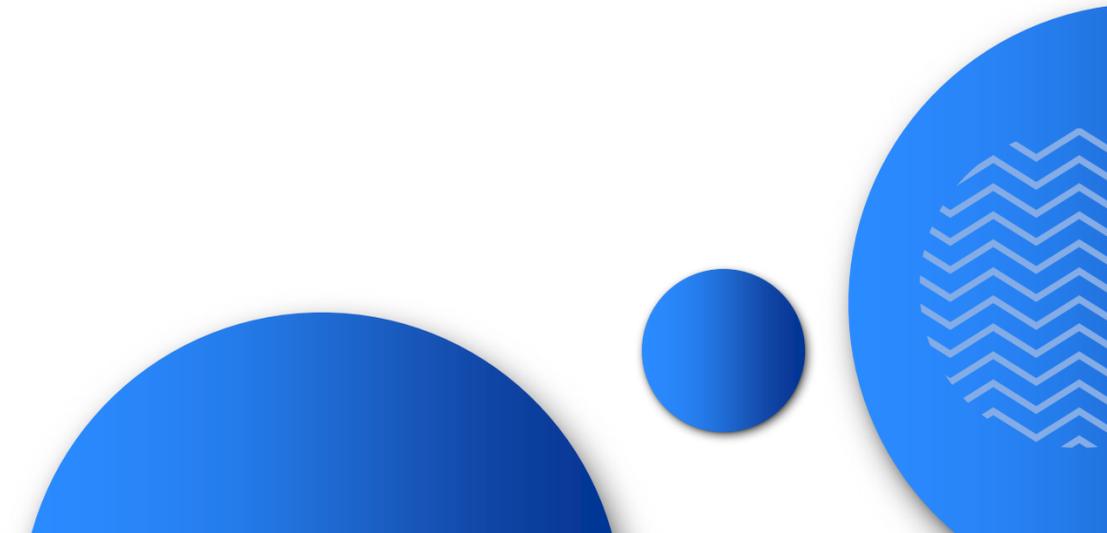
Dr Asim Rafeeqe
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CSF,
Deteriorating
Patient



Katja Ilves
CNM2
Resuscitation
Department



KEY CONTRIBUTORY FACTORS



Systems and Processes

- Delay in Medical review
- Prescribing & administration of IV antibiotics



Environment and workload

- ED crowding
- Lack of clinical space
- High cognitive load
- Reliance on ambulance trolleys during peak period



Individual and Team Factors

- Variable Sepsis Knowledge among Nursing staff
- Inconsistent escalation using EMEWS
- Skill mix challenges



Task and Technology

- Absence of sepsis Specific prompt

PROJECT AIM & OBJECTIVES

Aim: To increase overall compliance of Sepsis management in ED from **56%** to **100%** by three months.

Objectives:

- To increase the early recognition of Sepsis
- To establish appropriate escalation pathways for Medical review
- To ensure that the IV antibiotics are administered within one hour

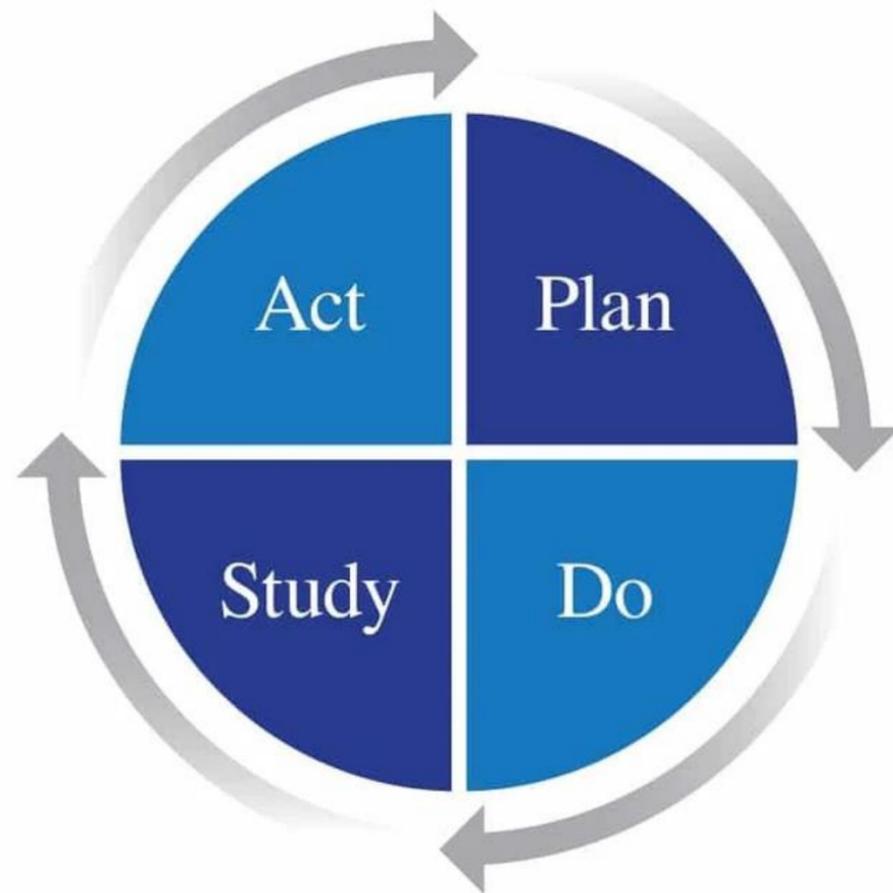


METHODOLOGY

This project utilised the Model for Improvement and Iterative Plan-Do-Study-Act (PDSA) cycles



PDSA 1: EARLY RECOGNITION



Plan

- To Improve knowledge & skills of Healthcare Staff

Do

- Sepsis Simulation sessions every Wednesday over 3 months

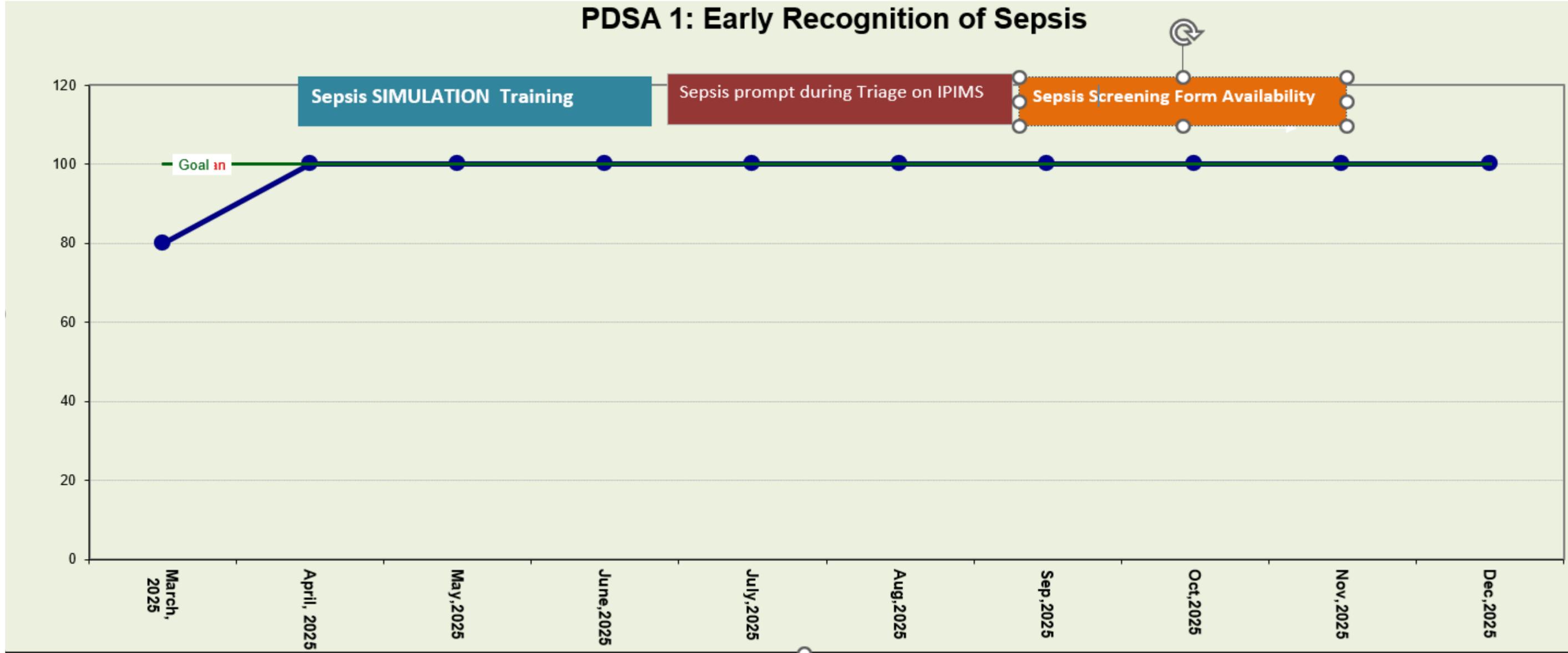
Study

- Improvement in early identification of patients at risk for Sepsis

Act

- Sepsis Prompt in the Triage- SIRS Positive (Mandatory field on IPIMS)
- Pre-Hospital sepsis markers included for patients arriving by Ambulance (MTS Cat2)

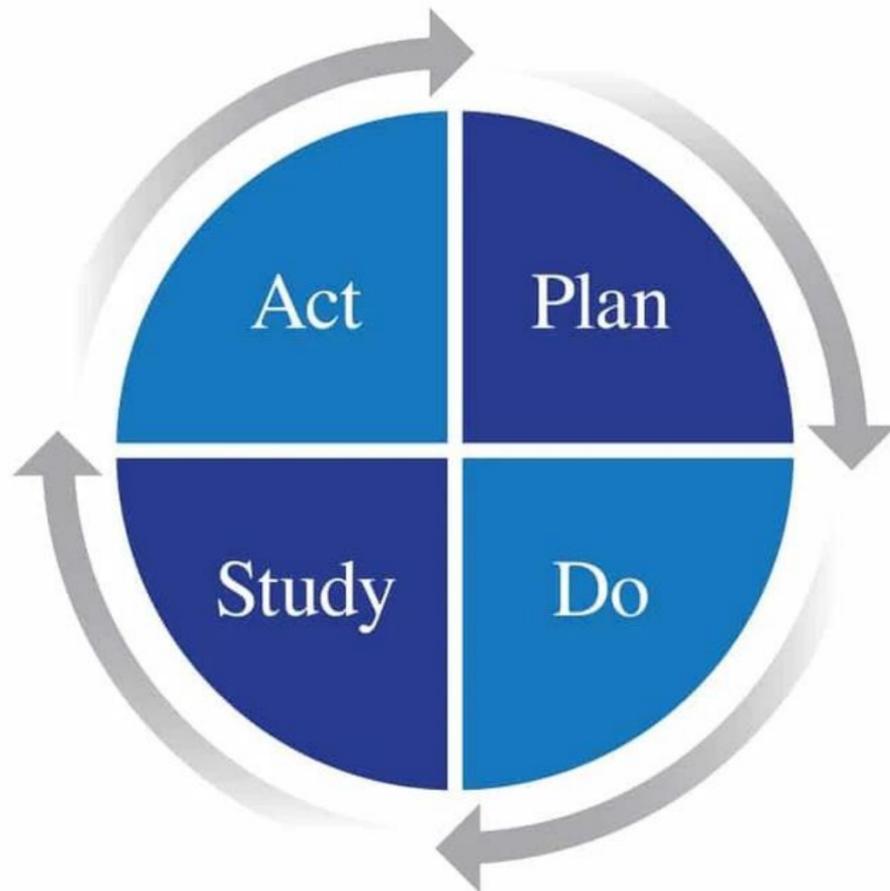
PDSA 1



METHODOLOGY



PDSA 2: CODE SEPSIS BLEEP



Plan

- To revise the Escalation Protocol in the EMEWS chart

Do

- Incorporated Clinical Escalation Plan and Patient Monitoring Plan in the EMEWS chart after Sepsis prompt

Study

- Newly revised chart roll-out and monthly EMEWS Audit on MEG platform since September 2025

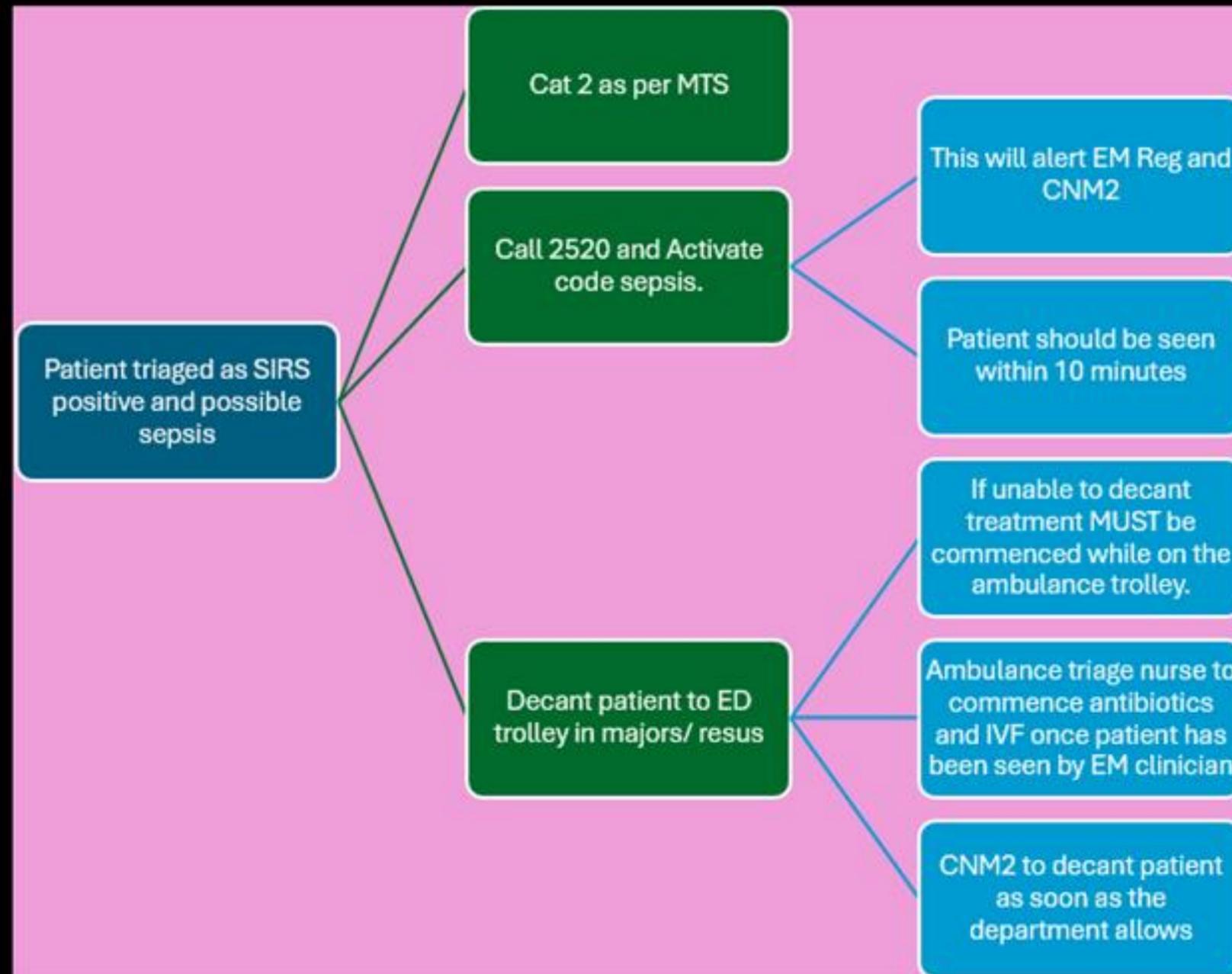
Act

- Triage Sepsis Pathway and initiation of Code Sepsis Bleep if needed

PDSA 2: CODE SEPSIS BLEEP

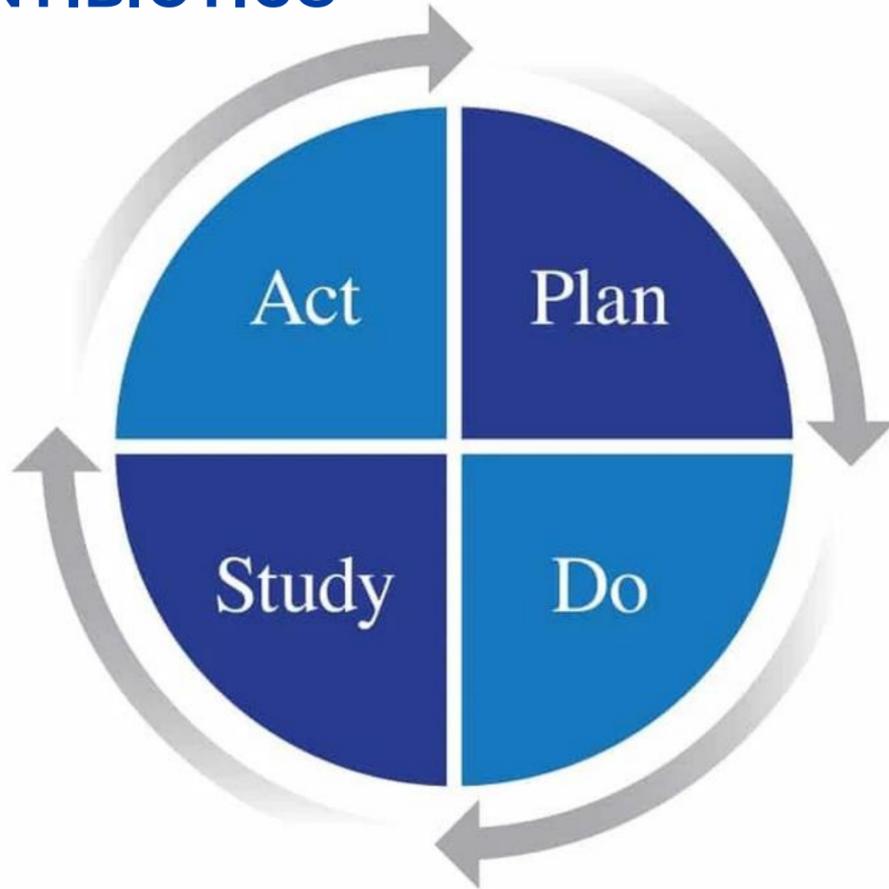


Triage Sepsis Pathway



METHODOLOGY

PDSA 3: ADMINISTRATION OF IV ANTIBIOTICS



Plan

- To revise the National Ambulance Service Guideline

Do

- Administration of IV Antibiotics for patients with suspected Sepsis waiting on Ambulance Trolleys by the Ambulance Nurse

Study

- Improvement in the Time of administration of IV Antibiotics within 1 hour of Time Zero

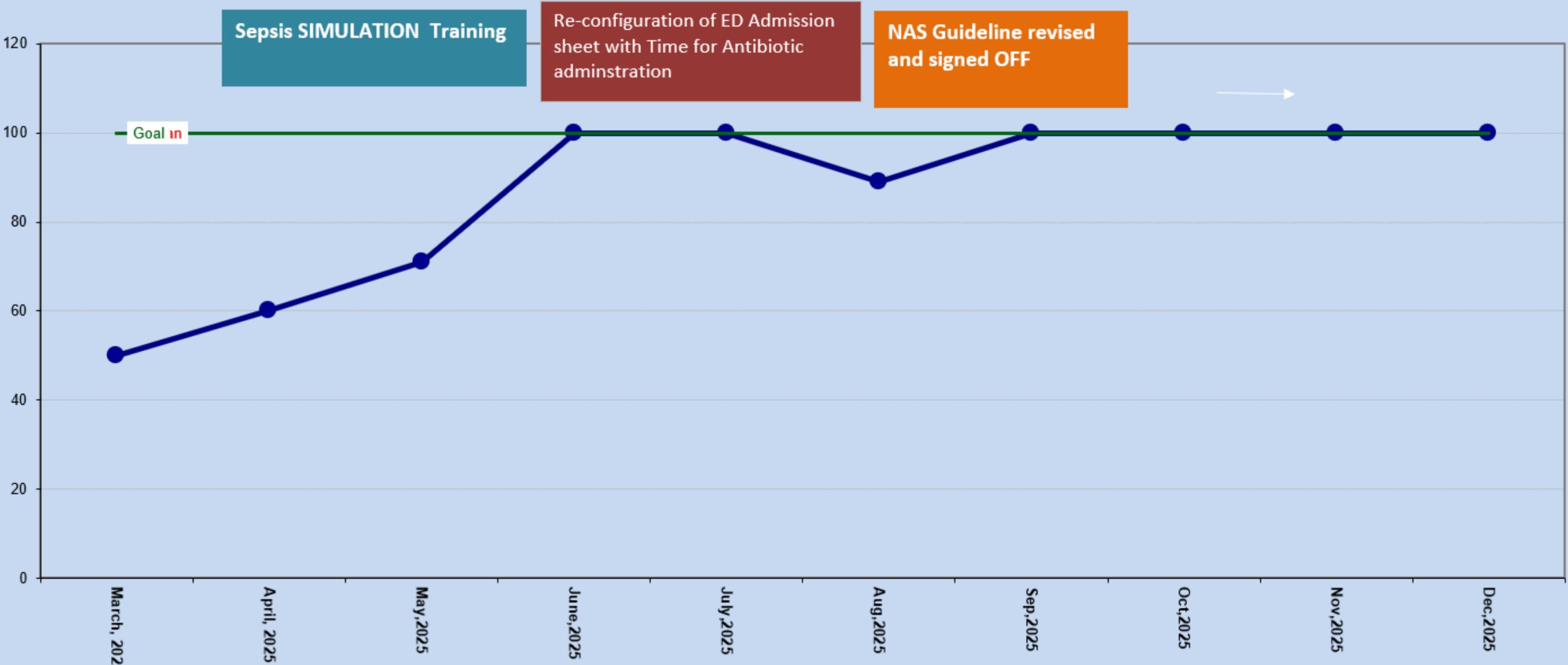
Act

- Reconfiguration of ED Attendance records to include time of administration and compliance, monitored through Monthly ED Sepsis Audit



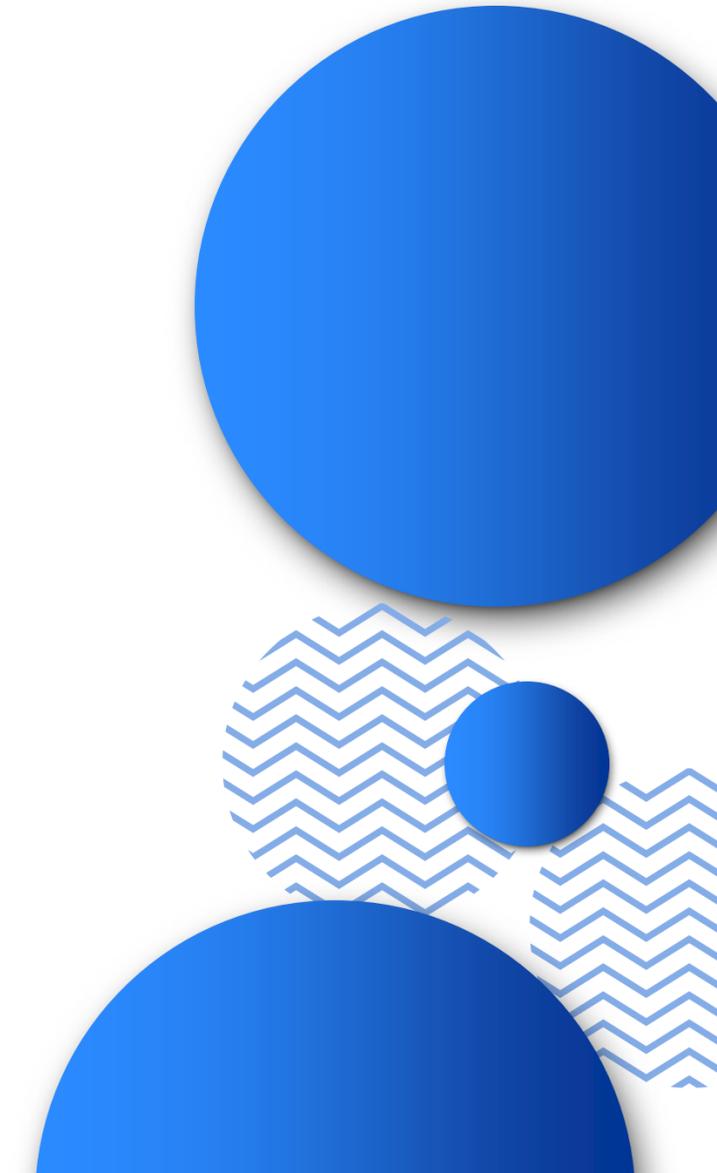
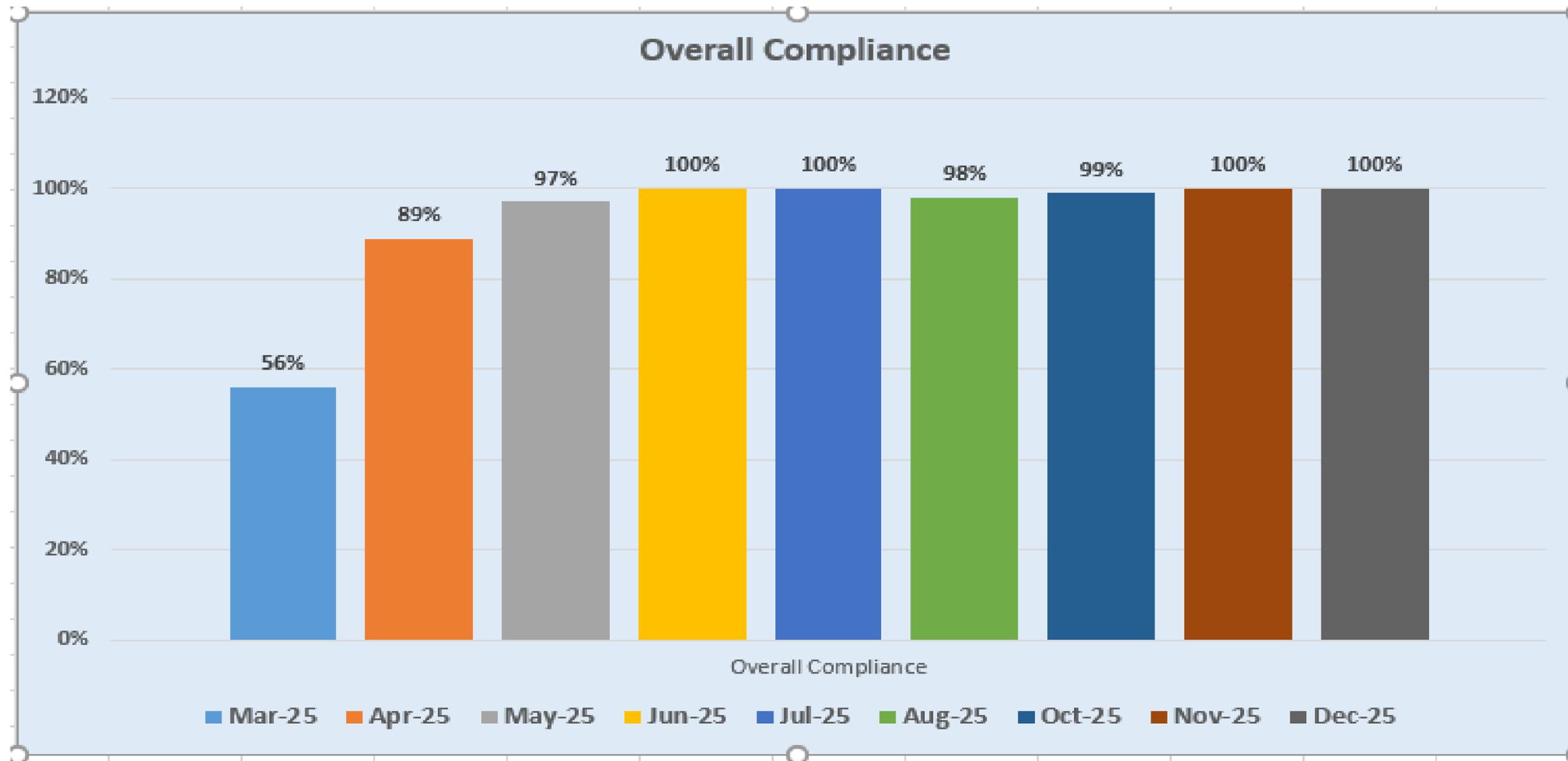
PDSA 3

PDSA 3 : Antibiotics within 1 HOUR OF Time Zero



RESULTS

An overall analysis of ED Sepsis Audit from March 2025 to December 2025 showed significant improvement in the Management of patients with Sepsis presenting to ED from 56% to 100%



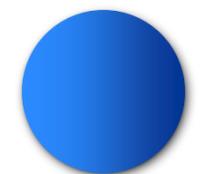
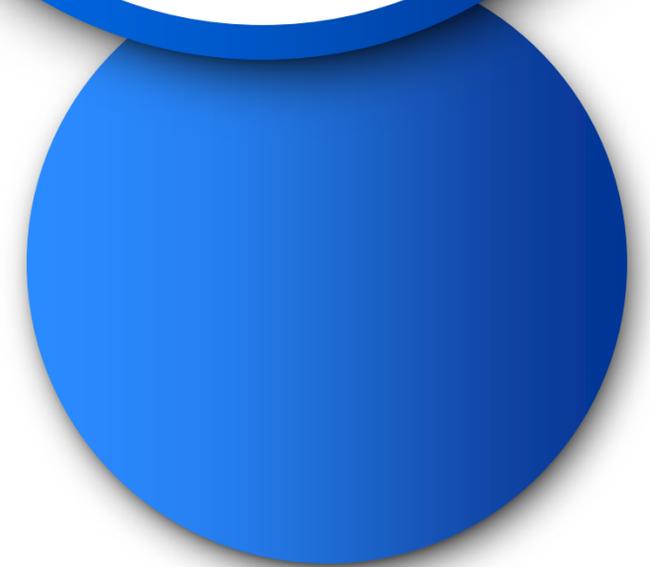
PROJECT SUSTAINABILITY

Sustainability supported through:

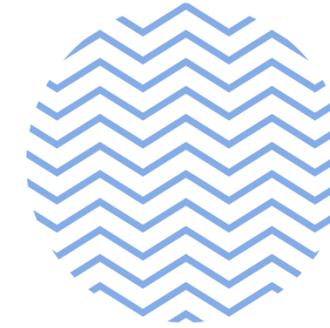
- Embedded Sepsis prompts within the electronic systems
- Ongoing simulation-based education,
- Routine monthly audits
- Governance oversight via Deteriorating Patient Committee.

ED Team of Doctors & Nurses have been enrolled in the SAFE Collaborative Programme by RCPI since September 2025.

The script developed for their Safety Huddle includes a prompt for Sepsis



PROJECT TRANSFERABILITY



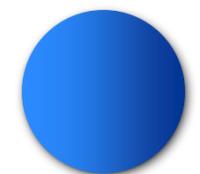
The methodology and interventions are scalable and can be applied across other departments and Hospitals.

Within the Organization - this QI Project will be evolving with a new title:

Sepsis Safety NETS

(**N**etworking, **E**valuation, **T**raining through **S**imulation)

QI Project will be designed for in-patient wards using the same QI Methodology and the NCCA Audit Tool for Sepsis



DISCUSSION

This QI Project demonstrates the impact of integrating national clinical audit data, patient safety investigation learning and structured improvement methodology to achieve meaningful and sustained patient safety improvements:



SEPSIS AUDITS IDENTIFIED PERFORMANCE DEFICITS



YORKSHIRE CONTRIBUTORY FACTORS FRAMEWORK

- Enabled deeper understanding of system-level contributors
- Ensured interventions addressed root causes than individual behaviour



ITERATIVE PDSA CYCLES

- Allowed timely testing and refinement of interventions
- Standardisation of processes
- Improved escalation mechanisms





DISCUSSION

Multi-disciplinary engagement and visible leadership support were critical enablers, fostering shared ownership and alignment with organisational safety priorities

Most importantly, this QI Project illustrates how learning from Patient Safety Investigation and Clinical Audit Data can be translated into proactive system design, supporting a just culture and strengthening organisational resilience



ACKNOWLEDGEMENTS

The QI Project Team members wish to thank NOCA for giving us this opportunity to present our QI Project. We also acknowledge and thank our DON,ADON's Multidisciplinary Emergency Department teams at Louth Hospitals, including Nursing and Medical colleagues, Quality and Risk, Audit Facilitators, the Deteriorating Patient Committee, ED Clinical Governance, pre-hospital and Ambulance colleagues. Their collective expertise, engagement, and leadership were instrumental in achieving sustained improvement in Sepsis care.

**“QUALITY
IMPROVEMENT
HAPPENS WHEN
LEARNING BECOMES
STANDARD
PRACTICE”**

Audits identify the problem...Actions deliver the solutions

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