2012
Joint Collaborative
Driver Diagram and Change Package
Sepsis

The Scottish Patient Safety Programme & The Scottish Antimicrobial Prescribing Group

JOINT COLLABORATIVE - SEPSIS DRIVER DIAGRAM

AIM

To improve the recognition and timely management of Sepsis in acute hospitals

Outcome:

Reduction in mortality in pilot population from Sepsis

5% by December 2012
10% by December 2014

PRIMARY DRIVERS

SECONDARY DRIVERS

Reliable Recognition & Assessment

- Reliable Sepsis screening (EWS + SIRS)
- Ensure reliable communication across clinical teams of at risk patients
- Ensure timely rescue of deteriorating patient by competent teams

Reliable Care Delivery

- Ensure reliable delivery of Sepsis Six within 1 hour
- Source Control
- Ensure reliable escalation of septic patients to higher level of care
- Improve Antimicrobial stewardship - 3 day review

Education & Awareness

- Education on burden of illness & current performance
- Provide training to staff on clinical knowledge and improvement skills

Culture of safety and Quality Improvement

- Executive Sponsorship
- Clinical Leadership
- Multidisciplinary team working
- Develop measurement frameworks to guide improvement

Patient & Family Centred Care

- Involve patients & families in treatment process and care planning

SPSP/SAPG COLLABORATIVE

SEPSIS CHANGE PACKAGE

Secondary Drivers with associated Change Concepts for testing and adaption to local patient specific context

SECONDARY DRIVER	CHANGE CONCEPTS & IDEAS FOR PDSA TESTING
Reliable Sepsis Screening	Identify sepsis using EWS charts + SIRS Implement screening tool • EWS trigger (local guidelines) **with 2 of 4** o **Temperature: <36°C or >38°C** o **Pulse: ≥ 90 beats per minute** o **White Blood Count <4 or >12 cells/mm^3** o **Respiratory Rate >20 breaths per minute**
Ensure reliable communication across clinical teams of at risk patients	Include at risk patients in safety brief Use SBAR to ensure reliable communication Multi-disciplinary rounds & Daily Goals Standardise communication and handovers between wards/departments Early senior review to identify patients who are not for escalation of treatment
Ensure timely rescue of deteriorating patient by competent teams	Reliable process of escalation to Consultant in charge of patient's care Link with ward safety brief to identify septic patients

	Reliable process for 'tagging' at risk patients for handover – nursing and medical Ideas to test include: • Outreach teams to include ward sweeping • Wipe Boards to highlight patients at risk • IT solutions (e.g. Patienttrack)
Ensure reliable delivery of Sepsis Six within 1 hour	Implement Sepsis Checklist 1. **Give high flow oxygen appropriately** 2. **Take blood cultures** 3. **Give IV antibiotic** 4. **IV fluid challenge (minimum 500 mls. within 1 hour), reassess and repeat as indicated** 5. **Measure serum lactate and full blood count** 6. **Assess urine output – consider catheterisation**
Source Control	Include on checklist • Formally evaluate patient for a focus of infection amenable to source control measures • Implement source control measures as soon as possible following successful resuscitation
Ensure reliable escalation of septic patients to higher level of care	Include on Checklist • Review time • Consultant informed

	• Critical Care review
Antimicrobial stewardship	Early Consultant review of antibiotic therapy – before 3rd dose Antibiotic management component of sepsis six management bundle Antibiotic review – rationalise antibiotic management within 72 hours of starting therapy • continuing need for antibiotic and review of indication for antibiotic • review of available microbiology and streamlining of treatment according to susceptibility • review need for IV therapy and potential for switch to oral therapy • Local Antibiotic policy
Education on burden of illness & current performance	Local & National awareness campaign Community of Practice on Knowledge network Conference Calls/WebEx Medical staff induction, foundation training [DOTS] & Undergraduate curriculum
Provide training to staff on clinical knowledge and improvement skills	Include on staff induction and updates Medical staff induction, foundation training [DOTS] & Undergraduate curriculum
Executive Sponsorship	Include data and discussion of performance in Executive Walkrounds Provide visible Medical Executive Sponsorship
Clinical leadership	Identify local clinical leadership to drive improvement

Multi – disciplinary team working	Implement multi – disciplinary M & M including General Ward and Critical Care
Develop measurement framework to guide improvement	Identify local data collection roles within the multi – disciplinary team Build local teams understanding of measurement for improvement • Sepsis six bundle compliance • Time to 1st antibiotic dose • Antibiotic compliance (local policy) and antibiotic review Consider inclusion on local QI dashboards
Include patients & families in treatment process and care planning	Use patient stories to build awareness Ensure patients and families are informed of risks on discharge Promote open communication between clinical team and patient/family

AIM **PRIMARY DRIVER** **CHANGE CONCEPTS**