

2018 Sepsis Driver Diagram and Change Package

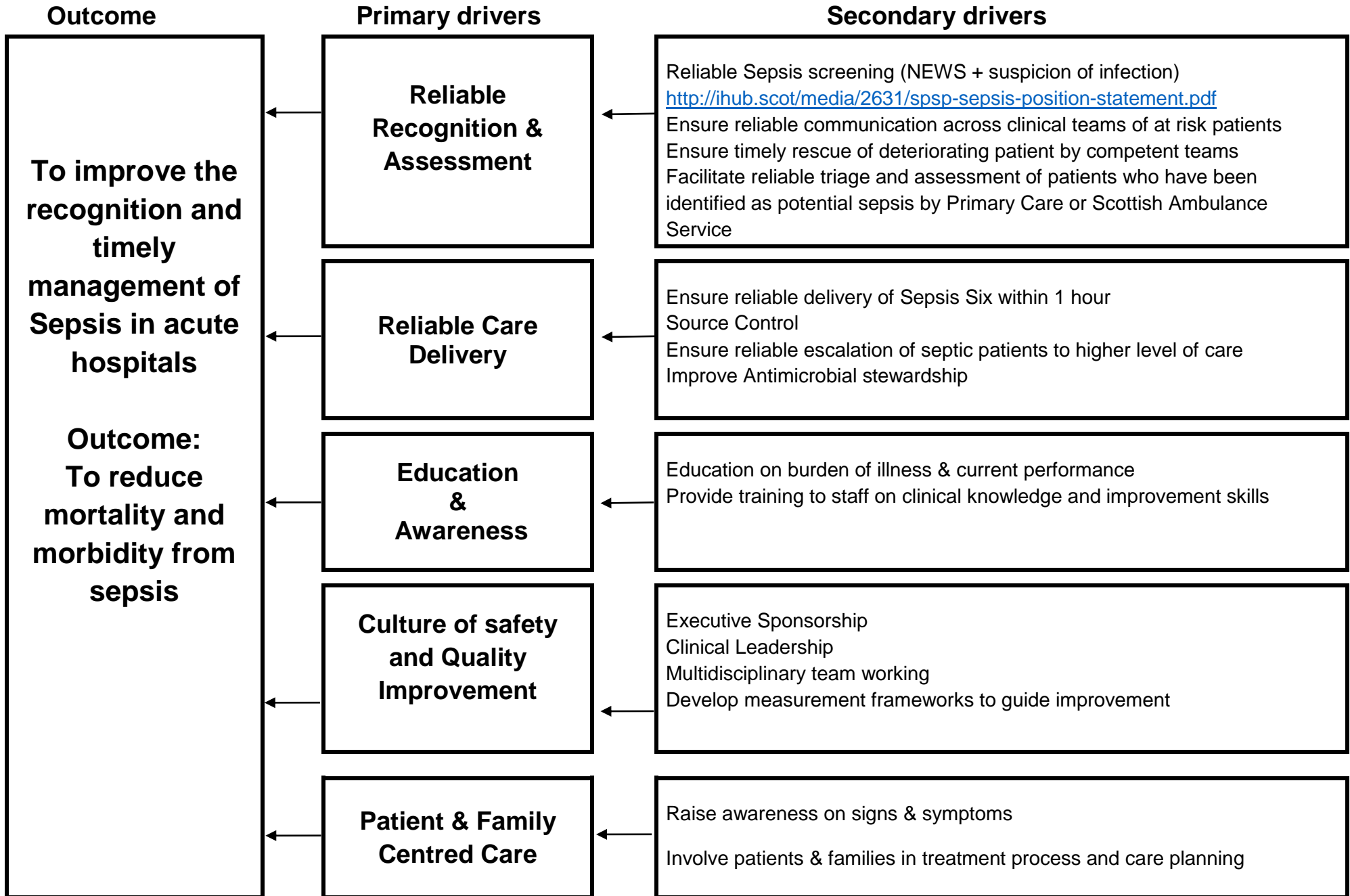


The Improvement Hub (ihub) is part of Healthcare Improvement Scotland.



As part of Healthcare Improvement Scotland's Improvement Hub (ihub), SPSP activities support the provision of safe, high quality care, whatever the setting.

Sepsis Driver Diagram



Change Package

Testing and implementation of these change ideas can be supported by a number of resources:

National early warning score (NEWS) in NHS Scotland, e-learning module: <https://learn.nes.nhs.scot/2983/elearning-medical/national-early-warning-score-news-in-nhs-scotland>

NHS Scotland NEWS and Sepsis App: <https://itunes.apple.com/gb/app/nhs-scotland-news-and-sepsis-screening-tool/id657497806>

ihub Sepsis Toolkit: <http://ihub.scot/sepsis-toolkit/>

Reliable Sepsis Screening	Identify sepsis using NEWS charts + suspicion of infection Implement screening tool: <ul style="list-style-type: none">NEWS trigger - see recommendations from Royal College of Physicians which recommend a trigger of NEWS = 5 https://www.rcplondon.ac.uk/projects/outputs/national-early-warning-score-news-2Suspicion of infection – ‘<i>could this deterioration be due to infection?</i>’
Ensure reliable communication across clinical teams of at risk patients	Consider including representatives from SAS / GP and Out of Hours in sepsis teams Include at risk patients in safety brief Use visual cues to identify deteriorating patients Standardise communication and handovers between wards/departments - use SBAR to ensure reliable communication Multi-disciplinary rounds & Daily Goals Early senior review to document treatment escalation plans for all deteriorating patients
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 identifying at risk patients for handover – nursing and medical Ideas to test include: <ul style="list-style-type: none">Outreach teams to include ward sweepingWipe Boards to highlight patients at riskIT solutions (e.g. electronic track & trigger systems)

<p>Ensure reliable delivery of Sepsis Six within 1 hour</p>	<p>Implement Sepsis Six Checklist</p> <ol style="list-style-type: none"> 1. Give oxygen appropriately – target SpO2 between 94-98% (exception is patients at risk of hypercapnic respiratory failure, who should have oxygen administered to a target saturation of 88-92%). 2. Take blood cultures and consider source control 3. Give IV antibiotic according to local formulary 4. IV fluid challenge using balanced crystalloid (minimum 500 mls. within 1 hour), reassess and repeat as indicated <p>https://www.nice.org.uk/guidance/cg174/resources/composition-of-commonly-used-crystalloids-table-191662813 http://ihub.scot/media/1847/201312-nice-guideline-iv-fluid-therapy-in-adults-in-hospital.pdf</p> <ol style="list-style-type: none"> 5. Measure lactate 6. Monitor accurate urine output <p>The Surviving Sepsis Campaign Bundle: 2018 update: Mitchell M. Levy, Laura E. Evans and Andrew Rhodes https://link.springer.com/article/10.1007%2Fs00134-018-5085-0</p>
<p>Source Control</p>	<p>Include on checklist</p> <ul style="list-style-type: none"> • Formally evaluate patient for a focus of infection amenable to source control measures • Implement source control measures as soon as possible following successful resuscitation
<p>Ensure reliable escalation of septic patients to higher level of care</p>	<p>Include on Checklist</p> <ul style="list-style-type: none"> • Review time • Consultant informed • Critical Care review

Antimicrobial stewardship	<p>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</p> <ul style="list-style-type: none"> • continuing need for antibiotic and review of indication for antibiotic • review of available microbiology and de-escalation of treatment according to susceptibility • daily review of need for IV therapy and potential for switch to oral therapy • consult local antibiotic policy
Education on burden of illness & current process reliability	<p>Local & national awareness campaigns Medical staff induction, foundation training & undergraduate curriculum Support clinical teams to use data on process reliability to understand opportunities for improvement Link with critical care to generate learning from unscheduled admissions</p>
Provide training to staff on clinical knowledge and improvement skills	<p>Include on nursing staff induction and updates Medical staff induction, foundation training [DOTS] & Undergraduate curriculum Access NEWS eLearning module Support clinical staff to identify and undertake tests of change based on local process data</p>
Executive Sponsorship	<p>Include data and discussion of process reliability in Executive Walkrounds Provide visible Medical Executive Sponsorship</p>
Clinical leadership	<p>Identify local clinical leadership to drive improvement</p>
Multi – disciplinary team working	<p>Implement multi – disciplinary mortality & morbidity reviews that include General Ward and Critical Care</p>
Develop measurement framework to guide improvement	<p>Identify local data collection roles within the multi – disciplinary team</p> <p>Build local teams understanding of measurement for improvement</p> <ul style="list-style-type: none"> • Sepsis six bundle compliance • Time to 1st antibiotic dose • Antibiotic compliance (local policy) and antibiotic review <p>Consider inclusion on local QI dashboards</p>

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