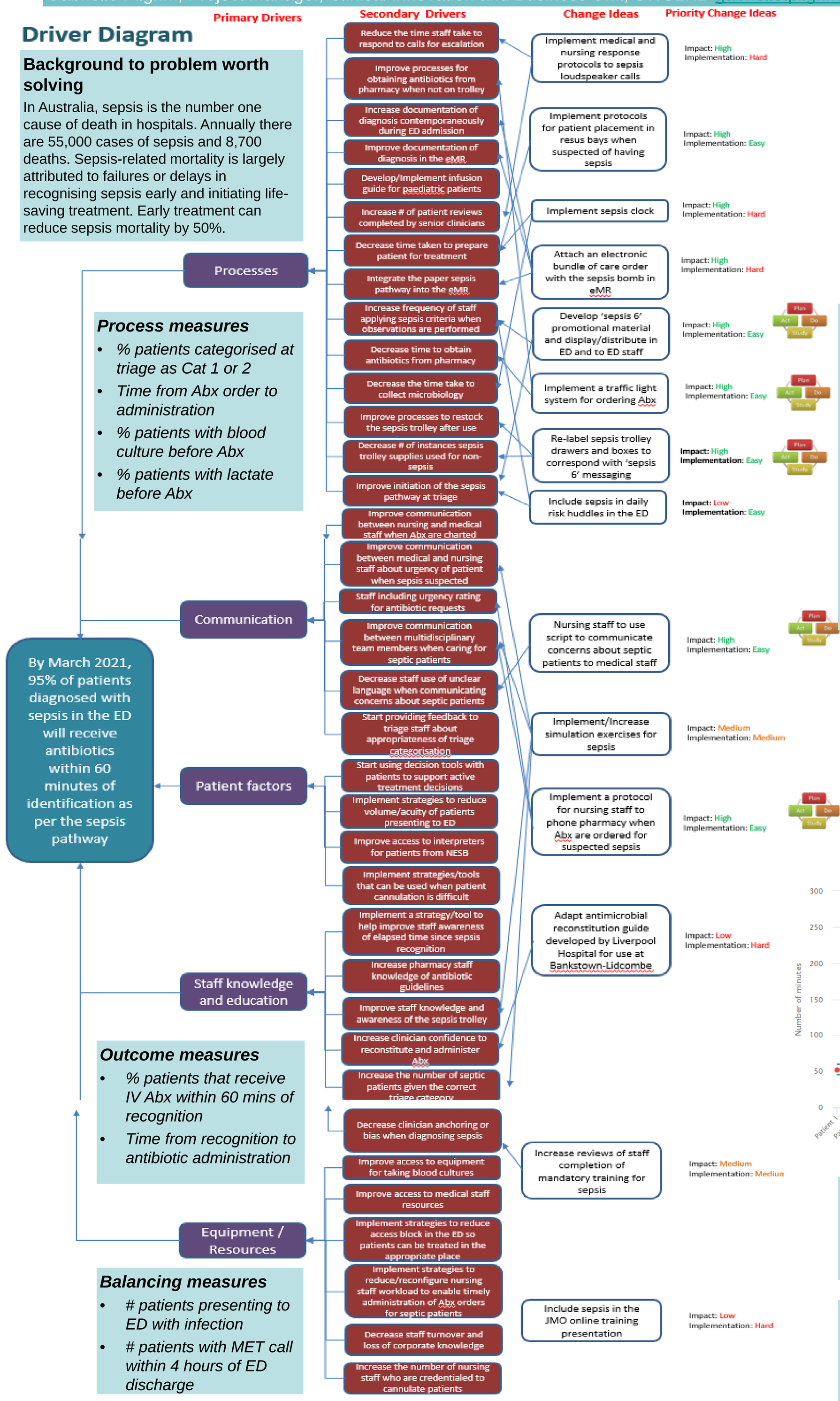
ED Sepsis – Reducing time to antibiotic at Bankstown-Lidcombe Hospital

Gabrielle Pilgrim, Project Manager, Clinical Innovation and Business Unit, SWSLHD gabrielle.pilgrim@health.nsw.gov.au ECLP Cohort 23

Driver Diagram



Background to problem worth solving

In Australia, sepsis is the number one cause of death in hospitals. Annually there are 55,000 cases of sepsis and 8,700 deaths. Sepsis-related mortality is largely attributed to failures or delays in recognising sepsis early and initiating life-saving treatment. Early treatment can reduce sepsis mortality by 50%.

Process measures

- *% patients categorised at triage as Cat 1 or 2*
- *Time from Abx order to administration*
- *% patients with blood culture before Abx*
- *% patients with lactate before Abx*

Outcome measures

- *% patients that receive IV Abx within 60 mins of recognition*
- *Time from recognition to antibiotic administration*

Balancing measures

- *# patients presenting to ED with infection*
- *# patients with MET call within 4 hours of ED discharge*

Team members

- **Sponsors**
- Ms Linda Campbell, Director of Nursing and Midwifery, Bankstown-Lidcombe Hospital
- Mr Ken Hampson, Director of Clinical Governance, SWSLHD
- **Project Team members**
  - Honey Philip – MET CNC
  - Jenny Morris – ED CNC
  - Katrina Doyle – Paediatrics Staff Specialist
  - Lai Heng Foong – ED Staff specialist
  - Michael Patane – ED NUM
  - Natalie Kahwajy – AMS Pharmacist
  - Tony Fineeran - Consumer
  - Vincent Ngain – Geriatrics Staff Specialist
  - Vinstein Brillante – Clinical Program Manager

Link to National Standard or Strategic Imperative

Enterprise-wide risk register

Safety and quality accounts review

Safe, Quality Care

Literature review

Bentley, J. et al. (2016). Seeking Sepsis in the Emergency Department - Identifying Barriers to Delivery of the Sepsis 6. BMJ Open Quality, doi: 10.1136/bmjquality.u206760.w3983

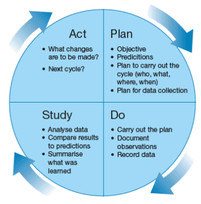
Coopersmith, C. et al. (2018). Surviving Sepsis Campaign: Research Priorities for Sepsis and Septic Shock. Critical Care Medicine, 46(8), 1334-1356. doi: 10.1097/CCM.0000000000003225

Thompson, M. et al. (2016) Resuscitation Bundle to Improve Outcomes in Septic Shock Patients: Evaluation of the Michigan Health and Hospital Association Keystone Sepsis Collaborative. Critical Care Medicine, 44(12), 2123-2130. doi: 10.1097/CCM.0000000000001867

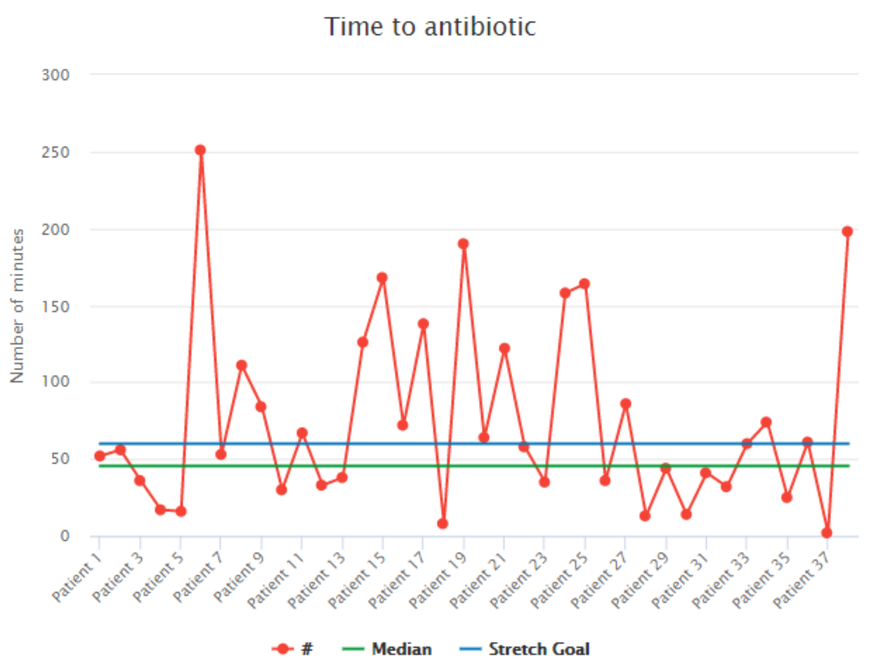
Change concept 1 – Re-label the sepsis trolley

Change concept 2 – Communication protocol for urgent pharmacy requests

Change concept 3 – Sepsis 6 promotional materials



Results



Project challenges:

- COVID-19 Pandemic, including local infection resurgence and staff redeployment
- Facility redesign of ED
- Limited senior medical engagement

Overall Outcome of Project:

To date, the aim of 95% of patients receiving antibiotics within 60 minutes of sepsis recognition has not been achieved. However, the team have commenced implementing several PDSA cycles for change ideas.

Next steps

- Conduct PDSAs for identified change ideas
- Implement systems for regular data collection and review
- Include project as regular agenda item on ED exec meeting

Plans to sustain change

- *Build monitoring functions and responsibilities into senior leadership positions and existing governance arrangements.*
- *Involve more clinical staff in project activities and build QI capacity of staff.*
- *Replicate successful PDSAs for use with inpatient settings.*

Plans to spread /share change

- District / NSW / ACHS quality awards
- Local innovation and quality showcase events
- ACI Innovation exchange