The Journal of Health Design

DESIGN INSIGHT

Changing the way we deliver care: Lessons from the world of management

Mainak Majumdar[1,2], Devika Nair[2], Suhanthini Ponnampalam Baskar[3]

1. School of Medicine, Melbourne Campus, University of Notre Dame, Australia
2. Werribee Mercy Hospital, Weribee, VIC, Australia
3. Mercy Health, Werribee, VIC, Australia

SUMMARY

Change management is an essential component of implementing improvement strategies for delivery of care in health services. We describe how we adapted Kotter's eight-step process, a change bible for managers in many industries, to transform sepsis care in a health service in Victoria, Australia.

Key Words: Change management; Hospital management; Krotter's eight-step model; Healthcare service delivery

To Cite: Majumdar M, Nair D, Baskar SP. Changing the way we deliver care: Lessons from the world of management. JHD. 2026;11(1):775–779. https://doi.org/10.21853/JHD.2026.253

Corresponding Author: Mainak Majumdar (mainakmajumdar@gmail.com): School of Medicine, Melbourne Campus, University of Notre Dame, Australia

INTRODUCTION

Sepsis, a syndrome of physiologic, pathologic, and biochemical abnormalities causing life-threatening organ dysfunction due to dysregulated host response to infection,[1] is a time-critical medical emergency and has been recognised by the World Health Organization as a global health priority since 2017. Accumulating evidence over decades demonstrates reduced mortality from sepsis after implementation of sepsis care bundles.[2]

SUMMARY

Victoria, Australia, does not have statewide antimicrobial prescription guidelines, and there are variations in clinical practice between Victorian healthcare services. Our health service provides care in geographically and clinically disparate settings in Victoria—from a general metropolitan teaching hospital in a rapidly growing population corridor to a specialist women's hospital with only Obstetrics, Gynaecology, and Neonatology services on-site, co-located with a tertiary hospital run by different health service.

In light of adverse events within the health service related to delays, inconsistencies in sepsis care and audit data demonstrating higher usage of restricted antimicrobials than peer Victorian hospitals in both critical care and general ward settings, a Sepsis Working Group was formed to reduce preventable harm to patients with sepsis through early recognition and prompt standardised management.

The Sepsis Working Group (SWG) adapted Kotter's 8-step model,[3] a structured approach to general organisational change reported to help reduce resistance and implement change successfully. The Group leveraged Kotter's model in these eight ways:

1. **Create a sense of urgency:** The SWG leveraged data from recent index cases and coroner's reports to highlight significant issues, which were presented to governance and operational administrative leaders

in the health service, to advocate for change from business as usual.

2. **Form a powerful coalition:** The SWG canvassed support from the chief medical officer (CMO) and Health Service Governance Committees responsible for compliance with the following National Standards for Quality Health Service (NSQHS) Standards:[4]

    - Medication Safety
    - Preventing and Controlling Infections
    - Recognising and Responding to Acute Deterioration
    - Comprehensive Care
    - Clinical Governance

3. **Articulate the vision for change:** To create a unified clinician-driven protocol, the SWG created a user-friendly governance framework based on current SEPSIS-3 Guidelines with overarching subsections for individual patient subsets; clear guidance reflecting workflows, including antimicrobial choices and escalation criteria across all health service sites; and with integrated ability for audit and feedback.

4. **Communicate the vision:** The SWG advocated for a multidisciplinary approach, bringing together diverse clinical stakeholders—infectious diseases teams at each site, intensivists, emergency physicians, pharmacists, nurses, clinical educators—to co-design an organisation-wide, evidence-based pathway consistent with current best practice, reflective of actual clinical workflow, providing clear guidance for identifying and managing sepsis, standardising antimicrobial choices, and ensuring all interventions occurred within the recommended timeframes.

5. **Remove obstacles:** The SWG identified and recruited clinician champions from each specialty, site, and craft group. Subsequently, there were 18 months of negotiations to ensure agreement on definitions, consistency with current professional standards guidelines from specialist colleges, Safer Care Victoria, and the Department of Health. There was negotiation of consensus positions on antimicrobial choices between different infectious diseases teams, review of consistency and availability of supply of antimicrobials by pharmacy, review of current nursing practices to ensure delivery of Sepsis-6 Bundle feasible within 60 minutes, and acceptance of site-specific operationalisation within identical time frames after review, and approval of agreed procedures by clinician stakeholders.

6. **Create short-term wins:** The SWG conducted a short high-visibility campaign, including education sessions, in-service and grand rounds for familiarisation prior to a coordinated introduction of cohort-specific "Sepsis Pathway"—a single document for guidance on identification of sepsis, risk-stratification for septic shock, escalation guidelines for senior review and physiologic support, auditable time-driven directive guideline for delivery of Sepsis-6 bundle within 60 minutes, cohort-specific antimicrobial choices, doses, and recommended administration, including suggestions for direction of ongoing care.

7. **Build on the change:** The SWG conducted early audit and feedback sessions with junior medical and

ward nursing staff and shared the information with the CMO Office, Operational Leads, NSQHS Standards Committees, and Health Service Board, and presented audit results via hospital grand rounds at all sites.

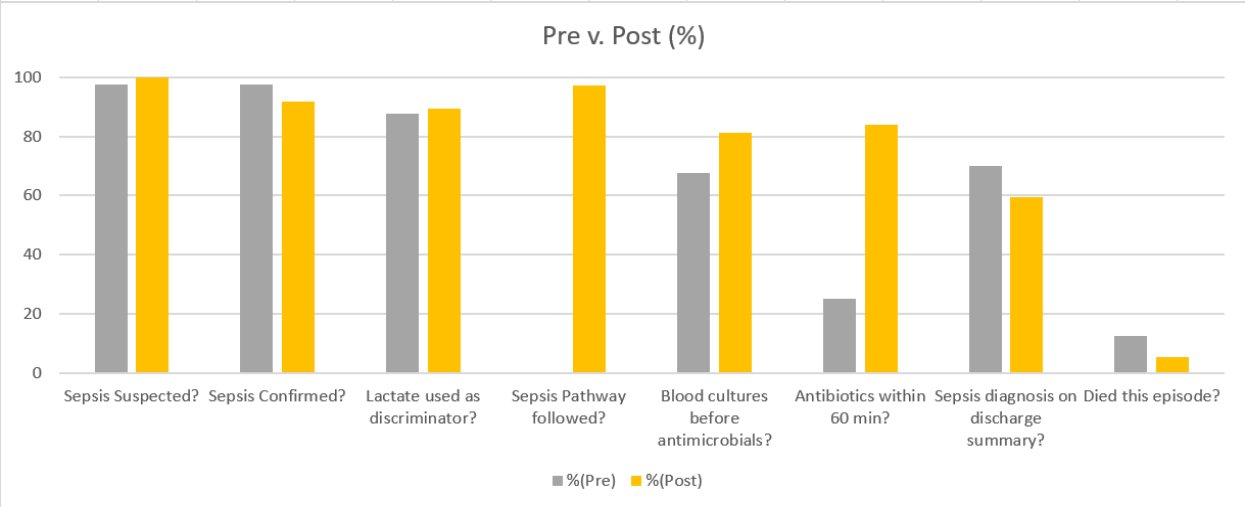
8. **Anchor the changes in corporate culture:** The SWG recommended ongoing education program to maintain familiarity given turnover of medical and nursing staff; ongoing review by stakeholders to ensure currency of guidelines and appropriateness of antimicrobial choices; development of local antibiogram, 6-monthly regular audits to review compliance with reports integrated into other reportable parameters (mortality, discharge diagnosis-related groups, hospital-acquired complications, antimicrobial surveillance and stewardship reports), with a direct reporting line to the Health Services Board.

LESSONS LEARNED

There was demonstrable improvement in clinical performance.[5] Initial comparison of a convenience sample of patients identified with sepsis before and up to 6 months after introduction of the Sepsis Pathway showed the following:

- A 50 per cent reduction in in-hospital mortality in patients identified with sepsis;
- The proportion of patients getting blood cultures prior to receiving antibiotics increased from 67.5 per cent to 81 per cent; and
- The proportion of patients receiving antibiotics within 60 minutes of diagnosis increased from 25 per cent to over 80 per cent (Figure 1).

Figure 1: Pre- vs. post-sepsis



A subsequent audit (12 months after introduction of the Sepsis Pathway) of a further convenience sample showed the following:

- Sustained delivery of antibiotics within 60 minutes of sepsis diagnosis;

- Mortality limited to patients with pre-existing limitations on care; and
- Significant deterioration in quality and detail of documentation, coinciding with medical and nursing staff turnovers (Table 1).

Table 1. Results of audit 12 months after introduction of Sepsis Pathway (by adult specialties)

	Minutes to IVABx	LOS (Days)	MET Call	Unplanned ICU Admission	Systemic Sepsis	Death	Sepsis Records/ Total Records
General Medicine	52	7	4	4	4	2 *	26/30
General Surgery	36	1.27	1	0	0	0	14/20
Maternity	22	3.14	6	3	3	0	14/66
* age>90 years, lactate>8, limits on care at admission							

Our experience provides useful insights on the adaptation of well-described organisation change methodology to implement quality improvement measures in health services. The serial audits also provide salutary reminders on the following:

- The need for sustained education for a mobile clinical workforce working across different health services with local variations in clinical practice;
- The need for sustained organisational effort to maintain awareness of local protocols amongst frontline clinical staff;
- The need for dedicated resources for periodic audit with representative sample sizes as opposed to convenience sample snapshots;
- The difficulties in extracting meaningful auditable data from paper-based notes; and
- The consideration to integrate audit features into electronic medical record (EMR) design.

DESIGN INSIGHT

Sepsis is a worldwide healthcare priority. This quality improvement initiative adapts Kotter's eight-step change management model to implement a standardised sepsis pathway across diverse health service sites in one Australian state, addressing delays, inconsistencies, and high antimicrobial use through multidisciplinary collaboration and evidence-based protocols aligned with SEPSIS-3 guidelines. Early audits revealed striking gains, including a 50 per cent drop in in-hospital mortality; blood cultures prior to antibiotics rising from 67.5 per cent to 81 per cent; and timely antibiotic delivery (within 60 minutes) surging from 25 per cent to over 80 per cent, with sustained adherence at 12 months despite workforce turnover challenges.

The team underscore the necessity of ongoing education, robust auditing beyond convenience samples, and electronic medical record integration to combat documentation lapses in mobile workforces, offering a replicable blueprint for clinician-led transformations in complex healthcare settings. By embedding short-term wins and governance reporting, it exemplifies how structured change theory overcomes local barriers like antimicrobial guideline variations, enhancing patient safety in time-critical emergencies. This work

illustrates the impact that thoughtful clinicians can have when adopting a system's wide approach to a priority for patients.

Dr Carolyn O'Shea
General Practitioner
Greensborough, Victoria, Australia

REFERENCES

1. Singer M, Deutschman CS, Seymour CW, et al. The Third International Consensus Definitions for Sepsis and Septic Shock (Sepsis-3). *JAMA*. 2016;315(8):801–10. doi:10.1001/jama.2016.0287
2. Surviving Sepsis Campaign. History of the Surviving Census Campaign. [Internet]. [Accessed 2025 Nov 12]. Available from: https://www.sccm.org/survivingsepsiscampaign/history-of-sepsis
3. Kotter J. *A sense of urgency.* 2008. Boston: Harvard Business School Press, Boston.
4. Australian Commission on Safety and Quality in Health Care. National safety and quality health service standards. [Internet]. [Accessed 2025 Nov 12]. Available from: https://www.safetyandquality.gov.au/standards/nsqhs-standards
5. Majumdar M, Nair D, Baskar S. You give me fever! Rolling out a sepsis protocol. Poster presented at: International Forum on Quality and Safety in Healthcare, 2024 November 6–8; Brisbane, Australia.

ACKNOWLEDGEMENTS

The authors would like to acknowledge all members of the Sepsis Working Group and the Health Informatics team at Mercy Health, Victoria. The quality improvement project was led by SB. MM participated in the project, designed the audits and assisted with data analysis. DN was involved with data collection and data cleaning. SB and MM reviewed the manuscript.

PEER REVIEW

Not commissioned. Externally peer reviewed.

CONFLICTS OF INTEREST

The authors declare that they have no competing interests.

FUNDING

None

ETHICS COMMITTEE APPROVAL

N/A