Safer Care Victoria

Emergency Care Clinical Network

Improving compliance with a peri-intubation bundle of care in Victorian emergency departments

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The problem

Emergency endotracheal intubation is a high risk procedure.

Adverse event rates between 8–12% have been reported.

Best practice processes have been identified in recent research and guidelines but compliance is unknown.

The objectives

This project aimed to improve compliance with an evidence-based peri-intubation bundle of care in Victorian emergency departments (EDs), including **Governance** parameters and **Process** parameters.

Governance objectives were:

- implementation of an intubation checklist
- implementation of routine intubation event audit.

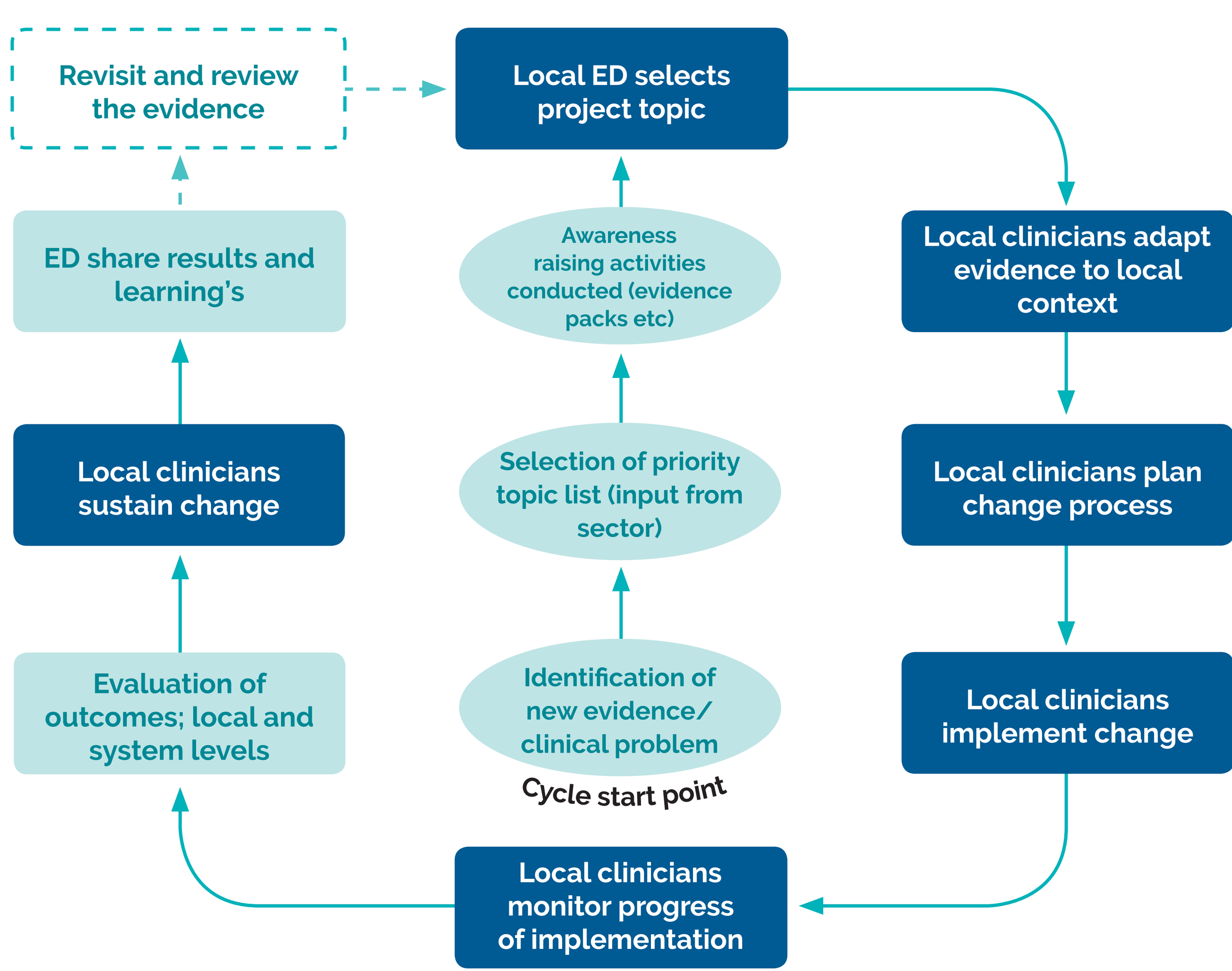
Process parameters were:

- evidence of a documented risk assessment
- use of apnoeic oxygenation
- capnographic confirmation of tube placement
- use of low tidal volume ventilation
- post intubation CXR and
- post-intubation nasogastric tube insertion.

How we work

ECCN works with emergency clinicians to increase the use of evidence-based care, enhance a patient–centred approach to service improvement and encourage knowledge transfer across organisational boundaries. It works with the 40 public hospital ED of various size and resources: metropolitan (18), regional (6), rural (12) and specialist ED (4).

ECCN modified knowledge transfer model



Key elements:

- evidence-sharing
- a structured approach to change with some flexibility for local factors
- provision of resources and data collection tools
- a dynamic partnership for support between the ECCN team and local project leaders (including project management training).

Participation by expression of interest.

Sites form their own project teams and design and implement change suited to their local environment.

Each site collects its own de-identified data which are analysed by the ECCN team to provide feedback on local change and are pooled with data from other sites to estimate system-wide impact.

Ethical approvals are obtained as per institutional requirements.

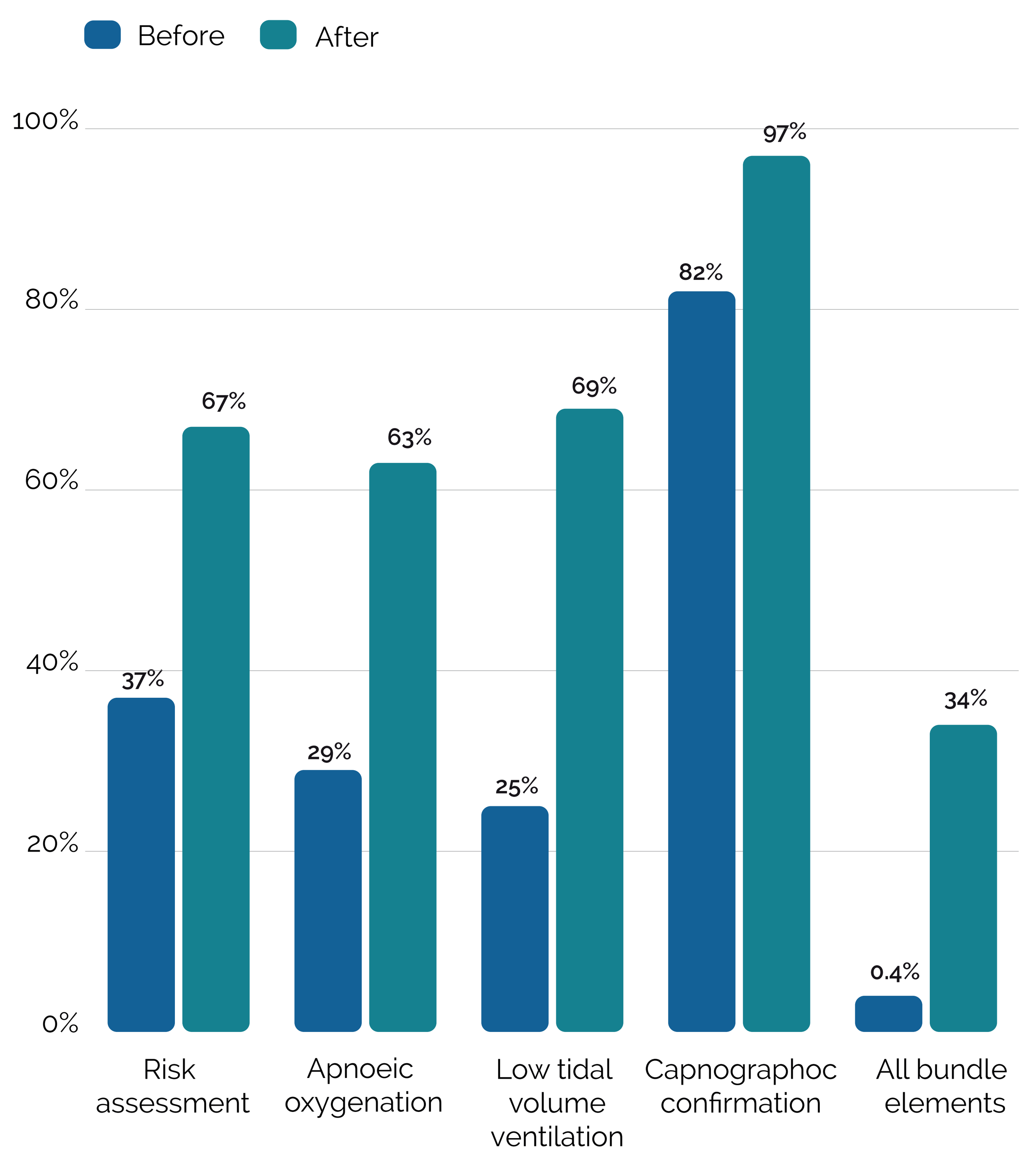
Results

15 EDs participated.

Governance

The proportion of EDs using peri-intubation checklists and audit of intubation events both increased from 7% to 87% (p<0.0001).

Process



Key success factors:

- interdisciplinary education and simulation sessions
- using local evidence-practice gaps to motivate change (in particular making the link to patient impact or outcome)
- local champions especially resuscitation room nurses and
- using a variety of implementation methods.

Key barriers were:

- high staff turnover
- shortage of dedicated education time
- overcoming the 'another piece of paper' attitude
- entrenched habits.

Conclusion

A clinician–led, clinical network facilitated quality improvement project improved compliance with evidence-based peri-intubation processes but there remains scope for further improvement.

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