Abstract:

AIMS: To decrease hospital-wide central line associated bacteraemia (CLAB) by spreading the prevention programme beyond the intensive care unit (ICU) in a secondary care hospital in Auckland, New Zealand.

METHOD: Over 15 months, four general surgical wards, five inpatient units, and surgical theatres adopted the quality improvement initiative, and were followed for a further 15 months. The initiative included central line insertion and maintenance checklists, a central line insertion pack, training in central line care, and a dedicated database. In addition, a checklist to assess the readiness of each new area was developed; data collection and analysis processes embedded, with rapid feedback to staff and in-depth review of all CLAB events.

RESULTS: Compliance measures improved significantly (compliance with insertion increased from a mean of 84% to 92% p=0.001; maintenance from 64% to 85%, p=0.002). The absolute numbers of CLAB fell hospital-wide from a mean of 2.3/month to 0.56/month. The rate of CLAB hospital-wide decreased from 7.04/1,000 line days to 1.37/1,000.

CONCLUSION: We have demonstrated that the CLAB prevention work proven effective in the ICU can be successfully adapted and expanded to the rest of the hospital. As central lines are increasingly inserted in units outside the ICU, and maintained in general wards, this work provides some useful insights into tackling this larger problem.

Reference: