



HEALTH QUALITY & SAFETY
COMMISSION NEW ZEALAND

Kupu Taurangi Hauora o Aotearoa



APPLIED HEALTHCARE INNOVATION

Collaborative to Prevent Central Line Associated Bacteraemia

National Collaborative to Prevent Central Line Associated Bacteraemia Storyboard

DHB: Taranaki

Team member: Carmel Lynds

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Topic

Currently we have had zero CLAB in our ICU

Evidence based practice with Insertion Bundles
however need to implement a Maintenance Bundle
Support from Management and Infection Control

Begin this year expect nine months to complete stage
one



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Evidence

CVL are commonly used in ICU/HDU

CLAB account for 40-60% of nosocomial blood stream infection in ICUs.

A serious infection often occurring in vulnerable sick patients

The mortality rate estimated between 10 and 50% and increased length of stay mean of 7 days. Therefore costly to both the patient well being and the health budget.

International recognition that a zero CLAB rate is achievable

[Institute for Healthcare Improvement 'Saving 100,000 Lives Campaign – www.ihl.org]

Cost of each CLAB estimated between \$NZ20,000 - \$54,000

[Seddon, M.E., Hocking, C.J., Mead, P., Simpson, C. *Aiming for zero: decreasing central line associate bacteraemia in the intensive care unit.* NZMJ. www.nzma.org.nz/journal/124-1339]

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I.C.U.

Briefly describe your ICU:

- **Type** : Level 2, open unit, with combined ICU/CCU/HDU
- **No of Beds**: 16 beds in total
3 of which are dedicated ICU rooms
- **Team**: HOD is our Intensivist
Anaesthetists who are rostered
Anaesthetic Registrars
Clinical Nurse Manager
Clinical Nurse Specialist
Allied Healthcare Workers
Registered Nurses
Healthcare Assistants
Ward Clerk
- **Culture**: Small unit with strong emphasis on multidisciplinary teamwork.
A friendly, supportive safe environment for patients, their family and staff.



Do we have a problem?

We use the MoH definition for Bacteraemia coupled with physician diagnosis and laboratory tests from CVL tips and site

Our unit has had no CLAB since data collection started in 2008

Therefore zero CLAB per 1:10000 line days

Problem?

We have no maintenance bundle and no data to determine where the line was inserted when CLAB occurs in another unit.



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Insertion Bundle

We have bundle check list that was implemented in June 2009

We audited this check list in October 2010 by randomly auditing 25 patients who had CVL inserted in ICU between June 2009 and July 2009

Variation in Process: 96% compliance with Barrier Precautions
83% compliance with Skin Antiseptic



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Maintenance Bundle?

We do not have a Maintenance Bundle

We have a daily log for PICC lines that is hospital wide but nothing for CVLs as a whole



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Describe your aim

1. Implement a maintenance bundle
 - have 100% compliance to the maintenance bundle within 4 months
 - do an audit of the first 3 months to map compliance and any problems encountered.
2. Work out line days for standardisation for benchmarking nationally.
3. Needs to encompass all CVLs in TDHB



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Ideas for Change

1. Implement maintenance bundle

- - assess documentation options
- - adopt best fit for Taranaki
- - education of staff to promote adoption, using 'champions', talking wall, staff meetings

2. Look at available data

- - Utilise the tally method to work out estimated average number of lines per day and therefore the total central lines days for the month
- - look at an IT solution

3. Long term roll out using Quality Risk Delegates.

