ICU CLAB data collection

CLAB ICU commenced in June 2007 with the aim to improve patient care by implementing a standardised sterile insertion technique for central lines. It included comprehensive data collection and reporting requirements to support clinical practice improvement.

In its current format, CLAB ICU is due to end in June 2009. This does not mean that changes instituted to date or data collection should stop. ICU CLAB is one of the eight clinical indicators chosen by NSW Health for routine surveillance of HAI in NSW and data collection for this indicator will continue indefinitely.

The CLAB ICU Expert Group, HAI Expert Advisory Group and HAI Prevention Working Party have collaborated to ensure there is a single process for the collection and reporting of ICU CLAB data. Version 2 of the NSW Health HAI Surveillance Manual which outlines the requirements for the ICU CLAB indicator was released in November 2008.

The CLAB ICU project team is facilitating transition by ICUs participating in the CLAB ICU Project to the NSW Health data collection system for ICU CLAB. The following is a brief explanation of the changes with further details available in the HAI Surveillance Manual. Please access the CEC website for relevant tools and resources.

**Summary of changes to data collection processes**

<table>
<thead>
<tr>
<th>CLAB ICU Project</th>
<th>HAI Clinical Indicator</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CLAB Numerator</strong></td>
<td></td>
</tr>
<tr>
<td>Reported by completing relevant central line insertion checklist and faxing to the CEC</td>
<td>Reported by noting on the “numerator page” on the tally tool and emailing it to the CEC and NSWH</td>
</tr>
<tr>
<td>CLABS were reported if they were detected more than 24 hours post ICU admission or discharge</td>
<td>CLABS are reported if they are detected more than 48 hours post ICU admission or discharge</td>
</tr>
<tr>
<td><strong>CLAB Denominator</strong></td>
<td></td>
</tr>
<tr>
<td>Calculated based on procedure and end dates noted on central line insertion checklists</td>
<td>Estimated by completing a tally tool</td>
</tr>
<tr>
<td>Included lines inserted in the ICU</td>
<td>Includes lines cared for in the ICU</td>
</tr>
</tbody>
</table>
What is the ICU CLAB indicator?
The ICU CLAB indicator is a ratio of CLABS to the number of “line days” i.e. days that ICU patients have central lines inserted.

**Numerator**  
Number of ICU-associated CLAB infections for the reporting month

**Denominator**  
The total number of central line days in ICU for the reporting month

The ratio is calculated separately for both centrally and peripherally inserted central lines for adults and paediatrics.

What is a CLAB Numerator?
This is defined in the HAI Surveillance Manual. There are a number of criteria to satisfy before a CLAB should be reported. The definition has been summarised in posters sent to each ICU and the process of applying the definition is illustrated below. The posters are available on the CEC website.

Q. Who should be involved in designating CLAB Numerator?
CLAB has both microbiological and clinical aspects. Therefore, when a positive blood culture is identified, collaboration between specialties is required. This may include the ICU specialist, microbiologist, infection control and others.

Q. When should this conversation occur?
As soon as positive blood cultures are identified. This will benefit the patient and support optimal treatment.

Q. Why do one or two CLABS even matter if they are so rare?
Patients in the ICU are particularly susceptible to HAI’s. A CLAB is a catastrophic event for a patient with a recognised mortality. CLABS are also associated with additional health care costs.

CLABs are considered preventable and this is well supported by literature. The **aim is zero ICU CLABs in NSW**. The collection of data by ICU’s is imperative to quantify the problem and to give a measure of performance to assist units to engage in clinical performance improvement.
How is the denominator calculated?
The value to use as the denominator is estimated by sampling how many patients have central lines on specific dates. It is calculated by counting the number of patients with a central line in situ in the ICU at least 3 to 5 days at the same time each day. One count is given per patient, regardless the number of lines. If a patient has both centrally and peripherally inserted central lines, the count is given to the centrally inserted line. If resources allow, units are encouraged to count every day.

Example, a patient has a femoral dialysis line, a subclavian central line and a cubital fossa PICC. This counts as 1 centrally inserted central line.

Do patients that have come to the ICU for central line insertion only get counted on the tally tool?
No.

Do we count lines in ICU patients that have been inserted outside the ICU?
Yes.

Why should we report infections and line days for lines not inserted in the ICU?
Central lines inserted outside the ICU but cared for in the ICU are exposed to ongoing risks associated with the ICU environment.

So, while the surveillance of CLABS has started in the ICU, it is intended that the scope be applied hospital wide. In the fullness of time, it is hoped that CLAB will be a hospital wide indicator.

How is data being collected now?
A tally tool is being used to collect ICU CLAB indicator data. The tally tool is an excel spreadsheet that assists sites in collecting numerator and denominator data. Only raw numbers are needed. No calculations are required as formulas have been written into the spreadsheet.

What does the tally tool look like?

<table>
<thead>
<tr>
<th>Month</th>
<th>Centrally Inserted CVC CLAB</th>
<th>Centrally inserted CVC CLAB/1000 line days</th>
<th>Peripherally Inserted CVC CLAB</th>
<th>Peripherally inserted CVC CLAB/1000 line days</th>
</tr>
</thead>
<tbody>
<tr>
<td>January</td>
<td>#DIV/0!</td>
<td></td>
<td>#DIV/0!</td>
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<tr>
<td>February</td>
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<td>May</td>
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</table>
Q. Who is responsible for collecting and submitting this data?
Negotiation must occur at a local level to ensure that data collection and verification processes involve intensive care, microbiology and infection control practitioners.

Infection Control Practitioners are responsible for submitting clinical indicator data to NSW Health. At this point in time, Intensive Care clinicians are requested to continue to submit this data to the CEC by email at the end of each month. The CEC is working in conjunction with NSW Health for a single online data collection system.

Q. What happens with this data?
The data is used to generate reports regarding CLAB rates. This has multiple uses, most importantly it allows the ICU to monitor performance in regards to this clinical indicator and improve patient care.

Q. Do I still fax checklists to the CEC?
A. Yes, until 30 June 2009.

Q. The new form says to fax straight after the procedure so what about the bottom part of the form where line removal/ICU discharge and CLAB status are recorded?
Following the transition there will be a centralised reporting mechanism but there is also an impetus on ICU’s to utilise local quality review processes, eg M&M’s and audits for opportunities to optimise care. The checklist may be useful for this purpose. It is anticipated that the checklist will become a statewide record of a central line insertion. The form will be printed in duplicate to allow inclusion in the medical record.

Q. How do you report a CLAB now that you don’t have to note it on the checklist before faxing?
All CLABS designated in the calendar month must now be recorded on the numerator worksheet in the tally tool.

Q. What happens if a CLAB is allocated after the calendar month?
You can resubmit the tally tool for that month. Please draw attention to the revised number when resubmitting.

Q. Is reporting of ICU CLABS mandatory?
Yes. ICU CLABs are required to be reported to NSW Health.