The Agency for Clinical Innovation (ACI) works with clinicians, consumers and managers to design and promote better healthcare for NSW. It does this by:

- **Service redesign and evaluation** – applying redesign methodology to assist healthcare providers and consumers to review and improve the quality, effectiveness and efficiency of services.
- **Specialist advice on healthcare innovation** – advising on the development, evaluation and adoption of healthcare innovations from optimal use through to disinvestment.
- **Initiatives including Guidelines and Models of Care** – developing a range of evidence-based healthcare improvement initiatives to benefit the NSW health system.
- **Implementation support** – working with ACI Networks, consumers and healthcare providers to assist delivery of healthcare innovations into practice across metropolitan and rural NSW.
- **Knowledge sharing** – partnering with healthcare providers to support collaboration, learning capability and knowledge sharing on healthcare innovation and improvement.
- **Continuous capability building** – working with healthcare providers to build capability in redesign, project management and change management through the Centre for Healthcare Redesign.

ACI Clinical Networks, Taskforces and Institutes provide a unique forum for people to collaborate across clinical specialties and regional and service boundaries to develop successful healthcare innovations.

A priority for the ACI is identifying unwarranted variation in clinical practice and working in partnership with healthcare providers to develop mechanisms to improve clinical practice and patient care.


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Executive Summary

Background

The NSW Agency for Clinical Innovation (ACI) Blood and Marrow Transplant (BMT) Network recognises that hospital cleanliness serves many purposes. A clean environment is a key strategy to reduce hospital-associated infections (HAIs), provide a safe environment for staff, patients and visitors, and reflects the hospital's philosophy of care and concern. The release of the NSW Environmental Cleaning Policy (PD2012_061) in 2012 provided the impetus for this initiative, having highlighted BMT units as extreme risk functional areas and recommending a 90% Acceptable Quality Limit (AQL) for environmental cleanliness.

In 2013, the ACI BMT Network began the Environmental Cleaning Project with the aims to:

1. Establish a baseline level of environmental cleanliness
2. Ascertain the methods by which BMT units are cleaned
3. Review resourcing, training and education of environmental services
4. Pilot and validate the Clinical Excellence Commission (CEC) environmental cleaning audit tool
5. Inform quality improvements in environmental cleaning standards in BMT/haematology units

Four rounds of external environmental cleaning audits have been conducted previously. In September 2013, the first round of audits conducted showed that none of the 15 units achieved the 90% AQL.

Round two audit results in May 2014 were more encouraging, with results of 5 units of 15 units exceeding the 90% AQL. This improvement was then exceeded in the August 2014 audit, with results ranging from 86-100% and 10 of 15 facilities exceeding the 90% AQL.

Continued dedication to the project was seen in the August 2015 audit results, as two units achieved 100% and eight units achieved 95%. The three units that were below the AQL were only marginally so, between 81-89%.

In this round, in December 2016, audits were again performed by an experienced external auditor across 15 sites. The site visits focused on outcomes, with ward visual inspections rather than process audits.

Key Findings

- 3 units achieved 99% and an additional 5 units achieved above 95%.
- 3 units fell below the AQL ranging from 70% - 89%
- 7 units either maintained or improved their score from the last external audit
- 2 units displayed a comparative decrease from last year

Recommendations

Overall recommendations from this fifth audit round are consistent with the recommendations provided in the 2014 and 2015 audit reports. Seven recommendations are made:

1. Sites should ensure compliance with the PD2012_061 Environmental Cleaning policy
2. Wards should ensure that their cleaning schedule reflects the cleaning audit tool used
3. Where an element continues to final, wards should undertake a review of the cleaning process
4. Hospitals should ensure that there is a robust governance structure and reporting framework
5. Maintenance and engineering should be involved in the cleaning audit process
6. Local ongoing education for cleaners is essential to maintain and improve cleaning standards
7. Local teams may wish to consider conducting random environmental swabbing (Optional).
# Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Executive Summary</td>
<td>2</td>
</tr>
<tr>
<td>Background</td>
<td>2</td>
</tr>
<tr>
<td>Key Findings</td>
<td>2</td>
</tr>
<tr>
<td>Recommendations</td>
<td>2</td>
</tr>
<tr>
<td>Contents</td>
<td>3</td>
</tr>
<tr>
<td>Background</td>
<td>4</td>
</tr>
<tr>
<td>2016 External Audit Results</td>
<td>5</td>
</tr>
<tr>
<td>Recommendations</td>
<td>6</td>
</tr>
<tr>
<td>Next Steps</td>
<td>7</td>
</tr>
</tbody>
</table>
In 2013 the ACI BMT Network began a year long Environmental Cleaning Project within 15 NSW BMT units. With the goal of reaching the NSW Environmental Cleaning Policy’s (PD061_2012) recommended 90% AQL for extreme risk functional areas within healthcare facilities. Three audits were conducted initially, and the results are documented below:

- **September 2013**: Round one (baseline) audit results showed that none of the 15 BMT units achieved the recommended 90% AQL for extreme risk functional areas
- **May 2014**: Round two audits were completed with more encouraging results, with five of 15 units exceeding the 90% AQL and an additional 3 achieving scores above 88%
- **August 2014**: Round three audit results ranged from 86-100%, with 10 of 15 facilities exceeding the 90% AQL

Although the initial project concluded in December 2014, the ACI BMT Network is committed to ongoing support to sustain the improvements in cleanliness.

In **August 2015**, a further round of audits was conducted, with one unit completing the audit in **March 2016** due to ward closures. Results ranged from 81-100% with 2 units achieving 100%, eight units achieving 95%, and the three units below the AQL ranging from 81% to 89%. These audits demonstrated that 11 units either maintained or improved their score from the previous round of audits in August 2014.

To enable continual meaningful comparisons with previous audit results, another round of audits across the 15 BMT facilities took place in **December 2016**. This round saw three units achieve 99%, and an additional 5 units achieve above 95%. Overall, seven units either maintained or improved their score from the last round of the audits in August 2015. The three units that were below the 90% AQL ranged from 70%-89%, with two experiencing a considerable decrease in results from the previous audit cycle.

Furthermore, the ACI BMT Network has pursued the initial project’s recommendation of measuring patient experience. Feedback from 460 patients across 12 sites has been collected over a two year period. This revealed that 98% or 451 patients felt that their environment was clean and safe all or most of the time.
In December 2016, a fifth round of external cleaning audits was undertaken by the ACI. Of the 15 sites audited, 12 units reached or exceeded the 90% AQL.

This shows an improvement from the 2013 phase one audit where none of the 15 BMT units achieved the recommended 90% AQL for Extreme Risk functional areas, as outlined in the NSW Environmental Cleaning Policy.

This round of audit results included:
- Three units achieved 99%
- An additional five units achieved above 95%
- Three units reported on below the 90% AQL ranged from 70% - 89%
- Seven units either maintained or improved their score from the previous round of audits in August 2015
- Two units displayed a comparative decrease from last year

These audit results represent sustained and continued improvements in environmental cleaning for seven units in the BMT Network.

For the eight units that experienced a decrease in their audit results, the following recommendations have been made:
- Conduct a full clean of the unit to achieve the 90% AQL standard
- Re-establish an internal cleaning audit program where monthly audit reports are provided to the unit manager
- Review education and training of the environmental cleaning team to determine their capacity to utilise personal protective equipment
- Review allocation of cleaning hours for the ward, and cleaning schedules to ensure all elements are on a regular cleaning program, including patient care equipment
Overall, the Environmental Cleaning Project continued to demonstrate:

- Improved public perception of BMT units as noted by 98% patients
- Continued use of documentation and completion of cleaning schedules
- Continued understanding of the need to maintain high standard of cleaning in the high risk BMT units
- Improved communication between the environmental services team and nurses, highlighting the importance of a multidisciplinary approach to cleaning

Where the internal processes for audit and actual cleaning processes are robust, external audit results have been sustained or have improved. These improvements are also more likely to be maintained in the future.

This round of audits highlighted that some units are not conducting interim audits as per NSW Environmental Cleaning Policy (PD061_2012) policy. Additionally, units are still utilising a range of different audit tools, preventing benchmarking across sites. The lowest performing units do not have robust auditing and reporting frameworks in place. This was also reflected in the 2015 report.

Recommendations

Recommendations from this audit round are consistent with recommendations provided in the 2014 and 2015 audit reports. Seven recommendations are made:

1. Sites should ensure compliance with PD2012_061 Environmental Cleaning Policy including:
   a. Auditing 50% of rooms in every Extreme Risk area every month
   b. Using audit tools that are reflective of the policy and CEC audit tool. Several tools are in use across the sites that differ in format and in content. Sites should work with the CEC to establish a single audit tool that would allow consistency in auditing and benchmarking across units.

2. Wards should ensure that their cleaning schedule reflects the cleaning audit tool used
   a. Every element audited should be on a cleaning schedule
   b. Every element audited needs to be allocated to someone to clean
   c. To comply with National Safety and Quality Health Service Standards, Standard 3, the ward cleaning schedule should include a sign off process. Cleaning schedules should exist for every piece of equipment on the ward, including patient care equipment.

3. Where an element continues to fail, wards should undertake a review of the process for cleaning and:
   a. Identify failed elements and ensure that the process for rectification is documented so that the same elements do not fail again in the following audit period
   b. Review whether the equipment provided for the element allows for the task to be completed
   c. Ensure that competing priorities of ward cleaners are addressed

4. Hospitals should ensure that there is a robust governance structure and reporting framework for the interim environmental cleaning audits conducted, including:
   a. Communication of audit results to relevant staff at all levels in the organisation
   b. Ensure cleaning audit reports are a standing agenda item at ward meetings and hospital infection control meetings
5. Maintenance and engineering are to be involved in the cleaning audit process as they may need to be involved with rectification of failed elements such as air conditioning and setting up a preventative maintenance program.

6. Local ongoing education for cleaners is essential to maintain and improve cleaning standards.

7. To further enhance the environmental cleaning surveillance performed by the units, local teams may wish to consider conducting random environmental swabbing. This could be used to provide further evidence of any environmental contamination and demonstrate appropriate cleaning practice (Optional).

Next Steps

To continue to measure and sustain improvements, the ACI BMT Network is committed to supporting ongoing external environment cleaning audits, with audits planned for 2018.

Additionally, the ACI BMT Network is proposing an education and training forum to occur in this financial year. This forum would aim to bring together the CEC, clinical governance, nurses, cleaners, and other key stakeholders, to discuss their experiences and to share improvement practices for environmental cleanliness.