Evaluating Environmental Cleanliness Using Two Approaches: A Multi-Centred Australian Study

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Evaluating environmental cleanliness using two approaches: a multi-centered Australian study

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There are different approaches to evaluate environmental cleanliness in healthcare including:

- ATP
- Visual audit
- Assessment using ultraviolet solution (UV) and fluorescent light
- Microbial culture

METHODS

- Introduced a standardised program for evaluating environmental cleanliness within Tasmanian healthcare facilities using two different evaluation methods
- Development of a protocol
  - The evaluation of environmental cleanliness involved two elements: the use of a UV solution (discharge cleans, quarterly) AND visual assessment (quarterly). Based on existing literature and approaches
  - Development of resources:
    - Educational resources
    - Videos
    - Auditor training and exam
    - Development of an App for real time submission
    - Development of real time reporting
    - Education

RESULTS

- 12 hospitals in Tasmania participated
- Number of overnight beds in the participating hospitals ranged from 20 to 280 beds
- First 12 months of data reported

- 290 fluorescent light assessments and 232 visual inspections were undertaken
- Using the fluorescent light method, 1668 individual objects were assessed. The percentage of correctly cleaned items increased from 82.3% to 85.4%, mean 82.8%.
- 8 most frequently touched objects: 82.8% (95% CI 78.9–86.9%) were cleaned to an acceptable level compared to 95.9% (95% CI, 89.3–95.8%) for the visual inspection audits (P < 0.01).

CONCLUSION

- A higher baseline level of cleanliness using the fluorescent light method than previously documented in the literature.
- We assessed a number of high-touch sites using both visual inspection and fluorescent light assessments to enable comparisons. Objects were frequently deemed to be visually acceptable yet may not have been cleaned.
- The auditors in our study were required to complete a formal assessment process and were supported by a range of resources.
- A multi-site standardised approach to evaluating cleanliness is possible

POINTS OF INTEREST

- We employed methods to improve inter-rater reliability through a formal auditor assessment process.
- Our study was supported by bedside online data entry methods using iPads and smartphones, and real-time reporting, which enabled immediate feedback to staff and the option for hospitals to access their own data.
- Although difficult to quantify, we observed a tangible sense of enthusiasm from environmental health services staff. We believe it could lead to greater collaboration between infection prevention and control and environmental services.

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