

# **ICU Not Wasting Environmental Sustainability Project**

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#### **Case for change**

Currently within ICU, patient bedside trolleys are over or incorrectly stocked 100% of the time. When a patient with a multi-resistant organism (MRO) is discharged, practice has been to discard majority of unused consumables within the trolley for infection control purposes leading to excess waste production.

Addressing this issue will reduce the costs associated with product loss and waste disposal as well as reducing the carbon footprint of the unit, contributing to improved population health.

#### Goal

By April 2024 SVHS ICU will have improved sustainable practices to deliver better efficiencies for staff in the delivery of patient care at the bedside.

#### **Objectives**

To reduce unused clinical product waste generated from overstocked bedside trolleys for patients with MROs from an average of 127 to 64 by April 2024.

#### **Method**

- Staff and patient surveys on environmental sustainability
- Process mapping workshops on ICU waste production
- Systems data: MRO patient numbers, consumable costs, waste volumes
- Audits: bedside trolley stock level/content audits
- Peer benchmarking for comparison of practice
- Staff Interviews: ICU nursing staff, procurement, infection control subject matter experts
- Root cause analysis: whys & issue prioritisation
- Focus groups: issues, brainstorm solutions ideas, dot-٠ mocracy
- Solutions trials PDSA testing cycles

#### **Results**

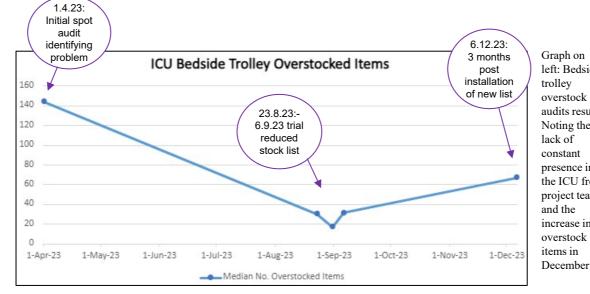
We are currently still in the implementation stage with planned phases of solutions three and four's implementation in progress.

**Solution one:** Refined ICU bedside trolley list – implemented and BAU.

Reducing the number of products, reducing the quantities of those products and colour coding the trolley list to identify what products can be wiped and used (green) and what must be discarded (red) after discharging a patient with an MRO.

**Results to date**: Delay in six month follow up audit. A reduction in overstocking by over 50% seen within initial three months.



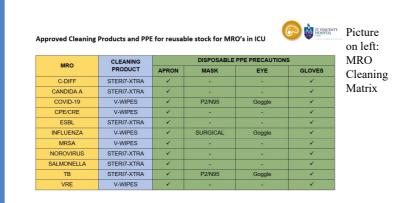


MRO PATIENT ONLY Discard general waste

Solution two: MRO Cleaning Matrix – implemented and BAU.

In collaboration with the infection prevention and control team and ICU nursing staff, an MRO cleaning matrix was developed and printed on the reverse side of the refined ICU bedside trolley restock list as well as on staff identification flip cards to clearly articulate how to safely manage the stock post MRO patient discharge.

Results to date: Adherence to only discarding items colour coded in red on the trolley list identified in post MRO discharge waste audits from Aug. 22- Feb. 23.





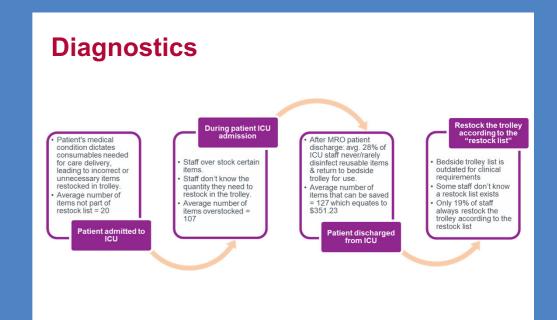
#### Acknowledgements

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Graph on left: Bedside trolley overstock audits results Noting the lack of constant presence in the ICU from project team and the increase in overstock items in

Picture on left: Bedside trolley waste audits post MRO discharges The 'Aug 23' table on the left shows results pre solution 1 & 2 implementation. Items highlighted in yellow have been discarded and this is considered unnecessary waste. The '22/02/24' table on the right doesn't show any unnecessary waste being discarded as no items have been discarded that can be cleaned and used (highlighted green)



#### Sustaining change

- Implementation plan: Reinforcement and involvement strategy (socialised with ICU staff).
- Linking into SVHN's environmental sustainability plan and hospital KPIs.
- Establishment of an environmentally sustainable 'green team' of ICU staff who will work together to continue to drive the change, e.g. auditing to assess compliance and feedback to management and staff.

### Conclusion

- Continuous engagement with the key targets is essential for successful implementation of any solution. The staff need to be involved in as much of the process as possible so that the change is theirs to make rather than another "thing" they must do as busy clinicians. This is especially important when the focus of the project is on environmental sustainability rather than a clinically focused and patient outcomebased project.
- Reinforcement and sponsorship are crucial to a successful implementation.
- Culture always wins, so understand the departments culture and how a sustainability project might fit.