



REDUCTION OF WASTAGE OF LINEN AND CONSUMABLES IN THE INTENSIVE CARE UNIT (ICU) 2020

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Aim: To reduce the waste of linen and consumables in the ICU.

Background: During the Green Ward Competition workshop it was identified that a key area of waste on the unit was stockpiling of linen in the bedside spaces. Nursing staff store clean consumables, including linen, in the patient's bedside cupboard just in case they are needed so that the nursing staff do not need to leave the bedside of their critically ill patient. Infection control policy requires that all bedside consumables must be disposed of when a patient is discharged, leading to waste of unused items.

Approach:

- **Strategic choice of project:** Linen and consumables use were identified as a key area of waste in ICU through staff experience.
- **Engaged colleagues/patients:** Staff ran a poster campaign from week 2 of the project and discussed the project at handovers for nursing staff and healthcare assistants throughout the rest of the project.
- **Robust measurement of impact:**
 - Week 1: Baseline Data was gathered on the amount of linen and consumables wasted after each discharge; data collection was blinded.
 - Week 2: Data was then collected during an awareness-raising campaign.
 - Weeks 3-6: a trolley was introduced in the centre of the unit to allow nurses to access linen and consumables closer to the patient's bedspace to discourage stockpiling.
 - Week 7: Data was collected after the trolley was removed (due to trolley not meeting infection control standards).
- **Steps taken to ensure lasting change:** Application for funding for a trolley that is infection-control compliant.



Evidence of Impact:

Over the 7-week project period, there was an average of 4 discharges per week recorded during the project for which data was collected. A search of the patient management database revealed 756 discharges occurred in 2019, an average of 14 discharges a week suggesting incomplete data capture during the project.

Environmental & financial benefit:

At baseline, wastage of all items had a carbon footprint of 2.51kgCO₂e and cost £7.65 per discharge. Repeat washing of unused linen contributed the most to the footprint at a cost of 1.62kgCO₂e and £4.89.

After awareness raising in week 2 the team achieved a **55% reduction in carbon emissions** from baseline, dropping to 1.13kgCO₂e and a **48% cost reduction**, dropping to £3.94 of wastage per discharge.

After introducing and using the trolley in weeks 3-6; a further reduction was achieved; carbon emissions dropped by a further 14% to 0.97kgCO₂e and the cost by a further 29% to £2.82 per discharge.

When the **trolley was removed** there were still less waste than at baseline, 44% below baseline, 1.38kgCO₂e per discharge. However, wastage was more than when the trolley was in place, jumping up by 43% when compared to levels when the trolley was available. Costs when the trolley was removed were £3.92 per discharge.

Forecast over 1 year;

Assuming a trolley was reintroduced, the forecast for savings over 1-year emissions savings would be 1,161kgCO₂e and cost savings would be £3,642 (not taking the capital cost of the trolley into account).

Social sustainability & Engagement:

Comments from the staff demonstrated the educational benefits of the competition in increasing both knowledge and action around sustainability at work and at home. The project also improved the working environment for staff, making it easier for them to do their job.

I enjoyed being part of the Green Ward Competition. This project has made me more aware of how I can help to reduce waste and become more eco-friendly, not only at work but also in my personal life.
Christina Canavan, Senior Staff Nurse.

Having the linen on a trolley saves the nurses' time and that time can be better used to care for the patients. **Sarah Ede, Senior Sister.**