



SusQI project report: Reducing Duplicate Ordering of Medication – Acute Medical Unit

Project completed in 2018 as part of the University Hospital Southampton Green Ward Competition.

Background:

The Acute Medical Unit (AMU) is a 57-bedded ward tending to the acute health needs of the Southampton population and surrounding areas. As a busy ward, medications that are ordered specifically for individuals are often ordered multiple times. This is an extra cost to the unit, Trust and environment with the amount of medication purchased and then later disposed and wasted.

Specific Aims:

To reduce the amount of duplicate medication orders on the Acute Medical Unit through cooperation with patients and families.

Methods:

Baseline data was collected which identified there was no formal process for avoiding duplicate medication orders.

The goal and background of the project was communicated to the team.

- A Team Leader of each area checked each shift that medication in the iBin (location of all ordered medication) was in the correct POD (patient own drugs) cupboard so that medication was transferred with patients to wards.
- To prompt the Team Leader to do this a 'tick box' was introduced on the white boards of each area to prompt and remind staff to perform the checks each shift at 0730, 1200 and 2000.
- Follow up data was collected during the project

Measurements:

Financial: Medication cost data was unavailable from the pharmacy; however, we have assumed a conservative estimate of £10 per average medication order as medication costs have a range of thousands of pounds.

Environmental: Using the estimate financial cost and the average medication reduction from the duration of the competition, we applied a carbon conversion factor of 0.43KgCO₂e/£ for medication orders¹.

These projections are underestimates as time savings in medication orders are reduced every time a duplicate order is averted and medication disposal costs are not included. Furthermore, this does not measure the benefits of patients not waiting for new orders of medication to continue with their treatment.

Results:

After thirteen weeks of running the project there was an average reduction of 50 duplicate medication orders per week. Savings below are based on an average reduction of 50 orders per week.

Environmental sustainability

Potential to save 11,180 kg CO₂e per year.

Economic sustainability:

Potential to save £26,000 per year.

Clinical outcomes

Potential benefit of patients not waiting for new orders of medication to continue with their treatment.

Social sustainability:

It is important to note that there will be variation throughout the year depending on the number of patients and the staff demand, further support would be required to identify this variation.

Barriers encountered:

Unfortunately, the cost of each drug could not be obtained in the time the change took place. Although some data collection has taken place during the competition this could be significantly built upon. The main factor that caused this project to not reach full potential was the lack of data collection as well as the pressure on staff to add more responsibility to their role. The team aim to be able to embed data collection and change into their already implemented systems to make this an easier process for staff to maintain, e.g. through implementing a tick box white board system into ward routine.

Conclusions:

If this project were to be trailed again there is definite need to measure the amount of time spent by nurses ordering medication as well as the amount of time Pharmacy spend completing orders, dispensing and moving medications from AMU to downstream wards. Furthermore, this project could be build upon by reaching out the Ambulance Services and GPs to encourage patients to always bring their own medications into hospital with them. This could dramatically reduce the number of delayed doses of medication, and would again be a measurable change. With more time, more people gathering data this change could have a significant saving for the Trust.