Just in Case is Waste!
Reducing Unnecessary Venous Cannulation

DEPARTMENT: Emergency Department

TEAM MEMBERS’ NAMES: Cassie Worth, George Page and Suzie Faulkner

AIMS

• To reduce unnecessary cannulation in ED, particularly cannulas inserted just to take bloods or on a “just in case” basis. An internal audit of cannula insertions over a week within the ward revealed that, 56% of the cannulas inserted were not used in ED.

• To reduce unnecessary use of Bionectors. During the audit of cannula insertions, 53% of the Bionectors fitted were not used.

Potential to reduce Hospital-acquired infection and waste whilst increasing patient satisfaction.

ACHIEVEMENTS

• As part of an educational programme for staff, the results of the audit were presented, brought up at handovers three times per day, posters were put up in the department and on trolleys, and individuals were encouraged to change their behaviour.

• A second audit was performed four weeks later, which saw a 66% reduction in cannulas fitted but not used and a 79% reduction in patients fitted with a Bionector which was not used within the department.

• Where possible, patients are now being given oral fluids and medication rather than an intravenous drip.

• A separate project has seen the team replace polystyrene cups with paper, and single-use plastic spoons with metal.

CHALLENGES

Communicating the new approach was challenging however this was overcome by:

• Discussing at handovers which occur three times each day

• Distributing posters around the department

• Placing posters on the trolleys

Culture has changed. Patients now have oral meds and a cup of water rather than IV.

POTENTIAL ANNUAL SAVING: £27,830
8,400 kgCO₂e
Water -
A Nudge in the Right Direction

DEPARTMENT: Histology

TEAM MEMBERS’ NAMES: Olly Mawson, Olly Gomme, Sarah Jones, Eunice Inacio, and Alison Finch

AIMS:

- Reduce water consumption which is particularly high in the histology department.
- Educate staff and change the culture to increase recycling.
- Investigate reducing packaging requirements for transport of specimens from the department to the laboratory either by absolute reduction or by reusing packaging.
- Explore the department’s suppliers to ensure products purchased have a minimal carbon footprint.

Suppliers and staff members have got on board with sustainability and the ‘nudge’ ethos.

ACHIEVEMENTS

- Liaising with the Estates Team has led to some developments regarding the reduction of water as well as some wider sustainability measures.
- Both suppliers and staff members have got on board with sustainability and the ‘nudge’ ethos.
- Disposable pipettes have been swapped out for a bottle which allows chemicals and stains to be measured out, reducing domestic waste.
- The department’s supplier of specimen bags is being reconsidered, aiming to replace virgin polythene bags with recycled plastic.
- The potential for a paperless system is to be revisited following the introduction of the ‘EPIC Beaker’ database. This will also provide easier access to past pathology history.

CHALLENGES

- Water reduction has been difficult as the department has a high requirement for water.
- Hygiene concerns arose surrounding the use of water hippos to reduce water. This mini project has therefore not been implemented.
- Reuse of specimen bags has been suspended at present as it was very difficult to ensure that bags were sterile and free of any infection.
- Lab processes and Health & Safety have been the team’s main barriers, including infection control, patient safety and safe disposal of chemicals and waste.

Procurement of specimen bags is being reconsidered, to replace virgin polythene with recycled plastic.

POTENTIAL ANNUAL SAVING:

\[ \text{Procurement of specimen bags is being reconsidered, to replace virgin polythene with recycled plastic.} \]
Exeter Haemodialysis Green Team

DEPARTMENT: Exeter Kidney Unit

TEAM MEMBERS’ NAMES:
Hannah Jenkins, Lyn Webb, Kathryn Eyles, Michaela Dicks, Nick McAleer, Robert Luke, Hassan Al-Zaved, Jennie Harry, Keith Channing, Angela Hubbard and Coralie Bingham

AIMS:
• Reduce the frequency of dialysis machine disinfection cycles.
• Reduce clinical waste disposal of bicarbonate canisters (Bi-CART)
• Encourage patients to supply their own blankets on the dialysis unit.
• Expand the home haemodialysis programme.
• Reduce water consumption by installing new NIPRO machines.
• Promote a Meat Free Monday pledge.

ACHIEVEMENTS
• The Gambro machines have been reconfigured to replace the final heat disinfection cycle with the Hot C-Cart cycle, reducing a third of disinfection cycles across 24 machines daily.
• Bi-CART now sorted into general waste rather than clinical waste, each weighing 100g/canister.
• Patients now supplying their own blankets for use on the Heavitree dialysis unit which are stored in named bags.
• Conventional in-centre treatment uses an average 360L of water per week, whereas Nxstage home treatment uses 152L per week. In addition, plastic and cardboard packaging can be recycled through the patient’s kerbside collection.

CHALLENGES
• There have been some challenges with encouraging patients to bring their own pillows and blankets therefore this is currently limited to the Heavitree site.
• The team originally aimed to be paper free, particularly with regards to the results from routine microbiology tests, however this has been difficult to achieve as it requires additional funding and help from external sources.

POTENTIAL ANNUAL SAVING:
£ 36,060
35,050 kgCO₂e
Water 258,340L

Home haemodialysis benefits patients through improved energy, appetite, survival, fewer medications, less stress on the heart and better sleep.
Reducing Single Use Plastic & Better Working Practice

DEPARTMENT: Abbey, Otter and Torridge Wards

TEAM MEMBERS’ NAMES:
Kevin Brown, Mary Drinkwater, Amanda Lawrence, Michelle Penna and Jason Maddocks

AIMS:

- Reduce waste by replacing disposable plastic items with reusable ones.
- Order food and drink in bulk instead of smaller sizes to reduce costs and packaging.
- Reduce linen use within the wards and correctly use red and white laundry skips to prevent unnecessary usage, reducing overuse of both water and laundry chemicals.
- The amount of linen stored on ward has also been reduced, freeing up the launderette’s capacity for contract jobs which creates revenue for the Trust.
- Optimise use of equipment in side rooms (infection control rooms) to prevent adding stock which would need to be disposed of once the patient has been moved.
- Reduce the use of suction kits in the infection control rooms as these are costly to replace and are frequently unused but must be replaced once each patient moves rooms. This requires discussions with the Innovations team to develop a new product or a method of reusing the suction kit.
- Introduce fact of the day to encourage patients out of their beds which will improve recovery rates.

ACHIEVEMENTS

- Improvement in recycling through education and behaviour change in staff.
- Bulk orders of food and drink are in place for two wards.
- A reduction in plastics has been achieved through replacing plastic spoons and cups with reusable items.
- The team is carefully monitoring the red and white laundry usage and identifying where laundry is not being processed correctly.
- Implementation of a Best Practice Linen Guide will be raised at the Ward Housekeepers forum.
- A fact is researched by the team and added to the notice board each day which is prompting discussion among staff and patients.

CHALLENGES

- Engagement and encouragement of staff can be challenging, however the team have been working to overcome this.
- Improvement in recycling is difficult as it is dictated by the waste contract which the team has limited control over.
- Investigations into the suction kit requires support from external companies to alter the product or to develop a new process.

POTENTIAL ANNUAL SAVING:
£ 38,210
110 kgCO₂e
Water -

“Single use plastics have been replaced with reusable items.”

“Education and behavioural change in staff have made a positive difference.”
Nutritional Supplement Top Up System in the Royal Devon and Exeter Hospital

TEAM MEMBERS’ NAMES:
Martina Bartus, Catherine Tancock and Louis Theodossiou

AIMS:
Currently, there is a significant gap between the number of supplements prescribed and the number ordered by the catering department therefore this team aims to:

• Establish a more effective management system for the supply and storage of oral nutritional supplements (ONS).
• Reduce inappropriate supplement usage at ward level as these products were historically easily accessible from the diet kitchen within the catering department.
• Have better control over our supplement stocks through a new system which provides details of the exact supplement usage for each individual ward area cost.

ACHIEVEMENTS
• The team have been in discussions with the catering, logistics and procurement departments to introduce supplements on a “Top Up” system.

• Full supplement range was reviewed, and least popular types and flavours discontinued. An individual ward list was created, tailored to specific patient groups.

• A minimum stock level for each ward has been introduced, as well as barcoding method which enables individual bottles to be tracked and monitored. This was launched in September 2018.

• All ward dietitians now use a prescription form to inform Ward Housekeepers (WHKs) which patient is on what supplement, including frequency and quantity. This helps management of supplement stock levels.

• The forms are returned monthly to their line manager who will review the prescribed number of supplements and compare this to the number ordered and supplied by Procurement.

CHALLENGES
• Decisions regarding popularity, suitability and the dietitians personal preferences had to be overcome and is still being ‘fine tuned’.

• The team needed to develop a simple, reliable and uniform system to supply nutritional supplements which suits all wards. It needed to be flexible, with the ability to supply large volumes of supplements for patients being discharged with little notice.

• An emergency supply option was required at the beginning of launching the new system in order to prevent unsafe patient discharges.

• The most challenging aspect was the dissemination of information to all relevant staff members (e.g. matrons, registered nurses, HCAs, WHKs, dietitians, logistics, catering etc.) before the launch, to ensure everyone was aware of the changes. The information sharing was hindered by poor attendance at planned meetings and global email addresses being out of date.

POTENTIAL ANNUAL SAVING:
£ - kgCO₂e - Water -

We hope to maintain a strictly controlled supplement usage system, reducing their inappropriate usage and as a consequence reduce delivery and disposal costs.