

In this article...

- Understanding the health, social and financial implications of urinary incontinence
- How patient data helped direct a quality improvement initiative
- Delivery of a quality improvement programme through a multidisciplinary team approach

Preventing leaks: reducing urinary incontinence in a rehabilitation hospital

Key points

Data from patient outcomes is key for informing and improving nursing practices

Almost one third of patients admitted to our hospital had urinary incontinence

Urinary incontinence can be successfully treated and improved when it is correctly assessed, diagnosed and managed

After changes in practice, almost half of our patients were continent on discharge from hospital

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Abstract Urinary incontinence is a common issue which affects people of all ages. Older people in particular with urinary incontinence risk developing breakdown of their skin, pressure ulcers or falls. Our hospital, Clontarf Hospital in Dublin, was involved in a continence project which examined patient data to inform and improve nursing practice. The primary aim of the project was to reduce the number of patients experiencing urinary incontinence by ensuring accurate assessment, diagnosis and management of the condition before discharge home. Following practice improvements, data showed that 47% of patients who were admitted with incontinence issues were continent on discharge, and our projected annual savings on incontinence wear, specifically pads, was considerable.

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Clontarf Hospital is a 160-bed hospital that provides rehabilitation care for patients over 65 years old following an inpatient stay in a number of local acute hospitals. In 2021, we organised a hospital-wide project that collected patient outcome data to inform and improve nursing practice. We noticed a trend on our admission data, showing that almost a third of patients admitted to our hospital had urinary incontinence (UI). The nursing department planned a quality improvement project on UI, focusing on improving patient outcomes and their quality of life.

The International Continence Society (2023) defines UI as “the complaint of any involuntary loss of urine”, which may occur as a result of dysfunction in the lower urinary tract or other underlying health conditions (Sahin-Onat et al, 2014). Bladder problems are common across all age groups, affecting men, women and children of all ages (NHS England, 2018). Studies indicate that UI is more prevalent in women,

affecting approximately one in three women and one in ten men in the UK, and becomes more frequent with age (National Institute for Health and Care Excellence (NICE), 2025; Auty, 2023; Patel, 2023).

Unfortunately, UI is often poorly managed, with limited assessments and treatment (Healthcare Quality Improvement Partnership, 2017). Individuals with UI may experience loneliness owing to reduced social interaction and face an increased risk of skin breakdown and pressure ulcers (NHS England, 2018). Patients with incontinence are 26% more likely to experience a fall and 34% more likely to suffer a fracture (Jeanette et al, 2000).

It costs the NHS approximately £80m per year on products such as incontinence pads (NHS England, 2018). In the 2020-21 period, £145.8m was spent on catheters and catheter maintenance, while £37m was spent on antibiotics for urinary tract infections (Bladder Interest Group, 2021).

The hospital's tissue viability nurse (TVN) specialist was asked by the director



Clinical Practice

Older people's nursing

of nursing to lead this quality improvement project, using hospital data to guide the initiative. She applied the Plan, Do, Study, Act (PDSA) cycle to inform and improve nursing practice.

The main aims and objectives of the quality improvement project were to:

- Decrease the number of patients with urinary incontinence by accurately assessing, diagnosing and managing the condition by discharge home;
- Decrease the number of patients with incontinence-associated dermatitis;
- Decrease the number of patients with hospital-acquired pressure ulcers (HAPUs);
- Improve patient and staff knowledge of UI;
- Improve patients' quality of care;
- Reduce spending on continence products and home care assistance hours.

The main challenges of this project were getting staff interested and motivated in the prevention of UI.

Plan

Delivering the project

Patient data was examined from April 2021 to November 2021. A total of 752 patients were involved in the study, of whom 238 (32%) had UI on admission. The prevalence of UI on admission was higher in female patients (n=176, 23%) compared to male patients (n=62, 8%).

A deeper dive into the data determined that of the 238 patients with UI on admission, 58 patients (24%) had incontinence-associated dermatitis, a common skin disorder defined by Beeckman et al (2015) as "skin damage associated with exposure to urine or stool which causes considerable discomfort and can be difficult, time consuming and expensive to treat".

In May 2021, we carried out a survey on all hospital staff to assess general awareness of UI signs and symptoms. A total of 50 surveys were randomly sent out, and 47 responses were received. The results were calculated based on a number of questions relating to UI knowledge and indicated a strong understanding of UI among hospital staff with nursing staff achieving a 90% score.

Do

A continence committee was set up, composed of a multidisciplinary team and led by the TVN specialist. A UI policy and a bowel and bladder assessment document was developed based on best practice evidence. Spending on incontinence wear,



barrier creams, pH-neutral washes, and pads is increasing every year at the hospital, and getting more expensive. To identify potential cost savings, a stock inventory of all incontinence products was calculated over one financial year.

A three-month incontinence product trial was carried out on one ward during the summer of 2021 to compare a new incontinence product against an existing one. Written evaluations and verbal feedback from both staff and patients indicated overall satisfaction with the current product. As a result, no changes were made to the existing incontinence product supply.

Extra education was given to staff on the appropriate use of continence pad products, including correct sizing, optimal wear time, when to transition to a lower-absorbency product and when to cease incontinence product use entirely. This aimed to ensure better patient comfort and promote skin integrity while also leading to less wastage and contribute to cost savings. Staff education sessions also covered the use of pH-neutral cleansers and barrier products to support and protect skin health. As a result of the training, the projected annual savings on incontinence wear was €11,238.75.

Promoting a healthy diet and adequate hydration is vital for patients with UI,

"Promoting a healthy diet and adequate hydration is vital for patients with urinary incontinence"

including knowing what to avoid. (Health Service Executive (HSE), 2018). The continence committee discussed how to improve patients' intake of diet and fluids, based on best practice from the HSE guidelines. As part of these improvements, changes were made to the patient menu. Decaffeinated tea and coffee were also introduced, and patients were encouraged to increase their water intake in line with NICE recommendations. Patient water jugs were also changed twice daily to ensure fresh, cold water was available. Healthcare assistants were crucial in implementing these changes, as they had direct patient care and were, therefore, able to encourage patients to drink at least 1.5L of fluids per day. Dietitians were also involved, posting laminated flyers with patient information and hydration reminders which were displayed on all wards.

The TVN and physiotherapy department developed education sessions for patients with UI, which were also opened up to all staff. We focused on bladder training, pelvic floor exercises, prostate issues for men, skin hygiene, skin protection and continence products. These education sessions were very successful and feedback was positive from patients and staff. Patient information leaflets on UI and pelvic floor exercises were also left on all the wards for patients and their families.

QUICK FACT 47% of patients who had urinary continence on admission were continent on discharge

Study

Outcomes of project

As evidenced by studies, UI is both costly and harmful to the patient (NHS England, 2018). However, when correctly assessed, diagnosed and managed, UI can be successfully treated and improved. Involving the multidisciplinary team in this project showed us that every department in the hospital is important and necessary to reduce occurrence of this common problem for patients. The key outcomes from this initiative include:

- UI was the most common type of incontinence noted on admission (n=238, 32%);
- After improvements in practice, 47% of patients who were admitted with incontinence issues were continent on discharge (Fig 1);
- HAPUs almost halved, decreasing from 15 cases in 2020 to 8 cases in 2021 (Fig 2);
- Projected annual savings on incontinence wear amounted to €11,238.75.

Act

Further impacts of the project

Post project, there was a notable decrease in the required home care package hours required by patients. However, further studies are needed to explore this trend. Additionally, there was a potential reduction in the number of patients discharged to residential care settings, who could instead be discharged home, which may likely be due to improvements in their continence status.

Given the project's positive outcomes and demonstrated cost savings, a business case was developed and submitted for a continence clinical nurse specialist role. The proposal was successful, funding was secured, and the post was advertised and filled.

Conclusion

This quality improvement project successfully demonstrated the importance of proactive UI management to improve patient outcomes, helping to reduce costs associated with continence care and encouraging multidisciplinary team collaboration. Reviewing evidence-based best practices helped us to develop targeted interventions, including staff education, policy development, hydration improvement and continence product trials. As a result, 47% of patients admitted with UI regained continence by the time of discharge home, HAPUs nearly halved, and projected annual savings on incontinence

Fig 1. Patient improved outcomes from admission to discharge

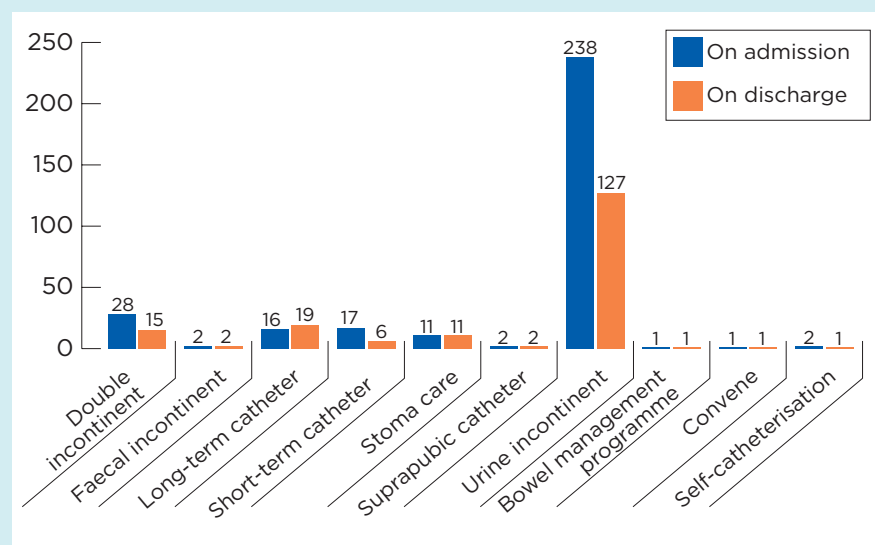
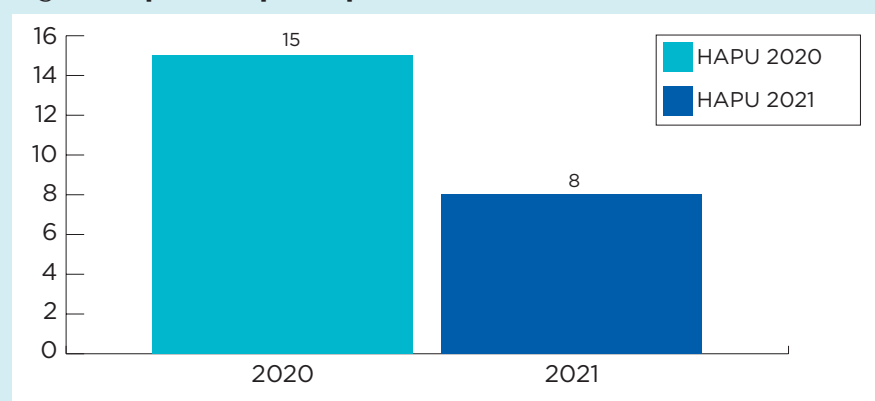


Fig 2. Hospital-acquired pressure ulcers: 2020 vs 2021



“This project successfully demonstrated the importance of proactive urinary incontinence management to improve patient outcomes”

wear reached in excess of €11,000. A continence CNS role was also funded to sustain progress, and initial indications suggest a potential reduction in home care package hours and residential care discharges, highlighting the importance of early intervention in rehabilitation settings. **NT**

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