

A Quality Improvement Project (QIP)

Improving Hydration Risk Assessment and Fluid Balance Monitoring in Older Patients at a Community Hospital

Background:

Hydration is essential for life, and even minor imbalances can lead to serious complications such as acute kidney injury (AKI), electrolyte disturbances, or pulmonary oedema.

Accurate fluid balance monitoring is especially crucial in patients with deteriorating conditions, as highlighted by both NICE and local clinical guidelines. However, evidence from the literature and local audits consistently reveals that fluid balance charts are often inaccurate and incomplete, posing risks to patient safety. This highlights the need for a targeted strategy to identify those at risk and improve the accuracy and consistency of fluid balance monitoring.

Project Aim:

To develop a strategy to accurately identify patients requiring fluid balance monitoring within the community hospital setting and to improve the accuracy and completeness of fluid balance charts by 50% within three months.

Methodology:

- A thorough review of literature identified best practice.
- Early stakeholder engagement and process mapping enabled the identification of key drivers.
- An initial snapshot audit identified current local practice.
- A staff questionnaire identified baseline staff awareness surrounding fluid balance.
- Iterative Plan, Do, Study, Act Cycles allowed implementation of change ideas.

Key Measures:

Outcome: Percentage of patients with completed hydration assessments and percentage of accuracy and completeness of fluid balance charts.

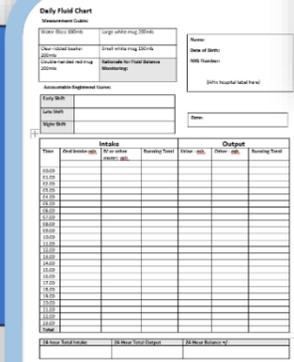
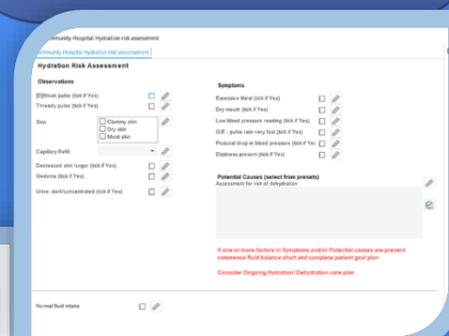
Process: Timely hydration care plans and increased staff confidence in fluid balance monitoring.

Balancing: Reduced incidence of dehydration/over-hydration as a result of the changes.

Key Changes

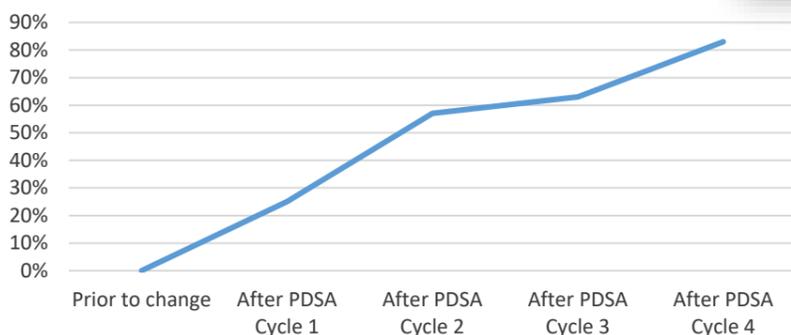
Implemented:

- Named fluid monitors and hot beverage door signs
- Staff Training and Information Board
- Hydration Risk Assessment Template Revision
- Simplified Fluid Balance Charts

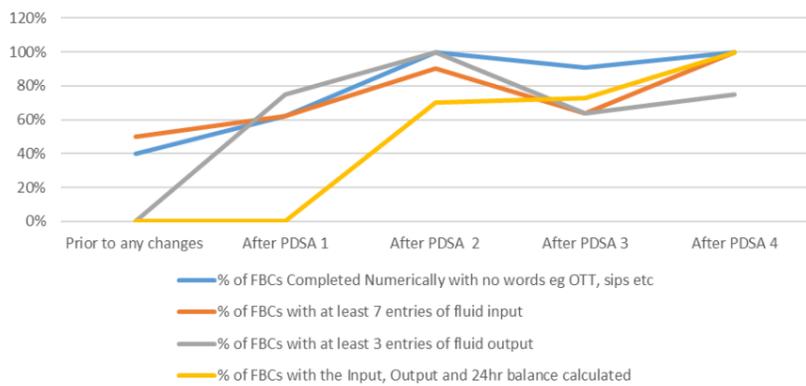


Results:

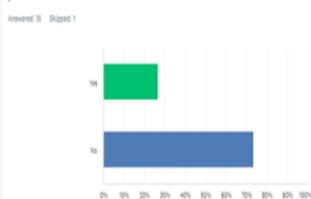
Hydration Care Plan in place



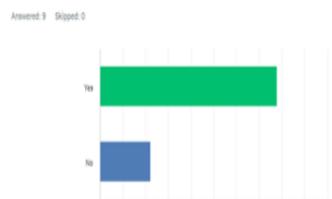
Accuracy and Completeness of Fluid Balance Chart



Do you feel fluid balance monitoring is adequate on Abbey View ward at present?



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Pre and Post-QIP staff Questionnaire

Discussion:

Preliminary Audit Findings:

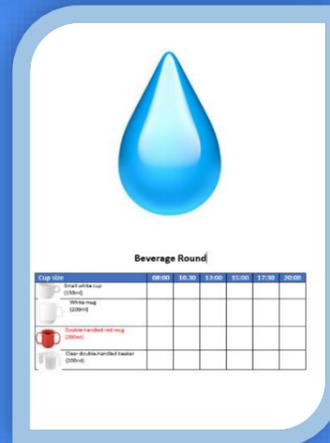
- Only 40% of FBCs were completed accurately.
- Hydration risk assessments were mostly done on admission, but no hydration care plans were implemented.

Post-QIP Improvements:

- 100% compliance was achieved in 3 key parameters of completeness and accuracy of fluid balance charts.
- 83% of patients had a hydration care plan documented.
- There was a significant increase in staff confidence and awareness surrounding hydration.

Additional Observations:

- Limited data available on dehydration/overhydration levels as a result of the changes made during the QIP.
- A reduction in falls during the time frame of the QIP.



Next Steps

Scale-up across the Trust through the implementation of **e-learning modules and regular audits**.

A Task & Finish Group to oversee the **full integration of improvements**.

Digital Systems are to install the software to enable **electronic fluid balance monitoring**.



Lessons Learnt:

Effective Hydration Assessment reduces unnecessary fluid balance charts, reducing workload.

Staff Training and Ownership: Improves documentation.

Data collection requires careful design for improved usability and meaningful measurement.

A limited time frame restricted some changes, e.g., introducing electronic fluid balance monitoring.

Scalable Success: The foundation has been laid for Trust-wide implementation and long-term sustainability.

Contact Information:

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References:

- National Institute for Health and Care Excellence (2007) *Acutely Ill Adults in Hospital: Recognising and Responding to Deterioration* [online]. Available from: <https://www.nice.org.uk/guidance/cg50/chapter/Recommendations#physiological-observations-in-acute-hospital-settings> [Accessed 15 April 2025].
- NHS Trust (2022) *Physical Health – Clinical Guideline Oral Hydration for Adults* [online]. NHS Trust name withheld.
- Pinnington, S., Ingleby, S., Hanumapura, P. and Waring, D. (2016) Assessing and Documenting Fluid Balance. *Nursing Standard*[online]. 31 (150), pp 46-54. [Accessed 15 April 2025].