# IMPROVING FLUID BALANCE CHARTS THROUGH STAFF EDUCATION ON A GENERAL MEDICAL WARD

# A QUALITY IMPROVEMENT PROJECT

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#### Introduction

From personal experience, inaccurate and incomplete fluid balance charts are a common issue across medical wards. An accurate fluid balance chart is important as it allows medical teams to monitor patient input and output. Fluid balance charts are of particularly importance when a patient is on IV fluids and it is a key recommendation in National institute for health and care excellence (NICE) guidelines that patients have regular monitoring of fluid balance over each 24 hr period. (1) As well as those patients on IV fluids, monitoring fluid balance is important in all patients especially those who are being treated for acute kidney injury (AKI) and decompensated cardiac failure. The same NICE Guidance recommends that there is a lack of staff education on the importance of fluid balance, and it often left to the most junior of staff to monitor for example Health care assistants. (1) Because of this fluid charts are often overlooked as these staff don't realise their importance. This project hoped to address this.

### Method

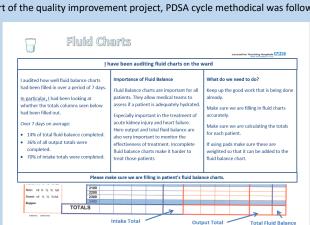
Cycle 1 poster

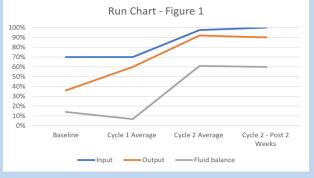
To set a baseline, data was collected from ten patients at random on five different days. Data was also collected on age and diagnosis.

Data was collected on whether fluid input during the day had been totalled (baseline average 70%), whether fluid output had been totalled (baseline average 36%) and whether the difference or total fluid balance for that day had been totalled. (Baseline average 14%).

After this baseline a goal of substantially improving the completion of fluid balance charts within a four-month rotation on the ward. Due to the NICE recommendation about improving staff education and following discussions with staff on the ward. The quality improvement project focussed on staff education as an area to target for improvement. As

part of the quality improvement project, PDSA cycle methodical was followed. There was limited improvement after the first PDSA cycle.





- Cycle one—Consisted of a poster on the ward notice board. Explaining importance of fluid balance charts. There was limited improvement likely due as a poster is quite passive and posters easily ignored.
- Cycle two— Aimed to be more active and engage staff. Discussed the importance of fluid charts with members of staff on the ward and also placed Information sheets in the patients bedside notes with the fluid charts to remind staff.

After reassessment of the second PDSA cycle. Completion of fluid charts improved to an average fluid input total to 97.5%, fluid output 92% and total fluid balance 61%. See Figure 1 for run chart.

#### Results

Baseline completion of fluid charts on the ward was poor before the quality improvement project. With rather simple interventions targeting staff education there was a substantial Improvement. Therefore the aim to improve staff education and improve completion of fluid charts as recommended by NICE was meet.

### Conclusion

This quality improvement project shows the importance of actively engaging staff when trying to educate them compared to similarly putting posters on the walls By publishing the findings of this quality improvement project, it is hoped that that colleagues in other hospitals will be able to undertake similar quality improvement projects and make similar effective changes to staff education to improve fluid chart completion and ultimately patient care and safety.

#### References

1. https://www.nice.org.uk/guidance/qs66/documents/ intravenous-fluid-therapy-in-adults-in-hospital-qs-briefing-