Nursing students improving the quality of fluid balance recording

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Context and Problem

Context:
A group of Adult nursing students from Cardiff University decided to undertake our own quality improvement project during our final clinical placements. We chose to base our improvement project on the issue of hydration and the completion of fluid balance charts (FBCs).

Assessment of the Problem:

A rapid review of the literature revealed very few clinical guidelines for correct FBC use. Initial baseline observations were taken using a simple audit tool to assess how FBCs are completed. Staff working in the clinical areas we also asked to complete a quiz to determine their existing knowledge on the issue of hydration and FBC completion.

Hypothesis
Accurately completed fluid balance charts can improve patient hydration and reduce the need for intravenous fluids.

Strategy for Change

Aim
Examine the barriers and facilitators for successful completion of fluid balance charts and examine the appropriate allocation of fluid balance charts.

1. Education and training on completion and importance of FBCs
2. Readily available measuring equipment
3. More time/ better staffing levels

The Outcome

Lessons Learnt:
By inserting a fluid volume guide at the point of use alongside the FBC, the accuracy of fluid intake was improved. Students with the right support are in a prime position to act as change agents.

Conclusion:
PDSA model for improvement process can demonstrate that change is an improvement before changing a whole system. It also provided a structured framework on which to plan our project. Consulting those involved in using the FBC provided insightful information on where to start the process. To take project further we would address the ‘lack of time’ as highlighted in our staff quiz by looking at criteria for use of FBC, aiming to reduce the routine use of FBCs.

We received invaluable input, support and encouragement from Aled Jones and Sue Williams (Cardiff University), who informed the clinical areas about our project. Also from Liz Smith 1000 Lives Plus Healthcare Associated Infection programme manager.

The Patient Perspective

Elimination and hydration are basic nursing needs. If a person is adequately hydrated it is likely there will be reduced need for peripheral venous catheters and urinary catheters therefore less risk of hospital acquired infections.

If appropriate the patient could record their own input/output, therefore increasing involvement in their care.

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Effects of Changes

How could we improve FBC completion? Staff quiz suggestions:

Area 1
100% improvement in accuracy

Area 2
100% accurate before the intervention fluid volume guide previously used in bedside notes

Area 3
Unable to complete trial as measurement guides were removed from the bedside notes

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