ASSESSING AND IMPROVING THE QUALITY OF FLUID BALANCE CHARTS IN MEDICAL WARDS AT A TERTIARY CARE HOSPITAL.

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INTRODUCTION

Accurate assessment of fluid status is important to enable appropriate and safe fluid prescribing, but it is often a neglected part of patient care.

Inappropriate fluid or diuresis prescribing leads to a disordered volume state and can contribute to common hospital acquired complications.

Hypervolaemia is associated with electrolyte disturbance; pulmonary and peripheral oedema, and contributes to poor wound healing, pressure sores, and cardiac and respiratory compromise.

Hypovolaemia as turn is a well-recognised cause of acute renal failure and its associated electrolyte disturbances and complications. Poor fluid assessment and prescribing clearly contributes to poorer outcomes for patients.

The aim of this audit was to assess the quality of fluid balance charts and suggest changes in order to improve them. This audit was carried out at Kings College Hospital – a large and busy teaching hospital in south-east London.

METHOD

An initial snapshot audit was carried out in August 2018. Fluid charts were assessed for: clear indication for charting; fluid balance aim; total input/output and cumulative balance aim. A re-audit was then conducted in November 2018 to assess the impact of changes made.

IMPLEMENTING CHANGES

Changes we made:

- Implementation of blue fluid magnets to be used at daily board round to identify patients who need fluid balance monitoring and prompting daily communication between medical and nursing staff.
- Posters to be placed on the ward about the importance of fluid balance monitoring and the complications which can develop from poor fluid management.
- Education about the importance and indications for fluid balance monitoring. Teaching was held for junior doctors explaining the need for proper documentation of indication for fluid balance monitoring and cumulative balance aim. Teaching for nurses was held to explain how to complete fluid balance charts fully and indications for fluid balance monitoring.

Changes in progress:

- Introduction of electronic request system for fluid balance charting, which then flags a twice daily reminder on the electronic drug chart.
- Fluid balance charting documentation in the electronic patient notes rather than in the paper bedside notes folder.

REFERENCES


INITIAL AUDIT

46 fluid charts were audited. Largely, charts were poorly completed.

Two patients had fluid charts despite fluid balance monitoring not having been requested by the medical team.

None of the fluid charts showed an indication for fluid monitoring or a target fluid balance. Only 30% had a clear mention of indication and aim for fluid balance charts in the corresponding medical notes.

Running input and running output was fully completed in about half of charts.

Total input/output and cumulative balance were particularly poorly documented; only fully completed in about one third of charts.

Why such poor results?

Nursing and healthcare assistant staff are very busy and the task of keeping accurate fluid balance documentation is challenging when patients are confused or uncooperative.

There was a lack of clear indication for fluid balance charting from the medical team as well as unclear instructions on when to stop charting.

These unclear instructions may have been contributing to a perception of futility or unimportance amongst the nursing and HCA staff. Also, by completing fluid balance charts for patients who do not need them, we are devaluing them, increasing nursing workload and pulling staff away from more important tasks.

RE-AUDIT RESULTS

148 patients were audited. Roughly 1/3 of patients had a request for fluid balance monitoring.

Of the 52 patients for whom a fluid balance chart was requested (either in medical notes or by magnet), 38 (73%) had a fluid balance chart in the notes and 14 (27%) had no chart.

There were 21 instances where fluid charting was being done without any request for it.

There was an improvement in documenting running input/output, totals and cumulative.

CONCLUSIONS

Accurate and appropriate fluid balance charting continues to be challenging.

On this busy ward, with medical and nursing staff already working very hard to provide patient care, it is very difficult to find time to provide education and to implement change.

The introduction of board magnets in order to clearly indicate the need for fluid balance charting was welcomed by staff. The use of these magnets helped to bridge the communication gap between doctors and nursing staff and provided a visual cue at handover to prompt discussion about whether fluid balance charting is still required.

Electronic fluid balance charting has now been introduced which we think will improve documentation significantly.

We will be re-auditing shortly to find out whether this is the case.