Obstetric Anaesthesia
Annual Scientific Meeting 2021 goes virtual
10-11 June 2021

A review of fluid balance documentation in high-risk obstetric women on our maternal High Dependency Unit

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Introduction

There have been an increased awareness of the importance of preventing maternal hyponatremia and decreasing the incidence of associated peripartum maternal confusion and neonatal seizures. Within our health board, there have been a few cases of maternal and neonatal hyponatremia on the obstetric unit. To mitigate these cases, we have produced guidelines for management of hyponatremia in laboring women which were based on the 2017 GAIN guidelines. To manage these women effectively, accurate fluid balance is needed. We noted discrepancies in fluid balance documentation on our maternal high dependency unit (HDU).

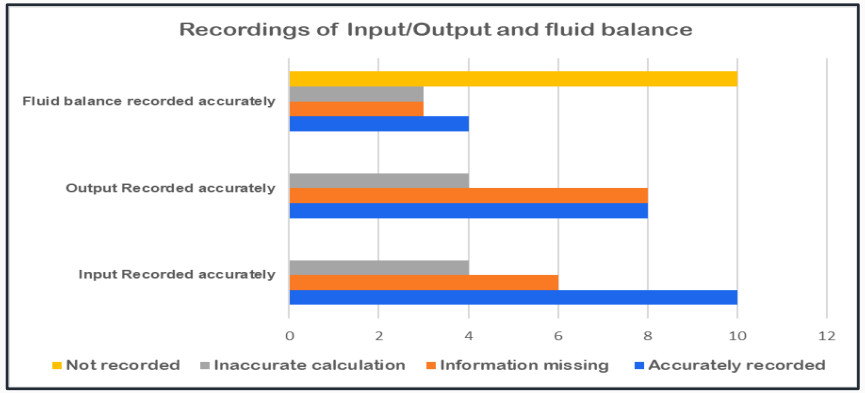
Methods

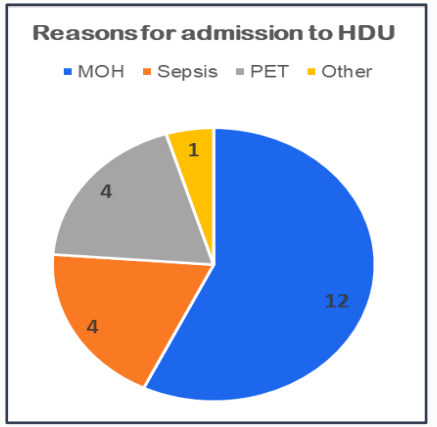
A retrospective evaluation of fluid balance documentation within our maternal HDU between the months of September to November 2020 was performed. The HDU monitoring charts and clinical notes were reviewed. The following were recorded:

- previous fluid balance,
- running hourly input and output,
- cumulative input and output.
- reasons for and duration of admission to HDU
- electrolyte abnormalities

Results

A total of 30 patients were evaluated. 10 patients were excluded. The average length of HDU stay was 24 hours. None of the charts had a documented fluid balance prior to HDU admission. 20% of patients had electrolyte abnormalities. One patient had a significant drop in serum sodium levels from 139 to 128. Her fluid balance was inaccurately recorded; and on review, it was 3L positive.





Discussion

This project was a continuation of an ongoing quality improvement to reduce complications from maternal hyponatremia. Key areas for improvement highlighted are:

-Fluid balance education (Critical Care PROMPT)

-Survey and feedback about current HDU charts and institution of an updated chart

-Visual aids of fluid measurements on maternal HDU

Our fluid balance documentation will be reviewed annually.

References

1. UKOSS surveillance 'Peripartum Hyponatremia in Pregnancy'
2. Valerio E, Fantinato M, et al. Severe asymptomatic maternal antepartum hyponatremia leading to neonatal seizures: prevention is better than cure. Matern Health Neonatal Perinatol. 2015; 1:25.
3. GAIN. Guideline for the prevention, diagnosis and management of hyponatremia in labour and the immediate post partum period. March 2017

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