

Peripartum Hyponatraemia Audit

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Introduction

- Peripartum hyponatraemia is not an uncommon complication and it is likely under recognized.
- It has the potential to cause severe harm to both the mother and the infant.
- Dilutional hyponatraemia is more common in labour compared to non-dilutional hyponatremia
- The normal blood Na level in pregnancy is in the range of 130-140 mmol/L compared to 135-145 mmol/L in the non-pregnant population.

Causes

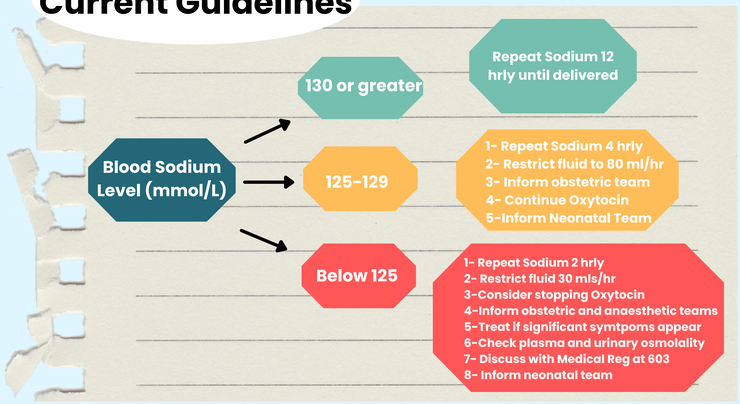
- Oxytocin Infusion for IOL
- Increased fluid intake: oral or IV
- Insulin/Dextrose infusion
- Entonox ?
- Pre-eclampsia
- Reduced fluid excretion during the third trimester
- ADH release in response to labour pain and stress

High risk patients

Requiring regular Na monitoring:

- Positive fluid balance over 1.5 L
- Prolonged labour and
- Prolonged oxytocin infusion
- Insulin/dextrose infusion
- Medication such as antidepressants, diuretics, antiepileptic drugs, antipsychotic drugs, amlodipine,
- Pre-eclampsia

Current Guidelines



Audit

Aim:

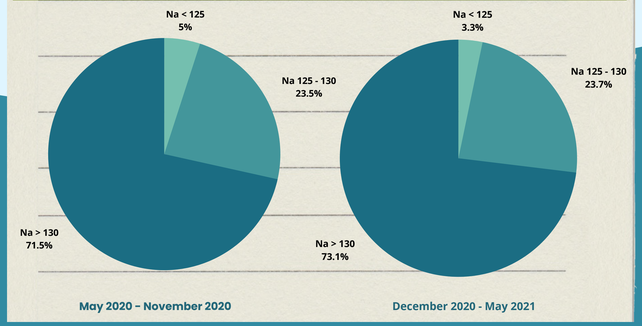
- To assess efficiency and implementation of our hyponatraemia guidelines implemented in November 2020.
- To ensure awareness of all staff with the guidelines
- To implement changes to our guidelines

Methodology:

- Retrospective data collection
- All women who delivered in our maternity hospital and had a maternal or cord blood gas sample.
- All blood gas samples over 1 year (from May 2020 till May 2021)

Audit Results

Na levels	May-Nov 2020	Dec 2020-May 2021
Total number of samples	741	765
Na >130	530 (71.5%)	559(73.1%)
Hyponatraemia (<130)	211 (28.5%)	206 (26.9%)
Na 125-129	174 (23.5%)	181 (23.6%)
Na <125	37 (5%)	25 (3.3%)



Recommendations

- Increase awareness by highlight incidence of hyponatremia in LW.
- Spotlight the need to review Blood gases for Na levels by placing posters on LW
- Ensure current guidelines are robustly followed
- The importance of accurate fluid balance monitoring during labour should be explained to all women.
- Accurate fluid balance monitoring including fluid losses e.g. vomit
- IV fluids are not routinely required with epidural analgesia, unless there is a solid indication of hypovolemia
- Re-audit in 6 months

References

- Thaker, S., (2020). Recognizing and Avoiding Significant Maternal Hyponatremia. Journal of South Asian Federation of Obstetrics and Gynaecology, 12(2), p.101.
- Yeung, E. and Fleming, T., (2014). Peripartum Hyponatraemia: A Rare Occurrence. J Clin Case Rep, 4(357), p.2.
- The Regulation and Quality Improvement Authority (RQIA) (March 2017). Guideline for the Prevention, Diagnosis and Management of Hyponatraemia in Labour and the Immediate Postpartum Period. Available at https://www.rqia.org.uk/RQIA/files/df/dfd57ddd-ceb3-4c0d-9719-8e33e179d0ff.pdf.