Insert your Directorate or Department here

Liverpool University Hospitals NHS Foundation Trust

Issue number: Version (1)

Subject: Management of Hypernatraemia

Objective: To describe the clinical management of hypernatraemia in hospitalised patients in non-critical areas of Trust

Target Level: Trust-wide

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'CG Approved' logo will be added by CG Dept.

Evidence Base: **Rank: A, B, C or D** (CSG/CG Dept will categorise evidence base)

Associated Documents: Outline other documents that this document should be read in conjunction with or may be required for implementation of this clinical guideline (If appropriate).

Information Classification Label ☒ **Unclassified**

Date of Issue: month & year **Review Date:** month & year + 3

REVIEW HISTORY			
Issue No.	**Page**	**Changes made with rationale and impact on practice**	**Date**

Background:

Hypernatraemia is defined as a serum sodium greater than 145mmol/L and classified as:

- Mild (Serum sodium 146-149mmol/L)
- Moderate (Serum sodium 150-159mmol/L)
- Severe (Serum sodium ≥160mmol/L)

Hypernatremia is most often due to unreplaced water that is lost from the gastrointestinal tract (vomiting or diarrhoea), skin (sweat), or kidney. Less commonly, hypernatremia results from the administration of salt in excess of water, as can occur with hypertonic sodium bicarbonate therapy during a cardiac arrest, inadvertent intravenous administration of hypertonic saline, or salt ingestion.

Identifying and treating the underlying cause for hypernatremia (i.e. controlling pyrexia, reducing GI losses) is as important as correcting the hypernatremia itself.

The most common causes of hypernatraemia within adults are:

- Dehydration: Common in elderly due to impaired thirst or febrile illness.
- Hyperosmolar Hyperglycaemic State (HHS): consider in patients with a past medical history of type-2 diabetes presenting with hypovolaemia, marked hyperglycaemia (>30mmol/L) without raised ketones or acidosis, and a serum

osmolality >320mosmol/kg**. Patients thought to have HHS should be treated using the "The Management of Hyperosmolar Hyperglycaemic State" policy (EQMS 7198)**.

- Diabetes insipidus: consider in patients who have a history of head injury, lithium treatment and/or a poor response to adequate intravenous hydration

- **Check:** sample has been taken from arm running sodium chloride 0.9% infusion, if in doubt suggest contamination and a repeat blood sample from an arm with no drip should be sent

Treatment Algorithm: