

Management of hypernatremia

There are two main types;

1. Hypervolemic-most common

Causes:

- Iatrogenic
- Mineralocorticoid excess (Cushing's syndrome, Conn's syndrome, Congenital adrenal hyperplasia)
- High rennin states

2. Hypovolemic

- Renal losses-diuretics, glycosuria
- GI losses – vomiting, diarrhoea
- Respiratory losses
- Burns
- Excessive sweating

Management

Treat underlying cause in all cases

Hypervolemic

- If serum sodium level $>145\text{meq/l}$,
- Use loop diuretics to promote sodium and water excretion
- Replace renal and insensible losses
- Correct body water deficits using the formula $(0.6 \times \text{weight in kg}) \times (\text{serum Na}/140) - 1$
- Patients in renal failure may require haemofiltration or haemodialysis

Hypovolemic

- Correct volume deficit as determined by urine output or CVP
- If serum Na $> 145 \text{ meq/l}$, calculate water deficit using the formula $(0.6 \times \text{weight in kg}) \times (\text{serum Na}/140) - 1$
- Add insensible losses to the deficit
- Aim to correct within 24 to 48 hours