

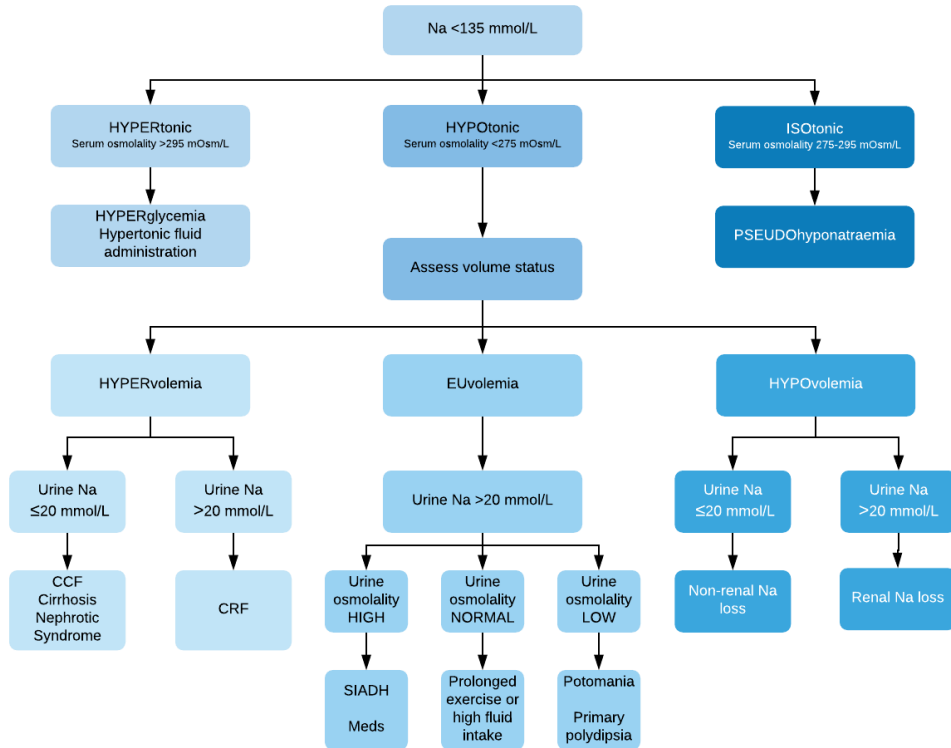


SCGH ED Adult Hyponatraemia Management Guidelines

Hyponatraemia Causes

Be aware of spurious causes of hyponatraemia: hyperglycaemia, hyperproteinaemia, hypercholesterolemia, lab error, collection error (IV fluid administration).

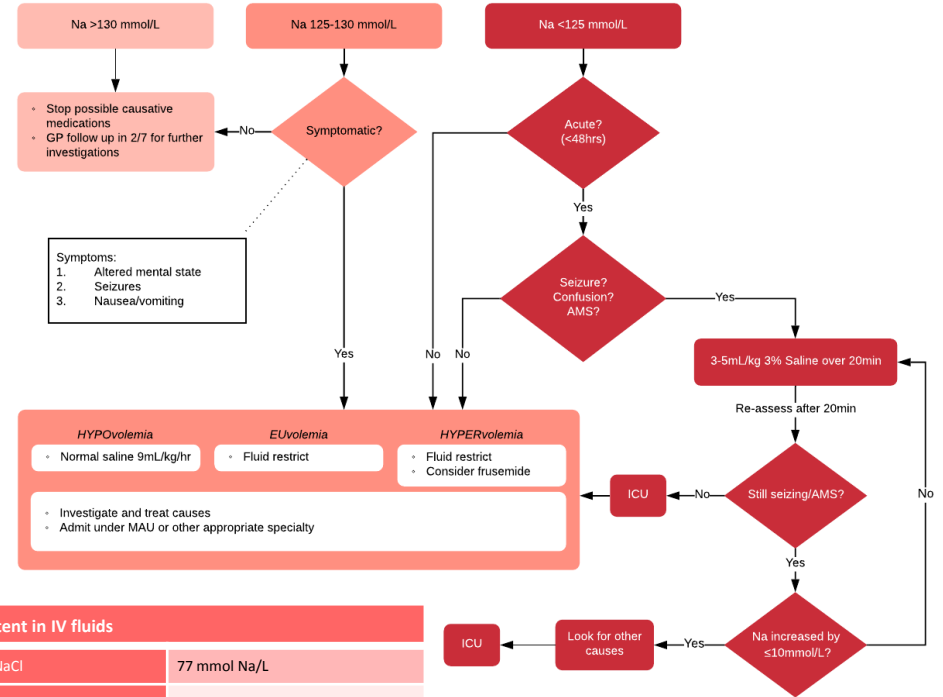
Investigations should be tailored, but ALL patients require a plasma osmolality, urine Na and urine osmolality.



Hyponatraemia Management

Avoid overcorrection.

Aim to increase by 2-3 mmol/L in the 1st hour, 6-8 mmol/L in 24 hours.



Symptoms:
1. Altered mental state
2. Seizures
3. Nausea/vomiting

Na content in IV fluids	
0.045% NaCl	77 mmol Na/L
0.9% NaCl	154 mmol Na/L
CSL	131 mmol Na/L
1.8% NaCl	308 mmol Na/L
3% NaCl	513 mmol Na/L
8.4% NaHCO ₃	1000 mmol Na/L
20% NaCl	3400 mmol Na/L
23.4% NaCl	4000 mmol Na/L

Example: 70kg targeting 3ml/kg 3% saline	
Total volume of 3%	210mL
Na administered	108mmol
NaHCO ₃ resus equivalent	100mL (100mmol Na)

References

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4. Core EM. Severe Hyponatremia [Internet]. 2017. Available from: <https://coreem.net/core/severe-hyponatremia/>
5. Emergency Medicine Cases. CritCases 10 Hyponatremia Associated Seizures [Internet]. 2018. Available from: <https://emergencymedicinecases.com/critcases-hyponatremia-associated-seizures/>
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Making 3% saline: add 26mL of 23.4% NaCl to 250mL normal saline (total volume 276mL, total Na is 142.5 mmol).

Dextrose solutions *DO NOT* contain Na and should be avoided in patients with hyponatraemia.

Regardless of cause, Na replacement should not exceed 10 mmol/L in the first 24 hrs, and 8 mmol/L/24 hrs for subsequent days until Na level is ≥130 mmol/L.