

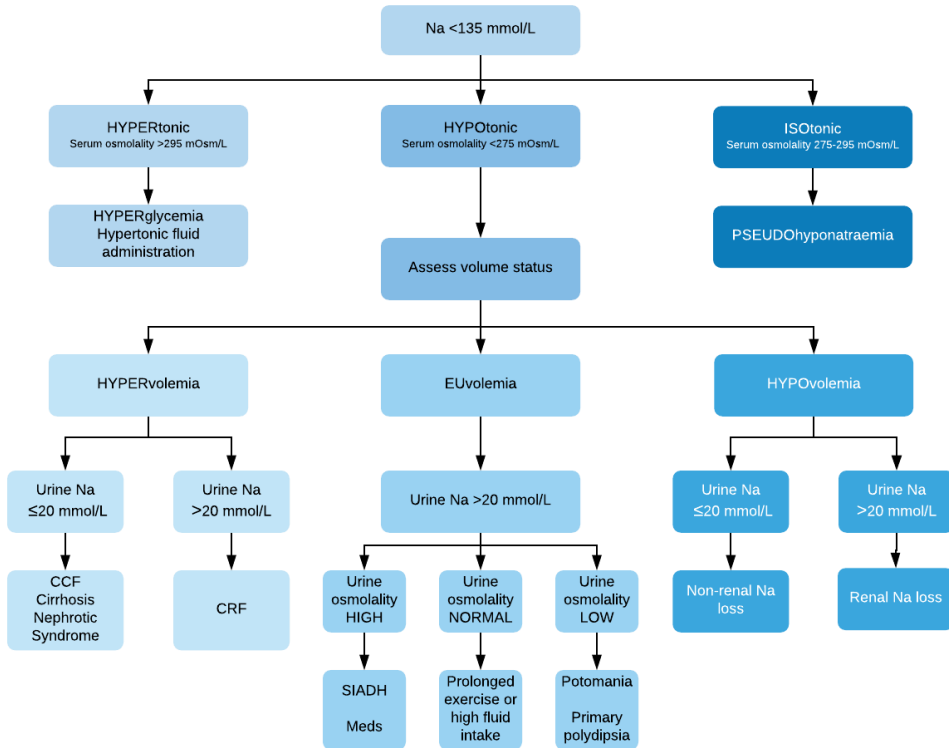


SCGH ED Adult Hyponatraemia Management Guidelines

Hyponatraemia Causes

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

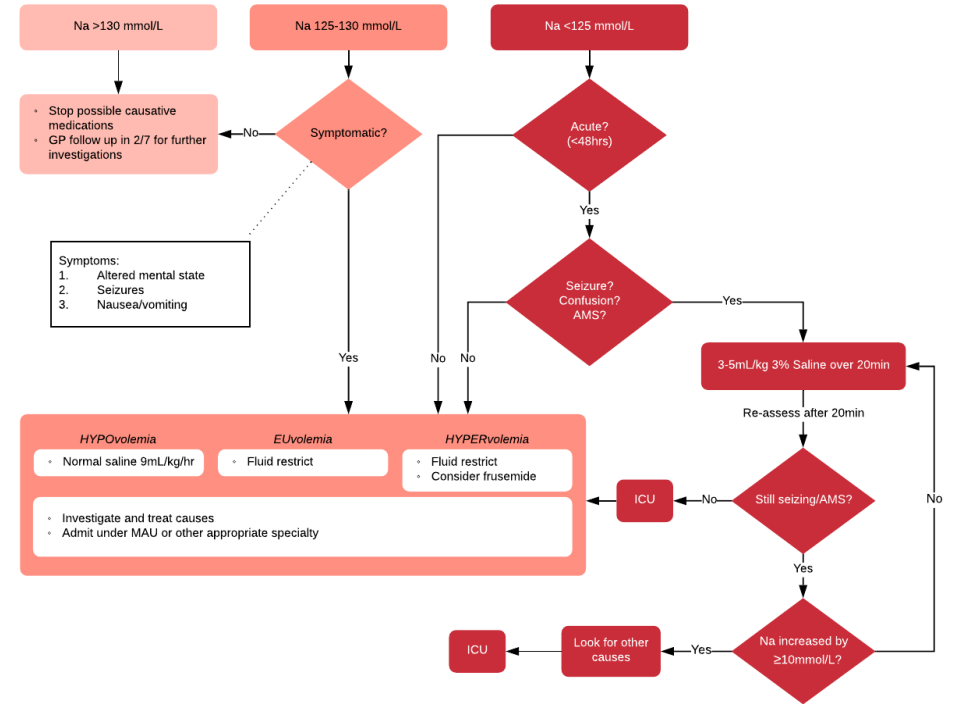
Investigations should be tailored, but ALL patients require a plasma osmolality, urine Na and urine osmolality.



Hyponatraemia Management

Avoid overcorrection.

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



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

Na content in IV fluids	
0.9% NaCl	154 mmol Na/L
CSL	131 mmol Na/L
3% NaCl	513 mmol Na/L
20% NaCl	3400 mmol Na/L
8.4% NaHCO ₃	1000 mmol Na/L

References

1. BMJ Best Practice. Hyponatraemia [Internet]. 2019. Available from: <https://bestpractice.bmj.com/topics/en-gb/1214>
2. ERA-EDTA. Clinical practice guideline on diagnosis and treatment of hyponatraemia [Internet]. Available from: <http://www.european-renal-best-practice.org/sites/default/files/u33/short%20version%20hyponatraemia%20English%20FINAL.pdf>
3. North Bristol NHS. Hyponatraemia(Adults) in Primary Care [protocol on the Internet]. Available from: <https://www.nbt.nhs.uk/sites/default/files/Hyponatraemia%20in%20Adults%20in%20Primary%20Care.pdf>
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/>
6. EMCrit. EMCrit Podcast 39 – Hyponatremia [Internet]. 2011. Available from: <https://emcrit.org/emcrit/hyponatremia/>

Making 3% saline: add 31mL of 20% NaCl to 250mL normal saline (total volume 281mL, total Na is 143.9mmol).

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.