

An attempt to prepare local Guidelines for Management of Syndrome of Inappropriate ADH Secretion (SIADH) in a District General Hospital in the UK

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OBJECTIVE

To establish the Guidelines for management of SIADH in a District General Hospital in the UK

METHODS

The European 2014 and NIH Guidelines are considered. The essential criteria for diagnosis of SIADH are taken into account.

DIAGNOSIS

Diagnostic Criteria:

1. Plasma Sodium <130 mmol/l
2. Plasma Osmolality < 275mOsm/kg
3. Urine Osmolality >100 mOsm/kg
4. Urine Sodium >30 mmol/l
5. Patient Clinically Euvolaemic
6. Exclusion of Glucocorticoid deficiency
7. Normal Thyroid function
8. Normal Renal function
9. On no diuretics

THERAPY OF SIADH BASED ON SEVERITY OF SYMPTOMS adapted from [1]

Clinical importance of signs and symptoms

Grave symptoms

(fits, hemiplegia, severe somnolence, respiratory insufficiency)



3% saline

Advanced symptoms

(confusion, vomiting, drowsiness, hallucinations)



Vaptan, 3% saline

Mild to Moderate symptoms

(poor concentration, nausea, instability of gait and falls)



Vaptan, urea, fluid restriction, demeclocycline

PROPOSED GUIDELINE: MANAGEMENT OF DIAGNOSED SIADH

Restrict Fluid intake to 500-1000 ml daily. Investigate and treat the cause (CXR, CT Thorax, Abdomen and Pelvis, CT Head, stop drugs)



Urea (10-40 g/d), if the drug is available and if the patient can tolerate it



Demeclocycline (600 to 1200 mg /d) if the drug is available with monitoring of kidney function



Tolvaptan from 7.5 mg to 15 mg daily. Measure plasma sodium at 6, 12 and 24 hours. Patient allowed free fluids. Monitor LFTs and stop it if patient develops features of hepatic impairment.



Aim to increase plasma sodium by 10 mmol/l over 24 hours and 18 mmol/l over 48 hours



If the patient is acutely symptomatic and plasma sodium is not improving, refer to ITU for 3% hypertonic saline +/- loop diuretics

Management on ITU [2]

- First-hour management, Acute (<48h) and Chronic: Prompt IV. infusion of 150ml 3% hypertonic saline over 20min. Check the serum sodium concentration after 20mins and repeat an infusion of 150ml 3% hypertonic saline for the next 20min.
- If symptoms resolve after a rise of serum sodium of 5 mmol/l, keep the IV line open with normal saline.
- Limit the increase in serum sodium concentration to a total of 10mmol/l during the first 24h and an additional 8mmol/l during every 24h thereafter until the serum sodium concentration reaches 130mmol/l .
- However, if symptoms do not improve after a rise in serum sodium of 5 mmol/l in 1 hour to continue an IV infusion of 3% hypertonic saline aiming for an additional 1mmol/l per h increase in serum sodium concentration (using Adrogue-Madias formula).
- To stop the infusion of 3% hypertonic saline when the symptoms improve, the serum sodium concentration increases 10mmol/l in total or the serum sodium concentration reaches 130mmol/l, whichever occurs first.
- In the UK 2.7% hypertonic saline is available and can also be used instead of 3% saline

CONCLUSION

To limit the rise of plasma sodium to 10-12 mmol /l over first 24 hours. In refractory cases referral may be done for haemodialysis, CVVH (Continuous Veno veno haemofiltration) and SLEDD.(Slow Low Efficiency Daily Dialysis)

REFERENCES

1. Gross P. Clinical management of SIADH. Ther Adv Endocrinol Metabol 2012;3(2):61-73.
2. Spasovski G, Vanholder R, Allolio B, Annane D, Ball S, Bichet D, et al. Clinical practice guideline on diagnosis and treatment of hyponatraemia. Eur J Endocrinol 2014;170(3):G1-47.