

**Always follow local guidelines and discuss with Senior if unsure  
Especially patients with significant fluid / electrolyte losses or  
those with co-morbidities such as Heart / Renal Failure**

**MILD:** 130-134mmol/L  
**MODERATE:** 125-129mmol/L  
**SEVERE:** <125mmol/L

## SIGNS AND SYMPTOMS

### Mild Symptoms

- Headache
- Lethargy
- Dizziness
- Nausea
- Vomiting

### Mod / Severe Symptoms

- Weakness
- Confusion
- Ataxia
- Seizures
- Coma

If patients have Mod / Severe signs of Hyponatremia this is a **MEDICAL EMERGENCY** and you should contact your **SENIOR IMMEDIATELY - may require ITU care**

The following assessment and management is for Mild / Asymptomatic Hyponatremia only

## CAUSES

**SERUM Na < 135 mmol/L**

PLASMA OSMOLALITY

280-295 mOsm/kg

ISOTONIC HYponatremia

PSEUDOHYponatremia

- Hyperlipidemia
- Hyperparaproteinemia

< 280 mOsm/kg

HYPOTONIC HYponatremia

- VOLUME STATUS

> 295 mOsm/kg

HYPERTONIC HYponatremia

TRANSLOCATIONAL

- Hyperglycaemia
- Secondary to Hypertonic fluid

HYPovolemic

URINARY Na

RENAL LOSS

- Diuretic use
- Osmotic diuresis
- Mineralocorticoid deficiency

EUVOLEMIC

EXTRA RENAL LOSS

- GI Loss
- Burns
- Pancreatitis

HYPervolemic

OEDEMATOUS DISORDERS

- Heart Failure
- Cirrhosis
- Nephrotic syndrome
- Renal Failure

URINARY OSMOLALITY

> 100 mOsm/kg

SIADH ENDocrinopathies

- SIADH
- Glucocorticoid deficiency

< 100 mOsm/kg

PRIMARY POLYDIPSIA

- Mental health cause
- Exercise induced

## CAUSES OF SIADH

### Brain Injury:

- Traumatic brain injury
- CVA
- SAH
- Meningitis

### Malignancy:

- Small-cell lung cancer

### Endocrine:

- Hypothyroidism

### Infection:

- Cerebral abscess
- Lung abscess
- Atypical pneumonia

### Medications:

- SSRI
- Amitriptyline
- Carbamazepine
- Lisinopril
- Levodopa

\* Not an exhaustive list

## HYPERTONIC SALINE:

This requires specialist input and monitoring. Do not start this management, always discuss with Senior and gain expert help. ONLY used in SEVERE SYMPTOMATIC hyponatraemia irrespective of fluid status

## ACUTE/CHRONIC HYponatraemia:

Do not correct by  $\geq 10\text{mmol/L}$  per 24 hrs due to risk of central pontine myelinolysis

### ISOTONIC HYponatremia

Assess for lipid and protein levels, potential causes and treat cause:

- Hyperlipidemia - lifestyle - consider statin therapy / lifestyle modifications
- Hyperproteinemia - i.e. malignancy / multiple myeloma - Chemotherapy

### HYPERTONIC HYponatremia

Assess for hyperglycaemia, potential causes and treat cause:

- Diabetes esp DKA
- Calculate corrected Serum Na - [Linked Calculator](#)

### HYPOTONIC HYponatremia

Assess for cause of volume status and treat cause, consider:

- Isotonic saline
- Stop diuretic use
- Steroid replacement therapy for Addison's

### HYPovolemic

Assess for cause of volume status and treat cause, consider:

- Diuresis
- Fluid restriction
- Sodium restriction

### HYPOTONIC HYponatremia

Assess for cause of volume status and treat cause, consider:

- Fluid restriction
- Medication change
- Treat underlying cause of SIADH

### EUVOLEMIC

## GENERAL MANAGEMENT

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## Always consult BNF for dose / administration and contraindications for all above medications