

SA Palliative Care Community Pharmacy Update

A joint initiative of the South Australian Palliative Care Services

The syndrome of inappropriate antidiuretic hormone secretion (SIADH) is characterised by hyponatraemia in the presence of concentrated urine and may be triggered by a range of medicines used by palliative care patients.

Syndrome of inappropriate antidiuretic hormone secretion

The physiologic release of antidiuretic hormone (ADH) prompts the kidneys to retain water and therefore reduce the volume of urine produced. This leads to concentrated urine. By the same token, high fluid intake suppresses ADH release, allowing the filtering of more water by the kidneys.

SIADH is where the body is unable to suppress the release of antidiuretic hormone (ADH). Water retention results when fluid intake is greater than urine output, leading to the development of hyponatremia. Hyponatraemia results in nonspecific symptoms, including: headache, confusion, nausea, vomiting, anorexia, muscle weakness and cramps. If hyponatraemia presents slowly, the symptoms may be less obvious while extreme hyponatraemia can result in delirium, seizures and coma.

A number of insults can trigger SIADH, including CNS disturbances (stroke or psychosis), malignancies (small-cell lung cancer), medicines (see Table 1), surgery and infection (tuberculosis or HIV).

The management of SIADH depends upon a number of issues including the degree of hyponatremia and the presence of symptoms. First line treatment involves the management of the underlying cause, where possible (e.g. ceasing medication). The restriction of fluid intake in conjunction with longer term changes in diet (high sodium, high protein) may be necessary in patients where correction of the hyponatremia is clinically appropriate. Salt

tablets and diuretics may be required. In palliative illnesses, where the underlying cause cannot be managed or usual treatments are ineffective, daily fludrocortisone 50micrograms to 200micrograms may be prescribed. The mineralocorticoid effect increases reabsorption of sodium and loss of potassium within the renal distal tubules helping to correct the hyponatraemia.

Table 1. Medicines that can enhance ADH release/effect

Class	Medicine
Analgesic	nonsteroidal anti-inflammatory agents, opioids
Anti-infective	ciprofloxacin
Cardiovascular	Amiodarone
Immuno-modulators and antineoplastic	Cyclophosphamide, Methotrexate, Vinca alkaloids, Melphalan
Neurological	Carbamazepine Valproate
Psychotropic	Tricyclic antidepressants, Monoamine oxidase inhibitors, Reboxetine, SSRIs, Antipsychotics

Useful Resources

- > Australian Medicines Handbook, Aged Care Companion
- > Therapeutic Guidelines (Palliative Care) 3rd Edition

For more information

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