

# The Do's of DI Management

Ensure **DDAVP** prescribed on admission and administered as directed.

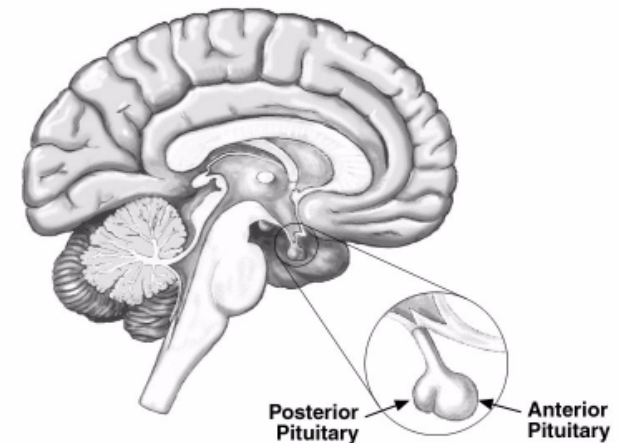
Consult an **Endocrinologist** if sodium grossly abnormal or unable to give **DDAVP** by usual route.

Consider referring all patients admitted to secondary care with **DI** for endocrine review, particularly if sodium or fluid balance is abnormal.

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## Cranial Diabetes Insipidus

### Healthcare Professional Awareness Leaflet



For the awareness of all healthcare professionals involved in the care of patients with Cranial Diabetes Insipidus.

# Cranial Diabetes Insipidus

## **What is DI ?**

Diabetes insipidus (DI) is a condition caused by hyposecretion or insensitivity to the effects of antidiuretic hormone (ADH),.

Its deficiency or failure to act causes an inability to concentrate urine in the distal renal tubules, leading to the passage of copious volumes of dilute urine. Usually sufferers pass >3 litres/24 hours of low osmolality (<300 mOsmol/kg) urine.

The most common form is 'Cranial DI' where sufferers do not produce ADH from the pituitary. This is often as a result of a pituitary problem, head injury or inherited condition.

DDAVP is a synthetic replacement for vasopressin. It may be taken nasally, sub-cutaneously, or as an oral or sublingual tablet. (Trade names: DDAVP, DesmoMelt, Stiminate, Minirin). Duration of action: oral, 12-16 hours/ sub-cutaneous, 16 hours+.

**Missing doses of DDAVP can lead to excessive urine output, dehydration and significant acute electrolyte imbalances. These carry a high morbidity and, potentially, mortality.**

## **Management requirements in DI patients admitted to secondary care:**

*If a patient is conscious and has normal thirst they should respond to dehydration by drinking.*

*If patient is unable to drink freely or has altered thirst (particularly if hypothalamic damage) be aware of the potential for dehydration.*

*Close urine input/output monitoring is essential to recognise uncontrolled polyuria.*

*DDAVP prescribed at correct time/dose/frequency. (Usually BD or OD in evening).*

*Ensure DDAVP available at earliest opportunity-this may require the patients supply to be brought in urgently or on call pharmacist to be called.*

*Be aware of other pituitary deficiencies. Ensure steroid replacement (most essential) is correctly prescribed and increased in unwell patients.*

*U&E's for all patients on admission. If U&E's reveal sodium result outside the normal range, discuss with senior physician or consult endocrinology.*

*If patient is polyuric and needing iv replacement, this should usually be with dextrose (unless the patient is hyponatraemic).*

*In the unwell/unconscious patient where previous route of administration is not viable, consult a senior physician to consider administration of DDAVP by a parental route.*

## **General Principles of Sodium:**

***If sodium low, consider that too much DDAVP has been administered or excessive fluid has been given (assuming appropriate steroid management).***

***If sodium high, consider that DDAVP dose is too low, that dose has been missed or inadequate fluid replacement has been given.***

***Consultant an Endocrinologist before adjusting doses of DDAVP.***

## **Missed Doses:**

***If a dose is missed (and not a clinical decision) the patient is likely to pass excessive volumes of urine and when unwell may become dehydrated and hypernatraemic. A urine output >200mls for 2 consecutive hours should prompt repeat measurement of U&Es.***

***Doses can be omitted (as a clinical decision) in the instance of hyponatraemia. Close monitoring of UEs and fluid balance is essential.***

## **Brands:**

***There is some variation between brands of DDAVP. This can sometimes explain unexpected variation in response to***