Central Diabetes Insipidus (Posterior Pituitary) Testing

INDICATIONS FOR TESTING
Polyuria (>50 mL/kg of body weight/24 hrs) and polydipsia

ORDER
• UO test
• SO test
• Serum or plasma Na test

UO normal

No DI or PP

UO low
SO high OR Na normal or high

Suggestive of DI

UO indeterminate
OR
UO low
SO low OR Na low

Indeterminate results
Further diagnostic testing needed

Suggestive of PP

Perform water deprivation, then

ORDER
• UO test
• SO test
• Serum or plasma Na test

CONSIDER
Adjunctive testing for AVH or copeptin

UO moderately increased

Suggestive of PP
Further testing may be required

UO low
SO high OR Na high

Suggestive of DI

Administer vasopressin, then, 1-2 hrs after administration,

ORDER
UO test

UO increase of >50%

Suggestive of complete central DI

UO increase of <50%

Suggestive of complete nephrogenic DI

Abbreviations
AVH Arginine vasopressin hormone
DI Diabetes insipidus
Na Sodium
PP Primary polydipsia
SO Serum osmolality
UO Urine osmolality

*Measurement of copeptin or AVH may provide useful information when diagnosis is difficult (eg, in cases of partial central DI or partial nephrogenic DI).

References