Serum Osmolality

7880
Accredited to
ISO 15189:2012

Synonyms	
Clinical Indication	Assessment of fluid and electrolyte balance. Osmolality measures the concentration of particles in solution. Osmolality increases with dehydration (loss of water without loss of solutes) and decreases with overhydration. Exogenous substances such as ethanol, methanol and ethylene glycol also increase serum osmolality (see individual tests and osmolal gap calculation). Similarly, with diabetes, high blood glucose increases serum osmolality.
Part of Profile / See Also	
Request Form	Combined Pathology manual Blood form or ICE request
Availability / Frequency of Analysis	On request
Turnaround Time	Same day
Patient Preparation	No specific patient preparation required.
Sample Requirements	
Specimen Type	Serum and plasma
Volume	2 ml
Acceptable Containers	 Yellow top (SST) tube  Green top (lithium-heparin) tube  paediatric orange top (lithium-heparin)  paediatric green top (lithium-heparin) Plain serum samples may also be used. For investigation of some conditions (e.g. Diabetes Insipidus and SIADH), paired serum and urine osmolality samples are required.
Reference Range & Units	275 - 295 mOsm/Kg. Reference: Pathology Harmony Group, Clinical Biochemistry Outcomes, January 2011 (www.pathologyharmony.co.uk)
Interferences	
Interpretation & Clinical Decision Value (if applicable)	Increased in water depletion, hyperosmolar nonketotic diabetic coma, DKA, Diabetes Insipidus and ethylene glycol ingestion. Decreased in adrenocorticoid insufficiency, water intoxication, SIADH

References

Test code	OSM
Lab Handling	Analysed from primary tube and stored at 4°C. Serum and plasma stable for 8 days at 2-8°C. Serum and plasma stable for 2 days at 15-25°C