

Will need to cross check with information given in urine osmolality entry

<h2>Osmolality (Serum)</h2>	
Description	Measure of the concentration of solute particles.
Indication	Assessment of electrolyte and fluid disorders or detection of osmotically active exogenous substances (e.g. alcohols).
Additional Info	The principle solutes that contribute to the osmolality of serum are sodium, chloride, potassium, bicarbonate, glucose and urea. The osmolality is a measure of the solute concentration per kg of solvent. In comparison, the osmolarity is the concentration of solutes per litre of solvent. The serum osmolarity can be calculated from the serum concentration of sodium, potassium, glucose and urea. The difference between the measured osmolality and the calculated osmolarity, the osmolal gap, can be useful in identifying the presence of osmotically active substances.
Concurrent Tests	Serum U&E and glucose. Urine osmolality - for investigation of diabetes insipidus or SIADH.
Dietary Requirements	N/A
Interpretation	<p>Serum osmolality is usually interpreted in combination with the serum sodium in the investigation of hyponatraemia. The ratio of the urine to serum osmolality is useful in the diagnosis of diabetes insipidus and SIADH. Refer to serum sodium and urine osmolality entries for further information.</p> <p>A high osmolality (>298 mOsmol/kg) may be due to the presence of exogenous osmotically active substances e.g. mannitol or alcohols or due to raised concentrations of endogenous osmotically active substances e.g. sodium or glucose.</p> <p>A low osmolality (<288 mOsmol/kg) is seen in hyponatraemia.</p> <p>Osmolal gap = measured osmolality – calculated osmolarity. A raised osmolal gap (>10 mOsmol/kg) indicates the presence of exogenous osmotically active substances e.g. alcohols or endogenous substances e.g. ketones.</p>
Collection Conditions	N/A
Frequency of testing	As required.