
Lab Dept: Urine/Stool

Test Name: OSMOLALITY, URINE

General Information

Lab Order Codes: UOSM

Synonyms: Osmo, Urine

CPT Codes: 83935 – Osmolality, urine

Test Includes: Urine osmolality in mOSM/kg

Logistics

Test Indications: Determination of plasma and urine osmolality can be useful in the assessment of electrolyte and acid-base disorders. Comparisons can determine the status of renal water regulation in instances of severe electrolyte disturbances, as might occur in diabetes insipidus.

Lab Testing Sections: Chemistry

Phone Numbers: MIN Lab: 612-813-6280

STP Lab: 651-220-6550

Test Availability: Daily, 24 hours

Turnaround Time: 4 hours

Special Instructions: N/A

Specimen

Specimen Type: Urine, random collection

Container: Plastic leakproof container (No preservatives)

Draw Volume: 1 - 3 mL from a random urine collection

Processed Volume: Minimum: 0.2 mL urine

Collection:	A random urine sample may be obtained by voiding into a urine cup and is often performed at the laboratory. Bring the refrigerated container to the lab. Make sure all specimens submitted to the laboratory are properly labeled with the patient's name, medical record number and date of birth.
Special Processing:	Lab Staff: Centrifuge specimen, aliquot supernatant into a plastic cup. Run within 4 hours or store at refrigerated temperatures.
Patient Preparation:	None
Sample Rejection:	Mislabeled or unlabeled specimens

Interpretive

Reference Range:	<1 month: 50 - 600 mOSM/kg ≥1 month: 50 - 1400 mOSM/kg
Critical Values:	N/A
Limitations:	N/A
Methodology:	Freezing Point Depression
References:	Advanced Instruments Osmometer Model 2020 Osmo1 User's Guide, 2025 Rev16, 081508, Two Technology Way, Norwood, Mass. 02062 Tietz Textbook of Clinical Chemistry and Molecular Diagnostics (2006) Elsevier Saunders Company, pp. 991 - 994 Jacobs & DeMott Laboratory Test Handbook (2001) Lexi-Comp, Inc, Hudson, OH, 5th Edition, pp 236-237