Lab Dept: Chemistry

Test Name: SODIUM

General Information

Lab Order Codes: NA

Synonyms: Sodium

CPT Codes: 84295 – Sodium; serum

Test Includes: Sodium concentration measured in mEq/L. Sodium is also included in the following panels: Electrolyte Panel, Basic Metabolic Panel, Comprehensive Metabolic Panel, Renal Panel

Logistics

Test Indications: Useful for evaluating electrolyte balance. Sodium concentration is maintained within narrow limits by carefully balanced, complex control mechanisms involving the brain, hypothalamus, pituitary, adrenal and kidney. Changes may occur in many conditions including dehydration, diabetes insipidus or mellitus, dietary intake, steroid therapy, kidney disease and congestive heart failure.

Lab Testing Sections: Chemistry

Phone Numbers: MIN Lab: 612-813-6280

STP Lab: 651-220-6550

Test Availability: Daily, 24 hours

Turnaround Time: 30 minutes

Special Instructions: N/A

Specimen

Specimen Type: Blood

Container: **Preferred:** Green top (Li Heparin) tube
Alternate: Red, marble or gold top tube

Draw Volume: 0.6 mL blood

Processed Volume: 0.2 mL plasma/serum

Collection: Routine collection

Special Processing: Lab Staff: Centrifuge specimen, remove plasma/serum aliquot into plastic sample cup. Analyze sample immediately or store at refrigerated temperatures.

Patient Preparation: None

Sample Rejection: Mislabeled or unlabeled specimen

Interpretive

Reference Range:

Reference ranges by Method:		**(Units mEq/L = mmol/L)**
Method Abbott	Premature newborns, first 48 hours of life	128 – 148 mEq/L
Method Abbott	0 – 28 days	133 – 146 mEq/L
Method Abbott	28 days – <1 year	139 – 146 mEq/L
Method Abbott	1 – 17 years	138 – 145 mE/L
Method Abbott	Adult	136 – 145 mEq/L

Critical Values: <124 mEq/L or >156 mEq/L

Limitations:

- Benzylkonium salts present in some blood catheters will cause falsely increased results.
- Thiopental increases sodium results by 8 mEq/L at a concentration of 14 mg/dL.

Methodology: ABBOTT: Ion Selective electrode – Integrated Chip Technology

References:

Alinity ICT Sample Dilutent (ICTD5) Pkg Insert, Abbott Laboratories Diagnostics Division, Abbott Park, IL 60064, USA. January 2018

Alinity ICT Serum Calibrator Package Insert, Abbott Laboratories Diagnostics Division, Abbott Park, IL, 60064, USA. January 2018

Architect ICT Serum Calibrator Package Insert, Abbott Laboratories Diagnostics Division, Abbott Park, IL, 60064, USA. November 2012

Tietz Textbook of Clinical Chemistry (1999) 3rd Edition, W.B. Saunders Company

Clinical Significance, Dade Behring Inc., Glasgow Business Community, Mailbox 531, P.O. Box 6101, Newark, Delaware 19714

Jacobs & DeMott Laboratory Test Handbook (2001) Lexi-Comp, Inc, Hudson, OH, 5th Edition

Updates:

2/17/2005: Critical Values previously listed as <128 or >150 mEq/L.
8/13/2009: Turnaround time previously listed as 2 hours.
2/9/2016: Update alt tube types
10/18/2019: New backup instrumentation and related reference ranges