
Lab Dept: Chemistry
Test Name: CREATININE

General Information

Lab Order Codes: CREA
Synonyms: CREAT
CPT Codes: 82565 - Creatinine, blood
Test Includes: Creatinine concentration is reported in mg/dL.

Logistics

Test Indications: Creatinine produced as a by-product of muscle contraction, is fairly constant in the blood and is freely filtered by the glomerulus of the kidney. Useful in the evaluation of kidney function and in the diagnosis and treatment of renal diseases.

Lab Testing Sections: Chemistry

Phone Numbers: MIN Lab: 612-813-6280
STP Lab: 651-220-6550

Test Availability: Daily, 24 hours

Turnaround Time: 1 hour

Special Instructions: N/A

Specimen

Specimen Type: Blood

Container: Green top (Li Heparin) tube **preferred**
Alternate tube: SST-Serum Separator (Red, marble or gold top tube)

Draw Volume: 0.6 mL blood

Processed Volume: 0.2 mL serum/plasma

Collection: Routine venipuncture. Mix tubes containing anticoagulant by gentle inversion.

Note: Venipuncture should occur prior to administration of N-Acetylcysteine (NAC) or Metamizole due to the potential for falsely depressed results.

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

Patient Preparation: None

Sample Rejection: Mislabelled or unlabeled specimen

Interpretive

Reference Range:

Reference ranges by Method:	
Method Abbott	
*All genders except where noted	mg/dL
0 – 14 days	0.32 – 0.92
15 days – 2 years	0.10 – 0.36
2 – 4 years	0.20 – 0.43
5 – 11 years	0.31 – 0.61
12 – 14 years	0.45 – 0.81
*15 – 18 years female	0.49 – 0.84
*15 – 18 years male	0.62 – 1.08
*Adult female	0.72 – 1.25
*Adult male	0.57 – 1.11

Critical Values: N/A

Limitations:

For testing performed on the Siemens Vista 500: Use of this assay is not recommended for patients undergoing treatment with phenindione, due to potential for falsely depressed results.

Siemens Vista: N-acetyl-p-benzoquinone imine (NAPQI) is a metabolite of acetaminophen. NAPQI concentrations of approximately 10 mg/L correlating to toxic levels of acetaminophen demonstrates a <10% change in results. NAPQI concentrations greater than this may lead to falsely depressed results for patient samples.

Methodology:

Enzymatic, correlated to IDMS traceable

References:

Architect Creatinine Enzymatic Pkg Insert, Abbott Laboratories
Diagnosis Division, Abbott Park, IL 60064, July 2013

Alinity Creatinine Enzymatic Pkg Insert, Abbott Laboratories Diagnostic
Division, Abbott Park, IL 60064, April 2018

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

Pediatric Reference Intervals, Sixth Edition, AACC Press, Washington
DC, 2007

Biorad Liquichek Unassayed Chemistry Control (Human) product insert,
Bio-Rad Laboratories, Irvine, CA

Biorad Multiqual® 1 & 3 Control Levels product insert, Bio-Rad
Laboratories, Irvine, CA

Biorad Liquichek Urine Chemistry 1 & 2 Control Levels Product insert,
Bio-Rad Laboratories, Irvine, CA 92618

Updates:

2/4/2013: Method update, previously listed as Alkaline Picrate/Kinetic.
Note reference range changes.

7/21/2015: Vista update

2/8/2016: Update alt tube types

3/29/2016: Update collection/tubes/references

12/20/2019: Updated limitations

5/6/2020: Updated limitations

2/24/2021: Method Vista removed