
Lab Dept: Chemistry

Test Name: AMMONIA

General Information

Lab Order Codes: NH3

Synonyms: NH3

CPT Codes: 82140 – Ammonia

Test Includes: Ammonia concentration reported in umol/L

Logistics

Test Indications: Hyperammonemia may result from several causes, both inherited and acquired. The inherited deficiencies of urea cycle enzymes are the major cause of hyperammonemia in infants. The acquired causes include advanced liver disease. Renal failure and Reye's Syndrome.

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: Specimen should be transported to the lab on wet ice within 5 minutes of collection.

Specimen

Specimen Type: Blood

Container: Green top (Li Heparin) tube

Draw Volume: 0.6 mL blood

Processed Volume: 0.2 mL plasma

Collection: Venipuncture only, atraumatic draw. The collection tube should be completely filled, tightly capped, gently inverted to mix and placed on wet ice. Specimen should be transported to the lab on wet ice within 5 minutes of collection.

Special Processing: Lab Staff: The specimen should be centrifuged, plasma aliquot removed to a plastic sample cup and tested within 20 minutes of collection. Specimens that cannot be tested immediately should be frozen.

Patient Preparation: Patient should avoid smoking for 1 hour prior to sampling.

Sample Rejection: Clotted specimens; mislabeled specimens; fingerstick specimens; hemolyzed specimens; specimens not received on ice; lipemic samples

Interpretive

Reference Range:	Age	Range (umol/L)
	0 – 13 days:	64 – 107
	14 days – 1 month:	56 – 92
	1 month – 18 years:	21 – 50
	>18 years:	11 - 32

Critical Values: >150 umol/L

Limitations: N/A

Methodology: Glutamate Dehydrogenase

References: Siemens Dimension Vista® AMM Flex® reagent cartridge Instructions for Use, Siemens Healthcare Diagnostics, PN 781119.001, Issue Date: 04-08-2013, REV A

Siemens Dimension Vista® Chem 3 Cal Instructions for Use, Siemens Healthcare Diagnostics, June 1, 2014

Burtis, CA and Ashwood, ER (1999) Tietz Textbook of Clinical Chemistry, 3rd Edition, Philadelphia, PA: WB Saunders Co., p 1146-7.

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

Biorad Liquichek Ethanol/Ammonia Control Product Insert, Bio-Rad Laboratories, Irvine, CA 92618

Updates:

8/29/2005: TAT previously listed as 4 hours.

9/1/2014: Updated Patient Preparation, Sample Rejection