
Lab Dept: Urine/Stool

Test Name: PURINE AND PYRIMIDINE PANEL, URINE

General Information

Lab Order Codes: PPP

Synonyms: None

CPT Codes: 82542 – Column includes mass spectrometry, if performed, none drug analyte(s) not elsewhere specified, qualitative or quantitative, each specimen

Test Includes: Random urine levels for Uracil, Thymine, Adenine, Hypoxanthine, Xanthine, Orotic, Dihydroorotic Acid, Uric Acid, Deoxythymidine, Deoxyuridine, Thymidine, Uridine, Deoxyadenosine, Deoxyinosine, Deoxyguanosine, Adenosine, Inosine, Guanosine, 5-Aminoimidazole-4-carboxamide 1-beta-d-ribofuranoside(AICAR), Succinyladenosine, Dihydrouracil, Dihydrothymine, N-carbamoyl-B-alanine, N-carbamoyl-B-aminoisobutyric Acid reported in mmol/mol creatinine.

Logistics

Test Indications: Useful for evaluating treatment. Diagnosis and monitoring disorders of purine and pyrimidine metabolism; laboratory evaluation of primary and secondary hyperuricemias.

Lab Testing Sections: Chemistry - Sendouts

Referred to: Mayo Medical Laboratories (MML Test: PUPYU)

Phone Numbers: MIN Lab: 612-813-6280

STP Lab: 651-220-6550

Test Availability: Daily, 24 hours

Turnaround Time: 4 - 10 days, set up once weekly

Special Instructions: N/A

Specimen

Specimen Type: Urine, random

Container: Screw-capped urine container

Draw Volume: Entire random collection

Processed Volume: 3 mL (2 mL) random urine aliquot

Collection: Voided or catheterized urine specimen

Special Processing: Lab Staff: Mix specimen well, remove urine aliquot into a screw-capped plastic 10 mL urine tube. Store and ship at frozen temperatures.

Patient Preparation: None

Sample Rejection: Specimens other than urine; warm specimens; mislabeled or unlabeled specimens

Interpretive

Reference Range:

	0-3 yrs mmol/mol creatinine	4-6 yrs mmol/mol creatinine	7-12 yrs mmol/mol creatinine	13-18 yrs mmol/mol creatinine	>18 yrs mmol/mol creatinine
Uracil	< or=50	< or=30	< or=25	< or=20	< or=20
Thymine	< or=3	< or=3	< or=3	< or=3	< or=3
Adenine	< or=3	< or=3	< or=3	< or=3	< or=3
Hypoxanthine	< or=65	< or=30	< or=30	< or=30	< or=30
Xanthine	< or=54	< or=21	< or=35	< or=15	< or=20
Orotic	< or=4	< or=4	< or=3	< or=3	< or=5
Dihydroorotic Acid	< or=3	< or=3	< or=3	< or=3	< or=3
Uric Acid	350-2500	200-2000	200-1400	150-700	70-700
Deoxythymidine	< or=3	< or=3	< or=3	< or=3	< or=3
Deoxyuridine	< or=3	< or=3	< or=3	< or=3	< or=3
Thymidine	< or=3	< or=3	< or=3	< or=3	< or=3
Uridine	< or=10	< or=3	< or=3	< or=3	< or=3
Deoxyadenosine	< or=3	< or=3	< or=3	< or=3	< or=3
Deoxyinosine	< or=3	< or=3	< or=3	< or=3	< or=3

Deoxyguanosine	< or=3	< or=3	< or=3	< or=3	< or=3
Adenosine	< or=3	< or=3	< or=3	< or=3	< or=3
Inosine	< or=6	< or=3	< or=3	< or=3	< or=3
Guanosine	< or=4	< or=3	< or=3	< or=3	< or=3
5-Aminoimidazole-4-carboxamide 1-beta-D-ribofuranoside (AICAR)	< or=3	< or=3	< or=3	< or=3	< or=3
Succinyladenosine	< or=16	< or=3	< or=3	< or=3	< or=3
Dihydrouracil	< or=15	< or=6	< or=6	< or=6	< or=6
Dihydrothymine	< or=11	< or=3	< or=3	< or=3	< or=3
N-carbamoyl-B-alanine	< or=30	< or=10	< or=10	< or=10	< or=10
N-carbamoyl-B-aminoisobutyric Acid	< or=20	< or=3	< or=3	< or=3	< or=3

Critical Values:

N/A

Limitations:

No significant cautionary statements

Methodology:

Liquid chromatography-tandem mass spectrometry (LC-MS/MS)

References:

[Mayo Medical Laboratories](#) February 2017

Updates:

12/23/2010: Units update, no change in reference ranges

2/28/2011: Reference range updates.

1/28/2016: CPT update

2/9/2017: Panel updated with additional analytes.