Overview

Useful For
Assessment of iodine toxicity or recent exposure in a 24-hour urine collection
Monitoring iodine excretion rate as index of replacement therapy

Special Instructions

- Urine Preservatives-Collection and Transportation for 24-Hour Urine Specimens
- Trace Metals Analysis Specimen Collection and Transport

Method Name
Inductively Coupled Plasma-Mass Spectrometry (ICP-MS)

NY State Available
Yes

Specimen

Specimen Type
Urine

Necessary Information
24-Hour volume is required

Specimen Required
Patient Preparation:

1. High concentrations of gadolinium and iodine are known to interfere with most metals tests. If gadolinium- or iodine-containing contrast media has been administered, a specimen should not be collected for 96 hours.

2. If this test is used in conjunction with the (131)I uptake test, then specimen collection should begin immediately after the dose of (131)I is given (i.e., the patient should void and discard urine just prior to the (131)I dose, and all subsequent urine should be collected for the next 24 hours). The last void should be included in the collection.

Supplies:
- Urine Tubes, 10 mL (T068)

Container/Tube:
- Plastic, 10-mL urine tube or clean, plastic aliquot container with no metal cap or glued insert

Specimen Volume:
- 10 mL

Collection Instructions:

1. Collect urine for 24 hours.

2. Refrigerate specimen within 4 hours of completion of 24-hour collection.

3. See Trace Metals Analysis Specimen Collection and Transport in Special Instructions for complete instructions.
Additional Information: See Urine Preservatives-Collection and Transportation for 24-Hour Urine Specimens in Special Instructions for multiple collections.

Urine Preservative Collection Options

Note: The addition of preservative or application of temperature controls must occur within 4 hours of completion of the collection.

<table>
<thead>
<tr>
<th>Preservative</th>
<th>Acceptance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ambient</td>
<td>OK</td>
</tr>
<tr>
<td>Refrigerate</td>
<td>Preferred</td>
</tr>
<tr>
<td>Frozen</td>
<td>OK</td>
</tr>
<tr>
<td>50% Acetic Acid</td>
<td>OK</td>
</tr>
<tr>
<td>Boric Acid</td>
<td>No</td>
</tr>
<tr>
<td>Diazolidinyl Urea</td>
<td>No</td>
</tr>
<tr>
<td>6M Hydrochloric Acid</td>
<td>No</td>
</tr>
<tr>
<td>6M Nitric Acid</td>
<td>No</td>
</tr>
<tr>
<td>Sodium Carbonate</td>
<td>No</td>
</tr>
<tr>
<td>Thymol</td>
<td>No</td>
</tr>
<tr>
<td>Toluene</td>
<td>No</td>
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</tbody>
</table>

Specimen Minimum Volume
0.3 mL

Reject Due To
All specimens will be evaluated at Mayo Clinic Laboratories for test suitability.

Specimen Stability Information

<table>
<thead>
<tr>
<th>Specimen Type</th>
<th>Temperature</th>
<th>Time</th>
<th>Special Container</th>
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<tbody>
<tr>
<td>Urine</td>
<td>Refrigerated (preferred)</td>
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<td></td>
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<tr>
<td></td>
<td>Ambient</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>Frozen</td>
<td>146 days</td>
<td></td>
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</table>

Clinical and Interpretive

Clinical Information
Iodine is an essential element for thyroid hormone production. The measurement of urinary iodine serves as an index of adequate dietary iodine intake.

Reference Values
0-17 years: not established
Interpretation
Measurement of urinary iodine excretion provides the best index of dietary iodine intake and deficiency is generally indicated when the concentrations are below 100 mcg/L.

Cautions
Administration of iodine-based contrast media and drugs containing iodine, such as amiodarone, will yield elevated results.

Clinical Reference


Performance
Method Description
Iodine in urine is analyzed by inductively coupled plasma-mass spectrometry (ICP-MS) in standard mode using tellurium (Te) as an internal standard and an aqueous acidic calibration.(Unpublished Mayo method)

PDF Report
No

Day(s) and Time(s) Test Performed
Monday, Thursday; Continuously

Analytic Time
1 day

Maximum Laboratory Time
3 days

Specimen Retention Time
14 days

Performing Laboratory Location
Rochester

Fees and Codes
Fees

- Authorized users can sign in to Test Prices for detailed fee information.
- Clients without access to Test Prices can contact Customer Service 24 hours a day, seven days a week.
- Prospective clients should contact their Regional Manager. For assistance, contact Customer Service.

Test Classification

This test was developed and its performance characteristics determined by Mayo Clinic in a manner consistent with CLIA requirements. This test has not been cleared or approved by the U.S. Food and Drug Administration.

CPT Code Information

83789

LOINC® Information

<table>
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<tr>
<th>Test ID</th>
<th>Test Order Name</th>
<th>Order LOINC Value</th>
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<tbody>
<tr>
<td>UIOD</td>
<td>Iodine, 24 Hr, U</td>
<td>2492-7</td>
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<table>
<thead>
<tr>
<th>Result ID</th>
<th>Test Result Name</th>
<th>Result LOINC Value</th>
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<tr>
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<td>2492-7</td>
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<td>TIME5</td>
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<td>VL23</td>
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