**Lab Dept:** Urine/Stool  
**Test Name:** HYPEROXALURIA PANEL, URINE  

### General Information

**Lab Order Codes:** UHPU  
**Synonyms:** N/A  
**CPT Codes:** 82542 – Column chromatography/mass spectrophotometry; non-drug analytes, not elsewhere specified, qualitative or quantitative, each specimen  
**Test Includes:** Glycolate, glycorate, oxalate, and 4-Hydroxy-2-Oxoglutarate (HOG) levels reported in mg/g creatinine.

### Logistics

**Test Indications:** Useful for distinguishing between primary and secondary hyperoxaluria; distinguishing between primary hyperoxaluria types 1, 2, and 3, and secondary hyperoxaluria.  
**Lab Testing Sections:** Urine/Stool - Sendouts  
**Referred to:** Mayo Medical Laboratories (MML Test: HYOX)  
**Phone Numbers:**  
- MIN Lab: 612-813-6280  
- STP Lab: 651-220-6550  
**Test Availability:** Daily, 24 hours  
**Turnaround Time:** Within 14 days  
**Special Instructions:** See [Patient Preparation](#)  

### Specimen

**Specimen Type:** Urine, See [Patient Preparation](#)  
**Container:** Plastic leak-proof urine container (no preservative)  
**Draw Volume:** Entire Random urine collection  
**Processed Volume:** 10 mL (Absolute minimum: 1.1 mL) random urine
Collection: Routine random urine collection

Special Processing: Lab Staff: Remove urine aliquot from a well-mixed specimen. Place aliquot into a 10 mL urine tube. No preservative. Freeze immediately. Store and ship at frozen temperatures. Forward promptly.

Patient Preparation: Fasting overnight (12-14 hours, recommended). Have patient void the first-morning specimen, then collect specimen within 2 hours of the first-morning void while the patient continues to fast. Fluids are allowed.

Sample Rejection: Specimens other than urine; mislabeled or unlabeled specimens; use of any preservative

**Interpretive**

<table>
<thead>
<tr>
<th>Reference Range:</th>
<th>Analyte</th>
<th>Age</th>
<th>Range (mg/g creatinine)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Glycolate</td>
<td>&lt; or =17 years:</td>
<td>&lt;or =75</td>
</tr>
<tr>
<td></td>
<td></td>
<td>&gt; or =18 years:</td>
<td>&lt;or =50</td>
</tr>
<tr>
<td></td>
<td>Glycerate</td>
<td>&lt; or =31 days:</td>
<td>&lt;or =75</td>
</tr>
<tr>
<td></td>
<td></td>
<td>31 days – 4 years:</td>
<td>&lt;or =75</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5 – 10 years:</td>
<td>&lt;or =55</td>
</tr>
<tr>
<td></td>
<td></td>
<td>&gt; or =11 years:</td>
<td>&lt;or =25</td>
</tr>
<tr>
<td></td>
<td>Oxalate</td>
<td>&lt; or=6 months:</td>
<td>&lt;or=400</td>
</tr>
<tr>
<td></td>
<td></td>
<td>7 months – 1 year:</td>
<td>&lt;or=300</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2 – 6 years:</td>
<td>&lt;or=150</td>
</tr>
<tr>
<td></td>
<td></td>
<td>7 – 10 years:</td>
<td>&lt;or=100</td>
</tr>
<tr>
<td></td>
<td></td>
<td>&gt;or=11 years:</td>
<td>&lt;or =75</td>
</tr>
<tr>
<td></td>
<td>4-Hydroxy-2-Oxoglutarate (HOG)</td>
<td>All ages:</td>
<td>&lt;or =10</td>
</tr>
</tbody>
</table>
**Interpretation:**

Increased concentrations of oxalate and glycolate indicate Type I hyperoxaluria.

Increased concentrations of oxalate and glycerate indicate Type II hyperoxaluria.

Increased concentrations of oxalate and 4-hydroxy-2-oxoglutarate indicate Type III hyperoxaluria.

Increased concentrations of oxalate with normal concentrations of glycolate, glycerate and 4-hydroxy-2-oxoglutarate indicate secondary hyperoxaluria.

**Critical Values:**

N/A

**Limitations:**

Ascorbic acid will falsely elevate oxalic acid results.

**Methodology:**

Gas chromatography – Mass spectrometry (GC-MS)

**References:**

[Mayo Medical Laboratories](http://mayo.edwards.com) January 2018

**Updates:**

1/15/2018: Updated reference ranges.