
* Random oxalate/creatinine ratios vary significantly by age. Consult pediatric reference range tables for interpretation.

** Interpretive report includes an overview of results and of their significance along with a recommendation for confirmatory molecular testing for either AGXT, GRHPR, or HOGA1.

Hyperoxaluria Diagnostic Algorithm

Normal Kidney Function
- Stones or nephrocalcinosis in childhood
- Recurrent calcium oxalate stones or nephrocalcinosis in adults
- Family history of primary hyperoxaluria

Perform urine oxalate OXU / Oxalate, 24 Hour, Urine

Urine oxalate >0.7 mmol/1.73 m²/24 hours or
Urine oxalate/urine creatinine > normal for age*

- Confirm urine oxalate with repeat testing
- Perform HYOX / Hyperoxaluria Panel, Urine

Hyperoxaluria confirmed:
Urine oxalate >0.7 mmol/1.73 m²/24 hours
Urine oxalate/urine creatinine > normal for age
Urine glycolate, L-glycerate or 4-hydroxy-2-oxoglutarate > normal for age.

Secondary causes present?
- Malabsorption
- Gastrointestinal disease
- Very high oxalate and low calcium diet
- Premature infant

YES NO

Perform genetic testing as indicated in the HYOX interpretive report**
- AGXTZ / AGXT Gene, Full Gene Analysis
- GRHPZ / GRHPR Gene, Full Gene Analysis
- HOGA1 gene analysis

Homozygosity or compound heterozygosity for known mutations of AGXT, GRHPR, or HOGA1

YES NO

AGXT mutations
- PH1
GRHPR mutations
- PH2
HOGA1 mutations
- PH3

Based on clinical presentation, consider clinical management of hyperoxaluria
OR
Consider liver biopsy for alanine:glyoxylate aminotransferase (AGT) and glyoxylate reductase/hydroxypyruvate reductase (GRHPR) enzyme activities

Decreased AGT activity
- PH1
Decreased GRHPR activity
- PH2
Normal AGT and GRHPR activities

Oxalate disorder of undetermined type