Fabry Disease Diagnostic Testing Algorithm

Clinical suspicion or family history of Fabry disease

FMTT / Familial Mutation, Targeted Testing

YES

Positive family history with mutation identified

Males

Females

Recommended initial evaluation (select 1)
- AGAW / Alpha-Galactosidase, Leukocytes and/or
- AGAS / Alpha-Galactosidase, Serum

Normal alpha-galactosidase enzyme activity

Decreased alpha-galactosidase enzyme activity

Analysis of alpha-galactosidase enzyme activity is not sensitive for carrier detection in all females. It is recommended that molecular testing be performed for diagnosis in females.

FABRZ / Fabry Disease, Full Gene Analysis, Varies

Disease-causing variant identified

Fabry disease confirmed

Consider: FMTT / Familial Mutation, Targeted Testing, Varies for at-risk family members

Variant of unknown significance identified

If not already performed, consider:
- LGB3S / Globotriaosylsphingosine, Serum
- CTSU / Ceramide Trihexosides and Sulfatides, Random, Urine

No variant or pseudodeficiency allele identified

Fabry disease unlikely. Standard sequencing of GLA will not detect large deletions, large duplications, some intronic mutations, and mutations in the promoter or other regulatory regions. Results must be interpreted in the context of an individual’s clinical and/or biochemical profile.