TN Department of Health

MEMO

To: All providers of newborn screening specimens

From: Dr. Kara Levinson, Laboratory Director

Date: April 27, 2026

Subject: Addition of GAMT to TN Newborn Screening Panel

Beginning April 27, 2026, the Tennessee Department of Health, Division of Laboratory Services (TDH-DLS) will begin screening for Guanidinoacetate methyltransferase (GAMT) deficiency in dried blood spots (DBS) collected as part of the standard newborn screening (NBS) program. This addition is based on the vote and recommendation of the Tennessee Genetics Advisory Committee on November 16, 2023, and subsequent approval by the TN Commissioner of Health on February 15, 2024.

GAMT deficiency is an autosomal recessive condition caused by an impaired ability to synthesize creatine by methylation of guanidinoacetate. Without creatine, the body is unable to use or store energy, which affects brain and muscle function and can lead to seizures, developmental delay, impaired speech development, behavioral changes, hypotonia, and movement disorders. The first signs of GAMT deficiency may appear as early as 3 months and treatment can include creatine supplementation, reduction of guanidinoacetate, and dietary therapy.

Results for GAMT screening will be included in the amino acids section of the NBS laboratory report. We encourage providers to review this new screen offering and direct any questions to Newborn Screening Assistant Director, Dr. Jennifer McKenzie (jennifer.mckenzie@tn.gov, 615-262-6352) or by emailing labnbs.health@tn.gov.

We appreciate your partnership and look forward to continued collaboration where our services can be most impactful.

Kara J. Levinson

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