Comprehensive Toxicology in all Medical Examiner Child Death Cases

Session Law 2023-134, Section 9H.7.(c)



Report to the

Joint Legislative Oversight Committee on Health and Human Services

and

Fiscal Research Division

By

North Carolina Department of Health and Human Services

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BACKGROUND

The North Carolina General Assembly passed the Statewide Medical Examiner Act of 1967 to provide a statewide system for postmortem medicolegal examinations. The Office of the Chief Medical Examiner (OCME) was established in 1968, and the first Chief Medical Examiner was appointed. The OCME is responsible for overseeing the operations of the entire medical examiner system in North Carolina and is assisted in that effort by three (3) regional autopsy centers and another four (4) hospital-based pathology practices that are contracted to perform autopsies for the medical examiner system.

Session Law 2023-134, Section 9H.7.(c) requires the Office of the Chief Medical Examiner to submit a report to the Joint Legislative Oversight Committee on Health and Human Services and the Fiscal Research Division by December 30, 2024, on the use of funds for toxicology screening in all medical examiner child death cases and:

- (1) The total number of child deaths during the preceding fiscal year that fell within the jurisdiction of the medical examiner pursuant to G.S. 130A-383 or G.S. 130A-384;
- (2) The total number of child deaths reported under (1) for which toxicology screening was completed pursuant to G.S. 130A-385(a1); and
- (3) An explanation for any delay or failure to complete the toxicology screening required by G.S. 130A-385(a1).

Pursuant to this requirement, data on medical examiner jurisdictional child death cases pursuant to G.S. 130A-383 and G.S. 130A-384, the number of child death cases for which toxicology screenings were completed pursuant to G.S. 130A-385(a1), and any issues or delay with the completion of toxicology testing on medical examiner child death cases are provided below for the reporting period of July 1, 2023 through June 30, 2024.

Methods

Data for this report was collected using child death toxicology reports as well as a manual tracking system for cases. OCME is in the process of implementing a new information technology system which will enable OCME to better track and report data on medical examiner cases in the future. The data presented in this report are based on the date samples were received by OCME toxicology, not date of death.

SFY 2023 – 2024 Child Death Medical Examiner Cases

OCME includes a forensic toxicology laboratory accredited by the College of American Pathologists that provides toxicology testing for the entire Medical Examiner (ME) system. During SFY 2023-2024, samples from 598 ME jurisdictional child deaths (patients less than 18 years of age) were submitted to the OCME toxicology laboratory.

Comprehensive toxicology on child death cases was implemented for all cases where specimens were received December 1, 2023, or later in advance of the legislative requirement to initiate this testing by January 1, 2024. The following data reflects the months during SFY 2024 where G.S. 130A-385(a1) was in effect (December 1, 2023 through June 30, 2024)

Starting December 1, 2023, through June 30, 2024, toxicology specimens were received on 353 child death cases. Comprehensive toxicology was performed on all cases with appropriate and sufficient specimens (as outlined below), resulting in comprehensive toxicology testing for 333 child death cases. About 44% of these cases (146/333) would not traditionally have been tested to address routine cause and manner of death determinations. This new statutory requirement resulted in an overall 78% increase in the child death toxicology workload during this period. The remaining 20 cases from the reporting period were not tested due to insufficient or inappropriate samples, including:

- Specimens that did not have enough volume to perform comprehensive toxicology testing
- Specimens with a prolonged period between the incident that caused death and sample collection, such as prolonged survival in the hospital

Inappropriate samples would produce results that would not reflect the drugs/compounds in the decedent's blood at the time of the incident that caused death.

Funding for Toxicology Screening in all ME Child Death Cases

SECTION 9H.7.(a) provided the Office of the Chief Medical Examiner (OCME), with the recurring sum of one hundred sixty-four thousand six hundred ninety-six dollars (\$164,696) for each year of the 2023-2025 fiscal biennium and the nonrecurring sum of five hundred fifty thousand dollars (\$550,000) for the 2023-2024 fiscal year to comply with the toxicology screening requirements of G.S. 130A-385(a1).

As permitted by this legislation, the OCME created a permanent full-time Chemist I position and a permanent full-time Chemistry Technician I position.

Funding for toxicology screening in all medical examiner child death cases was utilized for the purchase of equipment and supplies to run the additional child toxicology testing requirements (UV-Vis Spectrophotometer, hydrogen generator, triple quadrupole mass spectrometer, Vanquish Ultra-High-Performance Liquid Chromatography System) and the creation of two full-time toxicology positions to offset the additional workload.