Policy Name:		Policy #:
Test and Batch Assignment		TOX-P14
North Carolina Office of the Chief Medical Examiner Toxicology Laboratory	Revision:	Revision Date/Initials:
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Purpose:

This policy will set up guidelines to define how the toxicology tests are assigned to cases and analyzed after submission to the NC OCME toxicology laboratory.

Policy:

When toxicological tests are assigned during the daily case review process, it is imperative to recognize circumstances in which public lives could be in danger or a public heath emergency could result. For this reason, only trained toxicologists and experienced senior staff members are authorized to assign initial tests. The tests are assigned on a daily basis, once each case has been accessioned and logged-in by the Evidence Technician or designated lab staff, by following the SOP-001 Accessioning of Specimens.

The only STAT test OCME Toxicology performs is a carboxyhemoglobin determination. This is assigned either upon request by a pathologist/medical examiner/law enforcement, or during test assignment if it is determined that a public health emergency exists. A toxicologist should be alerted immediately if a STAT CO is requested. Carbon Monoxide will only be added with a volatile to expedite completion. Details on carbon monoxide (both STAT and regular) testing appear in SOP-002 Test Assignment and SOP-075 Carbon Monoxide.

Toxicology tests will not be assigned to cases in which the pertinent history is left blank or without a probable cause of death listed on the Request for Toxicological Analysis form (DHHS Form #1167). The medical examiner/pathologist will be contacted via phone or email to obtain the proper information if it is not provided. This communication should be documented using the Addendum to Toxicology Request Form (pink sheet). While missing information is being obtained, each case is assigned a test for ethanol, except when the specimen is limited and needed for more applicable testing. Cases where only volatiles are tested are called "Volatile Only" cases, and when further testing is needed cases are referred to as "Full Toxicology". The procedure for test assignment is detailed in SOP-002 Test Assignment. Hold requests are granted on volatile analysis if history is sufficient to justify request.

Analyses are performed as a function of batch analysis. A batch may be as little as one case, including appropriate control(s) /calibrator(s), or as many cases as can be reasonably handled in the context of the particular analysis (described in the given analytical protocol). The laboratory pending list is reviewed daily by the lab supervisor. *All employees* are responsible for making note of the age of case (T number) and the length of time a case has remained on the pending list.

Screening tests are generally performed on central blood specimens. When a central blood specimen is unavailable, the tests are performed on alternate sources of blood, tissue, or urine. Test assignment also takes into consideration the volume of specimen available, whether it is an

admission/ante-mortem specimen, the time interval between the specimen draw and death, and the type of potential toxin involved (e.g. arsenic or carbon monoxide).

The laboratory generally begins testing with an organic base and LCMS drug screen. The basic drug screen, performed by mass spectral and nitrogen phosphorous detection, is assigned to cover the majority of therapeutic agents potentially involved in drug overdose casework. The LCMS drug screen is an adjunct drug screen and is designed to cover many commonly abused illicit and DEA scheduled drugs that are not necessarily detected by the organic bases screen. Further testing will be assigned as needed. An acid/neutral screen is assigned when such therapeutic drugs (for example most anticonvulsants) are suspected to be involved per history. An acid/neutral will also be assigned by a toxicologist when a more comprehensive screen is warranted (e.g. unexpected death in young person) and in all court requested additional testing. Specific tests are assigned for other drugs not covered by the above testing (e.g. salicylates, carbon monoxide, arsenic, GHB, etc). Drugs that are not covered by tests available within the laboratory are subcontracted to outside testing laboratories (see TOX-P15). Confirmation/quantification tests are performed on cases that screen positive, and may include the testing of additional blood and tissue specimens from the case to aid in interpretation.

As of 12/1/13 all police involved shootings (defined as a death that is the direct result of a GSW to the decedent by a police officer) will be assigned full toxicology testing including an acid/neutral screen.

Occasionally the laboratory is contacted regarding toxicology testing that is unrelated to assignment of cause and manner of death (behavioral toxicology). In these cases the following guidelines apply:

In the event of <u>Civil proceedings</u>, no additional testing will be performed at the expense of the State. Additional testing may be performed at the family's expense or by court order at the attorney's expense at an outside laboratory of their choice. Specimens will be sent to the outside laboratory in accordance with the TOX-P16 Requests for Outside Testing.

In the case of <u>Criminal proceedings</u>, the prosecution or defense may request additional testing via email, fax, or USPS. OCME will only perform testing that does not incur additional out-of-pocket expenses (i.e. outside laboratory testing) on the laboratory budget. We will perform LCMS, organic bases, and acid/neutral screens. In the event that the request is for testing not covered by these screens, the outside testing policy will apply (TOX-P16), and it is the responsibility of the requesting party to cover the cost of the testing. This request may also be granted through email, fax, or USPS. Due to the criminal nature of the death, permission from the next of kin and/or executor of the estate is not required before sending specimens for outside laboratory testing.

In the event that a previously approved toxicology report is reopened for further testing, case management and the pathologist should be notified whenever possible using "comments" in MEIS.

Procedures and/or Forms:
SOP-001 Accessioning of Specimens
SOP-002 Test Assignment
SOP-075 Carbon Monoxide
Request for Toxicological Analysis form (DHHS Form #1167)
Addendum to Toxicology Request Form (pink sheet)
TOX-P16 Outside testing policy