FORENSIC TOXICOLOGY LABORATORY OFFICE OF CHIEF MEDICAL EXAMINER CITY OF NEW YORK

SPECIMEN SEND OUT TO REFERENCE LABORATORY GUIDELINES

The Forensic Toxicology Laboratory has the option to refer some post mortem toxicological analysis to reference laboratories. For a specific drug analysis or drug screening the reference laboratory is NMS Labs, 3701 Welsh Road, Willow Grove, PA 19090. For tryptase testing the reference laboratory is Virginia Commonwealth University, BOX 980263 McGuire Hall Richmond, Virginia 23219. Other reference laboratories will be used on an ad hoc basis.

MATERIALS

- 1. Specimen collection kit or box it contains two 10 mL gray stopper glass vacutainer with potassium oxalate and sodium fluoride for blood, a 10 mL red stopper glass vacutainer for urine, plastic insert bag for glass vacutainers, plastic biohazard bag, a security box seal and instruction's sheet.
- 2. 5mL and 10 mL disposable pipets
- 3. Automatic pipet
- 4. Analysis requisition and chain of custody form

SAMPLE PREPARATION: DRUG SCREENS

- 5. Print a reference laboratory send out list from computer file. Go to the T:drive, National Medical Services\NMS 2015 Comprehensive.
- 6. Generate Toxicology Number Labels. Open DataEase program. Login in to the system using your assigned login name and password. On the Toxicology Laboratory Information System page, select "Enter Laboratory Specimens (Print Labels)" #6. Once the screen refreshes, on the first field, enter or scan the "Medical Examiner Number". The Toxicology Number will automatically appears on the next field. Tab down to "Tox Labels Required" field and enter the number of labels. Generate at least 5 labels. Press F2 to print. Repeat the above steps for each of the cases on the send out list.
- 7. Collect the specimens on the list.
- 8. Retrieve an analysis requisition and chain of custody form.
- 9. Retrieve a specimen collection kit or box.

10. Starting with the first case on the list, label the analysis requisition and chain of custody form with the Toxicology Case Number.

Note: You must work with one case at a time

- 11. Open the kit and empty out its contents. Affix a label on the side of the gray stopper vacutainers. Write the source of the blood on the label.
- 12. Make sure that the sample is homogeneous. If clots are present, homogenize blood prior to taking the aliquot.
- 13. Aliquot at least 10mL on each tube using a disposable pipet.
- 14. Affix a Toxicology Number label and urine label on the side of the red stopper glass vacutainer.
- 15. Gently mix the urine and aliquot 10mL.
- 16. Complete the analysis requisition and chain of custody form with the following information:

Sample A	Specimen Type - Blood	Specimen Source - Cardiac
Sample B	Specimen Type - Blood	Specimen Source - Femoral
Sample C	Specimen Type - Urine	Specimen Source

17. Fill out the chain of custody portion of the form as follows:

Date	Relinquished by	Received by	Purpose of transfer
	 The criminalist who took the aliquot 	– leave blank	– For Analysis

- 18. Place the aliquoted samples in the plastic insert bag for vacutainers. Remove the adhesive part and close the bag.
- 19. Insert the samples into the front pouch of the biohazard bag.

- 20. Insert the analysis requisition and chain of custody form into the rear pouch of the biohazard bag.
- 21. Place biohazard bag and samples and form in the box provided.
- 22. Close the box and affix a security box seal over the front opening of the box.
- 23. Affix a Toxicology Number Label on the box.
- 24. Place box in the freezer.
- 25. Retrieve a Fed Ex shipping label and fill out sender and receiver information. Keep a copy for our records.
- 26. Schedule a pick up by Federal Express.
- 27. The morning of the pickup, bring samples to the lobby area at 520 First Avenue. This is the location where the Fed Ex driver will pick up the samples.

SAMPLE PREPARATION: SPECIFIC DRUG

- 1. Print a reference laboratory send out list from computer file. Go to the T:drive, National Medical Services\NMS 2015.
- 2. Generate Toxicology Number Labels. Open DataEase program. Login in to the system using your assigned login name and password. On the Toxicology Laboratory Information System page, select "Enter Laboratory Specimens (Print Labels)" #6. Once the screen refreshes, on the first field, enter or scan the "Medical Examiner Number". The Toxicology Number will automatically appears on the next field. Tab down to "Tox Labels Required" field and enter the number of labels. Generate at least 5 labels. Press F2 to print. Repeat the above steps for each of the cases on the send out list.
- 3. Collect the specimens on the list.
- 4. Retrieve an analysis requisition and chain of custody form.
- 5. Retrieve a specimen collection kit or box.
- 6. Starting with the first case on the list, label the analysis requisition and chain of custody form with the Toxicology Case Number.

Note: You must work with one case at a time

- 7. Open the kit and empty out its contents. Affix a label on the side of the gray stopper vacutainers. Write the source of the blood on the label.
- 8. Make sure that the sample is homogeneous. If clots are present, homogenize blood prior to taking the aliquot.

- 9. Aliquot the required volume of specimen. See the NMS test book for specific sample volumes and shipping conditions.
- 10. Complete the analysis requisition and chain of custody form with the following information:

Sample A	Specimen Type - Blood	Specimen Source -

11. Fill out the chain of custody portion of the form as follows:

Date	Relinquished by	Received by	Purpose of transfer
2	 The criminalist who took the aliquot 	- leave blank	– For Analysis

- 12. Place the aliquoted samples in the plastic insert bag for vacutainers. Remove the adhesive part and close the bag.
- 13. Insert the samples into the front pouch of the biohazard bag.
- 14. Insert the analysis requisition and chain of custody form into the rear pouch of the biohazard bag.
- 15. Place biohazard bag and samples and form in the box provided.
- 16. Close the box and affix a security box seal over the front opening of the box.
- 17. Affix a Toxicology Number Label on the box.
- 18. Place box in the freezer.
- 19. Retrieve a Fed Ex shipping label and fill out sender and receiver information. Keep a copy for our records.
- 20. Schedule a pick up by Federal Express.
- 21. The morning of the pickup, bring samples to the lobby area at 520 First Avenue. This is the location where the Fed Ex driver will pick up the samples.

Note: You must work with one case at a time

SAMPLE PREPARATION: TRYPTASE

- Generate Toxicology Number Labels. Open DataEase program. Login in to the system using your assigned login name and password. On the Toxicology Laboratory Information System page, select "Enter Laboratory Specimens (Print Labels)" #6. Once the screen refreshes, on the first field, enter or scan the "Medical Examiner Number". The Toxicology Number will automatically appears on the next field. Tab down to "Tox Labels Required" field and enter the number of labels. Generate at least 2 labels. Press F2 to print.
- 2. Collect the specimens on the list.
- 3. Transfer at least 3 mL of blood to a 10 X 125 mm test tube.
- 4. Centrifuge at 6000 RPM for 15 minutes.
- 5. Transfer at least 1.0 mL of the upper serum/plasma to a properly labeled Red stoppered tube.
- 6. Store frozen for at least overnight.
- 7. On the day of shipping retrieve some dry ice from the Department of Health laboratory. Place the dry ice in a Styrofoam shipping container. Add enough dry ice to completely fill the container.
- 8. Empty the dry ice from the Styrofoam box and place it into a biohazard bag. With a wrench, pulverize the dry ice into small pieces and place back into the Styrofoam box until the box is about half full. Place the serum/plasma in the center of the box and then continue to fill the box with the remaining dry ice.
- 9. Retrieve a UPS shipping label and fill out sender (FTox) and receiver information (Virginia Commonwealth University, BOX 980263 McGuire Hall Richmond, Virginia 23219). Keep a copy for our records.
- 10. Schedule a pick up by UPS.
- 11. The morning of the pickup, bring samples to the lobby area at 520 First Avenue. This is the location where the UPS driver will pick up the samples.

SAMPLE PREPARATION: MISCELANIOUS SENDOUTS

Sending specimens to other reference laboratories is a rare event. The process will involve many of the steps outlined in the above section and may be modified to comply with the reference laboratories requirements.

REVISION HISTORY

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Ver. 09.15.2015	Versioning started
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