VERMONT DEPARTMENT OF HEALTH LABORATORY

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Instructions for Capillary Blood Lead Specimen Collection

Read instructions carefully to minimize the risk of sample rejection or contaminating the blood specimen with lead. A large majority of false positive capillary specimen tests are due to errors in collection technique.

Collection Supplies provided by the VDHL (Please request and use Order Form Inorg/Tox 501 to obtain these supplies.)
1. Capillary Microvette Tubes with EDTA preservative
2. Biohazard labeled lock-seal bags with sticker for patient identification
3. Prepaid mailing tubes
4. VDHL Blood Lead Test Requisition Form Inorg/Tox 200

Preparation:
- Set out specimen collection materials on a clean dust free work surface. Use of a sterile tray is preferred.
- Fill out the label with patient name, date of birth (DOB) and date of collection (DOC) on the lock-seal bag.
- If the child's hand (or infant's heel) is visibly dirty, wash with soap and warm water before proceeding.
- Universal precautions for blood borne pathogens must be observed throughout the procedure.

Collection:
- For infants up to 1 year, the plantar surface of the heel is recommended.
- For children over 1 year, use the palmar surface of the finger, above the most distal flexion joint. (See Note #1)
- If the hand or foot is cold, wrap in a warm moist towel for a few minutes prior to specimen collection.
- Massage the site to be punctured for about 30 seconds with an alcohol wipe then dry thoroughly. (See Note #2)
- For a finger-stick, puncture perpendicular to the finger line, NOT the tip of the finger in an in-line direction.
- Wipe away the first drop of blood with a clean gauze pad.
- Hold the Microvette capillary tube (open at both ends) with the narrow end pointed upwards, then contact the drop of blood to initiate filling. You may need to try different angles so gravity will enhance capillary filling action. Be careful that blood does not drip out of the large open end of the tube.
- Tube should be about **half full** in order to have enough sample to analyze in duplicate. An amount not visible above the end cap will be rejected for insufficient volume and the **child's blood will need to be redrawn**.
- Close the tip of tube first with the small end cap. Then seal the wide end of tube with attached flip cover.
- To protect the sample during transport, insert the collection tube into the outer sleeve and snap down securely!
- Mix sample thoroughly with the EDTA anticoagulant by tapping both ends of the packaged sample on a hard surface.

Submitting the Specimen:
- Place the Microvette capillary tube in the pre-labeled lock-seal bag marked "Biohazard".
- Complete all sections of the VDHL Blood Lead Test Requisition Form (Inorg/Tox 200) even if a second page is attached. **Be sure that the spelling of the patient's name, DOB and DOC are legible and consistent between specimen label and requisition form.**
- Place specimen and VDHL request form into a postage prepaid mailer and mail or deliver the specimen to the Vermont Department of Health Laboratory promptly. If unable to send the specimen the same day, then it is recommended you refrigerate the specimen until able to do so.

Notes:
1. For smaller children, the thumb (largest finger) should be used to avoid any possibility of striking the bone. The plantar surface of the big toe may also be used, but generally once a child starts walking, the skin of the foot becomes too thick for successful blood collection.
2. Gently massaging the finger or foot may help promote blood flow but squeezing should be avoided. Squeezing can dilute the specimen with tissue fluid which may also cause the blood to clot before collection is complete.

The laboratory may discard any blood specimen which is improperly packaged and may present a risk to personnel.

If you have any comments or suggestions regarding these instructions, please call the laboratory.