TITLE: DNA IDENTIFICATION

Policy: The Office of the Chief Medical Examiner (OCME) is responsible for the positive identification of all decedents whose deaths are investigated pursuant to DC Code § 5-1403 and 1409.

Purpose: To ensure efficient and timely identification of decedents under the jurisdiction of OCME.

Scope: The following procedure is to assist the ID Unit and any OCME staff member involved in the identifications of a decedent.

1. DNA Identification
   1.1. Antemortem DNA collections - A Family Reference Sample (FRS) is collected for identification purposes when finger prints, skeletal radiographs and dental radiographs are unavailable or fail to render a positive identification.
      1.1.1.1. The FRS source is contacted to schedule an appointment to submit DNA.
      1.1.1.2. While speaking with the family, the best source of the FRS based on kinship is identified and that individual is asked to submit a DNA sample.
      1.1.1.3. The FRS donor is asked to bring a state or government issued photo identification.
      1.1.1.4. The ID Unit staff initiates the sample collection by copying the family members ID and having them complete the Decedent Survivor Form (see Section 2 above).
      1.1.1.5. The family completes the DNA Evidence Collection Consent Form (P:\MLI Investigations).
      1.1.1.6. A sampling kit (four sterile swabs and a swab box) is used to collect the buccal swabs.
      1.1.1.7. The FRS rubs each swab along the inside cheek of his/her mouth.
      1.1.1.8. The swabs are placed in the swab box. The swab box is labeled with the case number and sealed in an envelope labeled with a case number.

   1.2. Postmortem DNA collection – A postmortem DNA sample is collected from the decedent.
      1.2.1. When a decedent is received in a fresh state, a blood sample is collected.
1.2.1.1. The DNA stain card is retrieved from the Toxicology Laboratory. The Toxicology Laboratory chain of custody form is completed and a copy of the form and the stain card are received.

1.2.1.2. If the decedent received a blood transfusion during a perimortem hospitalization, a buccal swab is collected.

1.2.2. When the individual is in a moderate state of decomposition (articulated with non-desiccated flesh) skeletal muscle from an extremity and a metacarpal are collected.

1.2.3. When the decedent is in an advanced state of decomposition (skeletal with or without desiccated flesh), the following items are sampled, when available.

1.2.3.1.1. Two virgin molars (i.e., molars with no restorations). If virgin molars are unavailable alternate virgin teeth are collected.

1.2.3.1.2. Two metacarpals or metatarsals.

1.2.3.1.3. A rib (not a rib used for age estimation, if possible).

1.2.3.1.4. A segment of a femoral shaft (preferably, mid-shaft). If unavailable, then a humeral shaft segment, followed by a smaller long bone.

1.2.3.1.5. In absence of the above items or when only a few bones are recovered, at least two bone segments containing cortical bone are sampled.

1.3. Submission of the DNA specimens – the FRS and DNA specimen are submitted to DFS Central Evidence Unit (CEU).

1.3.1. The DFS Evidence Submission Form is completed and submitted with the specimen. A copy of the chain of custody form initiated by CFU is received and placed in the case file.

1.3.2. In the absence of a FRS, the DNA specimen is submitted to the University of North Texas Center for Human Identification (UNT).

1.3.3. The electronic UNT Unidentified Human Remains Submission Form is completed. Two hard copies of the form are made.

1.3.4. The specimen is sent via FedEx to UNT with the submission form and the additional submission form copy is placed in the case chart.

1.3.5. When DNA results are received, the Anthropologist:

1.3.5.1. Reviews the results using the following Kinship Index categories

1.3.5.1.1. ~1 – Uninformative

1.3.5.1.2. 10-20 – Useful support

1.3.5.1.3. 40-50 – Strong supportive evidence

1.3.5.1.4. 1000 – Very powerful evidence

1.3.5.2. For a Kinship Index of ≥1000, updates the Identification page within FACTS and notifies the family of the identification.

1.3.5.2.1. Method – (ID by DNA);
1.3.5.2.2. By Whom – (Laboratory name);
1.3.5.2.3. Date & Time – (MM/DD/YYYY 00:00);
1.3.5.2.4. NOK Form Signed? – (Not Applicable); and
1.3.5.2.5. Grief Counseling Provided? – (No).
1.3.5.2.6. Comment section:
   1.3.5.2.6.1. Staff’s initials;
   1.3.5.2.6.2. Date and time of the family notification;
   1.3.5.2.6.3. To whom the ID Unit staff spoke.

1.3.5.3. For Kinship Index \( \leq 999 \), notifies the case medical examiner to review the case.