ARMED FORCES REPOSITORY OF SPECIMEN SAMPLES FOR THE IDENTIFICATION OF REMAINS

COLLECTION INSTRUCTIONS

1. Purpose

The following DNA collection instructions are designed to give specific direction to installations/sites on the collection and shipment of DNA reference specimens. *Questions concerning collection procedures and supply orders/reorders should be directed to the Armed Forces Repository of Specimen Samples for the Identification of Remains (AFRSSIR) at commercial telephone number (302) 346-8800 or DSN 366-8800, or commercial facsimile (302) 346-8766. Duty hours are 0730 – 1600 hrs (EST), Monday through Friday. Email address is <u>usarmy.dover.medcom-afmes.list.afrissr-orders@mail.mil</u>.*

Please remember that these procedures are in place to allow the DoD to properly identify our fallen service members. Attention to detail on the part of collecting sites helps ensure seamless identifications.

2. Collection Supplies

- a. DNA specimen collection supplies consist of a bloodstain card, single (see-through) nylon pouch with tape and a 1 gram desiccant packet. In addition, self-addressed mailing envelopes, AFRSSIR return address labels (for shipping boxes), and drying racks are available.
- b. All unique collection supplies used in collecting DNA specimens must either be provided by the AFRSSIR or approved by the AFRSSIR before use in the DNA collection procedure (specific requirements in fiber composition of the bloodstain card preclude the use of any substitutes).
- c. Supply orders are processed by the AFRSSIR Contract Ordering Officer. Supply requests are normally filled within 30 days after the order is received. If an order has not been received within 30 days, contact the ordering officer for assistance at the telephone numbers listed in paragraph 1.

3. Collection Procedures

a. Verification of the need for a bloodstain card is an important first step. Check MRRS (Navy/Marine Corps/Coast Guard), ASIMS (Air Force/Air National Guard) or MEDPROS (Army/Army National Guard) first to verify bloodstain cards for the military member. These systems may also contain civilians and contractors if they are prior military. If the specimen donor cannot be found in any of those systems, Repository personnel must be contacted via phone or email listed above for assistance. The Repository will be able to determine if there is a need to make the blood draw or not. An encrypted email with individuals' names and social security numbers can be sent to the Repository prior to the draw. The preferred format for the list is in an Excel spreadsheet, names and SSN. Results

will be returned within 24 to 48 hours. Note: Service members who have entered prior to January 2017 must supply their full SSN, the DOD ID numbers may not be updated to today's current format.

- For personal safety, and to prevent contamination of the DNA specimen, collection personnel should wear clean non-powdered gloves when collecting and handling specimens.
- c. Bloodstain Card Data Information (see page 6, Figure 1)
 - (1) The service member, deploying civilian or civilian contractor using a #2 pencil, or ball point pen (do not use felt tip or fountain pens) must complete all information in the requested format on the bloodstain card. Bloodstain cards should not be discarded if the individual cannot make the alpha/numeric characters as depicted. As a general rule, if collection personnel can read the individual's name, SSN/DOD ID, date of birth, collection date, and branch of military service, then it can be assumed that AFRSSIR personnel can do the same. If collection personnel cannot decipher the individual's writing, then the bloodstain card must be properly destroyed and the process repeated.
 - (2) Pre-printed labels may be placed on the bloodstain cards in lieu of hand writing the information (see page 7, Figure 2). Please ensure the font size is set at 10 to 12 pitch when printing the labels. This will make verifying the information by the specimen donor and Repository personnel quicker, easier and ensure information accuracy.

Information on the label should consist of (at a minimum):

- i. Last name, first name, middle initial, Jr, Sr, III, etc...
- ii. Full social security number and/or DOD ID number.
- iii. Date of birth
- iv. Collection date

Label Do's and Don'ts:

- DO NOT place donor information label on or have donor fill out the DNA Specimen card until after it has been verified that the donor needs to have a DNA Specimen card accomplished.
- ii. **DO NOT** place two (2) labels on one card.
- iii. **DO NOT** remove a label to re-position differently or to use another label. If label is improperly placed or incorrect destroy the card it is on and use another card.
- iv. **DO NOT** position label to overlap onto the filter paper.
- v. **DO** ensure printing on the label is legible and dark enough to read.
- vi. **DO** ensure printing on the label is not cut off.
- vii. DO ensure entire printed area of the label is on the card and not hanging over the edge. This can make it difficult to read the label information.
- (3) Have the **specimen donor** sign the card (not the individual collecting the specimen) using either a #2 pencil or ballpoint pen (do not use felt tip or fountain pens). Ensure that the signature corresponds to the name the individual places on the front of the bloodstain card. The specimen donor must be present and witness the transferring of his/her blood from vacutainer tube onto the filter paper.
- (4) Verify that all information is correct and complete on the bloodstain card using either

- a personnel roster or the individual's identification card.
- (5) Reserve and Guard Service Members must list their branch of service as USA, USMC, USN, or USAF. Do not select the *Other* block.
- d. Blood Specimen Collection

NOTE: When collecting blood on the bloodstain card ensure that you do not cross contaminate the card with blood from another individual. This will interfere with the DNA identification process. Ensure that all work surface areas, gloves and other supplies are clean and free of blood and/or body fluids before proceeding with another collection. Also, ensure the donor is present and witness the transferring of his/her blood from vacutainer tube onto the filter paper.

- (1) Fingerstick Method: Place the bloodstain card so that the filter paper side containing the printed circles is facing up. Before any fingerstick is attempted, ensure that the area to be pricked on the individual's finger is cleansed thoroughly with an alcohol swab. Prick any finger except the right index finger using a fingerstick device. Each fingerstick device is designed to be used only once for safety purposes. Squeeze the pricked finger to produce droplets of blood. Touch the blood droplets to the appropriate circled areas of the bloodstain card so that both circled areas are at least half covered with blood. If more than one fingerstick is necessary, use a different finger for each stick until both circles are at least 50% covered with blood.
- (2) Venipuncture Method:
 - (a) Prior to venipuncture, ensure that the vacutainer tube bears the name and SSN/DOD ID identifiers specific to the service member, deploying civilian or contractor who is providing the blood specimen. Using standard sterile venipuncture techniques draw the blood into a purple-top vacutainer tube which contains only EDTA. No other type of vacutainer shall be used. Do not send vials of whole blood with specimen cards to the AFRSSIR. The specimen card must be spotted with blood prior to submission to the AFRSSIR. After spotting the specimen card, discard the tube/blood draw instruments in accordance with standard universal precautions concerning biohazard waste.
 - (b) To transfer blood from the vacutainer tube, place the bloodstain card with the filter paper side containing the printed circles face up. Ensure that name and SSN/DOD ID on vacutainer tube matches the donor card. Take precautions to prevent splatter or surface contamination, remove the top of the vacutainer. The specimen donor must be present and witness the transferring of his/her blood from vacutainer tube onto the filter paper. For personal protection, if available, laboratory blood spatter shields should be used. Using a standard plastic disposable transfer pipette, place six (6) drops of blood in the center of each circled area on the bloodstain card. Allow the blood to migrate throughout the circle to completely fill the circled area (for difficult blood draws attempt to fill at least 50% of the circled area). If required, additional blood droplets may be applied to fill the circle. It is acceptable to have blood outside the designated circles. Once the blood transfer is completed, dispose of the remaining blood, vacutainer, and pipette in an approved biohazard container. Do

not reuse the plastic transfer pipette.

(3) Drying the Bloodstain Card: After affixing the blood to the bloodstain card, allow the blood to dry at room temperature for a minimum of 30 minutes or until completely dry, using the drying racks furnished by the AFRSSIR.

NOTE: Do not stack the bloodstain cards or touch the bloodstained areas of the card while transferring the cards to the drying racks. Ensure that gloves and all surface areas of the drying rack are clean and free of blood or other body fluids. While placing the cards onto the drying rack, ensure that the wet bloodstained ends do not come into contact with other cards. This can be accomplished by alternating the bloodstained end of the card on the left and right sides of the drying rack.

e. Specimen Kit Reassembly

(1) Separate and discard the instructions from the bloodstain card by tearing along the perforation.

NOTE: If the filter paper containing the bloodstain is separated from the donor's identification portion of the card, the card is invalid and another specimen card must be completed. It is unacceptable to reattach the bloodstained filter paper to the card with tape, staples, or by any other means.

NOTE: To prevent bacterial growth, do not seal the bloodstain card in the see-through shipping pouch with tape until it has dried completely. A minimum of 30 minutes is required. Depending on humidity and other environmental factors, more time may be required.

(2) Place one bloodstain card with a 1 gram desiccant packet into the single nylon pouch with tape. Place the blood spotted end of the card into the pouch first. To prevent bulging, excess air should be removed by gentle hand pressure over the pouch prior to sealing. Remove the tape from the lip of the pouch to expose the adhesive and fold the lip over, pressing along the adhesive to ensure proper closure. If the single nylon pouch is unavailable and you have cards that must be shipped to AFRSSIR you may place one card each inside a small sealable bio-hazard bag or a regular small sealable white mailing envelope to ship. Once your ordered supplies have been received please go back to using the single nylon pouch.

4. Shipment of Specimens to the AFRSSIR

a. Place the sealed single nylon pouches containing the bloodstained cards in the mailing pouch (maximum of 75 specimens per pouch) or other suitable mailing container. If personal data on the bloodstain cards is visible through the single shipping pouch, than the shipped specimens should be "double wrapped." The use of other suitable mailing containers (i.e. cardboard boxes) is permitted and encouraged. If using cardboard boxes it is not necessary to package the specimens in the mailing pouches; however, the box should be lined with a plastic bag.

NOTE: Shipping box size should not exceed 16" x 16" x 18".

- b. Before sealing, place a sheet of paper in the shipping container with the following information (we can provide an electronic copy):
 - Point of Contact (person responsible for specimen collection)
 - Mailing Address
 - Telephone Number (Commercial and DSN)
 - Fax Number (Commercial and DSN)
- c. It is not necessary to provide a list of donors with each shipment. The specimens can be mailed through the US Postal Service or shipped by an express carrier. The shipper is responsible for all shipping charges. If shipment cannot occur immediately, the shipping container should be stored in a cool dry place, away from direct heat. Specimens must be mailed within 10 days of collection to eliminate unnecessary re-draws. Ensure proper postage is used to prevent package refusal at local post offices. If using provided white mailing pouch it must be classified as a package not an envelope/letter. If there is insufficient postage on the shipping package it will be returned to sender for additional postage causing a delay in accessioning DNA cards. Preferable method of shipping is via FedEx which ensures delivery and provides a means of tracking the package.
- d. Ship to:

ARMED FORCES MEDICAL EXAMINER SYSTEM ATTN: AFRSSIR, Rm 166
115 Purple Heart Drive Dover Air Force Base, DE 19902

Figure 1: Donor Specimen Card

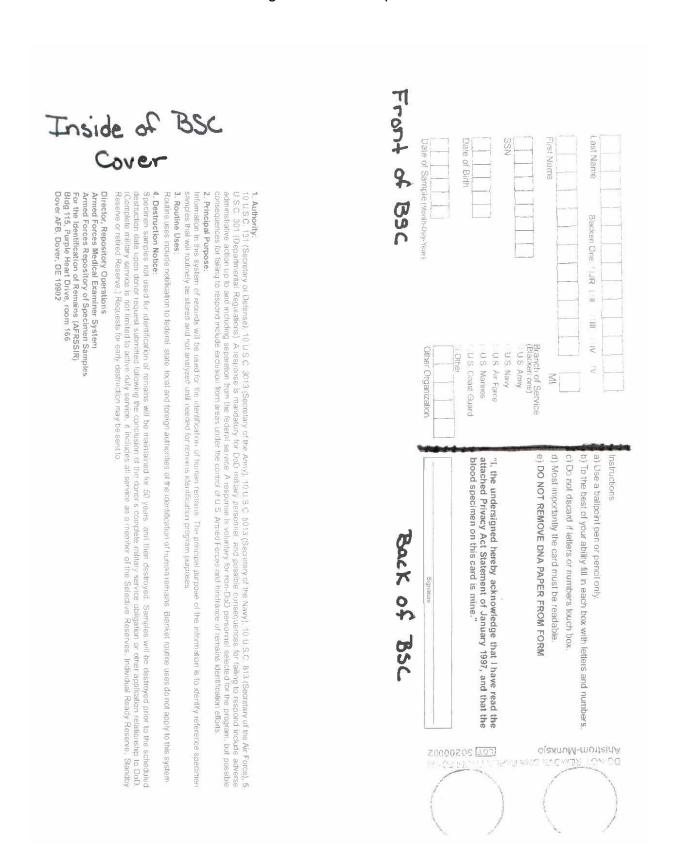


Figure 2: Pre-Printed Labels

