BIO9- Biospecimen Collection Form

ADMINISTRATIVE INFORMATION

0a. Completion Date: ____________________ 0b. Staff ID: ____________
Month    Day    Year

0c. Selected for additional phantom tube? ____________

Instructions: This form should be completed during the participant’s clinic or home visit.

A. URINE SAMPLE

1. Urine sample collected?
   - Yes ...................................................  Y
   - No ................................................... N → Go to Item 5

2. Time of urine sample: ____________ ____________
   H    H    M    M

B. URINE PROCESSING

3. Volume adequate for processing? ............
   - Yes (≥ 10mL) ..................................... Y
   - Yes (< 10 mL but at least 5 mL) ............ B
   - No (<5 mL, discard) .......................... N → Go to Item 5

4. Technician ID for urine sample: ____________

C. BLOOD DRAWING

5. Do you have any bleeding disorders other than easy bruising which is often caused by medications like aspirin or Plavix?
   - Yes ................................................... Y
   - No ................................................... N → Go to Item 6

a. Please specify the nature of the bleeding disorder:

________________________________________________________________________
________________________________________________________________________
6. When was the last time you ate or drank anything other than water? □ □ : □ □

7. Time of blood draw: □ □ : □ □

7a. Fasting at least 8 hours?
   Yes: □ Y
   No: □ N

8. Number of venipuncture attempts: .........

9. Code number of phlebotomist: ............
   a. Code number of assistant: ............

10. Any blood drawing incidents or problems?
    Yes: □ Y
        No: □ N → Go to Item 12

[Blood drawing incidents: Document problems with venipuncture in this table. Place an “X” in box(es) corresponding to the tubes in which the blood drawing problem(s) occurred. If a problem other than those listed occurred, use Item 11.]

<table>
<thead>
<tr>
<th>Tube</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Sample not drawn</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>b. Partial sample drawn</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>c. Tourniquet reapplied</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>d. Fist clenching</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>e. Needle movement</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>f. Participant reclining</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
</tbody>
</table>

11. If any other blood drawing problems not listed above (e.g., fasting status, etc.), describe incident or problem here:
   ........................................................................................................................................
   ........................................................................................................................................
   ........................................................................................................................................

D. BLOOD PROCESSING

12. Time specimen tubes 2, 3 and 4 were spun: ............ □ □ : □ □

13. Time specimen tube 1 was spun: ................. □ □ : □ □
14. Time specimens from tubes 1, 2, 3 and 4 were placed in freezer: ..................

15. Any blood processing incidents or problems?

Yes.................................................... □ Y
No ................................................... □ N → Go to Item 17a

[Blood processing incidents: Document problems with the processing of specimens in this table. Place an “X” in box(es) corresponding to the tubes in which the processing problem(s) occurred. If a problem other than those listed occurred, use Item 16.]

<table>
<thead>
<tr>
<th>Tube</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Broken tube</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>b. Clotted</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>c. Hemolyzed</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>d. Lipemic</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>e. Other</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
</tbody>
</table>

16. Comments on blood processing or other problems in blood processing: (attach a sheet if needed)

____________________________________________________________________
____________________________________________________________________
____________________________________________________________________

17. a. Technician ID for processing blood specimens: ...............
   b. Technician ID for processing blood specimens: ...............
   c. Technician ID for processing blood specimens: ...............
INSTRUCTIONS FOR THE BIOSPECIMEN COLLECTION (BIO) FORM
03/29/2021

General Instructions

The BIOSPECIMEN COLLECTION FORM is completed during the participant's clinic or home visit to record information on the collection and processing of blood and urine samples. Technicians performing venipuncture and processing blood and urine samples must be certified and should have a working knowledge of the relevant Manuals of Operations. Technicians should also be familiar with and understand the document entitled "General Instructions for Completing Paper Forms" prior to completing this form. ID Number, Contact Year, and Code Number of person completing this form (described in the General Instructions) should be completed prior to the arrival of the participant.

If not all the 5 blood sample tubes can be drawn at the initial visit and the participant is willing to return to collect the missing tubes, collect only those tubes not drawn at the initial visit. A new BIO form under a new sequence number should be entered and filled out with the information on the newly collected tubes.

If a full set of tubes was lost or destroyed and the participant is willing to return to collect the samples again, call the data coordinating center at least 5 business days in advance of the re-draw visit to request another set of labels. Enter another occurrence of the BIO form for this participant's re-draw (see instructions on completing a second occurrence of a form is located on the ARIC website under ‘Training’, ‘DMS’, ‘Occurrences Instructions’).

Mark all re-draw tubes with the capital letter “R” and highlight. Use a black permanent marker that will not bleed.

Record all times using a 24-hour clock (e.g. 8:00AM is 8:00, 3:00PM is 15:00).

I. Detailed Instructions for Each Item

Administrative Information

0a. Enter the date the biospecimen samples were collected.

0b. Enter the technician code of the person completing this form.

0c. Selected for Additional Phantom Tube. This item is system generated in CDART. If the participant is randomly selected to donate an additional “phantom” tube then you will see a “Yes” in this item. If they were not selected, then you will see “NO”. This information can also be found on the Participant Snapshot Report in the “General Appointment Information” section. If selected to provide a phantom sample, you will use the Phantom Tracking Sheet to determine which additional tube to collect.

A. URINE SAMPLE

At the reception station (clinic visits) or upon arrival at the home visit the participant is told that a urine specimen will be collected when it is convenient for the participant. This is best done early during the clinic/home visit but can be done anytime during the examination sequence if the participant is not able to provide a specimen before blood drawing. In the latter case, it is useful to encourage the participant to drink one or two glasses during the visit and alert the technician when he/she wishes to empty his/her bladder. If a urine specimen has not been obtained over
the course of the examination visit, the technician asks the participant again to provide a specimen at the end of the examination.

1. Indicate whether a urine sample was collected. If NO, urine sample was not collected, go to Item #5; if YES, continue.

2. Record the time the urine was collected using a 24-hour clock.

B. URINE PROCESSING

3. Note if urine volume is adequate for processing. Choose either Y ≥10 mL (desired), B between 10 mL and 5 mL or N <5 mL (discard and collect at a different date, go to item #5).

4. Enter technician ID for urine sample.

C. BLOOD DRAWING

5 – 5a. For the clinic and home visits: Ask if the participant has a bleeding disorder that is not related to the use of medications such as aspirin and Plavix. If the participant’s answer is NO, check the box indicating the negative answer and proceed to item #6. If the answer is YES, ask that he/she specify the nature of the bleeding disorder and record in 5a. Proceed with caution by executing pressure at the venipuncture site for a prolonged period. You may have the participant assist by elevating the arm and holding the gauze firmly on the venipuncture site. You must check that clotting has occurred and bleeding stopped before applying a band aid and releasing the participant. If the participant does not know whether he/she has a bleeding disorder, offer the explanation, "If you have a bleeding disorder you would have symptoms like excessive nose bleeds, or very easy bruising, or problems with bleeding after tooth extractions, or any type of surgery and continue as described above for NO or YES responses.

6. Enter the last time the participant ate or drank anything using a 24-hour clock (other than water or coffee/tea without cream and sugar) using a 24-hour clock. If the participant is rescheduled for another day, a new BIO form under a new sequence number should be entered.

7. Record the time of venipuncture using a 24-hour clock. This is the time when the vein is punctured and blood is drawn for specimens.

7a. Select YES if the time of venipuncture recorded in Item #7 is at least 8 hours after the last time the participant ate or drank anything recorded in Item #6.

8. Enter the number of venipuncture attempts. If no blood appears, move needle slightly in hope of entering vein. Do not probe. If not successful, release tourniquet and remove needle. A second attempt can be made on the other arm. The same technician should not attempt a venipuncture more than twice (once in each arm). If a third attempt is necessary, a different phlebotomist should attempt the venipuncture following the same guidelines. If a third attempt is unsuccessful the study participant is asked whether s/he would like to have staff make another attempt to obtain blood for the tests to be done by the study. If affirmative, at the conclusion of phlebotomy the participant is asked to sign a brief form stating that additional venipuncture was authorized (to be filed with the participant’s informed consent).
Note that it is acceptable to reapply the tourniquet if the blood flow slows. One method is, when first applying the tourniquet, place it in the “rabbit” (release ends upward) position. After releasing the knot, drape the tourniquet ends (criss-cross) on the arm allowing it to hang loosely rather than removing it. This may facilitate re-application timing. Multiple re-applications may be necessary.

9 - 9a. Enter the code number of the technician who performed the venipuncture and the blood drawing assistant or second phlebotomist if necessary. If more than one technician attempts to draw the blood, enter the code of the first technician. The same technician should not attempt a venipuncture more than twice. If written consent has been given by the patient and a second phlebotomist is available a third attempt can be tried.

10a-f. Note any blood drawing incidents or problems, and document in the table provided. Place an “X” in box(es) corresponding to the tubes in which the blood drawing problem(s) occurred. If an incident/problem is not listed below, document it on Item#11. If no incidents or problems occurred while drawing, skip to Item#12.

**Blood drawing incidents or problems:**
- a. Sample not drawn
- b. Partial sample drawn
- c. Tourniquet reapplied
- d. Fist clenching
- e. Needle movement
- f. Participant reclining

11. Document any other blood drawing problems not listed in Item#10.

**D. BLOOD PROCESSING**

12. Record the time using a 24-hour clock at which the centrifuge containing tubes 2, 3 and 4 began to spin.

13. Record the time using a 24-hour clock at which the centrifuge containing tube 1 began to spin.

14. Record the time using a 24-hour clock at which samples from tubes 1, 2, 3 and 4 were placed in the freezer.

15. Record if there were any specimen processing incidents or problems. If no incidents or problems occurred while processing, skip to Item#17a.

15a-e. Note any specimen processing incidents or problems listed below. Place an “X” in box(es) corresponding to the tubes in which the problem(s) occurred. If an incident/problem is not listed below, document it on Item#16.
- a. Broken tube
- b. Clotted
- c. Hemolyzed
- d. Lipemic
- e. Other

16. Record comments or other problems in blood processing such as centrifuge or freezer issues and shipping problems such as lost shipments or broken tubes. Attach a sheet if more space is needed for notations.
17a-c. Enter technician(s) ID for processing blood specimens. If there was only one technician then leave items 17b and 17c blank.