



## GEMS Standard Operating Procedure (SOP)

<b>Procedure: Receiving DBS sample cards for HIV Resistance Testing</b>
<b>Laboratory:</b> HIV Drug Resistance Testing Laboratory
<b>Effective Date:</b> 17 September 2017

<b>Initial Review and Approval</b>		<b>Date</b>
GEMS Co-Director	Dr. Urvi Parikh, PhD	17 September 2017

<b>Revision History</b>	<b>Date</b>

<b>Authorized to Approve:</b>
<b>Authorized to Review:</b>

## **Personal Protective Equipment**

Performance of this procedure will expose personnel to biohazardous material. All specimens must be handled as infectious material as outlined in your Laboratory's Safety Manual. The technologist must take all precautions and adhere to all prescribed policies.

This procedure may expose you to:

[ X ] Bloodborne pathogens

To perform this procedure, you must use:

[ X ] Gloves

[ X ] Disinfectant: Diluted bleach (1:10 v/v solution)

## **Purpose**

To outline the procedure for receiving and storing Dried Blood Spots (DBS) cards created from whole blood to be used for HIV Drug Resistance Testing

## **Scope**

This SOP applies to all laboratory staff members involved in receiving the DBS cards for HIV Drug Resistance Testing

## **Background**

Dried blood spots collected for HIV-1 Drug Resistance Testing must be handled and stored carefully to preserve HIV-1 RNA on the card until the sample is tested. This SOP describes proper handling and storage of DBS cards by the receiving lab, from a clinic or health center that shipped the cards at ambient temperature.

## **Equipment and Materials**

### **Equipment:**

- -80°C Freezer

### **Materials:**

- Gloves
- Specimen collection form
- Sealed bag containing DBS cards, desiccant pack and humidity indicator
- Freezer boxes or storage containers large enough to contain DBS cards in their sealed bags
- Extra desiccant packs, humidity indicators and sealable bags if needed

## **Specimen Information**

### **Handling Instructions:**

- All DBS cards must be handled as infectious material as outlined in your laboratory's Safety Manual.

### **Unacceptable Specimens:**

- DBS cards that have been damaged in transit or are showing signs of exposure to moisture.

### **Procedure- Stepwise**

- Note: Process the sample for storage immediately upon receipt.
  1. Wash hands and put on disposable safety gloves after hands are dry.
  2. Check contents of received envelope:
    - Ensure the corresponding specimen collection form is present
    - Ensure that the barcodes on each DBS card matches the specimen collection form
    - Report any discrepancies to the sending health center/clinic and/or to a GEMS in-country team member
  3. Ensure each sealable bag contains two DBS cards, at least one packet of desiccant that is clear in color and a humidity indicator card which indicates no moisture is present (dots on the card should be blue, not pink).
    - **If the bag does not contain desiccant, the desiccant is pink in color or if the humidity indicator card has pink dots, note this on the corresponding specimen collection form. Replace the desiccant pack, humidity indicator or both and proceed with the procedure below. Likewise, if the bag's seal is found to be faulty, replace it with a new bag.**
  4. Note any missing items or indication of humidity for any bag on the corresponding specimen collection form.
  5. Log receipt of each DBS card according to your laboratory's specimen logging procedure.
  6. Label each freezer box according to your laboratory's standard freezer organizational practices.
  7. Place the sealed bags containing the DBS cards into the freezer box and store at -80°C until needed for HIV drug resistance testing.
  8. Store the specimen collection form in a secured, locked, cabinet until requested.