



MANUAL OF OPERATING PROCEDURES:
Biological Specimens Collection, Processing and Handling

ACUTE FLACCID MYELITIS WORKING GROUP

09/01/2020



STANDARD PROCEDURE	OPERATING	SOP No: #8 Rectal Swab and whole stool sample collection and storage
		Version Number: 1.0 (Jan 2019)

1. Purpose: To describe and standardize the procedure for rectal swab and whole stool collection, processing and storage for laboratory testing

2. Scope: Authorized personnel from the AFM consensus participating institutions

3. Responsibilities: Authorized personnel performing the processing and handling of samples must ensure that all procedures are followed correctly.

4. Supplies needed:

- Mask
- Gloves
- Flocked swab is preferred. Dacron sterile swab is acceptable.
- Viral transport media
- Sterile screw-cap plastic containers
- Biohazard bag

5. Whole Stool collection process:

1. Collect a large amount of stool (≥ 2 grams) in a clean, leak proof, bed pan or use plastic wrap placed between the toilet seat and the bowl. Do not collect feces contaminated with urine or toilet water.
2. Place the specimen in an appropriate stool preservative or transport media, immediately after collection (depends on type of testing and pathogen).
3. If multiple specimens needed, separate the stool sample into multiple aliquots containing at least a pea size of stool.
4. Label the containers appropriately including specimen type, date and time of collection.
5. Freeze the aliquots at -70 degrees Celsius
6. Remember to save and ship a portion of the sample to the CDC in a sterile container per the site's local reportable disease specimen shipping protocol

6. Rectal swab collection process (if stool not possible):

1. Moisten swab with sterile saline and insert into anus and rectum.
2. Leave for 20 seconds.
3. Remove swab and place it into collection tube with viral transport media.



Note: Continue with the following steps if you have capability for sample aliquoting, otherwise keep swab into collection tube with viral transport media, close securely and ship to referral center and/or CDC.

4. Mix the swab around in the VTM
5. Ring out the swab by pressing it against the inside of the VTM tube.
6. Remove the swab and discard.
7. Vortex the sample for approximately 30 seconds.
8. Aliquot the VTM into equal cryovials containing at least 250µl per aliquot.
9. Label the aliquots appropriately including date of collection.
10. Remember to save and ship an aliquot to the CDC per the site's local reportable disease specimen shipping protocol

Processing and storage

1. If specimens will be examined within 48 hours after collection, they can be refrigerated at 4°C; otherwise store frozen at -70°C and shipped on dry ice.

Submission of specimens to the CDC



Collect specimens as close to onset of limb weakness as possible and store as directed:

Sample	Amount	Tube Type	Processing	Storage	Shipping
Stool (rectal swabs should not be sent in place of stool)	>1 gram (2 samples collected 24hs apart)	Sterile container. No special medium required	n/a	Freeze at -20°C**	Ship on dry ice overnight

**All specimens may be stored at -70°C for ease of shipping

References

World Health Organization (2015). Enterovirus surveillance guidelines: Gainliness for enterovirus surveillance in support for the Polio Eradication Initiative. [PDF file]. Retrieved January 22, 2019, from: http://www.euro.who.int/_data/assets/pdf_file/0020/272810/EnterovirusSurveillanceGuidelines.pdf



Acute Flaccid Myelitis Working Group
SOP

Version No. #2
Sept 2020

Johns Hopkins University (2018). Johns Hopkins Medical Microbiology Specimen Collection Guidelines [PDF file]. Retrieved January 22, 2019, from <https://www.hopkinsmedicine.org/microbiology/specimen/index.html>

Centers for Disease Control and Prevention (2018). Acute Flaccid Myelitis: Specimen Collection Instructions. Retrieved January 27, 2019, from <https://www.cdc.gov/acute-flaccid-myelitis/hcp/instructions.html>