To: Hospitals and Clinical Laboratories (Clinical Laboratory Director, Assistant Director, HPN Coordinator, BT Coordinator, and Laboratory Manager/Administrator)

From: New York State Department of Health (NYSDOH) Laboratory Response Network (LRN)

HEALTH ADVISORY: Handling and Collection of Specimens from Suspected Cases of Monkeypox

On May 20, 2022, the NYSDOH, working with the New York City Department of Health and Mental Hygiene (NYCDOHMH), announced the investigation into two suspected cases of monkeypox disease in New York State. One case was tested at NYCDOHMH's public health laboratory (PHL) and was preliminary positive for Orthopoxvirus and the patient had an illness consistent with monkeypox.

Testing for monkeypox virus can be performed on specimens at the NYSDOH’s Wadsworth Center laboratory and NYCDOHMH’s PHL should any patients within their jurisdictions present with symptoms consistent with monkeypox and meet epidemiological criteria.

This notification serves to provide hospitals and clinical laboratories located in New York State information on the handling and collection of specimens from patients suspected as being infected with monkeypox.

Clinical Laboratory Testing

- Patient(s) presenting for care at a hospital or other health care facility who are suspected of having monkeypox disease may still be evaluated via standard point of care testing algorithms while wearing appropriate personal protective equipment (PPE).
- Routine specimen processing and testing including chemistry, hematology, and urinalysis can be performed in BSL-2 facilities, but with additional BSL-3 work practices.
- Laboratory workers must wear appropriate PPE, including disposable gloves, solid front gowns with cuffed sleeves, and face protection (snugly fitting goggles are preferred; if a face shield is used, it should have crown and chin protection plus wrap around the face to the point of the ear) to provide a barrier to mucosal surface exposure.
- Centrifugation must be performed using safety cups or sealed rotors. Rotors or safety cups must be opened in a certified Class II Biosafety Cabinet (BSC) after centrifugation involving specimens suspected of containing monkeypox virus. Disinfection of the sealed rotor or safety cups must take place before removing them from the BSC.
- If procedures that generate fine-particle aerosols cannot be contained within a BSC, acceptable methods of respiratory protection include particulate respirators; these respirators provide the minimum level of respiratory protection. Facilities may consider the use of higher levels of respiratory protection, particularly if vaccination status
of staff is not confirmed or if personnel cannot be correctly fitted to disposable models. These higher levels may include the use of powered air purifying respirators.

- While monkeypox virus can be cultured in several cell lines routinely used in virus isolation laboratories, laboratories should not attempt to culture the virus and should not inoculate specimens from suspected monkeypox cases into cell cultures.

**Decontamination**

Decontamination of work surfaces after the completion of work or at the end of the day is essential. Any Environmental Protection Agency (EPA) registered hospital detergent-disinfectant currently used by health care facilities for environmental sanitation may be used. Manufacturer’s recommendations for use-dilution (i.e., concentration), contact time, and care in handling should be followed.

**Specimen Collection Guidelines**

*For specimens collected from NYS residents and tested at the NYSDOH’s Wadsworth Center laboratory. Testing of NYC residents should be coordinated with NYCDOHMH.*

Dacron, nylon, or polyester dry swabs without viral transport media must be used for specimen collection.

**To collect vesicular and pustular material with dry swabs:**

1. Sanitize the patient’s skin with an alcohol wipe and allow skin to dry.
2. Use two dry swabs per lesion. Label a swab holder with the patient’s name and date of birth and remove swab from the outer sheath.
3. Collect cells from the lesion base by vigorously swabbing or brushing lesions with two separate sterile dry Dacron, nylon, or polyester swabs.
4. If the swab does not contain a plastic covering, place each swab into a plastic conical tube or some other separate sterile container.
   a. **Do NOT add or store in viral or universal transport media**
5. Use parafilm to seal each tube.
6. Repeat this process with two new dry swabs on a second lesion for a total of four swabs per patient.
   a. **Each swab must be stored in a separate sterile container**

**To collect lesion caps:**

1. Use a sterile disposable scalpel, remove the lesion cap.
2. Transfer lesion cap to a dry, 1.5 to 2.0 mL sterile screw-capped tube.
3. Use parafilm to seal each tube.
4. Label the tube(s) with the patient’s name and date of birth.

**Shipping/Transport**

- Properly collected and packaged specimens should be sent to the NYSDOH Wadsworth Center after prior approval with the Local Health Department and NYSDOH Bureau of Communicable Disease Control (518-473-4439 during business hours or 866-881-2809 evenings, weekends, and holidays).
- A test order should be submitted after prior approval through the Health Commerce System CLIMS Remote Order Entry system or using the Wadsworth Center Infectious Disease Requisition (IDR) Form.
- Specimens should be transported refrigerated with frozen cold packs in an appropriately sized certified shipper.
- If monkeypox disease is suspected, then specimens should be packaged and shipped following requirements for a biological substance, Category B.
  - In general, Category B packaging requires four layers: primary watertight inner receptacle, absorbent material, secondary watertight inner receptacle, and a sturdy outer packaging.

Additional information can be found at:
- For Category B packaging and shipping from the USDOT:
- For Laboratory Personnel:
  - https://www.cdc.gov/poxvirus/monkeypox/lab-personnel/index.html
- For Laboratory Procedures:
  - https://www.cdc.gov/poxvirus/monkeypox/lab-personnel/lab-procedures.html

If you have any questions related to monkeypox disease or virus testing, you may contact LRN staff at (518) 474-4177 or via e-mail at btrlab@health.ny.gov.