NC DEPARTMENT OF HEALTH AND HUMAN SERVICES

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To: All North Carolina Clinicians and Laboratories
From: Zack Moore, MD, MPH, State Epidemiologist
Scott Shone, PhD, HCLD(ABB), Public Health Laboratory Director
Re: Person-to-Person Mpox Transmission in Multiple Countries Date: December 1, 2022 *(4 pages – replaces version dated September 7, 2022)*

Note- NC DHHS materials will use "mpox" (formerly monkeypox) going forward to address concerns and stigma associated with prior terminology. This change also aligns with the recent decisions of the CDC and World Health Organization.

This memo is intended to provide an update regarding vaccine eligibility and the recently announced availability of therapeutic agent brincidofovir from the Strategic National Stockpile (SNS), via FDA request. Brincidofovir is an antiviral medication that may be considered for severe cases of mpox infection.

**Background:**

Since May 2022, *mpox virus* infections have been identified outside of endemic regions, including the United States, in individuals with no travel history to endemic regions. Cases have been identified predominantly in gay, bisexual or other men who have sex with men (MSM), although it's important to note that mpox can affect anyone and infectious diseases do not tend to remain only within specific sexual or social networks. Information on mpox cases in North Carolina can be found here.

A toolkit with educational materials to for you to help our communities understand mpox is available at https://epi.dph.ncdhhs.gov/cd/diseases/mpox/toolkit.html.

**Testing and Reporting:**

The NC Division of Public Health (NCDPH) is available to assist with mpox evaluation and testing, and with implementation of public health interventions to prevent further spread. Testing can be performed through multiple commercial and hospital laboratories and through the NC State Laboratory of Public Health (NCSLPH). Testing at NCSLPH no longer requires approval through the epidemiologist on call.

North Carolina providers should consider mpox in all patients presenting with a clinically consistent picture. Testing for other diseases that can present with similar lesions such as herpes or varicella (chickenpox and shingles) should also be considered. **Testing for syphilis, HIV, gonorrhea, and chlamydia should be considered in patients in whom a mpox diagnosis is suspected due to high coinfection rates seen in the outbreak to this point.**

Suspicion for mpox should be heightened if the rash occurs in a person who reports any of the following in the 21 days prior to symptom onset:

1) Having contact with a person or people who have a similar appearing rash or received a diagnosis of confirmed or suspected mpox OR
2) Had close or intimate in-person contact with person(s) in a social network experiencing mpox infections. This currently includes MSM who meet partners through an online website, app, or social event OR
3) Has recently returned from travel to an endemic area.

Providers should carefully consider the need for testing patients, including children, who have no plausible risk of exposure and for whom there is low suspicion for mpox disease. False positive results have been reported and the likelihood is higher when testing is performed among people unlikely to have a condition.

Cases must be reported to your local public health department or NCDPH (919-733-3419) within 24 hours per the NC State Administrative Code.

**Infection Prevention:**

When mpox is suspected, healthcare workers should implement contact and enhanced droplet precautions, including wearing gloves, a protective gown, eye protection, and a NIOSH-approved N95 or higher-level respirator. Special air handling is generally not required, but patients should be placed in an airborne infection isolation room if aerosol-generating procedures (e.g., intubation/extubation) will be performed. Respirators should not be re-used between patients because fomite transmission is possible. For people with mpox who do not require hospitalization, home isolation is required during the infectious period. Cleaning processes for testing facilities are similar to standard cleaning after a standard patient visit. See: CDC Infection Control in Healthcare Settings.

**Vaccination:**

JYNNEOS vaccine is FDA approved to prevent mpox. Available JYNNEOS doses have been allocated to states from the Strategic National Stockpile to give to people with known or suspected exposure to mpox. Based on increased vaccine supply and the current epidemiology of the mpox outbreak in North Carolina, current vaccination criteria include:

1. Anyone who had close contact in the past two weeks with someone who has been diagnosed with mpox; or
2. Gay, bisexual, or other men who have sex with men, or transgender individuals, who are sexually active; or
3. People who have had sexual contact with gay, bisexual, or other men who have sex with men, or transgender individuals in the past 90 days; or
4. People living with HIV, or taking medication to prevent HIV (PrEP), or who were diagnosed with syphilis in the past 90 days.
5. People who have had any of the following in the past 6 months:
    - Sex at a commercial sex venue
    - Sex in association with a large public event
6. Sexual partners of people with the above risks

7. People who anticipate experiencing the above risks

The current list of JYNNEOS providers in North Carolina is available here.
Providers interested in receiving and administering JYNNEOS vaccines must enroll and agree to the terms of the program. Providers not currently enrolled should complete the Mpox Vaccine Enrollment and Capacity Survey Vaccine Enrollment and Capacity Survey to get started.

Information for the public about vaccine eligibility and access is available here.

**Treatment:**

At this time, there are no specific treatments approved for mpox infection. Tecovirimat (TPOXX), vaccinia immune globulin (VIG), cidofovir, and brincidofovir can be considered and are available from the Strategic National Stockpile. Providers can request therapeutics using this NC DHHS Mpox Medical Countermeasures Request Form. Particular consideration for these options should be taken if the patient has immunocompromising conditions, lesions in the throat, eyes, or perirectal area, or the patient is a pregnant person or child: Treatment Information for Healthcare Professionals | Mpox | Poxvirus | CDC.

Cases of laboratory-confirmed tecovirimat resistance have been reported in patients with immunocompromising conditions and progressive, severe manifestations of mpox who had received prolonged courses (>14 days) of tecovirimat. A CDC Health Advisory issued November 17, 2022, contains guidance for identification of resistance in patients who, after completing 14 days of tecovirimat treatment, experience persistent or newly emergent mpox lesions.

**NCSLPH Mpox Specimen Collection, Storage, and Shipping Guidance:**
**This guidance applies only to specimens being tested at NCSLPH. If sending specimens to other laboratories, please follow the specific guidance for the laboratory to which you are sending specimens.**

State Testing Employed
The NCSLPH Bioterrorism and Emerging Pathogens (BTEP) Unit has validated the CDC's Non-variola Orthopoxvirus, Orthopoxvirus and Variola virus real-time PCR (RT-PCR) assays.

- Estimated turn-around time for initial results at NCSLPH is 6 to 72 hours from time of specimen receipt but may vary depending on the number of specimens received.

- USE STANDARD, CONTACT, AND DROPLET PRECAUTIONS WHEN COLLECTING SPECIMENS FOR MPOX TESTING: https://www.cdc.gov/poxvirus/mpox/clinicians/prep- collection-specimens.html

- Duplicate specimens (i.e. swabs of lesion fluid) must be collected simultaneously and sent to NCSLPH. One specimen from each set will be used for testing at NCSLPH; if positive, the second specimen may be sent to CDC for DNA characterization that includes mpox specific testing.

NCSLPH Mpox Specimen Collection
- Place each specimen in individual collection tubes (i.e., one tube per swab).

- Label each specimen tube separately with:

    - **Specimen site / type**
    - Patient name
    - Date of birth
    - Date of collection

**Swab collection** – sterile nylon, polyester, or Dacron swabs with a plastic, wood, or thin aluminum shaft. Do not use cotton or other types of swabs. **Dry swabs will be processed for molecular detection**; **do not add transport media**. Unroofing the lesion is not recommended:

1. Taking TWO sterile polyester or Dacron swabs, simultaneously use both to **vigorously** swab the base of the lesion.
2. Break off the end of each swab separately into screw-capped plastic aliquot tubes without any preservative. DO NOT ADD ANY TRANSPORT MEDIA.

NCSLPH Mpox Specimen Storage and Shipping Guidance

- Within one hour of collection, place all specimens in a 2-8°C refrigerator or a freezer at -20°C or colder.
- Refrigerated (2-8°C) samples are acceptable for testing up to 7 days after collection. Frozen samples (-20°C or lower) are acceptable for testing for up to 1 month after collection.
- Shipment to NCSLPH – If shipment is to be received at NCSLPH within 5 days of collection, specimens must be received cold (2-8°C, packaged with frozen cold packs) to be acceptable for testing. For delays exceeding 5 days, freeze specimens at -20°C or lower & ship on dry ice to be received at NCSLPH frozen (-20°C or lower).
- Packages should be shipped to NCSLPH as Category B. Category B shipping instructions can be found here: Cat B Poster v3 (dot.gov). If you have questions regarding Category B shipping, please contact the BTEP Unit using the information below.
- The following supplies are necessary for Cat B shipping: a rigid package with insulation, frozen ice packs, appropriate Category B labels, and a leakproof container specimens can be placed into (this can be a larger sample container or a specimen bag).

All specimen submissions **must** have a completed BTEP Specimen Submission Form

| **For all courier services, including UPS and FEDEX*** |
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| North Carolina State Laboratory of Public Health<br>ATTN: Bioterrorism & Emerging Pathogens Unit<br>4312 District Drive<br>Raleigh, NC 27607<br><br>*Ship **overnight delivery**. You must specify Saturday delivery if shipping on Friday. |

Contact the BTEP unit (919-807-8600) only if you have submission questions.