NEW YORK STATE OF OPPORTUNITY. Department of Health

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TO: Healthcare Providers, Hospitals, Clinical Laboratories, and Local Health Departments (LHDs)

FROM: New York State Department of Health (NYSDOH), Division of Epidemiology

HEALTH ADVISORY: Update #2 Regarding Poliovirus in New York State

For clinical staff in Epidemiology/Infection Control, Emergency Department, Infectious Disease, Neurology, Radiology, Nursing, Internal Medicine, Pediatrics, Family Medicine, Intensive Care, Pharmacy, Laboratory Services, and all patient care areas.

Updates Since Last Advisory

- All providers in Rockland and Orange counties who are capable of delivering vaccines in their practice should stock IPV and offer IPV to patients according to the recommendations below. Combination vaccines including IPV can be given to children and is preferred as appropriate, according to ACIP guidelines. IPV alone can be given to children and adults and is available through your usual vaccine ordering channels or may be available from the local health department.

- All children, adolescents, and adults who are **unvaccinated or under-vaccinated** should be brought up to date with all routine CDC-recommended inactivated polio vaccine (IPV) doses. This is particularly important and urgent if they live, work, attend school, or have frequent social interactions with communities in Rockland and Orange Counties; these groups are considered to be at greater risk for exposure to polioviruses than the general population (see ACIP recommendations below).
    - For children with a record of OPV (e.g., given abroad), only trivalent OPV (tOPV) counts toward fully vaccinated status. Doses of OPV given **before** April 1, 2016 should be counted unless specifically noted as monovalent, bivalent, or as given during a poliovirus immunization campaign. Doses of OPV given on or **after** April 1, 2016 should **not** be counted.
        - OPV given on or after April 1, 2016 as part of routine immunization regimens outside the U.S. does not protect against type 2 poliovirus, which is the type circulating in New York.
        - If there is uncertainty about whether a dose of OPV should be counted, give a dose of IPV.
    - IPV protects against all three types of poliovirus, regardless of whether it was given in the U.S. or abroad.
    - If an individual at risk thinks they are unimmunized, and records cannot be easily and quickly obtained, then treat them as if they are unimmunized. Polio immunization has been available since 1955 and has been part of the routine childhood immunization schedule for decades.

- Particular emphasis should be placed on catch-up immunization for young children who are unimmunized or under-immunized, such as those whose parents might have planned to delay immunization until shortly before school enrollment. The hygiene habits of young children and the fact that they are often cared for in congregate settings place them at greater risk for acquiring poliovirus.

- For persons who have previously completed a vaccine series against poliovirus, **booster doses** of IPV should be offered to those at highest risk of infection:
  - Individuals who will or might have close contact with a person known or suspected to be infected with poliovirus or such person's household members or other close contacts.
  - Healthcare providers working in areas with community transmission of poliovirus (e.g., Rockland and Orange counties) who might handle specimens that might contain polioviruses or who treat patients who might have polio (e.g., urgent care, emergency department, neurology, virology laboratory workers).
  - Individuals with occupational exposure to wastewater can consider a booster.

  Adults who meet the criteria above should receive only one lifetime booster. At this time, booster doses are not recommended for individuals traveling to the New York City metropolitan area, including Orange and Rockland Counties, merely because of their travel status.

- These vaccination recommendations are consistent with guidelines from the Advisory Committee on Immunization Practices (ACIP, https://www.cdc.gov/mmwr/preview/mmwrhtml/rr4905a1.htm), which state that:
  - For children:
    - "All children should receive four doses of IPV at ages 2, 4, and 6--18 months and 4--6 years."
      - "If accelerated protection is needed, the minimum interval between doses is 4 weeks, although the preferred interval between the second and third doses is 2 months."
    - "Those who are inadequately protected should complete the recommended vaccination series. No additional doses are needed if more time than recommended elapses between doses."
  - For adults:
    - "Vaccination is recommended for certain adults who are at greater risk for exposure to polioviruses than the general population…", e.g., certain travelers, members of communities or specific population groups with disease caused by polioviruses, certain laboratory workers, health-care workers who have close contact with patients who might be excreting polioviruses.
    - "Unvaccinated adults who are at increased risk should receive a primary vaccination series with IPV."
    - "Available data do not indicate the need for more than a single lifetime booster dose with IPV for adults."

- NYS Medicaid providers should follow the coverage and billing guidance for the poliovirus vaccine and its administration provided in the upcoming August edition of the NYS Department of Health's (DOH) Medicaid Update article. Once published, the article can be found under the "Current Issue" section of the DOH Medicaid Update webpage located at: https://www.health.ny.gov/health_care/medicaid/program/update/main.htm.

- In view of misinformation and rumors spreading in the involved areas, we strongly encourage healthcare providers, who tend to be highly trusted, to speak out about the reality of the threat and the presence of circulating poliovirus in New York State.

- See below for continuing recommendations for diagnosis of individuals with non-specific viral symptoms or with meningitis who are at risk for poliovirus infection. The groups of individuals who should be included in this enhanced surveillance has been expanded to include individuals who have frequent social interactions with communities in Rockland or Orange County.

- Previous NYSDOH advisories on polio, which include additional guidance for healthcare providers, can be found at:
    - August 4, 2022 Health Advisory: Update Regarding Poliomyelitis in Rockland County, New York State, https://www.health.ny.gov/diseases/communicable/polio/docs/health_advisory_8-4-22.pdf
    - July 22, 2022 Health Advisory: Poliomyelitis Case in Rockland County, New York State, https://www.health.ny.gov/diseases/communicable/polio/docs/2022-07-29_han.pdf

- New York City's recent advisory "2022 Health Alert #20: Update on Poliovirus in New York City" can be found at https://www1.nyc.gov/assets/doh/downloads/pdf/han/alert/2022/polio-in-nyc.pdf.

Polio Immunization Recommendations

- Please see updated recommendations above.

Additionally:

- Polio vaccine may be given to children and adults as a stand-alone vaccine (not combined) in an outbreak setting.
- IPV or the first dose of combination products containing IPV can be given as early as 6 weeks of age and should be considered for administration when infants who are at least 6 weeks old and reside in Rockland or Orange County present for care. Otherwise, it should be given at 2 months of age according to the usual recommended schedule.
- Polio vaccine can be given during pregnancy and is recommended if otherwise indicated. Pregnant persons should discuss the risks and benefit of IPV with their healthcare provider.
- Polio vaccine may be given at the same time as other vaccines.
- IPV, the only polio vaccine available in the US, is highly effective, with 90% or more of vaccine recipients developing protective antibody levels to all three poliovirus types after 2 doses, and 99% developing protective antibody levels following 3 doses.
- Unvaccinated adults at risk for poliovirus infection should get three doses of IPV: two doses separated by 1 to 2 months, and a third dose 6 to 12 months after the second dose. Often during an outbreak, the first dose may be administered by a public health agency but follow up doses can be obtained where the patient receives regular health care.
- The schedule for polio vaccination for unvaccinated or under-vaccinated children through age 17 years is 2 doses of IPV separated by 4–8 weeks, and a third dose 6–12 months after the second dose. For details and age groups, refer to the ACIP IPV catch-up vaccine table.
- To obtain IPV for your patients, please order through your usual vaccine ordering channels. Contact your local health department if you have concerns about obtaining vaccine.

Routine and enhanced polio surveillance

- Surveillance for non-paralytic polio – non-specific viral symptoms
    - NYSDOH recommends that the following individuals undergo testing for enterovirus (poliovirus is a type of enterovirus):
        - Unimmunized for polio, or unknown immunization status (patient report acceptable if records are not available), and
        - Resident of Rockland or Orange County, or works or attends school in Rockland or Orange County, or has frequent social interactions with communities in Rockland or Orange County, and
        - Symptoms consistent with non-paralytic polio:
            - Sore throat and/or fever, AND
            - At least two of the following symptoms (sore throat and/or fever can count as one or both): sore throat, fever, tiredness, headache, nausea, stomach pain.
        - If tested, negative results for COVID-19, influenza, streptococcal infection, and other respiratory pathogens (with the exception of enterovirus or "rhino-enterovirus", for which positive results might indicate poliovirus).
    - Individuals who meet the criteria above should have a diagnostic **stool specimen collected for enterovirus PCR** and **sent to the clinical laboratory** that you routinely use.
        - If a stool specimen cannot be obtained, then an oropharyngeal (OP) swab is also acceptable, although stool is preferred.
        - The relevant ICD-10 code should be included on the lab requisition (e.g., B34.9, J02.9).
        - **The Rockland or Orange County connection and the polio immunization status should be included on the lab requisition.**
        - An enterovirus-specific PCR test should be ordered; that is, point-of-care or other tests that return a "rhino-enterovirus" result are not acceptable.
    - NYSDOH will contact clinical laboratories and request that they send specimens positive for enterovirus to the New York State public health laboratory, Wadsworth Center, for poliovirus testing.

- Surveillance for non-paralytic polio – meningitis
    - NYSDOH recommends that the following individuals with meningitis undergo diagnostic testing for poliovirus:
        - Resident of Rockland or Orange County, or works or attends school in Rockland or Orange County, or has frequent social interactions with communities in Rockland or Orange County, and
        - If tested, positive results for enterovirus in cerebrospinal fluid (CSF). If not tested for enterovirus, then no other apparent cause for the meningitis.
    - Individuals who meet the criteria above should have a diagnostic **stool specimen collected for enterovirus PCR** and **sent to the clinical laboratory** that you routinely use.
        - If a stool specimen cannot be obtained, then an OP swab is also acceptable, although stool is preferred.
        - **The Rockland or Orange County connection should be included on the lab requisition.**
        - An enterovirus-specific PCR test should be ordered; that is, point-of-care or other tests that return a "rhino-enterovirus" result are not acceptable.

- NYSDOH will contact clinical laboratories and request that they send specimens positive for enterovirus to the New York State public health laboratory, Wadsworth Center, for poliovirus testing.

- Surveillance for paralytic polio or strongly-suspected non-paralytic polio
  - **Immediately notify the local health department** where the patient resides and/or contact the New York State Department of Health. See additional information in August 4, 2022 Health Advisory: Update Regarding Poliomyelitis in Rockland County, New York State (PDF) under the section entitled "Guidelines for Healthcare Providers" August 4, 2022 Health Advisory: Update Regarding Poliomyelitis in Rockland County, New York State (PDF).
  - The specimen collection recommendations in this section apply for cases of possible paralytic polio, or when there is a high suspicion of non-paralytic polio (e.g., compatible illness in a contact of a polio case).
  - Specimens should be collected as follows (in order of priority) and **sent directly to Wadsworth Center**:
    - **Two stool specimens** collected 24 hours apart
    - **Oropharyngeal swab**
    - **Nasopharyngeal swab**
    - **Cerebral spinal fluid (CSF;** 2-3 cc, if available, in sterile collection tube**)**
    - **Serum** (acute and convalescent), collected **before** treatment with intravenous immunoglobulin (IVIG; 2-3 cc in red or tiger-top tube)
    - A shipping manifest from an electronically-submitted Remote Order OR an Infectious Disease Requisition form should accompany all specimens sent to Wadsworth, noting symptoms and immunization history.
    - Specimens should be stored refrigerated and shipped on frozen gel packs.

- **Specimen collection, storage, and shipping**
  - For stool specimens, a quarter-sized amount of stool should be collected in a sterile, wide-mouth container with no additives.
  - For OP swabs, flocked swabs are preferred. Sterile Dacron or rayon swabs with plastic or metal handles may also be used. Do NOT use cotton or calcium alginate swabs or swabs with wooden sticks. Place the swab in liquid viral transport media (VTM) or universal transport media (UTM). The same swabs and media used for COVID or influenza PCR testing can be used. Do not use saline or send dry swabs.
  - Specimens should be stored refrigerated and shipped on frozen gel packs.

Resources

- CDC Suspect Polio Factsheet: https://www.cdc.gov/polio/pdf/Polio-Fact-Sheet-Suspect-Polio-508.pdf
- ACIP Recommendations for Polio Vaccination: https://www.cdc.gov/vaccines/hcp/acip-recs/vacc-specific/polio.html
- CDC Polio Vaccination: What Everyone Should Know: https://www.cdc.gov/vaccines/vpd/polio/public/index.html
- CDC Polio Vaccine Information Statements: https://www.cdc.gov/vaccines/hcp/vis/vis-statements/ipv.html
- CDC Polio Education Materials: https://www.cdc.gov/vaccines/vpd/polio/public/index.html#educational-materials
- Vaccine Derived Polio FAQ: https://www.cdc.gov/vaccines/vpd/polio/hcp/vaccine-derived-poliovirus-faq.html

- Polio: For Healthcare Providers | CDC: https://www.cdc.gov/polio/what-is-polio/hcp.html
- Report of polio detection in United States – GPEI: https://polioeradication.org/news-post/report-of-polio-detection-in-united-states/
- Guidance for assessment of poliovirus vaccination status and vaccination of children who have received poliovirus vaccine outside the United States: https://www.cdc.gov/mmwr/volumes/66/wr/mm6606a7.htm?s_cid=mm6606a7_w.
- Clinicians with questions can contact the NYSDOH at 1-866-881-2809 evenings, weekends, and holidays. In New York City clinicians may contact the healthcare provider access line at 1-866-692-3641.