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PUBLIC HEALTH ADVISORY

To: Health Care, Schools, and Child Cares
From: Dr. Isaac Benowitz, State Epidemiologist
Subject: **Varicella Testing and Reporting Recommendations**
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Varicella Testing and Reporting Recommendations

Background

In 2021, providers reported 63 cases of varicella in Maine residents to Maine CDC, compared to just 33 cases reported in 2020. The decrease in widespread COVID-19 social distancing practices likely played a role in the increase in varicella cases. Varicella is a notifiable condition in Maine, and all confirmed or suspected cases should be reported to Maine CDC by telephone, fax, or electronic lab report within 48 hours of recognition or strong suspicion of disease.

Consider Varicella When Evaluating Febrile Rash Illness

Consider varicella as a diagnosis for anyone with clinically compatible illness, regardless of vaccination history. The classic rash is:

- generalized and pruritic (itchy),
- progresses rapidly from macules to papules to vesicular lesions before crusting,
- usually appears first on the head, chest, and back then spreads to the rest of the body, and
- is usually most concentrated on the chest and back.

Varicella may look different depending on the patient, their vaccination history, and their complexion.

Breakthrough varicella in vaccinated individuals can occur but is substantially less severe and is of shorter duration. Breakthrough cases often have fewer and less intense lesions than unvaccinated cases. An unvaccinated case typically will have anywhere from 250-500 lesions, while a vaccinated case averages about 50 lesions. Vaccinated persons with breakthrough varicella also typically have a lower incidence of fever.

Testing for Varicella

Laboratory confirmation is increasingly important in the diagnosis of varicella, especially in childcare or school settings where children may need to be excluded to prevent further spread. For both unvaccinated and vaccinated persons, polymerase chain reaction (PCR) testing of skin lesions (vesicles, vesicular fluid, scabs, maculopapular lesions) is the preferred and most reliable method for confirming infection. PCR testing can be performed at some commercial laboratories and at Maine's Health and Environmental Testing Laboratory (HETL). Serology tests are not recommended, as positive results may indicate immunity from vaccination rather than active infection. Step by step information about collection of varicella specimens can be found here.

Laboratory testing is recommended to:

- Confirm suspected cases of varicella
- Confirm varicella as the cause of outbreaks
- Confirm varicella in severe cases (hospitalizations or deaths) or unusual cases
- Determine if suspected vaccine-related adverse events were caused by vaccine-strain varicella virus

Vaccination

Providers should encourage varicella vaccination for anyone without evidence of immunity who does not have medical contraindications. As of September 1, 2021, students enrolled in grades K-12 are required to have received 2 doses of varicella vaccine. Children attending Pre-K are required to have received 1 dose of varicella vaccine. Other required vaccinations for school children, and exemption criteria, can be found within the Maine School Immunization Requirements document. It is important to remind patients that **acquiring varicella immunity through vaccination is much safer, more effective, and longer lasting than natural immunity.**

➔ **For routine vaccination**, the Advisory Committee on Immunization Practices recommends two doses of varicella vaccine, the first at 12-15 months of age and the second at 4-6 years of age.

➔ **For catch up vaccination,** children between 7-18 years without evidence of immunity should receive two doses of varicella vaccine. The recommended minimum interval between doses is 3 months for children ages 7 through 12 and 4 weeks for persons age 13 and older.

Case Exclusion

Individuals *with varicella disease* need to be excluded from any social, academic and employment activities until the rash has crusted, or in immunized people without crusts, until no new lesions appear for 24 hours.

Patients who have an active shingles infection should also avoid close contact with others as the virus can be transmitted and cause varicella. A shingles rash should be well covered until vesiculated lesions are dry or crusted to avoid risk of varicella transmission.

Reporting

All providers, including health care providers, medical laboratories, health care facilities, child-care facility administrators or owners, and educational institution administrators, should report all confirmed and suspect cases **within 48 hours of diagnosis or laboratory test result**. If a patient presents at an emergency department or urgent care or if a diagnosis is made via telemedicine, the patient's provider should still report the diagnosis to Maine CDC. Diagnoses made via telemedicine are equally required to be reported.

Disease reports can be made by electronic laboratory report, phone, or fax 24 hours a day, 7 days a week. Phone: 1-800-821-5821 Fax: 1-800-293-7534. The notifiable conditions reporting form and list of notifiable conditions can be found at http://www.maine.gov/dhhs/mecdc/infectious-disease/epi/disease-reporting/

Other Useful Resources

- Maine CDC's website www.maine.gov/dhhs/varicella
- US CDC's website https://www.cdc.gov/chickenpox/index.html
- For information about varicella vaccine or vaccine schedules, please contact the Maine Immunization Program at www.immunizeme.org or by calling 1-800-867-4775.
- Maine Immunization requirements: https://www.maine.gov/doe/sites/maine.gov.doe/files/inline-files/ME%20Immunization%20Requirements%20for%20Schools%209-25-2021.pdf
- This resource from federal CDC may help identify breakthrough varicella compared to other common rashes: https://www.cdc.gov/chickenpox/downloads/Breakthrough-Varicella-fact-sheet-508.pdf
- Information about specimen collection is provided on federal CDC's website, including a helpful video: https://www.cdc.gov/chickenpox/lab-testing/collecting-specimens.html#genotyping
- Immunization Requirements for School Children Frequently Asked Questions: https://www.maine.gov/dhhs/mecdc/infectious-disease/immunization/documents/School%20Vaccination%20Rule%20FAQ.9.23.21.pdf