

TO: Health Care Providers, Hospitals, Ambulatory Care Centers and School Nurses

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Chickenpox Advisory: Managing Varicella

Chickenpox Exposure in a Health Care Facility

A case of chickenpox with a large number of exposed individuals has been identified in a Springfield area health care facility. The exposures occurred on Monday, 9/19 and Tuesday, 9/20. Exposed individuals are being notified and may present to your facility for evaluation.

Post-exposure Vaccination and Prophylaxis

Varicella Vaccine – Vaccination is recommended for post-exposure administration for unvaccinated persons without evidence of immunity. Administration of a second dose should be considered for persons who have previously received only one dose of the two-dose series to bring them up-to-date. Vaccine is 70-100% effective in preventing illness or modifying varicella severity if administered within 3 days, and possibly up to 5 days, of exposure.

VariZIG - Exposed patients without evidence of immunity to varicella who are at high risk for complications, and **for whom varicella vaccine is contraindicated**, should receive VariZIG, a varicella zoster immune globulin product. Patient groups recommended to receive VariZIG include:

- Immunocompromised patients without evidence of immunity.
- Newborn infants whose mothers have signs and symptoms of varicella around the time of delivery (i.e., 5 days before to 2 days after).
- Hospitalized premature infants born at ≥ 28 weeks of gestation whose mothers do not have evidence of immunity to varicella.
- Hospitalized premature infants born at < 28 weeks of gestation or who weigh $\leq 1,000$ g at birth, regardless of their mothers' evidence of immunity to varicella.
- Pregnant women without evidence of immunity.

VariZIG should be administered as soon as possible after exposure and within 10 days. Contact the Health Department at 802-863-7240 for additional information on obtaining VariZIG if it is indicated.

Ensure Documentation of Immunity for all Health Care Personnel (HCP)

Health care facilities should ensure all HCP have documented evidence of immunity to varicella. Evidence of immunity for HCP includes any of the following:

- Written documentation of vaccination with 2 doses of varicella vaccine.
- Laboratory evidence of immunity or laboratory confirmation of disease.
- Diagnosis or verification of a history of varicella disease or herpes zoster (shingles) by a health-care provider.

Birth before 1980 should not be considered as evidence of immunity for HCP. For additional information see the Centers for Disease Control and Prevention's (CDC's) guidance on assessing immunity to varicella: <http://www.cdc.gov/chickenpox/hcp/immunity.html>.

Consider Chickenpox When Evaluating Rash Illness

Consider chickenpox as a diagnosis for anyone with clinically compatible illness, regardless of vaccination history. The classic symptom of chickenpox is a generalized and pruritic rash that progresses rapidly from macules to papules to vesicular lesions before crusting. Rash usually appears first on the head before spreading to the trunk and extremities; the highest concentration of lesions is on the trunk. Lesions also can occur on mucous membranes of the oropharynx, respiratory tract, vagina, conjunctiva, and the cornea. Lesions are usually 1 to 4 mm in diameter. The vesicles are superficial and delicate and contain clear fluid on an erythematous base. Successive crops appear over several days, with lesions present in several stages of development. A mild prodrome may precede onset of rash. Other symptoms include fever, fatigue, loss of appetite and headache.

Breakthrough varicella in vaccinated individuals is substantially less severe with the median number of skin lesions commonly less than 50; vesicular lesions are less common and the lesions are most often papules that do not progress to vesicles. Varicella in vaccinated persons is typically shorter in duration and has a lower incidence of fever than in unvaccinated persons. Breakthrough varicella has been reported in both one- and two-dose vaccine recipients.

Report all suspected and confirmed cases to the Health Department's Infectious Disease – Epidemiology program at 802-863-7240.

Test for Chickenpox

Clinical diagnosis is becoming more challenging because fewer people get chickenpox and chickenpox in vaccinated people is often mild and atypical in presentation. Therefore, laboratory confirmation is increasingly important in routine clinical practice. For both unvaccinated and vaccinated persons, PCR is the most reliable method for confirming infection. A sterile needle should be used to gently unroof the top of the vesicle. A sterile swab is then used to vigorously swab the base of the lesion and collect vesicular fluid. Use swabs made from synthetic fibers and do not use swabs with a wooden stick. Place swabs directly into empty tubes. Do not use transport medium; the specimen must be kept dry. For questions about testing or to order specimen collection kits, call the Health Department Laboratory at 802-338-4724.

Stop Transmission

Exclude - Inform patients with suspected chickenpox to stay at home and avoid close contact with others until all lesions have crusted over or, in immunized people without crusts, until no new lesions appear within a 24-hour period.

Vaccinate - Vaccination is the best protection against chickenpox. All children should receive two doses of vaccine, the first at 12-15 months and the second at 4-6 years of age. Vaccination is also recommended for nonimmune adults. The minimum interval between doses of varicella vaccine is 3 months for children ≤12 years of age and 4 weeks for those 13 years and older.

For providers participating in the Vermont VFC/VFA program, contact the Health Department's Immunization program at 802-863-7240 for information about ordering vaccine.

Chickenpox Information for Clinicians

Resources for clinicians are available on the CDC website: <http://www.cdc.gov/chickenpox/>. If you have questions, contact the Vermont Department of Health, Infectious Disease Epidemiology program at: 802-863-7240.