



Varicella Guidance for Providers

Clinical Information

Varicella is an illness characterized by a generalized, pruritic rash. It progresses from macules to papules to vesicular lesions and then crusts over. Lesions are usually most concentrated on the trunk. Persons who were previously vaccinated may develop varicella, but symptoms of infection are often mild; fewer lesions may develop, lesions may not be vesicular, and fever may be absent. It is important to maintain a high index of suspicion for varicella in patients presenting with a compatible illness, regardless of vaccination history. Infants, adolescents, adults, pregnant women, and immunocompromised persons are at risk for more severe disease and complications. Common complications include pneumonia and bacterial infection of the skin and soft tissues; rarely complications can include meningitis, encephalitis, birth defects, and death.

Transmission and Infection Control

Varicella is highly contagious. People with varicella must stay home while contagious which begins 2 days before rash onset until all lesions have crusted and no new lesions have appeared for a 24 hour period. People who are not immune to varicella are at risk for getting sick from 10 to 21 days after exposure, and they may be contagious as early as 8 days after exposure. People exposed to varicella who do not have evidence of immunity (see below) should remain home while at risk from getting sick, through 21 days after their last exposure. In healthcare settings, providers should institute contact, droplet and airborne precautions when evaluating suspected cases. All healthcare workers should have evidence of immunity to varicella (see below).

Diagnostic Testing

Because widespread vaccination has made varicella uncommon, diagnosis based on history and physical examination may be difficult, and laboratory confirmation is important. The preferred diagnostic test is polymerase chain reaction (PCR) of skin lesions (vesicles, scabs, maculopapular lesions). PCR testing can be performed at commercial laboratories. For additional information on specimen collection, see: www.cdc.gov/chickenpox/hcp/lab-tests.html. IgM serologic testing is less sensitive than PCR.

Vaccination

Please ensure that your patients and staff are up to date with varicella vaccine. Two doses of the vaccine are up to 98% effective at preventing chickenpox. Varicella vaccine should be given to children at 12 months of age with a second dose at 4 years of age. Two doses of vaccine are recommended for older children and adults who do not have evidence of varicella immunity. Adults who do not know if they had varicella and who do not have their immunization records should either be vaccinated or can have varicella IgG titers checked to confirm whether they are immune. Vaccination histories of children can be obtained through the Citywide Immunization Registry at www.nyc.gov/health/cir or by calling 347-396-2400.

Evidence of immunity

People exposed to varicella should be assessed for presumptive evidence of immunity:

- 1) Documentation of age-appropriate vaccination with varicella vaccine,
- 2) Laboratory evidence of immunity or laboratory confirmation of disease,
- 3) Birth in the United States before 1980 (except for health-care personnel, pregnant women, and immunocompromised persons), or
- 4) Health-care provider diagnosis or verification of a history of varicella or herpes zoster.

Post-exposure Prophylaxis

Varicella vaccine should be administered as post-exposure prophylaxis to persons without immunity to varicella within 3 days of an initial exposure to prevent infection. Vaccination beyond this time frame, while still important for protecting a person from future exposures, may not protect against exposures that have already occurred; these people would still need to be excluded from their school or workplace.

Varicella zoster immune globulin (VariZIG) post-exposure prophylaxis is reserved for persons at high risk for severe disease who lack evidence of immunity to varicella and for whom varicella vaccine is contraindicated. This includes immunocompromised or pregnant persons without evidence of immunity, newborn infants whose mothers have symptoms of varicella around the time of delivery, and certain hospitalized premature infants. VariZIG should be administered as soon as possible after exposure but within 10 days. People who receive VariZIG should not receive measles- or varicella-containing vaccine for at least 5 months after receiving VariZIG. VariZIG can be ordered from the distributor, FFF Enterprises (phone 800-843-7477). Additional information about VariZIG indications and dosing is at: www.cdc.gov/mmwr/preview/mmwrhtml/mm6228a4.htm.

People exposed to varicella who do not have evidence of immunity should remain home while at risk from getting sick, through 21 days after their last exposure. Because VariZIG may prolong the incubation period, people who receive VariZIG should remain home through 28 days after exposure.

Treatment

Antiviral treatment is not recommended for routine use in otherwise healthy children with varicella. Oral acyclovir or valacyclovir should be considered for persons at increased risk of moderate to severe varicella, including unvaccinated persons aged >12 years. Acyclovir is an FDA category B drug in pregnancy. Some experts recommend oral acyclovir or valacyclovir for pregnant women with varicella, especially during the second and third trimester. Intravenous acyclovir is recommended for pregnant women with serious varicella complications and immunocompromised persons. For additional information on treatment, please refer to the Red Book, at <http://redbook.solutions.aap.org/> or CDC at www.cdc.gov/chickenpox/about/prevention-treatment.html.