

FACT SHEET

Information for the health professional

VARICELLA ZOSTER

(Chickenpox)

HERPES ZOSTER

(Shingles)

What is varicella zoster/herpes zoster?

Varicella zoster virus (VZV) causes varicella (chickenpox), the first infection. After the first infection the virus stays in the body and hides in nerve cells. Herpes zoster (shingles) results from a reactivation of the individual's first infection.

Who gets varicella zoster/herpes zoster?

Most cases of chickenpox occur in childhood. However chickenpox can occur in the 2-8% of adults who have not had the disease. Chickenpox tends to occur in late winter and early spring. Approximately 3 to 4 million cases of chickenpox occur every year in the U.S., 90% of which are in children under 4 years of age.

Shingles does not seem to occur at any specific time of the year and tends to occur more frequently in patients with cancer, other immunosuppressed patients and persons under stress.

How is the virus spread?

The varicella zoster virus replicates in the nasopharynx or upper respiratory tract. Chickenpox is easily spread from person to person by droplet or airborne spread of respiratory tract secretions or contact with the fluid of the lesions.

Contact with vesicular fluid from shingle lesions can result in chickenpox in a person who has never had chickenpox.

What are the symptoms?

The symptoms of chickenpox include generalized itchy vesicular rash consisting of 250-500 lesions, mild fever and tiredness. The lesions commonly occur in successive crops on skin and oral mucous membranes and are more abundant on covered than exposed parts of the body. Disease severity and complications are increased among immunocompromised persons, neonates, and children less than one year of age, and adults.

The symptoms of shingles are eruption of vesicles on one side of the body. The chest, lower back nerve roots most commonly involved. Pain occurs in the area 48-72 hours before developing lesions.

How soon do the symptoms appear?

Chickenpox occurs approximately 2-3 weeks after exposure in a susceptible person.

How long can an infected person spread the virus?

Chickenpox can be spread up to 2 days before the rash occurs and remains infectious until the lesions are crusted or dry or until the rash is faded away and no new rash appears for a 24-hour period.

Shingle lesions are generally not infectious after 7 days.

How are susceptible staff members impacted after a significant exposure to chickenpox or shingles?

All susceptible health-care workers should ensure that they are immune to varicella. In healthcare institutions serologic screening of personnel who have a negative or uncertain history of varicella is likely to be cost effective.

All susceptible exposed personnel should be furloughed or excused from patient contact from day 10 to day 21 after exposure to an infectious patient. The interval should be extended to 28 days or longer for people who have received VZIG.

Varicella immunization is recommended for susceptible personnel if varicella does not develop from exposure. Serologic testing for immunity is not necessary for personnel who have been immunized, because 99% of adults are seropositive after the second vaccine dose.

What are the criteria for significant exposure to chickenpox?

Exposure window is 48 hours prior to developing lesions and continues until lesions are crusted or until the rash is faded away and no new rash appears for a 24-hour period.

What are the criteria for significant exposure to shingles?

Direct contact with skin lesion is required. Lesions covered with clothing would not be a significant exposure. Unusual or prolonged contact with patient's bedclothes (during bed changes or bed baths) or assisting patients into whirlpools, etc. without gloves as a barrier may be considered exposure. Shingle lesions are generally not infectious after 7 days.

What are chickenpox isolation guidelines?

Isolate in a private room and use airborne and Contact isolation Precautions until lesions are crusted or until the rash is faded away and no new rash appears for a 24-hour period. Any employee who is susceptible should not care for patients diagnosed with chickenpox or shingles.

What are shingles isolation guidelines?

Localized lesions in immunocompromised patient or disseminated (>2 dermatomes) use Airborne and Contact isolation Precautions. Localized lesions in normal patient use Standard Precautions.

Can a person get varicella again?

Antibodies developed during initial infection generally prevent a person from getting Chickenpox again. However the virus lies dormant in the dorsal ganglia for life.

Can a person get herpes zoster again?

Yes, the varicella virus lies dormant in the dorsal ganglia and is the cause of shingles, which may occur more than once.

What is the treatment for varicella?

Treatment with antivirals may be considered for persons at increased risk for moderate to severe disease.

Varicella Zoster Immune Globulin (VZIG) is recommended for post-exposure prophylaxis of susceptible persons who are at high risk of developing severe disease (e.g., immunocompromised children, susceptible pregnant women, premature infants < 28 weeks gestation) and when varicella vaccine is contraindicated.

What is the treatment for herpes zoster?

Treatment with antivirals may be considered for persons at increased risk for moderate to severe disease.

Is there a vaccine to prevent varicella (chickenpox)?

Varicella vaccine was licensed in 1995 and is recommended for routine use in infants and for susceptible older children, adolescents, and adults. Children ages one through 12 years need two doses of vaccine at least 3 months apart. Persons 13 years of age and older require 2 doses of vaccine separated by a minimum of 28 days.