

Varicella

Varicella, also commonly referred to as "chickenpox", is an acute and highly contagious disease. It is caused by primary infection with the varicella-zoster virus (VZV). Varicella occurs worldwide and in the absence of a vaccination programme, affects nearly every person by mid-adulthood. The epidemiology of the disease differs between temperate and tropical climates. The reasons for the differences are poorly understood and may relate to properties of VZV (known to be sensitive to heat), climate, population density and risk of exposure (e.g., attendance at childcare facility or school or the number of siblings in the household).

VZV is highly transmissible via respiratory droplets or direct contact with characteristic skin lesions of the infected person. The first symptoms of clinical varicella generally appear after a 10-21 day incubation period and include fever, malaise and the characteristic itchy rash. Varicella is generally self-limited and vesicles gradually develop crusts, which disappear over a period of 7-10 days. Individuals remain contagious until all lesions have crusted over. The disease is typically mild, but severe complications may arise, including bacterial infections (e.g. cellulitis, pneumonia) and neurological complications (e.g. encephalitis), and these can be fatal. Disease is associated with higher morbidity and mortality in infants and in individuals with an impaired immune system.

Following infection, the virus remains latent in nerve cells and may be reactivated causing a secondary infection - herpes zoster, commonly referred to as "shingles". This generally occurs in adults aged >50 years or in the immunocompromised and is associated with a painful rash that may result in permanent nerve damage.

Varicella can be prevented by immunization and multiple vaccine formulations of the live attenuated vaccine, based on the Oka VZV strain, have been available since 1974. Varicella vaccines are available as a single antigen and in combination with measles, mumps and rubella vaccine.