Health Alert Network

North Dakota Department of Health Reminds Health Care Providers that all Cases of Chickenpox (Varicella) Must be Reported, and Recommends Confirming Diagnoses with Laboratory Testing

The North Dakota Department of Health (NDDoH) is reporting a varicella outbreak in Williams county, with 16 cases reported in the past month. Varicella is a highly contagious vaccine preventable disease. The virus is spread through direct contact and through inhalation of aerosols from vesicular fluid of skin lesions. Varicella is a mandatory reportable condition in North Dakota and all clinically diagnosed cases must be reported to the NDDoH, regardless of laboratory testing. Prompt reporting allows the NDDoH to follow up to ensure cases are excluded from activities during their infectious period and that their contacts are vaccinated. This helps to control the number of cases and prevents outbreaks from occurring.

**Reporting**
All cases of either clinically diagnosed or laboratory confirmed varicella must be reported to the NDDoH. Providers can report cases by calling 701.328.2378 or 1.800.472.210 or online at [https://www.ndhealth.gov/disease/reportcard/](https://www.ndhealth.gov/disease/reportcard/).

**Testing**
The NDDoH recommends providers collect a specimen for PCR testing if a provider is suspecting varicella. Vaccination has made the classical presentation of varicella less common, and the disease more difficult to diagnose. Breakthrough varicella rash may look similar to other diseases such as hand, foot, and mouth disease (HFMD), so laboratory testing is important.

- A sterile needle should be used to unroof the top of the vesicle
- A sterile swab is then used to vigorously swab the base of the lesion—applying enough pressure to collect epithelial cells from the base of the lesion because they usually contain a significant amount of virus
  - Swabs made from synthetic fibers, such as polyester, should be used because it is difficult to elute virus from cotton swabs, and wooden swab supports usually absorb extraction buffer and inhibit PCR.
- Swabs must be placed individually into separate, empty tubes to avoid contamination. Place swabs directly into tubes. **Do not place transport medium into the tube; the specimen must be kept dry.** Tubes must be individually labeled and must be resistant to breakage.

The NDDoH Division of Laboratory Services offers varicella serology and PCR testing.

- Varicella PCR: $51
- Varicella zoster Virus Antibody, IgM and Total Ig IFA: $26
- Varicella zoster Virus Antibody, IgG IFA: $26
For questions about testing, call the NDDoH Division of Laboratory Services at 701.328.6272.

Testing can be done free of charge for cases in the outbreak area. Please contact the NDDoH prior to sending the specimen, so your facility will not be charged.

**Infection Control**
Airborne precautions should be followed for patients with suspect varicella. If available, patients should be placed in a negative air-flow room. If not available, patients should be isolated in a closed room. Patients with suspected varicella should not spend time in waiting rooms or other community areas, and only health care providers with evidence of immunity to varicella should care for these patients.

**Patient Management**
Patients infected with varicella are infectious from two days before onset of rash until all lesions have crusted over, usually 5-6 days after rash onset. Patients should be excluded from school, child care, work, or any other activities during this time. If an outbreak of varicella is occurring in a school or child care, all children who are not up-to-date for varicella vaccination are recommended to be excluded 21 days from the last case in the facility.

**Varicella Immunization**
It is important to ensure all your patients are up-to-date on their varicella vaccine. Two doses of varicella-containing vaccine should be given to children at 12-15 months and at 4-6 years.

Please contact the NDDoH Division of Disease Control, at 701.328.2378 or toll-free at 800.472.2180 with any questions or concerns regarding this issue.

**Categories of Health Alert messages:**
- **Health Alert** conveys the highest level of importance; warrants immediate action or attention.
- **Health Advisory** provides important information for a specific incident or situation; may not require immediate action.
- **Health Update** provides updated information regarding an incident or situation; no immediate action necessary.
- **Health Information** provides general information that is not necessarily considered to be of an emergent nature.

*This message is being sent to local public health units, clinics, hospitals, physicians, tribal health, North Dakota Nurses Association, North Dakota Long Term Care Association, North Dakota Healthcare Association, North Dakota Medical Association, and hospital public information officers.*