The SLO Public Health Laboratory performs a nucleic acid amplification test (NAAT) to detect varicella-zoster virus (VZV). The Solana HSV 1+2/VZV assay uses isothermal helicase-dependent amplification (HDA) in the presence of a target-specific fluorescence probe to detect and differentiate between herpes simplex virus types 1 and 2 (HSV-1, HSV-2) and VZV.

The Solana HSV 1+2/VZV assay amplifies and detects viral DNA from lesion samples suspected of active VZV infection. Target sequences are amplified by VZV specific primers and detected by probes included in the reaction tubes. The intensity of the fluorescent signal is measured and interpreted by the Solana instrument using method-specific algorithms.

Negative results do not preclude infection with VZV and should not be the sole basis of a treatment decision. Results are dependent on adequate specimen collection. Improper collection, storage, or transport of specimens may lead to false negative results. Other factors that may also lead to false negative results include the presence of inhibitors in the sample, presence of sequence variants in the viral target, and technical error.

**Sensitivity** For VZV, sensitivity was 100% for both cutaneous and mucocutaneous lesions.

**Specificity** For VZV, specificity was 96.5% and 98.6% for cutaneous and mucocutaneous lesions, respectively.

**Specimens**
The Solana HSV 1+2/VZV assay is used with swab specimens collected from cutaneous and mucocutaneous lesions and stored in viral transport media (VTM) or universal transport medium (UTM). Once collected in VTM or UTM, specimens are stable for up to 7 days at refrigerator temperatures.

**Unacceptable specimens**
Dry swabs, CSF, and patient-collected specimens as well as specimens in VTM or UTM >2 days after when stored at room temperature or >7 days after collection when stored at refrigerated or freezing temperatures.

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