## **HERPES SIMPLEX VIRUS NAAT**

The SLO Public Health Laboratory performs a nucleic acid amplification test (NAAT) to detect herpes simplex virus types 1 and 2 (HSV-1 and HSV-2). 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 HSV-1, HSV-2, and varicella-zoster virus (VZV).

**Test: 6840** 

The Solana HSV 1+2/VZV assay amplifies and detects viral DNA from lesion samples suspected of active HSV-1 and/or HSV-2 infection. Target sequences are amplified by HSV-1 and/or HSV-2 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.

The Solana HSV1+2/VZV assay does not detect or differentiate any other herpes virus types and does not distinguish between infectious and non-infectious HSV-1 and HSV-2.

Negative results do not preclude infection with HSV-1 or HSV-2 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 HSV-1, sensitivity was 100% for both cutaneous and mucocutaneous lesions. For HSV-2, sensitivity was 92.3% and 99.1% for cutaneous and mucocutaneous lesions, respectively.

**Specificity** For HSV-1, specificity was 97.8% and 96.4% for cutaneous and mucocutaneous lesions, respectively. For HSV-2, specificity was 94.4% and 97.2% 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.

CPT Code 87529 (HSV-1), 87529-59 (HSV-2)



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