

| Table 4. Diagnostic Tests for HSV Infection and Disease | | | | |
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| Diagnostic modality | Description | Sensitivity and/or specificity | Utility in clinical practice | Source(s) of specimen |
| Cytology | Cytologic examination of cells from skin or mucous membrane | Sensitivity of 60-70% | May be useful for presumptive diagnosis | Maternal cervix Genital lesion(s) Infant skin, mouth, conjunctivae, or corneal lesion |
| Serology | <p>Detection of antibody</p> <p>Two type-specific antibody assays manufactured by Focus Technologies, Inc., have received FDA approval: the HerpeSelect® HSV-1 and HSV-2 ELISA and the HSV-1 and HSV-2 Immunoblot tests.</p> <p>Several additional tests which claim to distinguish between HSV-1 and HSV-2 antibody are commercially available, but high cross-reactivity rates due to their use of crude antigen preparations significantly limit their utility</p> | <p>HerpeSelect® HSV-2 ELISA: Sensitivity of 96-100%, specificity of 97-98%</p> <p>HerpeSelect® HSV-2 Immunoblot: Sensitivity of 97-100%, specificity of 98%</p> <p>Type-specific tests for HSV-1 tend to be 5-10% less sensitive than their HSV-2 counterparts</p> | <p>Beyond the infantile period, establishes prior infection with HSV-1 and/or HSV-2. Does not distinguish site of infection.</p> <p>Could be considered in patients with symptomatic genital disease with lesions in an advanced stage of healing, and patients with risk factors for HSV but no history of genital herpetic lesions</p> <p>Not useful for diagnosis of neonatal HSV disease.</p> | Blood |
| Viral culture | Specimen collected, transferred in appropriate viral transport media on ice to a diagnostic virology laboratory, and inoculated into cell culture systems, which are then monitored for cytopathic effects characteristic of HSV replication. | ~ 95% of vesicular genital lesions will grow HSV, compared with 70% of ulcerative lesions and 30% of crusted lesions | The definitive diagnostic method of establishing HSV disease outside of the CNS | Skin vesicles, oropharynx, CSF, urine, blood, stool or rectum, oropharynx, and conjunctivae. |
| Polymerase chain reaction | Detection of viral DNA by molecular amplification | <p>Neonatal HSV CNS disease: Sensitivity 75-100%; specificity 71-100%</p> <p>HSE beyond the neonatal period: Sensitivity 95-100%; specificity 94%</p> | The gold standard for documenting CNS HSV disease | CSF Cutaneous or mucous membrane lesions |