

Expanded Targeted Congenital Cytomegalovirus (cCMV) Screening Process Map

Hospital and Birthing Center Responsibilities



Oregon.gov/CMV



Screen

All newborns must be screened for the following risk factors and clinical signs associated with congenital cytomegalovirus (cCMV) within 14 days of age and prior to discharge, whichever occurs earlier:

- Birth parent diagnosed with primary CMV infection during pregnancy
- Did not pass the newborn hearing screening (one or both ears)
- Symmetric small for gestational age: birth weight <10th percentile
- Microcephaly: head circumference <3rd percentile based on gestational age, recommend remeasuring 24 hours after delivery
- Unexplained petechial rash or blueberry muffin rash
- Unexplained abnormal red reflex, retinitis, or cataracts
- Unexplained fetal hydrops or ascites, abdominal calcifications, or thickened bowel on prenatal ultrasound
- Unexplained or persistent hepatomegaly, splenomegaly, or elevated liver function tests (AST or ALT >100 U/L or direct bilirubin >1.0 mg/dL)
- Unexplained abnormal brain imaging including ventriculomegaly, intracerebral calcifications, white matter changes, periventricular echogenicity, cortical or cerebellar malformations, or migration abnormalities
- Unexplained thrombocytopenia (platelets <100,000/mm³)



Test

Any newborns presenting with one or more of the risk factors and clinical signs must receive CMV testing within 14 days of age and prior to discharge, whichever occurs earlier, unless the parents or guardians refuse in writing.

Collect urine for CMV PCR test. Urine is the preferred specimen for testing due to its higher diagnostic reliability. If unable to collect urine, saliva CMV PCR test may be used. If saliva is used, wait at least 1 hour after consumption of breastmilk to avoid false positives. Saliva CMV PCR tests that return a positive result should follow up with urine CMV PCR testing within 21 days of age to confirm diagnosis.



Inform

It is encouraged to inform parents or guardians of newborn at discharge of the status of CMV testing (e.g. pending results, not completed, etc.). If results have not been received prior to discharge, it is encouraged to include follow up steps in the event of a positive results.



Document and Alert

Requirements upon receipt of positive PCR test results:

- Inform the newborn's primary care provider (PCP) on record of any positive CMV test results through direct personal communication to PCP or their designated staff. Document all interactions in the newborn's medical record.
- Inform the newborn's parent or guardians of newborn of any positive CMV test result, through direct personal communication if possible. Document all interactions in the newborn's medical record.

Recommendations upon receipt of results:

- All results (e.g. positive, negative, contaminated, etc.) should be included in the newborn's medical record.
- Inform PCP that confirmatory urine PCR testing is needed following a positive saliva PCR test to confirm diagnosis.
- Inform PCP of inconclusive CMV test results through direct personal communication to PCP or their designated staff. Document all interactions in the newborn's medical record.
- If a positive PCR test result is received prior to newborn's discharge, add the diagnosis "Congenital CMV Infection" (ICD-10 code is P35.1) to the problem list in the newborn's medical record.

Step 1

Step 2

Step 3

Step 4