

ROADMAP

FOR A NEWBORN CONGENITAL CMV WORK-UP

All infants diagnosed with congenital cytomegalovirus (cCMV) require additional evaluation to determine the severity of disease and what treatments are right for them. Even infants with no visible signs of infection require the following evaluations to make sure they do not have any unseen effects from the virus.



REFERRAL TO A PEDIATRIC INFECTIOUS DISEASE SPECIALIST

FOR CLINICIANS:

- Place urgent outpatient referral
- Beginning the work-up below prior to the appointment can provide the Infectious Disease specialist with critical information that will inform treatment
- Disease severity is based partly on the work-up below
- For infants who qualify, anti-viral medication must be started before 1 month of age

FOR CAREGIVERS:

- This specialist will be able to discuss next steps
- Ask questions about the possible benefits and risks of anti-viral medication

HEAD ULTRASOUND

FOR CLINICIANS:

- Ultrasound brain images are necessary to rule in/out intracranial pathology
- If brain abnormalities are found, consider MRI

FOR CAREGIVERS:

- Ultrasound is done over the infant's soft-spot or fontanelle
- Ultrasounds are painless and do not involve radiation
- Infants with signs of CMV seen on brain imaging may be eligible for anti-viral medication



BLOOD WORK

FOR CLINICIANS:

- Assess for hepatitis, conjugated hyperbilirubinemia, hematologic abnormalities (e.g. thrombocytopenia)
- Order a CBC with Differential, AST, ALT, total bilirubin and fractionated bilirubin

FOR CAREGIVERS:

- These labs must be drawn from a vein, and may not be accurate if collected by “heel poke”
- Can be collected at a local lab

DIAGNOSTIC HEARING EVALUATION

FOR CLINICIANS:

- Diagnostic audiologic testing performed by a pediatric audiologist when possible
- Due to the unpredictable nature of CMV-related hearing loss (rapid onset, delayed onset, fluctuating) close monitoring is recommended

FOR CAREGIVERS:

- Even if an infant passes the newborn hearing screen, they remain at risk of hearing loss
- CMV-related hearing loss can be present at birth or develop in infancy and childhood
- Close hearing monitoring by an audiologist is important to catch any developing hearing loss early

DILATED EYE EXAM BY A PEDIATRIC OPHTHALMOLOGIST

FOR CLINICIANS AND CAREGIVERS:

- A baseline dilated eye exam by a pediatric ophthalmologist (not an optometrist) to evaluate for chorioretinal involvement is recommended

LEARN MORE



- National CMV Foundation: www.nationalcmv.org
- Centers for Disease Control and Prevention: www.cdc.gov/cmrv/
- Luck, S. E., Wieringa, J. W., Blázquez-Gamero, D., Henneke, P., Schuster, K., Butler, K., ... & Vossen, A. C. (2017). Congenital cytomegalovirus: A European expert consensus statement on diagnosis and management. *The Pediatric Infectious Disease Journal*, 36(12), 1205-1213.
- Rawlinson, W. D., Boppana, S. B., Fowler, K. B., Kimberlin, D. W., Lazzarotto, T., Alain, S., ... & van Zuylen, W. J. (2017). Congenital cytomegalovirus infection in pregnancy and the neonate: Consensus recommendations for prevention, diagnosis, and therapy. *The Lancet Infectious Diseases*, 17(6), e177-e188.