


# Clinical Guideline

 This guideline should not replace clinical judgment.

## Newborn Targeted CMV Screening Protocol

### Newborn Nursery

#### Obtain Urine CMV ALL high-risk infants:

- IUGR\*\*
- Microcephaly\*\*
- Hepatosplenomegaly
- Chorioretinitis
- Neonatal seizures, abn neuro exam
- Petechiae
- Jaundice at birth
- Prenatal US cranial abnormalities
- High risk perinatal HIV exposure
- Concern for prenatal CMV infection

Also consider other possible congenital infections

*\*see reverse side for additional info*

Healthy newborn fails hearing screen

Repeat hearing screen (2 total attempts)

If fails, send saliva CMV PCR and refer to Audiology  
("CMV, congenital, neonate screening")

Obtain Urine CMV if saliva positive

#### Urine CMV Positive

1. Audiology URGENT visit
2. Labs: CBC/Diff, CMP (LFTs and renal function)
3. Schedule Head US
4. Ophtho if abn head US
5. ID referral

#### Urine CMV Negative

No further testing. Keep routine Audiology appointment.

#### If audiology confirms hearing loss:

1. Refer to ENT
2. Refer to ophtho
3. Valgan tbd by ID

#### Follow-up:

1. Labs (while on VGCV):  
~ Weekly (first 2-4 weeks): CBC/diff, CMP  
~ 8 weeks then monthly thereafter
2. Audiology: 3mos, 6 mos then Q 6mo until 3yo
3. Ophtho exam: Q 12 mos if CNS disease (unless findings suggest shorter interval)
4. Careful neurodevelopmental exams at each WCC (referrals as indicated)

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#### **\*\* High risk Infants:**

- IUGR = < 3%ile for weight for gestational age (Olson AAP curve)
- Microcephaly = < 3%ile for head circumference for gestational age

#### **Positive CMV PCR (either saliva OR urine):**

##### **1. Urgent ID referral**

- Obtain urine cmv if saliva positive
- Send Epic referral for urgent ID appointment

##### **2. Urgent Audiology evaluation**

- Send message to audiology pool
- "Urgent Audiology referral needed for CMV positive infant"
- Appointment will be made within the week

##### **3. If fails repeat Audiology evaluation, urgent ENT referral:**

- Send referral to Kelley Dodson and Lauren Riggs

##### **4. Call CHoR Radiology to schedule Head Ultrasound**

- Place Order in Epic
- Call radiology to schedule

##### **5. Place Ophthalmology referral (usual process okay)**

# Congenital Cytomegalovirus Guideline

## Executive Summary

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### Children's Hospital of Richmond at VCU Congenital Cytomegalovirus Workgroup

**General Pediatrics Owner:** Tiffany Kimbrough, MD

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### Approved (June 2020)

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### References

Gantt S, Dionne F, Kozak FK, Goshen O, Goldbarb DM, Park AH, et al. Cost-effectiveness of universal and targeted newborn screening for congenital cytomegalovirus infection. *JAMA Pediatr.* 2016 Dec 1; 170 (12): 1173-80.

Bergevin A, Zick CD, McVicar SB, Park AH. Cost-benefit analysis of targeted hearing directed early testing for congenital cytomegalovirus infection. *Int J Pediatr Otorhinolaryngol.* 2015 Dec, 79(12): 2090-3.

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*Example:*

Children's Hospital of Richmond at VCU, Kimbrough T, Dodson K, Marshall B. Congenital Cytomegalovirus Guideline. Available from:

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