



Early Hearing Detection  
and Intervention Program



# 2024 Congenital Cytomegalovirus Screening Guidelines

July 2024

# Targeted Congenital Cytomegalovirus Screening Guidelines

## Florida Department of Health

### Florida Newborn Hearing Screening Program

#### Purpose

To provide guidance and recommendations for procedures on how best to implement targeted congenital cytomegalovirus (cCMV) screening as outlined in section 383.14(5), Florida Statutes.

The guidelines include best practices that reflect recommendations beyond minimal standards of care and were initially developed in 2022 in collaboration with a diverse multidisciplinary workgroup representing the Newborn Hearing Screening (NBHS) Program, the Newborn Screening Program (NBS), audiologists, neonatologists, otolaryngologists, nurses, hospital staff, early interventionists, and parents. The guidelines were updated in 2024 to reflect legislative changes. Timely targeted cCMV screening is one component of a comprehensive approach to the diagnosis and medical management of infants with cCMV. A comprehensive approach should involve a multidisciplinary team including, but not limited to, audiologists, ophthalmologists, neurologists, early interventionists, and parents.

#### Program Responsibilities

The NBHS Program is committed to supporting early detection and targeted cCMV screening for newborns who meet any of the following criteria:

- Fail the newborn hearing screening.
- Are born before 35 weeks gestational age.
- Have an anticipated neonatal intensive care unit (NICU) stay of 21 days or more.
- Are transferred to another facility for a higher level of care.

The NBHS Program's cCMV-related responsibilities include:

- Providing technical assistance and support to hospitals conducting hearing screens.
  - Technical assistance requests to address hearing screening refer rates over 4% can be made by emailing [CMS.NBSHearing@flhealth.gov](mailto:CMS.NBSHearing@flhealth.gov).
- Providing education to parents and stakeholders on cCMV prevention and screening. cCMV education and resources are available on the [Florida Newborn Screening website](#) under the Conditions section.
- Receiving cCMV screening results submitted through the electronic reporting portal, eReports™, by hospitals and primary care physicians (PCPs).
  - eReports™ account requests can be made by completing the [eReports™ Registration Form](#). cCMV screening results must be reported to the NBHS Program within seven days of receiving the results.
- Notifying PCPs of positive cCMV screening results and provide recommendations for next steps.
  - The NBHS Program can be contacted by calling 866-289-2037.

- Referring newborns with confirmed cCMV to the Early Steps Program for evaluation, monitoring, and early intervention services. Referrals are made to [Local Early Steps Offices](#).
  - Newborns diagnosed with cCMV meet the Early Steps eligibility requirements.
- Conducting follow-up for newborns who do not pass the hearing screen.
  - NBHS Program staff will continue to reach out to PCPs, audiologists, and the parents of children who do not pass the hearing screen to encourage additional evaluation and diagnosis.
  - Specialized follow-up and support are provided to families of children diagnosed with hearing loss.
- Monitoring cCMV screening data completeness, accuracy, and timeliness.

## **Hospital Responsibilities and Recommendations**

### *Legislative Requirements*

Section 383.14(5), Florida Statutes, requires hospitals and birthing facilities to:

- Administer a cCMV test before discharge or before the newborn becomes 21 days of age, whichever occurs earlier for newborns who:
  - Fail the newborn hearing screening.
  - Are born before 35 weeks gestational age.
  - Have an anticipated NICU stay of 21 days or more.
  - Are transferred into the facility for a higher level of care.
- Report cCMV screening information to the NBHS Program within seven days of receipt of results for initial cCMV screening results, not screened reasons, confirmatory test results.

### *NBHS Program Recommendations*

The Program recommends hospitals and birthing facilities develop written internal procedures that contemplate:

- Two hospital employees who are primarily responsible for overseeing or coordinating cCMV screening and reporting.
- Individuals responsible for conducting cCMV screening.
- Which of the two inpatient hearing screens will be used as the trigger for cCMV screening for infants who are receiving a cCMV screen based on hearing screening results.
- Criteria for cCMV screening trigger for newborns with an anticipated prolonged NICU stay. The NBHS Program recommends screening all newborns with a NICU stay of five days or more.
- Specimen collection method and documentation.
- A process to ensure confirmatory urine testing by 21 days of age for newborns who screen positive from a saliva specimen.
  - For newborns discharged prior to receipt of results, notify the PCP of positive results, and need for confirmatory urine testing.
  - For newborns who are inpatients following receipt of results, complete a confirmatory urine test.

- Training of personnel to conduct cCMV screening and maintenance of training records.
- Reducing delays in cCMV screening and ensure internal compliance, e.g., create standing orders.
- Communication of cCMV screening results to the PCP and parents.
- Treatment and medical management recommendations for infants who remain inpatients and who screen positive for cCMV.
- A process for referrals for patients who do not have a PCP due to limited access or income.
- Documentation of cCMV screening results in the birthing hospital medical record.
- A process for reporting cCMV screening results, including confirmatory screening results, to the NBHS Program through eReports™ within seven days of receipt of results.
- A process to ensure timely responses to NBHS monthly data requests.

The NBHS Program requests written procedures be submitted to the NBHS Program at [CMS.NBSHearing@flhealth.gov](mailto:CMS.NBSHearing@flhealth.gov). Access to the most recent procedures supports accurate and timely follow-up and data analysis for continuous quality improvement.

## **Birth Center Responsibilities and Recommendations**

### *Legislative Requirements*

Section 383.14(5), Florida Statutes requires birth centers to:

- Conduct the newborn hearing screen prior to discharge.
- Refer newborns who do not pass the hearing screen for a cCMV screen within seven days of birth.
- Report the results of the newborn hearing screen to the NBHS Program within seven days of the screen.
- Report the results of cCMV screening ordered by the birth center to the NBHS Program within seven days of receipt of results.

### *NBHS Program Recommendations*

The Program recommends birth centers providing newborn care develop written internal procedures that contemplate:

- Individuals responsible for conducting or coordinating cCMV screening.
- Specimen collection method and documentation.
- A process to ensure confirmatory urine testing before 21 days of age for newborns who screen positive using saliva.
- Training for personnel to conduct cCMV screening and maintenance of training records, if necessary.
- Communication of cCMV screening results to parents.
- A process to refer newborns who screen positive for cCMV to infectious disease.
- A process to refer newborns who screen positive for cCMV for a diagnostic audiological

evaluation.

- A process for reporting cCMV screening results, including confirmatory screening results, to the NBHS Program through eReports™ within seven days of receipt of results.
- A process to ensure timely responses to NBHS monthly data requests.

The NBHS Program requests written procedures be submitted to the NBHS Program at [CMS.NBSHearing@flhealth.gov](mailto:CMS.NBSHearing@flhealth.gov). Access to the most recent procedures supports accurate and timely follow-up and data analysis for continuous quality improvement.

## **Home Birth Provider Responsibilities and Recommendations**

### *Legislative Requirements*

Section 383.14(5), Florida Statutes, requires home birth providers to refer newborns for outpatient hearing screening within seven days of life. Legislation reduced the timeline for hearing referrals to ensure that cCMV screening occurs within 21 days of age.

### *NBHS Program Recommendations*

The Program recommends home birth providers access the Early Hearing Detection and Intervention Pediatric Audiology Links and Services ( [EHDI PALS](#) ) system to assist with making referrals for hearing screening. EHDI PALS is a web-based searchable national directory of pediatric audiologists for children birth to five-years-old. Home birth providers can also contact the NBHS Program by calling 866-289-2037 for additional support in providing referrals for hearing screening.

## **PCP Responsibilities and Recommendations**

PCPs provide the medical home for the newborns and are essential to ensuring timely cCMV screening for newborns born in birthing facilities and at home who fail the newborn hearing screening. PCPs have the responsibility to provide medical management and coordinate timely referrals for baseline examinations of newborns who screen positive for cCMV.

### *Legislative Requirements*

Section 383.14(5), Florida Statutes requires PCPs to:

- Refer newborns born at birth centers and at home and who fail the newborn hearing screening for a cCMV screen.
- Report final cCMV screening and diagnostic results within seven days of receipt.

## *NBHS Program Recommendations*

The Program recommends the following steps be taken for newborns who screen positive for cCMV:

- Review the results of the cCMV screen. If baby is tested with a saliva method, order a urine confirmatory cCMV test to be completed by 21 days of age. If initial cCMV result is inconclusive order a urine cCMV test to be completed by 21 days of age.
- Report final cCMV screening and diagnostic results to the NBHS Program through the electronic reporting portal, eReports™, within seven days of receipt.
- Refer to an [Infectious Disease Specialist](#).
- Refer all babies who screen positive for cCMV to a pediatric audiologist for a complete diagnostic hearing evaluation.
- Refer to an [Infectious Disease Specialist](#). Communicate cCMV screening results and diagnostic results to parents using [Parent Friendly Language](#).
- Refer the newborn to specialists to conduct additional diagnostic testing and ongoing assessment of newborns' development at recommended intervals. Relevant initial specialties may include audiology, ophthalmology, and neurology.
- Refer infants diagnosed with cCMV to the [Local Early Steps Office](#) for early intervention services.

## **Hearing Screening Provider Recommendations**

To help ensure that cCMV screening occurs within 21 days of age, the Program recommends outpatient hearing screening providers develop internal procedures for newborn hearing screening, including:

- Prioritizing scheduling newborns for initial hearing screen.
- Developing a process to expedite reporting of failed newborn hearing screens to the PCP to ensure a referral for cCMV testing can be completed before 21 days of age.
- Ensuring staff are registered and trained to report hearing screen and diagnostic test results to the state program within required time frames.

## Resources

Centers for Disease Control and Prevention

[cCMV Clinical Overview](#)

[cCMV Fact Sheet for Healthcare Providers](#)

[Congenital CMV and Hearing Loss: What's the Risk?](#)

Florida Association of Community Health Centers

[Community Health Locator Tool](#)

Florida Newborn Screening

[cCMV Resource Webpage](#)

National CMV Foundation:

[Roadmap for cCMV Work-up](#)

[cCMV Support and Next Steps](#)

[Audiology Surveillance in Infants and Children with cCMV](#)