

# Module Six

## Evaluation of Infants

American Academy of Pediatrics

DEDICATED TO THE HEALTH OF ALL CHILDREN®




# Symptomatic Clinical Criteria:

Liveborn infant with congenital microcephaly, or intracranial calcifications, or structural brain or eye abnormalities, or other congenital central nervous system-related abnormalities not explained by another etiology.



# Monitoring Visit Intervals Are the Same as Well Baby Visits

Before hospital discharge  
Infant testing  
2 weeks  
1 month  
2 months  
3 months (additional)  
4-6 months  
9 months  
12 months


 Centers for Disease Control and Prevention  
CDC 24/7: Saving Lives, Protecting People™

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Update: Interim Guidance for the Evaluation and Management of Infants with Possible Congenital Zika Virus Infection – United States, August 2016

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 [https://www.altmetric.com/details.php?domain=www.cdc.gov&citation\\_id=10704422](https://www.altmetric.com/details.php?domain=www.cdc.gov&citation_id=10704422)

- News (15) ([https://www.altmetric.com/details.php?domain=www.cdc.gov&citation\\_id=10704422&tab=news](https://www.altmetric.com/details.php?domain=www.cdc.gov&citation_id=10704422&tab=news))
- Blogs (1) ([https://www.altmetric.com/details.php?domain=www.cdc.gov&citation\\_id=10704422&tab=blogs](https://www.altmetric.com/details.php?domain=www.cdc.gov&citation_id=10704422&tab=blogs))
- Twitter (121) ([https://www.altmetric.com/details.php?domain=www.cdc.gov&citation\\_id=10704422&tab=twitter](https://www.altmetric.com/details.php?domain=www.cdc.gov&citation_id=10704422&tab=twitter))
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- Wikipedia (1) ([https://www.altmetric.com/details.php?domain=www.cdc.gov&citation\\_id=10704422&tab=wikipedia](https://www.altmetric.com/details.php?domain=www.cdc.gov&citation_id=10704422&tab=wikipedia))
- Google+ (2) ([https://www.altmetric.com/details.php?domain=www.cdc.gov&citation\\_id=10704422&tab=google](https://www.altmetric.com/details.php?domain=www.cdc.gov&citation_id=10704422&tab=google))
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# Abnormalities & Test is Positive

## Before hospital discharge

- Physical Evaluation
- Head Circumference
- Weight/length
- Neurologic exam
- Hearing screening
- Head ultrasound
- Infant Zika virus testing
- Consider transfer to hospital with subspecialty care, complete blood count, metabolic panel, liver function tests, ophthalmology exam, auditory brain response.
- Consider advanced neuroimaging



# Abnormalities & Test is Positive

## Before hospital discharge (continued)

### Consultation with:

#### - **Neurologist**

-- Determination of appropriate neuroimaging and additional evaluation.

#### - **Infectious Disease Specialist**

-- Diagnostic evaluation of other congenital infections.

#### - **Ophthalmologist**

-- Comprehensive eye exam and evaluation for possible cortical visual impairment (prior to discharge or within 1 month of birth).

#### - **Endocrinologist**

-- Evaluation for hypothalamic or pituitary dysfunction.

#### - **Clinical Geneticist**

-- Evaluate for other causes of microcephaly or other anomalies (if present).



# Abnormalities & Test is Positive

## Before hospital discharge (continued)

Consider consultation with:

- **Orthopedist, Physiatrist, or Physical Therapist:** Management of hypertonia, club foot or arthrogryptic-like conditions.
- **Pulmonologist or Otolaryngologist:** Concerns about aspiration.
- **Lactation Specialist, Dietician, Gastroenterologist, Speech/Occupational Therapist:** Management of feeding issues.
- **Audiology:** Perform auditory brainstem response to assess hearing.
- **Social Work/Care Coordination:** Provide family and supportive services



# Abnormalities & Test is Positive

## 2 Week Evaluation

- Evaluate for other causes of congenital anomalies. Further management as clinically indicated.
- Thyroid screen.
- Routine preventive health care including monitoring of feeding and growth and development .
- Routine and congenital infection-specific anticipatory guidance.
- Referral to specialists, including evaluation of other causes of congenital anomalies as needed.



# Abnormalities & Test is Positive

## 1 & 2 Month Evaluations

- Evaluate for other causes of congenital anomalies. Further management as clinically indicated.
- Neurologic exam.
- Routine preventive health care including monitoring of feeding and growth and development .
- Routine and congenital infection-specific anticipatory guidance.
- Referral to specialists, including evaluation of other causes of congenital anomalies as needed.





# Abnormalities & Test is Positive

## 3 Month Evaluation

- Evaluate for other causes of congenital anomalies. Further management as clinically indicated.
- Thyroid screen.
- Ophthalmology exam.
- Routine preventive health care including monitoring of feeding and growth and development .
- Routine and congenital infection-specific anticipatory guidance.
- Referral to specialists, including evaluation of other causes of congenital anomalies as needed.



# Abnormalities & Test is Positive

## 4-6 Month Evaluation

- Evaluate for other causes of congenital anomalies. Further management as clinically indicated.
- Repeat auditory brain response exam.
- Routine preventive health care including monitoring of feeding and growth and development .
- Routine and congenital infection-specific anticipatory guidance.
- Referral to specialists, including evaluation of other causes of congenital anomalies as needed.



# Abnormalities & Test is Positive

## 12 Month Evaluation

- Evaluate for other causes of congenital anomalies. Further management as clinically indicated.
- Repeat auditory brain response exam.
- Routine preventive health care including monitoring of feeding and growth and development .
- Routine and congenital infection-specific anticipatory guidance.
- Referral to specialists, including evaluation of other causes of congenital anomalies as needed.



# Abnormalities & Test is Negative

**Before discharge – 12 month exams:**

Evaluate for other causes of congenital anomalies

Further management as clinically indicated



# No Evidence of Abnormalities & Test is Positive

**Before hospital discharge** - Routine newborn care: physical exam, head circumference, weight/length, neurologic exam, hearing screening, head ultrasound

**2 weeks & 1 month**- Ophthalmology exam and auditory brainstem response

**4-6 months**- Consider repeat auditory brainstem response

**9 - 12 months**- Behavioral audiology if auditory brainstem response if not done at 4–6 mos.

**At every visit:** Monitoring of occipitofrontal circumference and development at every visit and age-appropriate developmental screening



# What's Next?

## **Module Seven: Treatment Options & Resources for Staying Up to Date**

