

VDH Guidance for the Evaluation and Management of Infants with Possible Congenital Zika Virus Infection

Adapted from Russell K, Oliver SE, Lewis L, et al. [Update: Interim Guidance for the Evaluation and Management of Infants with Possible Congenital Zika Virus Infection — United States, August 2016.](#)

Initial evaluation and recommended outpatient management during the first 18 months of life for infants with possible congenital Zika virus infection, based on maternal and infant laboratory tests and infant clinical findings

Mother	Infant Clinical exam	Before hospital discharge	Infant testing	2 wks.	1 mo.	2 mos.	3 mos.	4-6 mos.	9 mos.	12 mos.	≥18 mos.	
Laboratory evidence of Zika virus infection	No evidence of abnormalities	Routine newborn care (physical exam, head circumference, weight/length, and neurologic exam), hearing screen, head ultrasound, infant Zika virus testing	Negative for Zika virus infection	Routine care, including monitoring of head circumference and development at every well child visit and age-appropriate developmental screening								
			Laboratory evidence of Zika virus infection*	Ophthalmology exam and auditory brainstem response (ABR)				Consider repeat auditory brainstem response (ABR)	Behavioral audiology if ABR not done at 4-6 mos.		PRNT should be performed if initial infant sample was IgM positive, rRT-PCR negative, and Zika-specific neutralizing antibodies were detected by PRNT on either the infant's or mother's sample	
	Abnormalities consistent with congenital Zika syndrome	As above, plus: CBC, metabolic panel, LFTs, ophthalmology exam, auditory brainstem response (ABR), and consider transfer to hospital with subspecialty care and/or advanced neuroimaging	Negative for Zika virus infection	Evaluate for other causes of congenital anomalies and further management as clinically indicated								PRNT may be considered if initial infant sample was negative by both IgM ELISA and rRT-PCR, but clinical concerns remain (e.g., microcephaly with negative evaluation for other known causes)
			Laboratory evidence of Zika virus infection*	Thyroid screen	Neurologic exam	Neurologic exam	Thyroid screen, ophthalmology exam	Repeat auditory brainstem response (ABR)			PRNT should be performed if initial infant sample was IgM positive, rRT-PCR negative, and Zika-specific neutralizing antibodies were detected by PRNT on either the infant's or mother's sample	
				Routine preventive health care including monitoring of feeding and growth, routine and congenital infection-specific anticipatory guidance, referral to specialists (including evaluation of other causes of congenital anomalies as needed)								
Mother	Infant Clinical exam	Before hospital discharge	Infant testing	2 wks.	1 mo.	2 mos.	3 mos.	4-6 mos.	9 mos.	12 mos.	≥18 mos.	
Exposed or symptomatic but not tested, or tested outside of appropriate window†	No evidence of abnormalities	Maternal Zika virus testing†, routine newborn care (physical exam, head circumference, weight/length and neurologic exam), hearing screen, head ultrasound, and consider Zika virus placental testing	Perform infant Zika virus testing if evidence of Zika virus infection on maternal testing**	Outpatient management for appropriate infant clinical exam and test results								PRNT should be performed if initial infant sample was IgM positive, rRT-PCR negative, and Zika-specific neutralizing antibodies were detected by PRNT on either the infant's or mother's sample
	Abnormalities consistent with congenital Zika syndrome	As above, plus: CBC, metabolic panel, LFTs, ophthalmology exam, auditory brainstem response (ABR), infant Zika virus testing, and consider transfer to hospital with subspecialty care and/or advanced neuroimaging	Negative for Zika virus infection	Evaluate for other causes of congenital anomalies and further management as clinically indicated								PRNT may be considered if initial infant sample was negative by both IgM ELISA and rRT-PCR, but clinical concerns remain (e.g., microcephaly with negative evaluation for other known causes)
			Laboratory evidence of Zika virus infection*	Refer to outpatient management for infant abnormalities consistent with congenital Zika syndrome								PRNT should be performed if initial infant sample was IgM positive, rRT-PCR negative, and Zika-specific neutralizing antibodies were detected by PRNT on either the infant's or mother's sample

Abbreviations: CBC = complete blood count; LFTs = liver function tests; HC = head (occipitofrontal) circumference; rRT-PCR = real-time reverse transcription–polymerase chain reaction;

* Laboratory evidence of maternal Zika virus infection includes 1) Zika virus RNA detected by real-time reverse transcription–polymerase chain reaction (rRT-PCR) in any clinical specimen; or 2) positive Zika virus immunoglobulin M (IgM) with confirmatory neutralizing antibody titers. Confirmatory neutralizing antibody titers are needed in addition to IgM for maternal Zika virus infection.

† Mothers should be tested by rRT-PCR within 2 weeks of exposure or symptom onset, or by IgM within 2–12 weeks of exposure or symptom onset. Because of the decline in IgM antibody titers and viral RNA levels over time, negative maternal testing 12 weeks after exposure does not rule out maternal infection. Source: Oduyebo T, Igbinosa I, Petersen EE, et al. Update: interim guidance for health care providers caring for pregnant women with possible Zika virus exposure—United States, July 2016. *MMWR Morb Mortal Wkly Rep* 2016; 65:739–44. <http://dx.doi.org/10.15585/mmwr.mm6529e1>.