

RISK FACTORS FOR LATE-ONSET AND PROGRESSIVE HEARING LOSS

2007 Joint Committee on Infant Hearing Position Statement

- Caregiver concern* regarding hearing, speech, language, or developmental delay
- Family history* of permanent childhood hearing loss
- NICU stay of more than 5 days, or any of the following regardless of length of stay: ECMO*, assisted ventilation, ototoxic medications (gentimycin and tobramycin) or loop diuretics (furosemide/Lasix), and hyperbilirubinemia requiring transfusion.
- In-utero infections, such as CMV*, herpes, rubella, syphilis, and toxoplasmosis.
- Postnatal infections associated with hearing loss, including confirmed bacterial and viral meningitis.
- Craniofacial anomalies of pinna, ear canal, ear tags, ear pits, and temporal bone anomalies.
- Findings of syndrome associated with hearing loss (Waardenburg, Alport, Pendred, and Jervell and Lange-Nielson)
- Syndromes associated with progressive or delayed-onset hearing loss* (neurofibromatosis, osteopetrosis, Usher Syndrome)
- Neurodegenerative disorders* (such as Hunter Syndrome) or sensory motor neuropathies (such as Friedreich ataxia & Charcot-Marie-Tooth syndrome).
- Head trauma, especially basal skull/temporal bone fracture that requires hospitalization.
- Chemotherapy*

*Greater concern for delayed-onset hearing loss
www.jcih.org

MEDICAL HOME INSTRUCTIONS FOR INFANTS WITH RISK FACTORS

- The medical home is responsible for monitoring risk factors for late onset and progressive hearing loss.
- Infants who pass the neonatal screening but have a risk factor should have at least 1 diagnostic audiology assessment by 24 to 30 months of age.
- Audiologist should be able to perform:
 - **ABR**
 - Frequency-specific tone bursts
 - Air & bone conduction
 - **OAE**
 - Middle ear assessment
 - Evaluation with sedation (if needed)

AVERAGE DEVELOPMENTAL MILESTONES

Age	Milestones
0-3 Months	Quiets when hearing familiar voice Startles to loud sounds Makes vowel sounds like ahh, ohh
3-6 Months	Looks for sounds with eyes Uses sounds such as squeals, whimpers, chuckles Vocalizes excitement and displeasure
6-9 Months	Turns hearing toward sounds Babbles sounds like ba-ba, ma-ma, da-da Looks for quiet sounds made out of sight
9-12 Months	Imitates speech sounds made by others Understands no-no or bye-bye Correctly uses ma-ma or da-da Turns to own name
12-24 Months	Conversation babbling to self and others Follows simple directions "get your shoes" Knows and uses more than six (6) words Uses 2-3 word sentences

This is not a screening tool and does not replace objective testing.
 Inform parents on hearing, speech, and language milestones.

Funding for the Infant Hearing Guide for Providers provided by Maternal and Child Health Bureau grant

ARIZONA RESOURCES:



Ear Foundation of Arizona
www.earfoundationaz.com



AZ Hands & Voices Family Support - Guide By Your Side
www.azhv.org



Arizona Chapter of American Academy of Pediatrics
www.azaap.net



Arizona EMDI
 Early Hearing Detection and Intervention Program
 Arizona Department of Health Services
 Office of Newborn Screening
www.aznewborn.com

(602) 364-1409 • Toll free: (800) 548-8381
 711 for Relay Service
 Fax: (602) 364-1495



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INFANT HEARING GUIDE

FOR HEALTHCARE PROVIDERS



Arizona Department of Health Services
 Office of Newborn Screening
www.aznewborn.com

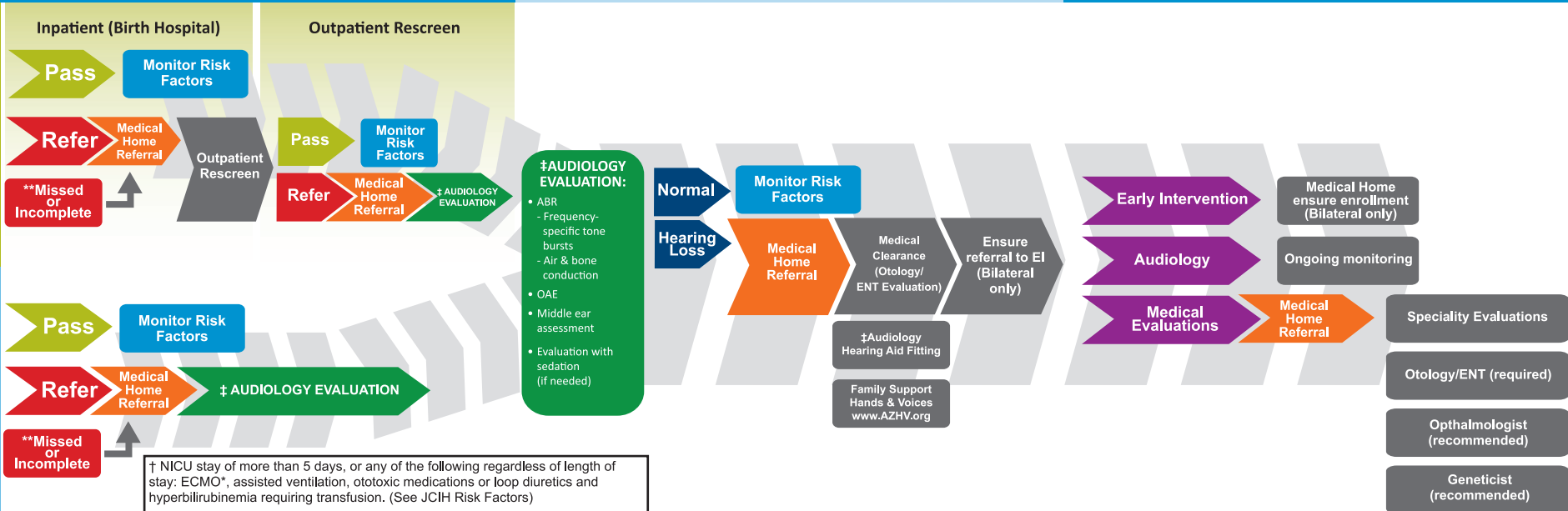
SCREENING BEFORE 1 MONTH (OAE/ABR/AABR)

DIAGNOSTIC EVALUATION BEFORE 3 MONTHS

EARLY INTERVENTION BEFORE 6 MONTHS/ AS SOON AS DIAGNOSED

WELL BABY

† NICU > 5 DAYS/ HL RISK FACTORS



MEDICAL HOME INSTRUCTIONS

- At 1st well-baby visit, check for hearing screening results on back of immunization card or hospital discharge summary
- Ensure all screening, audiology evaluations, and/or ENT evaluations are maintained in medical record

**MISSED/INCOMPLETE SCREEN

- Infants who have a missed or incomplete screening should be referred for further testing
- Infants who fail in only one ear should be referred for further testing of both ears

†AUDIOLOGIST WITH CAPACITY TO EVALUATE PEDIATRIC PATIENTS

MEDICAL HOME REFERRALS

Every child diagnosed with a confirmed hearing loss should receive timely referral to:

REQUIRED:

- Audiology
- Otolaryngology/ENT
- Early Intervention (EI)

RECOMMENDED:

- Ophthalmologist
- Genetics
- Other medical specialty

LEGEND

- █ Medical Home needs to complete referrals
- █ Medical home needs to monitor for risk factors for late set or progressive hearing loss www.jcih.org

OAE: Otoacoustic Emissions	AABR: Automated Auditory Brainstem Response
ABR: Auditory Brainstem Response	HL: Hearing Loss

MANDATORY REPORTING - (UP TO AGE 3)

A.R.S 36-694, A.A.C. R9-13-207(E)

SCREENING	Hearing screening results must be reported to ADHS
DIAGNOSTIC	Diagnostic hearing evaluations, including normal results must be reported
Submit to ADHS within one week following test / Fax to ADHS: (602) 364-1495 For requirements & forms, visit www.aznewborn.com	

HEARING PERIODICITY SCHEDULE

Newborn Objective by standard testing method	2, 4, 6, 9, 12, 15, 18, 24 (Age in months) Subjective by history	3, 4, 5 (Age in Years) Objective by standard testing method
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AHCCCS EPSDT Periodicity Schedule www.azahcccs.gov