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Sound Source

Recognizing Signs of Late-Onset Hearing Loss in Children

Up to 50% of children who have hearing loss at 9 years of age passed their newborn hearing screening. Late-onset and progressive hearing loss may be due to genetics, infections, trauma, medications, or teratogens. Primary care providers play a vital role in the identification of late-onset hearing loss.

Surveillance and screening in the medical home are the best way to monitor for hearing loss in children. The following observations may be signs of hearing loss and warrant immediate referral for diagnostic testing:

- Parental concern for hearing, especially under the age of 3 years when in-office screening techniques are not effective
- Failed OAE or pure tone screening
- Delay/regression in speech/language development
- Difficulty paying attention
- Child reports difficulty hearing
- Difficulty hearing in noisy environments
- Change in academic performance
- Chronic OME or middle ear fluid present, even without infection, for more than 6 months
- Does not react to voices when spoken to - i.e. - does not turn to name
- Frequent requests for repetition
- Turns TV/Music up loud
- Experiences significant fatigue at the end of a school day
- Child has begun to speak louder

Some risk factors require routine monitoring for progressive hearing loss. Please keep the chart on the back of this newsletter for reference.

Referral Guidelines for Children who PASS Newborn Hearing Screening

	Risk Factor Classification	Refer for Diagnostic Follow-up	Monitoring Frequency
1	Family history of childhood hearing loss	by 9 months	Based on etiology of family hearing loss
2	Neonatal intensive care of more than 5 days	by 9 months	As per concerns of on-going surveillance of hearing skills and speech milestones
	Hyperbilirubinemia with exchange transfusion		
	Aminoglycoside administration for more than 5 days		
	Asphyxia or Hypoxic Ischemic Encephalopathy		
3	Extracorporeal membrane oxygenation (ECMO)	No later than 3 months after occurrence	Every 12 months to school age or at shorter intervals based on concerns of parent or provider
4	In utero infections, such as herpes, rubella, syphilis, and toxoplasmosis	by 9 months	As per concerns of on-going surveillance
	In utero infection with cytomegalovirus (CMV)	No later than 3 months after occurrence	Every 6 months or at shorter intervals based on parent/provider concerns
5	Certain birth conditions or findings: • Craniofacial malformations including microtia/atresia, ear dysplasia, oral facial clefting, white forelock, and microphthalmia • Congenital microcephaly, congenital or acquired hydrocephalus • Temporal bone abnormalities	by 9 months	As per concerns of on-going surveillance of hearing skills and speech milestones
6	Syndrome diagnosis/Syndromic features (Over 400 syndromes have been identified with atypical hearing thresholds. See Hereditary Hearing Loss website for more information)	by 9 months	According to natural history of syndrome or concerns
7	Culture-positive infections associated with sensorineural hearing loss, including confirmed bacterial and viral (especially herpes viruses and varicella) meningitis or encephalitis	No later than 3 months after occurrence	Every 12 months to school age or at shorter intervals based on concerns of parent or provider
8	Events associated with hearing loss: • Significant head trauma especially basal skull/temporal bone fractures • Chemotherapy	No later than 3 months after occurrence	According to findings and/or continued concerns
9	**Caregiver concern regarding hearing, speech, language, developmental delay, and/or developmental regression**	**Immediate referral**	**According to findings and/or continued concerns**

Adapted from: (2019). Year 2019 Position Statement: Principles and Guidelines for Early Hearing Detection and Intervention Programs. *Journal of Early Hearing Detection and Intervention*, 4(2), 19. DOI 10.15142/fptk-b748