MINNESOTA MDH DEPARTMENT OF HEALTH

REV 03/2015

ENT Guide to the Newborn Hearing Diagnostic Process

Before 1 month

Before 3 months

Before 6 months

Ongoing

REFER/did not pass newborn hearing screening

From well-baby nursery
Schedule outpatient rescreening by two weeks postpartum

From NICU
Schedule complete diagnostic test battery as soon as possible

Rescreen
Rescreen both ears

Cancel/no show
Assist family in rescheduling as soon as possible and refer to Local Public Health if needed

PASS/Normal hearing

Did not pass and has normal or abnormal tympanogram or middle ear findings
Schedule diagnostic evaluation with audiology as soon as possible

Diagnostic audiology
Check that definitive diagnostic audiology evaluation has been COMPLETED (type and degree of loss for each ear) including bone conduction ABR if results are abnormal

Incomplete/inconclusive
Assist family in scheduling further appointments as soon as possible

Confirmed mixed, long-term conductive, sensory, or neural hearing loss
Provide appropriate medical clearance for amplification when chosen by the family and fit within one month of diagnosis

Confirmed conductive hearing loss with middle ear effusion
Re-evaluate hearing when medically clear or by six months of age to ensure normal hearing in both ears

Support and referrals
Ensure connection to early intervention services, parent to parent support, genetics, and ophthalmology

Hearing re-evaluation
Refer infants with persistent conductive hearing loss to early intervention and consider amplification to ensure auditory access

JCIH risk factor for late onset/ progressive hearing loss
Provide hearing assessment every 3-6 months

JCIH general risk for hearing loss
Provide one diagnostic hearing assessment by 24-30 months of age

No risk factor for hearing loss
Continue routine surveillance per American Academy of Pediatrics guidelines

Newborn Screening Program, 601 Robert St. N., St. Paul, MN 55155, Phone (800) 664-7772, Fax (651) 215-6285, www.improveehdi.org/mn

myths vs. facts

OF EARLY HEARING DIAGNOSIS

no.1

MYTH: There is no rush to identify hearing loss.

FACT: Infants identified with hearing loss before three months of age can begin early intervention and avoid delays in speech and language; those with late diagnosis and intervention may never catch up.

MYTH: Fluid prevents accurate completion of diagnostic ABR.

no.2

FACT: Use of bone conduction ABR (automated brainstem response) can and should be used as part of a complete test battery to rule out underlying sensory loss—even when fluid is present—as per MDH and American Academy of Audiology guidelines.

MYTH: Abnormal OAEs along with flat tympanograms confirm conductive hearing loss.

no.3

FACT: OAEs (otoacoustic emissions) and tympanograms do not measure hearing levels.

MYTH: It is not as important to complete diagnostic testing by three months of age for infants with a REFER result in just one ear.

no.4

FACT: The rate of confirmed hearing loss is the same for Minnesota newborns with either unilateral or bilateral REFER results on the initial outpatient rescreen.

MYTH: Providers should wait to re-evaluate/rescreen infants with REFER results who have middle ear fluid until three months of age.

no.5

FACT: OME (otitis media with effusion) clinical practice guidelines call for prompt and definitive evaluation of hearing for an infant with OME who is at risk (i.e., did not pass the hearing screen) for speech, language, or learning problems.

MYTH: Infants need to be sedated to complete ABR.

FACT: Younger infants (ideally between four to eight weeks of age) can typically be tested without sedation.

no.6

no.7

MYTH: There are too many referrals from hospitals to warrant a diagnostic ABR.

FACT: The REFER rate at hospital discharge in Minnesota is 4.2 percent. After the first outpatient rescreen, only about 1 percent of all newborns require diagnostic testing.

MYTH: Most infants who do not pass the first outpatient screening are eventually found to have normal hearing.

FACT: 30 to 50 percent of Minnesota infants who do not pass the initial outpatient screening have some type/degree of confirmed hearing loss.

no.8

MYTH: Rescreening when fluid clears up will still allow time for a complete diagnosis by three months of age.

no.9

FACT: Recent Minnesota data indicates that 60 percent of infants with delayed diagnosis had a history of middle ear fluid and multiple rescreens.

MYTH: Postponing ABR and continuing to rescreen is more cost-effective for the patient.

FACT: Minnesota infants followed in this manner frequently become lost to follow-up; those who continue follow-up often have up to four additional rescreens and still require ABR—which then requires sedation—at a significant cost increase above the best practice rate.

no.10