Protocol for Diagnostic Audiological Assessment: Follow-Up for Newborn Hearing Screening

(1) Obtain hospital screening results and a medical history, including the presence of any risk indicators.

(2) Perform an otoscopic evaluation.

(3) Obtain acoustic immittance measures using a high frequency probe tone (optional).

(4) Obtain evoked otoacoustic emissions (TEOAE and/or DPOAE).
**In evaluating OAE's the following stimulus levels are recommended:. L1=65 dB SPL & L2=50 dB SPL (DPOAE) or 80 dB pSPL (TEOAE)*

- If normal and infant does not meet high-risk criteria and has not failed a prior auditory brainstem response (ABR)—STOP TESTING. Infants who are not identified with hearing loss, but have one or more risk factors, should be evaluated every 6 months until 3 years of age.
- If (1) abnormal or (2) normal, but failed prior ABR, or (3) normal, but infant has risk factors, may refer to an ENT specialist before pursuing ABR.

(5) If OAEs abnormal for one or both ears, perform a diagnostic click-evoked auditory brainstem response (ABR) via air conduction (can be completed at same or subsequent visit):

a. Obtain a 70 or 75 dB nHL response to click stimulus to assess the latency and morphology of waves I, III, V, I-III, III-V, and I-V

b. Obtain a 30 or 35 dB nHL response to click stimulus to assess the latency and morphology of wave V

**In evaluating absolute and interpeak latencies, the use of age appropriate norms is recommended*

- If normal and infant has passed diagnostic OAE, audiologist may choose to stop testing. Infants who are not identified with hearing loss, but have one or more risk factors, should be evaluated every 6 months until 3 years of age.
- If (1) abnormal, or (2) normal, but failed prior diagnostic OAE, perform frequency specific ABR.

(6) Perform frequency specific ABR using unmasked Blackman-gated tonebursts or tonebursts presented in notched noise:

a. Obtain threshold response to a 500 & 4000 (or 2000) Hz toneburst

b. Consider obtaining threshold response to 2000, 1000, and/or 250 Hz (based upon results)

(7) Perform a click-evoked auditory brainstem response (ABR) via bone conduction.

- Infants identified with hearing loss should be referred to an ENT for medical/surgical care, and to the Infant Toddler Early Intervention Program (ITEIP). Audiologic monitoring should occur every 3 months.
- Infants who are not identified with hearing loss, but have one or more risk factors, should be evaluated every 6 months until 3 years of age.