HEARING SCREENING

INTRODUCTION

- Early intervention improves the outcome for babies with a congenital hearing deficit
- Screening for congenital deafness is undertaken through the NHS Newborn Hearing Screening Programme (NHSP) by trained screeners according to national guidelines. They are automatically informed of all births and will ensure babies are screened
- Neonatal staff must understand how their local programme is organised, the risk factors for congenital deafness and know how to work with the screeners

INDICATIONS

Who

- All babies are eligible for screening, except:
  - microtia/external ear canal atresia
  - neonatal bacterial meningitis or meningococcal septicemia
  - confirmed congenital cytomegalovirus (cCMV)
  - programmable ventriculo-peritoneal shunts
- Neonatal staff **must** refer babies with meningitis to audiology for an urgent assessment (NHSP referral to be completed and handed to the screeners who will book a diagnostic appointment)
- Screeners will refer babies with non-patent canal for urgent diagnostic assessment

PROCEDURE

Consent

- Screening can only be performed with parental consent
  - screeners will obtain verbal consent from parents (if present) before screening
  - if baby on NNU and parents absent, screeners will leave an explanatory leaflet and gain verbal consent from parents during their visit to NNU or over the telephone

How

- Oto-Acoustic Emissions (OAE) +/- Automated Auditory Brainstem Response (AABR) according to national ‘Well baby’ or ‘NICU’ protocols
  - neonatal staff must inform screeners if baby has ever spent >48 hr on NNU so that NICU protocol can be used
  - babies on transitional care are screened using the ‘Well baby’ protocol (unless previously on NNU for >48 hr)

When

- Screen only when baby has reached 34 weeks (corrected age)

Where

Well babies

- Screening is performed as an inpatient before discharge or in the community

NNU babies

- Arrange screening as close to discharge as possible, when baby is well enough to test and preferably once major medical treatment, ototoxic or other drug treatment complete
- Do not screen babies transferring to another NNU
- Complete screening of babies on NNU >48 hr by 44 weeks (corrected age)

FOLLOW-UP

- Neonatal staff must ensure all babies diagnosed with bacterial meningitis are referred for an urgent audiology assessment and are not screened
- Screeners will arrange routine follow-up according to screening results and presence of other specific risk factors
- Babies with cCMV may need to be seen earlier [timescale agreed with paediatrician to allow early antiviral treatment to commence (if required)]

- Other babies who did not meet the indications for screening must be seen by audiology within 4 weeks of the decision not to screen/recovery from acute episode, and by 44 weeks' gestation

Risk factors

- Neonatal staff must inform the screener of the following risk factors in order that appropriate follow-up at aged 7–9 months can be arranged:
- confirmed or possible congenital infection (rubella, toxoplasmosis)
- cranio-facial anomalies, cleft palate, deformed pinnae (not simple ear tags)
- syndromes associated with hearing loss (Down's, Waardenburg, Alport, Usher etc.)
- baby has been treated with ECMO
- Babies with the following risk factors are not followed up by audiology, but data is collected for audit purposes:
- severe jaundice (at exchange level)
- multiple abnormalities with neurodegenerative/neurodevelopmental disorder
- mechanical ventilation >5 days
- Screener will determine presence of other risk factors before screening:
- family history of permanent hearing loss in childhood
  - those with first-degree relative will be followed up in audiology

FURTHER INFORMATION

- Detailed information available from NHSP website: https://www.gov.uk/topic/population-screening-programmes/newborn-hearing