1. Introduction

The Universal Newborn Hearing Screening programme offers hearing screening to every baby born in Scotland. Figure 1 below shows the pathway infants follow from this process.

2. Methods

- Clinical Audit of 8 Month VRA appointments from 2017 to 2021
- Set Standards - Team meeting held in department to set standards, agreed on Newborn Hearing Screening Programme Standards (NHS England, 2022)
- Data Collection - Ages at initial appointment and when journey completed, number of appointments including those missed, testing completed & outcomes
- Data Analysis - Results analysed using Google Sheets & SPSS. Data tested for normality with Kolmogorov-Smirnov & displayed graphically using both software
- Discussion - Results explored & recommendations given on how to improve service. Will be shared with department once completed

3. Results

157 infants identified, 9 rejected (2 missed, 2 not followed up, 3 not completed, 1 moved, 1 passed away)

Outcomes

- Discharge (WNB) 35
- Discharge (Normal Hearing) 14
- Ear, Nose & Throat 56
- Audiovestibular Physician 27
- Hearing Aids

- Protocol target of 7 to 9 months
- Ages
  - Age at initial appointment ranged from 6.64 months to 19.73 months with 58.78% seen at target of 7-9 months.
  - Median age 9.21 months.
  - Age at completion ranged from 7.30 months to 28.67 months. Median age 12.97 months.
  - 28.37% of infants completed their journey on a single visit. Median time for completion was 2.65 months with the longest time to completion being 17.33 months.

Testing Completed

- Otoscopy only reported in 71.1% of infants.
- Tympanometry results in 92.56%.
- OAE testing in 57.38% of suitable patients.
- Ear specific completed in 31.08%, all via insert earphones.
- Bone conduction carried out in 3.31%.

4. Discussion and Conclusions

- Standards & Protocols
  - Standards chosen for audit not applicable to 8 month VRA appointments.

- Attendance Rate
  - Correct patient details - new patient management system.
  - Department protocol outdated, however it has been successful in the past in department, however it requires extensive admin time.
  - An opt-in clinic could help reduce non-attendance (Hawker, 2007), has been successful in the past in department, however it requires extensive admin time.

- Age at Appointments
  - Team Lead and Audiologist could be put in charge of infants to appoint at 7-9 months. Currently 8 month VRA patients are appointed by the admin team that do not put priority so subject to the same waiting time increases of other clinics.

- Testing Guidelines
  - Added to protocol to create a uniform approach from audiologists towards test battery used. Currently only testing mentioned in protocol is VRA itself.

- Appointment Time
  - At least 45 minutes to help clinicians complete all the testing required while giving infants time to settle.

Audit Content

- A lot of content for one audit, a more specific criteria would allow for a deeper dive into areas of the clinic.

References