

# **Procedure for Hearing Tests (Sweep Audiometry) in School**

**2004**

**CYP25/04/1**

### Procedure Reference Information

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1	Previously written as Guidelines - changed to a procedure.	To update in line with the PCT Policy Framework	Heather Hunter-Whitehouse and Clara Duncan	July 2004

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## **1 Introduction**

Children's hearing is tested by school nurses at school entry. At any other time when there is cause for concern the school nurse will refer the child to either their GP or to the Audiology Department at West Ham Lane Health Centre.

## **2 Aims**

To ensure that all School Nurses are working to agreed standards for hearing testing (Sweep Audiometry) and onward referral.

To detect hearing difficulties in an effort to reduce the impact of such problems on learning.

## **3 Management and Co-ordination of procedure**

The responsibility for the management and co-ordination of this procedure lies with the Head of School Nursing, the Professional Supervisor with the lead for Clinical Governance. The adherence to the procedure will be monitored by the School Nurse Clinical Governance Group.

## **4 Training**

Each school nurse will attend a 2 hour training session with an audiology technician. The technician will then arrange to attend a session in school to monitor the nurse.

## **5 Consent**

- 5.1 Consent for screening must be obtained from the child's parent prior to screening.
- 5.2 For screening as part of the School Entry Health Assessment, this consent is routinely gained through the School Entry Health Assessment form which is sent out to each child the term after their 5<sup>th</sup> birthday.

## **6 Procedure for Sweep Testing**

- 6.1 Prior to testing:
  - 6.1.1 A quiet room is required (away from busy roads, classrooms etc.) which has an electric socket, table and chairs
  - 6.1.2 The audiometer must be in good working order and the output levels should be checked at 15 and 60 dB on both headphones.
- 6.2 Screening process:
  - 6.2.1 The procedure should be explained to the child and the school nurse should use free field conditioning using the maximum output on the machine. Ensure the child understands the required response of putting a brick in a box when each sound is heard.
  - 6.2.2 If there is a discharge from the ear- do not test.
  - 6.2.3 The headphones are placed on the child's ears (red=right and blue=left).
  - 6.2.4 Starting with the right ear proceed with test at 40, 30 and 20 dB at 1000 Hz as part of the conditioning process.
  - 6.2.5 Present pure tones at random intervals in the following order: 1000 Hz, 2000 Hz, and 4000Hz at 20 dB and 500 Hz at 25 dB. Repeat in left ear.

- 6.2.6 If the child fails to respond then present the tones at a higher intensity and gradually reduce to 20 dB.
- 6.3 Possible pitfalls:
  - 6.3.1 Headphone placement- incorrect placement will result in an apparent hearing loss and therefore failure.
  - 6.3.2 Tone presentation- it is important to present tones at random intervals.
  - 6.3.3 Visual clues- eye, mouth, hand or shoulder movement can give the child clues.
  - 6.3.4 Keep the test as short as possible as bored children do not respond very well.
  - 6.3.5 Repeat instructions if necessary but do not persist if a child responds poorly as they may have short concentration span or a hearing loss.
- 6.4 Calibration is to be done annually by the manufactures.

## **7 Record Keeping**

- 7.1 The school nurse test results and any concerns or referrals on the School Nurse Assessment Summary triplicate form.
- 7.2 The white copy of School Nurse Assessment Summary form is sent to the child's parent/carer  
The yellow copy of School Nurse Assessment Summary form is sent to the child's GP in accordance with the School Entry Health Assessment protocol.  
The pink copy of School Nurse Assessment Summary form is filed in the child's school Health Records.
- 7.3 A note is made on the continuation sheet that the child has been seen in school for screening and that the details can be found on the Summary form.

## **8 Results and Referral**

- 8.1 Pupils pass if the child hears 1000 Hz, 2000 Hz, and 4000Hz at 20 dB and 500 Hz at 25 dB.
- 8.2 Failure at any one frequency means failure of the test and the school nurse will be refer the pupil to the Audiology Department at West Ham Lane Health Centre using the triplicate referral form.
- 8.4 If the child has a cold the test can repeated when the child has recovered before a referral is made.
- 8.5 If the child is suspected of having a serious hearing loss the referral should be marked as urgent.

## Appendix 1: Care of audiometers

- 1) The audiometer should not be thrown into the boot of a car, this could possibly offset the trimmer calibration pots and renders the equipment useless. More importantly it will give clinically inaccurate results.
- 2) The boot of a car is usually always colder than that of the inside of the car and thus cold temperatures also affect the calibration readings. Especially as the weather gets colder it is more likely that even leaving the audiometer in the back seat overnight will again alter the calibration settings. Do not leave audiometer in car overnight.
- 3) The audiometer should be gently placed, preferably in the back seat of a car in a box where it cannot move around easily and thus prevents the calibration trimmers from altering from their set position (note calibration trimmers are within the audiometer and not accessible to the user). This is only suitable in the day time when the car is on as generally the inside temp. of a car is approximately the same as indoors.
- 4) The audiometer is more stable if it is kept at room temp. day and night, thus not allowing the calibration trimmers to drift.
- 5) When audiometer is to be first switched on, no clinical measurements should be made. Allow 5 mins for the warm up of the audiometer. This allows for internal components to warm up and thus work more efficiently and effectively. If there are long periods, 2 hours or more, when the audiometer is switched off then this process should be repeated.
- 6) The mains cable or adaptor cable should BE wound loosely, thus not damaging the cable or introducing weak fracture points.
- 7) As with all medical equipment used between patients, the headphones should be wiped clean with alcohol free wipes or bacteria removing wipes.
- 8) If you suspect the audiometer is faulty or not working first check whether the mains/adaptor lead is fully in and that the jack plugs for the headphones are inserted fully. If you feel the output intensity has dropped then this can be checked on your own ears initially as a reference points. Usually the operator of the audiometer will establish whether there is a reduction in the output and thus the audiometer should be sent to Clinical Physics, RLH via Sarah Rolfe.