



Newborn Hearing Screening **Wales**
Sgrinio Clyw Babanod **Cymru**

HEALTH VISITOR INFORMATION PACK

NEWBORN HEARING SCREENING WALES

Health Visitor Information Pack

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NEWBORN HEARING SCREENING WALES

Health Visitor Information Pack

1. Overview

Background Information

In Wales approximately 40 children (1.4 per 1000 births) are born each year with a significant permanent hearing loss.^{1,2} The impact of this hearing loss on the child and family is substantial. Hearing loss affects communication and language acquisition and the quality of life of the children and their families.³

Evidence supports improvement in language outcomes for those children who are identified early and provided with appropriate habilitation including early language support, amplification and family support.³

The Newborn Hearing Screening Programme for Wales

The aim of the programme is to identify babies with significant hearing impairment which is of sufficient severity to cause or potentially cause a disability without the introduction of habilitation in infancy.

- ◆ The screen is offered to all babies whose mother is resident in Wales.
- ◆ The screen is offered to most babies within the first week of life and should be completed by the age of four weeks. Babies are eligible for the first stage of screening up to six weeks after birth.
- ◆ Significant hearing impairment is a bilateral permanent hearing loss of a level greater than 40 dBnHL in the better ear, taken as an average over 500, 1000, 2000 and 4,000 Hz.
- ◆ The screening programme ends at the completion of the assessment process or normally at three months whichever is soonest. It is accepted that audiological confirmation may not be completed by this stage.
- ◆ The screening programme will ensure that adequate services are available for hearing impaired young babies and their families up to the age of two years.
- ◆ The screening programme will not identify all young children with hearing impairment and therefore continued surveillance by parents and professionals will be important.

A Targeted Behavioural Test, managed by the Paediatric Audiology service has been established for assessment of eligible babies at 9 months of age.

Method of Screening

Newborn hearing screening involves an initial primary test, typically by automated otoacoustic emissions (AOAE), which is repeated for those babies in whom clear responses are not seen in either ear on the initial test. Babies discharged early (<24 hours) from hospital may be tested using a second screening method, automated auditory brainstem response (AABR). Babies missed in hospital or born in smaller hospitals will be offered screening in the community using AOAE. Babies who spend more than 48 hours in neonatal intensive care units are at high risk of hearing impairment and are screened by AABR.

Babies who do not show clear responses in either ear on the screening tests require a detailed audiological assessment, including the use of non-automated auditory brainstem response (ABR), to determine the precise nature and extent of the hearing impairment. High risk babies who do not show a clear response in one ear are also referred for audiological assessment.

Trained hearing screeners both in the hospital and community will perform the newborn hearing screening.

Providing information

It is essential that families are provided with sufficient information at all stages to enable them to make informed choices about screening. Newborn Hearing Screening Wales has developed a leaflet, "Your Baby's Hearing Screening Test, which explains the reason and benefits of screening and the type of test. A hearing screener in hospital or the community will give this leaflet prior to explaining the screening process and taking consent for the screen. Following the screening test all mothers will be given verbal and written information on the result of the screening test and follow up arrangements.

References

- 1 Sparkes, C. Stocktake of Hearing Screening in Wales to prepare for Universal Neonatal Hearing Screening. October 2001. National Assembly for Wales.
- 2 Report of the Associate Director, NBHSW 2011
www.newbornhearingscreening.wales.nhs.uk
- 3 Davis A, Bamford J, Wilson I, Ramkalawan T, Forshaw M, Wright S. A critical review of the role of neonatal hearing screening in the detection of congenital hearing impairment. Health Technol Assessment 1997; 1(10)

2. The Role of the Health Visitor

Guidelines for Health Visitors

There are four main roles for the Health Visitor with regard to newborn hearing screening.

1. Providing information to parents regarding the programme and encouraging parents to attend all appointments
2. Referring children that fit the criteria for Targeted Behavioural Test to the newborn hearing screening programme
3. Identifying those babies who move into the area before 6 weeks and are eligible for screening
4. Identifying children via surveillance that require hearing testing and referring these children to paediatric audiology clinics (as per local protocol)

The Screening Process

All mothers will be given a leaflet by the screener “**Your Baby's Hearing Screening Test**” before the hearing screening test is explained.

Mothers whose baby is on NICU for >48 hours, will receive the leaflet “**Your Baby's Hearing Screening Test – Neonatal Intensive Care or Special Care Baby Units**”.

Mothers who consent to the screening test and have their baby screened will be given a letter/leaflet with the next steps for their baby.

Well Babies

- Mothers of babies with a clear response in one or both ears after one or both methods of screening will be given a leaflet “**Screening test – a clear response**” and will not need any further newborn hearing tests.
- Mothers of babies with a clear response in only one ear at the end of the screening process are given a choice of follow up options explained in the leaflet “**Your Baby's hearing screening test – a clear response in only one ear**”(see 5. below, for your information). Babies with a clear response in only one ear are a screen 'pass' as their hearing is likely to be satisfactory for speech and language development. About 20% of all babies screened has a clear response in only one ear but only a very small number are born with a permanent hearing loss in one ear. The parents may choose not to have further tests, to have a behavioural test at 9 months or to have a further screening test in an Audiology department. They are requested to contact the Divisional Office within a week should they want another hearing test.
- Mothers of babies with no clear response from either ear on leaving hospital after one screening episode or after a first community screen will be offered a further screening test in the community and will be given the leaflet “**Second screen required**”.
- Mothers of babies with no clear response in either ear at the end of the screening process will be given a letter “**Hearing Assessment required**” and the leaflet “**Your Baby's Visit to the Audiology Clinic**”. An appointment for assessment will be offered in the Audiology Department within 4 weeks.

- Babies who are not screened in hospital because of early discharge or home delivery will be offered an appointment by letter for a screen in the community within 2 weeks.

High Risk Babies (<48 hours on SCBU/NICU)

- Mothers of babies with a clear response in both ears after one AABR will be given a leaflet **“Screening test – a clear response”** and will not need any further newborn hearing tests.
- Mothers of babies with no clear response from either ear after AABR will be given a letter **“Hearing Assessment required”** and the leaflet **“Your Baby's Visit to the Audiology Clinic”**. An appointment for assessment will be offered in the Audiology Department within 8 weeks if the baby was born prematurely.
- Mothers of babies with a clear response in only one ear after AABR will be given a letter **“Hearing Assessment required”** and the leaflet **“Your Baby's Visit to the Audiology Clinic”**. An appointment for assessment will be offered in the Audiology Department within 8 weeks. Some mothers may be pleased to accept a clear response in one ear and may not wish to proceed to assessment at this stage. They may choose to be followed up in the Audiology department when their baby is 9 months old. They will be given the leaflet **“Your Baby's hearing screening test – a clear response in only one ear (Neonatal Intensive Care or Special Care Baby Units)”**.

The results of the hearing screening test are sent to the GP and HV.

- Mothers who decline the hearing screening test are given a leaflet **“Decline screen information letter”** and the GP and HV will be sent a letter. Mothers can change their mind about screening and the baby can be offered an appointment up to the age of 6 weeks. The Programme Manager will need to be contacted by the mother to arrange this appointment.
- The programme in each Health Board is responsible for the babies resident in that Health Board once the baby has left hospital and therefore any enquiries should be directed to the newborn hearing screening office of the mother's place of residence.

The role of the Health Visitor in providing information

The health visitor needs to be familiar with the screening programme and the different outcomes for the babies.

Babies who do not have clear responses on screening do not necessarily have a hearing loss. The common reasons for babies not having a clear response are:-

- Fluid in the baby's middle ears from the birth that may take some time to clear
- Background noise on the ward/in clinic/at home or 'electrical' noise from other machines which make it difficult for the responses to be picked up
- Baby is too unsettled or active for the response to be measured.

About 1 in 10 babies who need a hearing assessment at the Audiology clinic have a hearing loss and studies have shown that those who do have a hearing loss have a better developmental outcome when support is provided early.

Further information for individual families can be obtained by contacting the Programme Manager.

The role of the Health Visitor and surveillance

Newborn hearing screening is a screening programme to identify permanent congenital hearing loss as early as possible. It will not identify all childhood hearing loss and it is important parents are aware of this. A Hints for Parents check list will be given out with a **“Screening test – A clear response”** leaflet and with the **“Decline screen information letter”**. A similar list is in the Personal Child Health Record.

Babies with clear responses from one ear only could perhaps be considered as requiring more careful observation and earlier referral for a hearing test if there are any concerns about the baby's responsiveness to sound.

Babies with bacterial meningitis in the first 6 weeks of life should be referred for a further hearing test following discussion with the Professional Lead or Divisional Coordinator.

Parental concerns should always be taken seriously even if the baby has had a clear response on newborn hearing screening.

The following children should be referred for hearing assessment

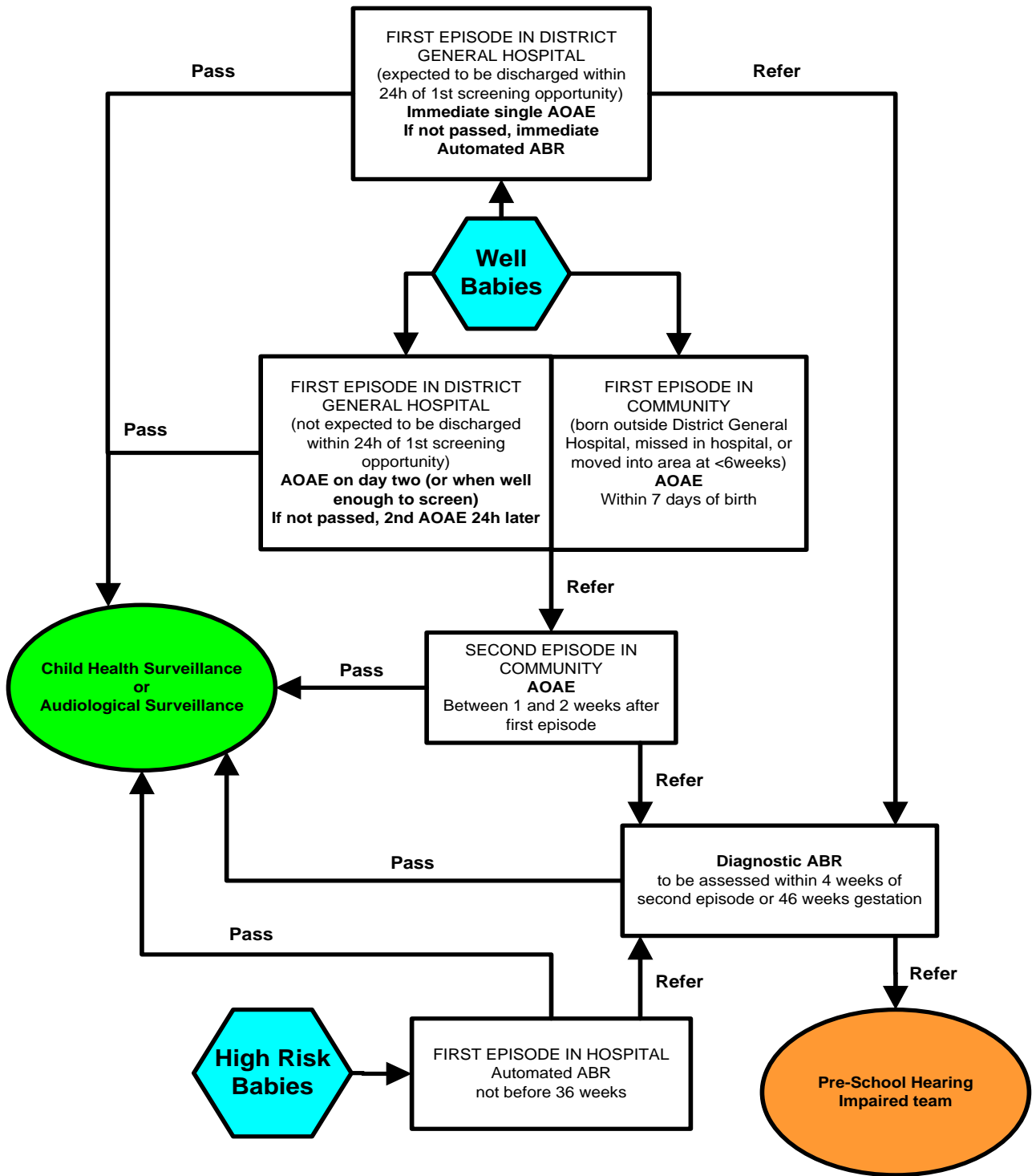
- Those with delayed speech and language development
- Those with attention or concentration problems and concerns about behaviour
- Those with recurrent ear infections

Referrals for these children should be made to Paediatric Audiology as per local protocols.

Remember conditions associated with high risk of hearing loss are

- craniofacial abnormality including children with cleft palate
- children of low birth weight, i.e. those weighing less than 1500g at birth.
- birth asphyxia (apgar score < 5 at 5 minutes)
- hydrocephalus
- visual handicap
- hyperbilirubinaemia needing exchange transfusion
- Down's Syndrome
- Meningitis

3. Service Model



4. Targeted Behavioural Test

A targeted behavioural hearing test will be offered to:

- Babies who have been missed by the screening programme or not completed the screening programme or assessment procedure by not attending, being lost to follow up or moving area.
- Babies who move into the area after 6 weeks of age but before 6 months of age and are therefore not eligible for the screening programme in Wales and who have not had newborn screening in their previous place of residence
- Babies whose parents request further audiological follow up of a unilateral clear response following screening or assessment procedure
- Babies who are at risk of persistent conductive hearing loss – Down's Syndrome, Cleft Palate, significant craniofacial abnormality
- Babies who are at risk of known progressive loss – proven intrauterine infection with CMV, Rubella
- Babies with known significant family history of early onset permanent hearing loss

The behavioural test will be managed by the paediatric audiology department who will be informed of babies who need a behavioural test by the newborn hearing screening programme.

The role of the Health Visitor is to contact the programme manager by telephone or letter if she is aware that a baby is eligible for a targeted behavioural test and has not received notification that this baby is listed for this test.

5.



Your baby's hearing screening test

A clear response in only one ear

Baby's name	
Date of birth	
NHS number	

This leaflet is for parents of a baby who has a clear response to the hearing screening test in only one ear. It explains what this means and the choices you can make for your baby.

What is the purpose of hearing screening?

Newborn hearing screening aims to identify babies with a hearing loss in both ears which will affect speech and language development. The screening test tells us which babies need more tests to see if they have a hearing loss.

What does a clear response in only one ear mean?

About a fifth (20%) of all babies screened has a clear response in only one ear. Only a very small number of babies are born with a permanent hearing loss in one ear, so it is likely that your baby hears well with both ears. A clear response may also not be seen if the baby is unsettled, if there is fluid in the ear after birth or if there is too much noise near the baby when the test is done.

We will write to your GP and Health Visitor to say that your baby had a clear response on newborn hearing screening and that no further tests are needed. However, you do have the following choices.

Your choices

- You may choose to have another hearing test within the next few weeks. This test will be done in a special hospital clinic.
- You may choose to wait and have a hearing test when your baby is nine months old. This test will be done in a local clinic or a hospital clinic.
- You may choose not to have another test. It is still important to check your baby's hearing as he or she grows. The checklist over the page (and in your personal child health record) can help you look for and listen to your baby's responses.

If you choose to have another hearing test, phone the number below within the next week to arrange an appointment.

North Wales: 01978 727005

Mid & West Wales: 01656 754085

South East Wales: 029 2074 3568

Text phone: 029 2078 7811

The checklist below (and in your personal child health record) can help you look for and listen to your baby's responses.

Shortly after birth	He or she is startled by a sudden loud noise such as a hand clap or a door slamming. He or she blinks or opens eyes widely to these sounds or stops sucking or starts to cry.
One month	He or she starts to notice sudden prolonged sounds like the noise of a vacuum cleaner and may turn towards the noise. He or she pauses and listens to the noises when they begin.
Four months	He or she quiets or smiles to the sound of a familiar voice even when he or she cannot see the speaker, and turns his or her eyes or head towards the voice. He or she shows excitement at sounds, for example voices or footsteps.
Seven months	He or she turns immediately to a familiar voice across the room or to very quiet noises made on each side (if he or she is not too occupied with other things).
Nine months	He or she listens carefully to familiar everyday sounds and searches for very quiet sounds made out of sight.
12 months	He or she shows some response to his or her name. He or she may also respond to expressions like 'no' and 'bye bye', even when he or she cannot see any accompanying gesture.

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Tell your health visitor or family doctor if you have any worries about your baby's hearing. They can arrange for your baby's hearing to be tested.

6.


Newborn Hearing Screening Wales
Sgrinio Clyw Babanod Cymru
Hints for parents

Baby's name	
Date of birth	
NHS number	

It is important to check your baby's hearing as he or she grows.

The checklist below (and in your personal child health record) can help you look for and listen to your baby's responses.

Shortly after birth	He or she is startled by a sudden loud noise such as a hand clap or a door slamming. He or she blinks or opens eyes widely to these sounds or stops sucking or starts to cry.
One month	He or she starts to notice sudden prolonged sounds like the noise of a vacuum cleaner and may turn towards the noise. He or she pauses and listens to the noises when they begin.
Four months	He or she quietens or smiles to the sound of a familiar voice even when he or she cannot see the speaker, and turns his or her eyes or head towards the voice. He or she shows excitement at sounds, for example voices or footsteps.
Seven months	He or she turns immediately to a familiar voice across the room or to very quiet noises made on each side (if he or she is not too occupied with other things).
Nine months	He or she listens carefully to familiar everyday sounds and searches for very quiet sounds made out of sight.
12 months	He or she shows some response to his or her name. He or she may also respond to expressions like 'no' and 'bye bye', even when he or she cannot see any accompanying gesture.

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Tell your health visitor or family doctor if you have any worries about your baby's hearing. They can arrange for your baby's hearing to be tested.

7. Contact Details

Divisional Offices

North Wales: 01978 727005

Divisional Coordinator: Dr Meg Shepherd
Programme Manager: Jacqui Evans

Mid & West Wales: 01656 754085

Divisional Coordinator: Dr Elaine English
Programme Manager: Gail Hall

South East Wales: 029 2074 3568

Divisional Coordinator: Dr Amanda Roberts
Programme Manager: Annette Dimond

Assistant Programme Managers

North Wales (Wrexham): Gemma Bloomfield
01978 727005

Mid & West Wales (Carmarthen): Denise Shenton
01267 227778

South East Wales (Newport): Joyce Jenkins
01633 238272