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NEONATAL HEARING SCREENING:

THE IMPORTANCE OF GUIDANCE TO FAMILY MEMBERS

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Neonatal Hearing Screening: the importance of guidance to family members

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Newborn hearing screening (NHS) programs thousands of babies with some type of hearing alteration to be diagnosed each year.

Evidence has shown that such programs have significantly reduced the age at which hearing impairment is detected and have boosted early intervention, providing the best possible conditions for the cognitive development of hearing-impaired children.

Guidelines for the detection and early intervention of hearing disorders are important, since they allow us to learn about the realities, successes, and difficulties encountered at different neonatal hearing screening centers. Regardless of the progress made and what part of the world is considered, all programs reflect a universal concern that babies should be evaluated early, and, if any type of hearing alteration is detected, that there is access to an early intervention program suited to the needs of the child and its family.



According to reports from family members, the moment of leaving the maternity ward is one of great expectation and often apprehension, as the arrival of a new baby creates many unknowns in the life of the family. After discharge from hospital, family members commonly have doubts about the care of the baby and what the many tests performed on their newborn during hospitalization mean: foot test, heart test, eye test, tongue test, vaccinations, and others. Faced with the quantity and often the complexity of guidelines received at

discharge, the professionals involved in neonatal care must still provide the information empathetically – that is, considering how each family member might receive the information offered and ensuring there is clear communication of what is said.

The objective of NHS is not just to screen all babies, but essentially to give early treatment to those who have a hearing problem and ensure that they receive continuity of care. Chapchap and Ribeiro (2021) describe successful experiences with implementation of NHS in a public service system, achieving quality indicators for continuity right up to the intervention

stage, as proposed by the Joint Committee on Infant Hearing (JCIH).

PROFESSIONALS INVOLVED IN NHS MUST BE ABLE TO PERFORM THE NECESSARY PROCEDURES AND PROVIDE EFFECTIVE GUIDANCE TO THE PARENTS.



Communication of the NHS result is always a major moment, even if the result is “pass”. According to the JCIH, all babies must be monitored in their auditory development, since hearing losses can arise late or be progressive. For each infant diagnosed with hearing impairment at NHS, there will be about three children who are identified only when they start school. That said, most parents can recognise the important milestones in their child’s auditory development and will seek guidance if they notice anything unusual.



MILESTONES OF HEARING AND SPEECH DEVELOPMENT

Keep track of your baby's auditory and language development. Follow the recommendations as indicated by the result of neonatal hearing screening:

- **0-3 months:** The baby is startled, cries, or wakes up in response to loud and sudden sounds, such as a door slamming. They calm down when they hear a familiar voice.
- **3-6 months:** Baby pays attention to sounds. Their eyes look towards a sound or they move their head in that direction. They look at people and smile when they are talked to. They make spontaneous sounds (babbling).
- **6 months:** Baby readily locates sounds of interest by turning the head sideways. Reacts to soft sounds and responds when called by name. Intensifies babbling: plays with the voice by repeating its emissions.
- **1 year:** Baby locates sound in all directions. Points to familiar objects and people and responds to verbal requests (e.g., wave bye, kiss). Emits the first meaningful words (e.g.: mama, papa, bye...).
- **1 year and 6 months:** At this stage the child should have started to develop deliberate speech in different situations, increasing their vocabulary. If by this age the baby has not started speech development, a specialized evaluation should be done.

For babies failing the NHS, the family must be informed about the result in a way that will maximize the opportunities for hearing investigations to continue. This moment will always be delicate, considering the emotional circumstances surrounding the puerperium. It is up to the professional to take care to avoid excessive stress.

*Studies show that **18%** of mothers of babies who failed the 1st stage of neonatal hearing screening had moderate or severe anxiety.*

A recent survey by Soylemez and colleagues (2023) identified that family members of babies from the Neonatal Intensive Care Unit had a higher level of anxiety compared to healthy babies. The authors suggest that for parents who are at greater risk of developing anxiety, strategies should be adopted that try to minimise anxiety and avoiding anything that might disrupt bonding between the baby and its family.



Here are some suggestions for providing objective, precise, and welcoming guidance:

- 1.** Explain the entire testing procedure in advance, explaining its importance and, whenever possible, perform the test in the presence of family members. This will minimize the surprise of receiving an unexpected result.
- 2.** Deliver family-centered communication according to beliefs and culture, and in an individualized and confidential manner, seeking to meet the needs of each family member and demonstrating that we are talking about “their baby” and not just offering generic and standardized information.
- 3.** Communication must be verbal and in person, and done in a conducive environment that guarantees confidentiality and comfort. In that way, family members can express themselves and clarify any doubts.
- 4.** Use terms that are easy to understand, without losing objectivity and maintaining empathy. Family members need to receive information that the test was performed and that the result was, in this instance, a “fail”. Emphasise the limitations of the test, and that the presence of amniotic fluid and/or vernix commonly found in the auditory canal in the first days after birth can make an accurate diagnosis difficult. Remind them that the test will be repeated 15 to 30 days later for confirmation of the result. Avoid saying that “it was not possible to perform the test”. Don’t say “it is probably not necessary to worry about this result”. Never

state that the diagnosis may be deafness unless a thorough screening procedure has been carried out.

- 5.** Communication must be effective and carried out in the mother tongue of the family members. A digital translator is a resource that can be used if the family or institution does not have a translator on staff.
- 6.** The professional must ensure that the information has been properly understood and preferably said twice.

Repeating important points is a practice that contributes to good understanding. Supporting written material reinforces the content of the communication and is something that family members can use later to clarify any doubts they may have after discharge.

- 7.** Effective communication includes the participation of a range of family members and it is essential to listen to all of them, creating another opportunity to dispel possible doubts.
- 8.** Written material should be presented in a clear and objective manner and must contain information about the reason for performing the NHS, identifying possible risks for deafness, setting out the procedures performed, the equipment used, the normality criteria applied, the result obtained for each ear, why the conclusion of pass or fail was reached, and any follow-up procedures. Alternative channels of communication with the



service should be supplied (telephone, messaging application, e-mail) in order to clarify doubts after discharge.

- 9.** The follow-up should be carried out at the same health service or partner institution, and it must be scheduled in advance, giving date, time, and place. This advance care makes the family feel welcome and minimizes their concerns. Registration of the baby must be completed, with different forms of contact supplied. Attendance at the retest, diagnosis, or follow-up is essential if UNHS is to achieve its objective of early and timely intervention.

- 10.** All guidance offered must be entered into the medical record by the professional. With regard to the preparation of written materials, normally each service prepares and provides its own material to family members at the time of discharge from hospital.





At www.infanthearing.org/statematerials/ one can access different models of materials available in the United States.

**A RECENT
STUDY ANALYZED
SOME 59 SETS
OF WRITTEN
MATERIALS
DESIGNED TO
ACCOMPANY THE
RESULTS OF NEONATAL
HEARING SCREENING.**

The researchers were interested in finding out whether the language and content used in these materials were accessible to family members. The conclusions were that several materials used terms that could not be easily understood, and only 12% of the materials were considered adequate. This study highlights the need for adjustments and adaptations in the way the results of hearing screening are communicated to family members.

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