

no benefit in early diagnosis. In developing countries like India with the high attrition rate in follow-up, the cost effectiveness of UNHS as well as its comparison with targeted screening needs to be evaluated.

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Neonatal Hearing Screening OTOLARYNGOLOGIST'S PERSPECTIVE

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Programs focused on screening of neonates and infants for hearing loss often need to be led and supervised by otolaryngologists. On the face of it, it seems a simple enough task, that can be well executed with a well-trained team. However, the fact that – this is not as simple as it looks – was brought home to us when we agreed to lead the implementation of the Neonatal Hearing Screening Program in our hospital. Managing such a program requires multiple skills: being able to calm down a baby, interpreting complex audiological tests, counseling the parents of a child who has failed the test, and undertaking data entry and analysis. As specialists in the field of otolaryngology, we are often theoretically aware of the fact that 1-5 children out of every 1000 live births are affected by hearing loss [1]. The fact that delay in identification of hearing loss can have significant impact on the linguistic and educational outcomes of the child [2], is what motivated us to accept this task.

As clinicians, we are mostly used to being approached by patients and parents who are seeking our

advice and expertise; the issue of screening children who are apparently (or mostly) normal can be rather daunting and challenging. The first step of screening begins much before the hearing screener is inserted into the ear. It begins with making the parents aware about the possibility of hearing loss in their child and its consequent impact not only on the child, but also on the family and the society in the current time, and in the future. They need to be informed about the need for the test, the implications of the result and the future course of investigations. Unless this aspect is taken care of, the program would be headed towards failure. Parents may refuse to accept the test. Even when the test has been undertaken, they fail to bring the child for follow-up and often make decisions based on hearsay. Hence, the importance of awareness, providing correct and timely information in a culturally appropriate way and suitable communication strategies cannot be overstated. The other challenge is appointing a team of well-trained and qualified personnel to implement the program. The team must have otolaryngological and audiological professionals as well as pediatricians, nurses, technicians,

and data entry personnel, and also have an inbuilt strategy to develop linkages with a variety of other departments such as ophthalmology, neurology and psychiatry. The need for this diversity is also stated by the World Health Organization in its guiding principles for neonatal and infant hearing screening [1]. Due to logistic and financial reasons, a large team is usually impractical, and team members often need to play multiple roles like a labor room nurse may have to act as a hearing technician and a counselor, while an audiological technician may have to double-up as a data analyst.

Some aspects of the screening program can be particularly difficult to execute, of which two important are:

1. *Follow-up* [3]: An unacceptably high drop-out rate was experienced in the initial phase of implementation of neonatal hearing screening program in our institute. Many parents did not return for hearing assessment at the appointed date. This problem was finally addressed through providing detailed information about hearing loss, hearing tests, their method, need and implications, to parents. Further, the protocol was changed to ensure that wherever repeat testing was required, the appointment was given for the same date when the parents were scheduled to return for other services such as immunization. This saved them the expense and trouble of making two visits to the hospital.

2. *Stigma* [4] attached to hearing loss and use of hearing device is the other significant issue that affects the implementation of the rehabilitative process. When faced with the diagnosis of hearing loss, many parents refuse to accept it, and at times, may even blame the person who conveys the news. This attitude is not easy to overcome, and can only be dealt with by following a culturally appropriate sensitive approach towards the family. Through raised awareness, people learn to accept the screening program, hearing loss and use of devices. Parent support groups can play a leading role in

improving acceptance of hearing loss and hearing devices.

The success of a neonatal hearing screening program depends on many factors [5], that include

- Effective training and capacity development of the team members
- Procurement, regular calibration and maintenance of test machinery
- Evidence-based protocols
- Family centered services with effective strategy and suitable materials to raise awareness about hearing loss, its identification and management
- Effective communication with parents
- Effective tracing and follow-up mechanism
- Availability of services for fitting and maintenance of good quality, reasonably priced hearing devices
- Dependable budget
- Provision of guidance for language development and education of children identified with hearing loss.

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