## Topic 2:

1. **Title of the Practice:** NEONATAL HEARING SCREENING AT GOVERNMENT HOSITALS PROVIDED FREE OF CHARGE

# 2. Objective of the practice:

• To provide early access to ear and hearing care from the time of birth.

To intervene at the earliest in regards to hearing in turn facilitating age-appropriate language and speech development.

To achieve best practice recommendations stipulated by JCIH 2019 (In case of meeting 1-3-6month benchmark i.e., screening completed by 1-month, Audiological Diagnosis by 3 months and enrolment in early intervention by 6 months should strive to meet 1-2-3-month benchmark timeline)

# 3. The Context:

Congenital Hearing impairment in children continues to be one of the debilitating conditions with high incidences. As it is a hidden disability mostly it is identified late which in turn delays the child's ability to listen and learn through hearing as well as their speech and language development. This can have a profound impact on their social, economic and academic development as well.

The screening for hearing can be carried out from the 2nd day of birth through a test called as Otoacoustic emissions. This requires a Handheld equipment known as the OAE screener. As this screener contains sensitive microphones, they are costlier than certain other equipments. Also, this program is not that widely spread and available in all the states and parts of India.



## 4. The Practice:

The Department of Hearing Studies, Dr. SRCISH provides free New-born hearing screening to 2 eminent government hospitals in Bengaluru (KC General, Vani Villas) with special focus on children admitted to NICU. On an average 250 -300 New-borns are screened for Hearing loss for these two centres every month. The clientele belong to low socioeconomic background and many a times are from rural areas who otherwise does not have access to undergo this important procedure because of cost and availability.

The screening procedure illustrated above follows an elaborate protocol formed based on JCIH guidelines and Indian Paediatric Association.

New-borns who fail the screening are evaluated in detail at the Institute at a subsidised cost. Post which they are provided early intervention options (Amplification devices, Implantable Hearing devices and subsequent therapy) which best suit them. We also provide quotations for Hearing Aids or other accessories as needed by clients. Additional we provide documentation to help apply for CM Relief fund to procure amplification devices. In some cases donors or the Institute management provided Amplification devices free of cost or at a subzisied cost. The institute is empanalled in the Central government program of ADIPS and the state government scheme of RBSK-SAST for providing government sponsored amplification device along with therapy for a period of time free of cost.

Students pursuing Bachelor's degree are routinely involved and trained to perform New-born Hearing Screening. This facilitates translation of theory to practice through monitored handson Training. An understanding of Community based services is attained by our students through this extensive practice where they counsel parents on importance of Early intervention. This will help them become socially conscious practitioners who will actively work towards the early identification and intervention of Hearing loss.

Dr. SRCISH take pride in catering to such large-scale clientele in providing New Born hearing screening which is a crucial service that is overlooked in Indian scenario due to lack of awareness. The test being performed free of charges at the hospital premises makes it one of the unique programs in the country.

### 5. Evidence of Success:

The institute takes every opportunity in increasing awareness related to early intervention especially at government aided centres to implement and provide NHS. There has been an increase in hospitals approaching us to carry out NHS at their centres. And in places we have been carrying out NHS we have an increase in the number of babies being screened as years go by.

From the start of the program till date we have screened approximately 13,500 babies. The increase seen in one centre where NHS is being carried out is portrayed below.



#### 6. Challenges Encountered and Resources Required:

Challenges encountered and resources required by us are follows:

- 1. Administrative Hurdles
- 2. Implementation of NHS and Lack of resources
- 3. Patient related challenges.

### ADMINISTRATIVE HURDLES:

1. No uniform program throughout the State or in India. Legislation of the same can help in availability to all throughout the state.

2. Multiple levels of clearance and red tapes to be crossed to initiate NHS at government setups which can take months together for the proposal to be accepted and the program to be initiated.

#### IMPLEMENTATION OF NHS AND LACK OF RESOURCES:

1. Inadequate infrastructure: This includes non-availability of Sound treated rooms for testing and a waiting cum OPD room for HRR interview. Due to non-availability of Sound treated rooms for tests such as OAEs which are highly sensitive to noise needs to be monitored constantly and noise levels to be reduced through different mechanisms.

2. The screening program needs to be conducted in a uniform and organized manner to target all the children and to keep a record of follow ups. This requires a dedicated team for the same who are placed in the hospital. This team should contain trained personnel who provide dedicated service to NHS.

3. Digital database that can be shared or accessed by different medical personal for the overall wellbeing of the child is not available which can provide previous reports as well as the HRR of the child/Infant.

4. Birth rate in India per day as reported by UNICEF is 67,365. To carry out universal screening the personnel have be deputed and placed at all the hospitals to screening 100% of the population. Non-availability of resource persons and equipment create lack of penetration of NHS program.

PATIENT RELATED CHALLENGES:

1. Travel related issues.

2. Lack of awareness and need for Hearing screening and evaluation.

3. Many come from low-socioeconomic status which makes the follow ups a financial burden for them.