Editorial

NATIONAL PROGRAMME FOR PREVENTION & CONTROL OF DEAFNESS (NPPCD)

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MAGNITUDE OF DEAFNESS/ HEARING IMPAIRMENT

Hearing impairment is one of the most common problems in human society. Over 5% of the world's population – 360 million people – has disabling hearing loss (328 million adults and 32 million children). Disabling hearing loss refers to hearing loss greater than 40dB in the better hearing ear in adults and a hearing loss greater than 30dB in the better hearing ear in children. The majority of these people live in low- and middle-income countries.(1) It is the second most common cause of disability. India has a large population of hearing impairment with approximately 63 million people are suffering from hearing impairment amounting to 6.3% of Indian population.(2) Approximately 25,000 deaf children are added to the country's population every year.(3) Even though, the condition is not fatal but the implication at individual, family and community level leading to loss of physical and economic productivity is considerable. Hearing impairment may have a profound effect on the ability of individuals to communicate with others, on their education, on their ability to obtain and keep employment, and on social relationships and may lead to stigmatization. (4)

National Sample Survey(NSS) 2002 showed hearing loss was the second most disability after locomotors and it accounts for 9% of all disabilities in the urban and 10% of in the rural areas.(5) WHO survey have listed the common causes for hearing loss and ear disease in India as ear wax (15%), ageing and presbyacusis (10.3%), middle ear infections CSOM(Chronic suppurative otitis media (5.2%) and serous otitis media (3%), perforation of tympanic membrane (0.5%) and bilateral genetic and congenital deafness(0.2%). Nearly 50% of them are preventable and about 30% are treatable. (6)

This large magnitude of the problem indicates the need to have an effective method to prevent the onset of hearing loss. Recognizing the need and based on the principles of sound hearing, Government of India initiated a pilot project for the prevention and control of hearing loss in the country. Pilot project was started in 2007 based on the concept of healthy ear district. In the initial phase, this project was started in 25 districts over 11 states across the country. The Programme has been expanded to 192 districts of 20 States/UTs. The programme has also been integrated with the National Rural Health Mission (NRHM) under the Ministry of Health & Family Welfare, Govt. of India. In the 12th Plan, it is proposed to expand the Programme to additional 200 districts in a phased manner probably covering all the States and Union territories by March, 2017.

Short term objectives [7]

1. To prevent the avoidable hearing loss on account of disease or injury.
2. Early identification, diagnosis and treatment of ear problems responsible for hearing loss and deafness.
3. To medically rehabilitate persons of all age groups, suffering with deafness.
4. To strengthen the existing inter-sectoral linkages for continuity of the rehabilitation programme, for persons with deafness.
5. To develop institutional capacity for ear care services by providing support for equipment, material and training personnel.

Long term objectives [7]

To prevent and control major causes of hearing impairment and deafness, so as to reduce the total disease burden by 25% of the existing burden by the end of eleventh five year plan.

EXPECTED BENEFITS OF THE PROGRAMME

The Programme is expected to generate the following benefits:-

1. Availability of various services like prevention, early identification, treatment, referral, rehabilitation etc. for hearing impairment and deafness as the primary health center (PHC) /community health centers (CHC) / district hospitals largely cater to their need.
2. Decrease in the magnitude of hearing impaired persons.
3. Decrease in the severity/ extent of ear morbidity or hearing impairment.
4. Improved service network/referral system for the persons with ear morbidity/hearing impairment.
5. Awareness creation among the health workers/grass root level workers through the PHC medical officers and district health officers, which will percolate to the lower level health workers functioning within the community.
6. Capacity building at the district hospitals to ensure better care.

STRATEGIES:

- To strengthen the service delivery including rehabilitation.
- To develop human resource for ear care.
- To promote outreach activities and public awareness through appropriate and effective IEC strategies with special emphasis on prevention of deafness.
- To develop institutional capacity of the district hospitals, CHC and PHC, selected under the project

I. CAPACITY BUILDING AND MANPOWER DEVELOPMENT

Manpower training and development: This program included seven tiers of interactive training program from the state level to the village level. Under NPPCD all the health care personals from district level to grass root level will be oriented in prevention, promotion, early identification and rehabilitation of all types of ear diseases leading to deafness. Under this program the Sensitization and Awareness of the doctors and Audiologists at the Medical College level will be carried out by the resource person from central coordination committee. The coordinator at state medical college will train the ENT surgeon and Audiologists at the District level for 5 days who will be the nodal persons for coordinating the ear and hearing care activities in the district on the skill up gradation and re-orientation. Micro-ear surgeries pertaining to deafness correction including Myringoplasty,Tympanoplasty, Stapedectomy and Mastoidectomy will be covered in this period.¨ Reorientation of diagnostic and therapeutic skills will be done for the Audiologists/ audiometricians. In addition Pediatricians and /Obstetricians at district hospital level and CHC level will be sensitized on the causes of deafness and the importance and techniques of early identification of hearing loss amongst the newborns. Training program will be conducted to sensitize the doctors at the PHC and CHC, doctors under the School Health Scheme and doctors working in various industrial units in the district on the preventable causes of deafness and reorientation in early diagnosis and treatment of common ear diseases and skill building with regard to use of otoscope and diagnosis management of common ear diseases. In order to

strengthen primary ear care needs grass roots workers namely Public Health Nurses, Multi Purpose Workers male and female, Anganwadi Supervisors and Child Development Project Officers, ASHAs and TBAs will be sensitized by the PHC/CHC doctors/RCI Rehabilitation Professionals. These workers will identify deafness at an early age and also create awareness in the community on the prevention of hearing loss and timely care. Training of the Primary School teachers and Parents of Hearing/Speech impaired children at the village level will be conducted by the PHC doctors, trained under the programme and locally available Rehabilitative Professionals in Hearing Impairment. The funds for the programme are given to the state health society and programme committee of NRHM to carryout various activities through district health societies. District health society and programme committee are expected to prepare a micro-plan on an ongoing basis and operationalization of the programme.

Capacity building: In order to improve the infrastructure required for screening of ear morbidity and detection of hearing loss a budget of Rs 20,000/ kit for PHC and Rs50,000/kit for CHC will be provided. At district level a budget of Rs 20 lakhs per district will be provided to equip district hospitals for the management of ear problems and deafness cases which are referred from lower level. The state medical college with existing audiological and ENT set up will act as tertiary referral centre.

II. SERVICE PROVISION INCLUDING REHABILITATION

The service components under NPPCD include early detection, ear screening camps, treatment of medical and surgical conditions, appropriate referral, rehabilitation of hearing and speech disorders and hearing aid provision and awareness creation in the community.

Early case detection: All personnel from grass root level including family members/parents, selected school teachers, MPWs at sub-centre level, Public Health Nurses & medical officers in PHCs and CHCs and district level will be sensitized on the importance of early detection of hearing impairment. All the personnel at different levels will be assigned specific task so that, the right guidance is provided timely to the affected persons in the community. For early detection of cases of hearing Impairment and deafness, house to house surveys will be conducted by the AWWs & ASHAs, under the supervision of the male and female MPWs. The deafness cases will be recorded in the disability ANM's village register. School teachers will undertake to screen the children in the school with the help of pre-prepared proformas. These will help to identify children with any ear or hearing problem. They will then be referred to the School Health doctor for evaluation, diagnosis and guidance regarding treatment. The District level Pediatricians and Gynecologists will be responsible for referring any child born of a high risk pregnancy or delivery, as well as other children who are exposed to a high risk factor in infancy and who show features suggestive of hearing impairment. These children will be screened by the district level ENT doctor / Audiologist with OAE and then subjected to diagnostic tests.

Community Screening Camps: Screening camps will be organized at community level in collaboration with NRHM or identified NGO at the PHC/CHC and District level for spreading awareness, screening the general population in respect of ear problems, hearing impairment and their treatment and referral of such cases in case of need. In addition parents will be educated regarding importance of right feeding practices, various common ear problems, early detection of deafness in young children and available treatment for hearing impairment/deafness. Panchayat members, members of Mahila Mandals and Youth leaders will be educated on the importance of early detection and treatment of ear problems. One screening camp will be organized per month at any PHC or CHC or District hospital by rotation.

School screening camp: Each year, all children attending the Primary section of the schools in the districts will be screened for the presence of Ear & Hearing diseases. Those children, who are positive for ear and hearing diseases should then be subjected to the clinical screening. The clinical screening should be carried out by the School doctor under the school health scheme, by the PHC Doctor

Role of NGOs in screening camps: To have an interface with the community and the people for any disease control activities NGOs having better reach

at the grass root level will assist in the activities of deafness prevention and control. Based on the eligibility criteria The State Nodal Agency (SNA) under NPPCD will identify organizations involuntary sector that have facilities for Health / Rehabilitative services preferably Hearing / speech related services. The NGO will implement the activities by means of organizing of camps at periodic intervals in a well-defined geographical area according to the guidelines for conducting screening camp. The camps will be held at PHC / CHC / District hospital level in every district twice a month.

Early diagnosis and management: Treatment of all affected persons would be undertaken at the following levels: Public Health Nurses and MPWs: would provide treatment of common ear ailments such as Wax, Acute Suppurative Otitis Media etc. under the guidance of the PHC doctor. The Public Health Nurses &MPWs will have the capacity to distribute relevant ear drops and medicines under the guidance of the PHC doctor. Trained PHC/CHC doctors will provide early diagnosis of ear diseases and treatment of all common ear ailments. All persons requiring special diagnostic facilities, complicated cases and those needing surgical intervention will be referred to the District hospital.

Referral services: Effective linkages would be developed from peripheral level to district level with the help of functionaries and personnel from grass root level (AWW, ASHA and sensitized parents and PRIs), sub-centre level (Male and female MPWs), PHC level medical officers, Public health nurses, School teachers and School health doctors, ENT private practitioners and District level officers.

Rehabilitation and Hearing Aid provision: All patients who are identified as having an ear problem that either requires surgery, hearing aid fitting or rehabilitative therapy will be referred to the ENT doctor and Audiologist at the district level. Those who need surgery will be given the appropriate treatment at the district hospital. Complicated cases that cannot be adequately handled at the District hospital will be further referred to the State Medical College for expert treatment. Patients who suffer with Sensorineural hearing loss that is not amenable to medical or surgical correction and which requires hearing aid, will be fitted with the same at the district level which will be provided by Ministry of Social Justice &Empowerment.

III. AWARENESS GENERATION THROUHH IEC ACTIVITIES

Awareness Creation among Parents/ community**:** Community level health workers and doctors will undertake this activity on a continuous basis. This will also form a part of the IEC activities at various levels. Sensitization will be done regarding various aspects relating to early detection of hearing loss. They will be educated about the various ill effects of hearing loss on the speech, mental and social development of the child.¨ Information regarding various treatment modalities as well as techniques of rehabilitation. Sensitization to ill effects of hearing loss in the elderly so that they may refer the aged hearing impaired persons for suitable management/rehabilitation.

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IV. MONITORING AND EVALUATION

Monitoring and supervision: Monitoring tools have been developed for all levels. Indicators have been developed to supervise the performance of the districts in deafness prevention and control. Monthly reports are to be generated citing progress and submitted to higher levels and the report to be submitted every month to programme nodal officer. On-site concurrent evaluations will also be done to provide periodic supportive supervision. Feedback will be regularly sought from allied organizations.

CONCLUSION

The secondary and tertiary levels of the health system provide graded specialized care for hearing impairment and ear diseases. With a sound networking of referral system from primary care to tertiary care for patient with ear disease and hearing impairment and referring back for a good follow up care for ensuring continuity of care will inspire confidence of the system. This will enhance the community participation at large. Availability of such a system of referral is of paramount importance, ensuring the access of the needy population to specialized ENT staff at the higher levels and of their services. If the strategies included in the NPPCD implemented with political will and strong leadership, will decrease the magnitude of ear problems and prevent avoidable deafness in India.

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