



# OPERATIONAL GUIDELINES

## EAR, NOSE AND THROAT (ENT) CARE AT HEALTH AND WELLNESS CENTRES

(Part of Comprehensive Primary Health Care)





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2020





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# Background and Rationale

- The World Health Organization (WHO) has estimated that unless action is taken, by 2030 there will be nearly 630 million people with disabling hearing loss and by 2050, the number could rise to over 900 million. Currently 466 million people worldwide suffer from disabling hearing loss, 34 million of whom are children. This is up from 360 million people five years ago.<sup>1</sup> Symptoms in relation to Ear, Nose and Throat condition usually constitute the major load at Out-Patient Department (OPD) services of any health facility.
- In India, the estimated significant auditory impairment reaches up to 6.3% prevalence (moderate to severe hearing loss) out of the total population of 1.25 billion. Common ear problems include ear wax (18.7%), Chronic Suppurative Otitis media (5.4%), dry perforation of Tympanic Membrane (0.6%), Congenital deafness (0.2%) and age-related hearing loss i.e. presbycusis (10.5%)<sup>2</sup>. Very limited data is available on the prevalence of nose and throat diseases.
- In India, Acute Respiratory Infections (ARIs) contribute significantly to under-five morbidity. In a study, conducted prospectively on a cohort of 106 children in a peri-urban area of Delhi, the overall 2-week prevalence of all types of ARI was found to be 34.3%. Annual combined incidence of all types of ARI was 7.9 episodes/100 child-weeks in the study.<sup>3</sup> It was also found in NFHS-4 that 2 weeks before the survey, 2.7% of under five children had symptoms of an ARI and out of these, 73.2% were taken to a health facility or health provider for treatment.

- At the 70th World Health Assembly at Geneva, delegates agreed to intensify action to prevent deafness and hearing loss. The new resolution calls on governments to integrate strategies for ear and hearing care within the framework of their primary health care systems; to establish training programmes for health workers; implement prevention and screening programmes for high risk populations; and improve access to affordable, cost-effective, high-quality, assistive hearing technologies and products. It emphasizes the importance of ensuring universal access to prevention and care.<sup>4</sup>
- Globally, Hearing Loss is the eighth leading cause with % Years Lived with Disability (YLD) as 3 and YLD per 100,000 population as 312. Taking primary healthcare closer to the community will not improve availability and accessibility of healthcare but also strengthen preventive and promotive health.<sup>1</sup>
- World Health Organisation (WHO) has estimated that unaddressed hearing loss poses annual global cost of 750 billion international dollars. This includes health sector costs (excluding the cost of hearing devices), costs of educational support, loss of productivity and societal costs.<sup>1</sup>
- In developing countries, children with hearing loss and deafness rarely receive schooling. Adults with hearing loss also have a much higher unemployment rate. Among those who are employed, a higher percentage of people with hearing loss are in the lower grades of employment compared with the general workforce. Improving access to education and vocational rehabilitation services and raising awareness especially among employers about the needs of people with hearing loss, will decrease unemployment rates for people with hearing loss.<sup>1</sup>
- *National Programme for Prevention and Control of Deafness (NPPCD)*: The goal of NPPCD is to prevent and control major causes of Hearing Impairment and deafness amongst children, so as to reduce the total disease burden by 25%, in the districts covered, by the end of Twelfth Five Year Plan. The objectives of NPPCD are: Early identification,



diagnosis and treatment of ear problems, preventing avoidable hearing loss on account of disease or injury, Rehabilitation of persons of all age groups, developing institutional capacity for ear care services, and Strengthening inter-sectoral linkages for rehabilitation.

- *Sound Hearing 2030*: Sound Hearing 2030 is an initiative for the prevention and elimination of hearing impairment. Its key function is improving the quality of life of persons with hearing impairment through development of comprehensive, inclusive, and sustainable ear and hearing care programs at national and sub national levels.
- These operational guidelines are intended for State and District Program Managers and service providers to strengthen Ear, Nose and Throat (ENT) care services. Other companion documents include training manuals and Standard Treatment Guidelines that would be updated and disseminated on a periodic basis. Primary ENT care, would cover at least the following conditions: Nose Bleed, Nasal discharge, Ear Discharge, Earache, Ear Wax, Hearing Loss, Speech related problems, Hoarseness of voice, Open mouth Breathing, Neck swelling and Foreign bodies in the ear and nose.

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1. <http://www.who.int/mediacentre/factsheets/fs300/en> accessed on 16.03.18.
  2. Garg S, Chadha S, Malhotra S, Agarwal AK. Deafness: Burden, prevention and control in India. *Natl Med J India* 2009; 22: 79-81.
  3. International Scholarly Research Notices, Volume 2014, Article ID 165152, Incidence, Pattern, and Severity of Acute Respiratory Infections among Infants and Toddlers of a Peri-Urban Area of Delhi: A 12-Month Prospective Study, Sneha P. Walke, et. al.
  4. Seventieth World Health Assembly update, 30 May, 2017.



# Service Delivery Framework

## Individual/Family/Community level

- Health promotion through appropriate and effective **Information Education & Communication (IEC)** strategies with special emphasis on prevention of Ear, Nose and Throat related problems.
- Educating community about healthy Ear, Nose and Throat habits.
- Awareness on protection against excessive noise, safe listening and improving the acoustic environment.
- Frontline workers, ASHA, Multiple Purpose Worker/Auxiliary Nurse Midwife (MPW/ANM) to be skilled for Primary, basic diagnostic and community level preventive care for ENT related problems.
- Early identification of Ear, Nose and Throat (ENT) related problems, including signs of hearing loss in infants, children and adults.
- Community based New born screening at home through MPWs for new-borns till six weeks of age, during home visits/immunization sessions using devices, which are approved for the Public Health interventions.
- For children from six weeks to 18 years, – Anganwadi Centre (AWC)/ school-based screening will be undertaken through the Rashtriya Bal Swasthya Karyakram (RBSK).

- Informing children and adults with Ear, Nose and Throat problems, family members and the general public about available options for their inclusion and integration in the community.
- Counselling and appropriate referral of patients requiring medical/ surgical interventions.

## **Health and Wellness Centre-Sub Health Centre level (HWC-SHC)**

- Public health Actions through promotion and implementation of immunization, maternal and perinatal health care and child health care.
- Early detection of common problems related to Ear, Nose and Throat, including hearing impairment and deafness.
- Identification and referral of thyroid swelling, discharge from ear (Wet ear), blocked nose, hoarseness and dysphagia.
- Undertake Otoscopy for ear discharge after Community Health Officers (CHO) are trained on its use.
- Diagnosis and management for common diseases like otomycosis, otitis externa, ear discharge, etc.
- Management of common cold, injury, pharyngitis, laryngitis, rhinitis, Upper Respiratory Infections (URI), sinusitis, epistaxis.
- Management of common throat complaints like tonsillitis, pharyngitis, laryngitis, sinusitis.
- First aid for injuries/ stabilization and referral.
- Removal of Foreign body nose (if it can be seen in the anterior part of the nasal cavity) and foreign body ear (if it is superficial).
- Nasal packing, blood pressure measurement and investigation for nasal bleeds.
- Detecting voice problems in the absence of common cold or throat infections.
- Follow up for cases referred to higher centre to ensure treatment compliance.

## Primary Health Centre/Urban Primary Health Centre level (Health and Wellness Centre)

- Advocacy for appropriate ENT services, including otological and audiological services, at health care facilities as close to the community as possible.
- Organizing screening camps as an outreach activity for vulnerable and marginalized community.
- Management of common ENT problems and of referred cases from Health and Wellness Centres (HWCs-SHC) and communities.
- Providing/referral for hearing aids, and other listening and signalling devices.
- Offering support services to hearing aid users e.g. day to day care such as change of batteries, Do's & Don't while handling the aid, etc.
- Counselling and referral of patients with complications and which require surgical treatment.

## Secondary and Tertiary Centre level

- Specialized/Surgical treatment/Management of Patients referred from the Facilities below.

Health Care Service	Care at Community Level	Care at the Health and Wellness Centre	Care at the Referral site
Care for Common ENT problems	<ul style="list-style-type: none"> <li>● Care of running nose</li> <li>● Recognizing and treating acute suppurative otitis media and other common ENT problems</li> </ul>	<ul style="list-style-type: none"> <li>● Management of common colds, Acute Suppurative Otitis Media (ASOM), injuries, pharyngitis, laryngitis, rhinitis, URI, sinusitis, epistaxis</li> <li>● Early detection of hearing impairment and deafness with referral</li> </ul>	<ul style="list-style-type: none"> <li>● Management of all Acute and chronic ear, nose and throat problems</li> <li>● Surgical care for nose, throat and ear</li> </ul>

Health Care Service	Care at Community Level	Care at the Health and Wellness Centre	Care at the Referral site
	<ul style="list-style-type: none"> <li>● Community screening for congenital disorders and referral</li> <li>● First aid for nosebleeds</li> <li>● Screening by the Mobile Health Team/ RBSK for congenital deafness and other birth defects related to ENT problems</li> </ul>	<ul style="list-style-type: none"> <li>● Diagnosis and treatment services for common diseases like otomycosis, otitis externa, ear discharge etc.</li> <li>● Manage common throat complaints (tonsillitis, pharyngitis, laryngitis, sinusitis)</li> <li>● First aid for injuries/ stabilization and then referral</li> <li>● Removal of Foreign Body, lodged superficially (Anterior part of nose)</li> <li>● Identification and referral of thyroid swelling, discharging ear, blocked nose, hoarseness and dysphagia</li> </ul>	<ul style="list-style-type: none"> <li>● Diagnosis and management of hearing language, voice and speech impairment</li> <li>● Pre-cochlear implant evaluation; Switch-on and cochlear implant mapping</li> <li>● Management including nasal packing, tracheostomy, foreign body removal</li> </ul>



# Health Promotion including the use of Information Education & Communication (IEC) for Behaviour Change Communication (BCC)

- IEC messages would aim at increasing awareness on associated risk factors, healthy lifestyle and benefits of screening for common ENT problems. Key messages to include awareness of structure and normal functions of Ear, Nose and Throat; and causes and prevention of common ENT problems.
- Using community-based platforms like Village Health, Sanitation and Nutrition Committee (VHSNC)/Mahila Arogya Samiti (MAS) to educate community on practicing healthy habits related to ENT, and early identification of common ENT problems.
- Educating school teachers and Anganwadi workers about the special needs of children with ENT problems, including deaf children.
- Educating community on early signs of Ear, Nose and Throat infections including pain, itching and swelling.
- Counselling community on early care seeking for cold, sore throat, allergies and common ENT problems.
- Creating awareness on the danger of self-medications and counselling on not to attempt removal of foreign body from Ear, Nose and Throat at home. Sensitization of community to seek care/advice only from a qualified/trained Healthcare professional for foreign body impaction (Ear, nose, throat) and ear wax conditions.
- Educating community for accidents and injury prevention.
- Enabling a child friendly environment to minimize the chances of foreign body insertion in nose and ear like grains, food particles, insects or objects.



# Referral and Treatment: Ensuring Continuity of Care

- Effective linkages to be developed from peripheral level to district level with the help of functionaries and frontline workers, also including sensitized parents and PRIs/ULBs, sub centre level (Male and female MPWs), Primary Health Centre (PHC)/Urban PHC level Medical Officers, Public Health Nurses, School teachers and School health doctors, ENT private practitioners and District level officials.
- All patients identified with an ear problem that either requires surgery, hearing aid fitting or rehabilitative therapy will be referred to the ENT specialist and Audiologist at the district level.
- Complicated cases that cannot be adequately handled at the District hospital will be further referred to the State Medical College for expert treatment.
- For identified cases, the follow up for treatment compliance and continuum of care has to be planned at the level of HWC/SC/PHC/UPHC itself.
- The loop between the primary care medical provider and the specialist must be closed. This can be achieved when the specialists at district facility or higher are able to communicate to the Medical Officer of the adequacy of treatment, any change in treatment plans, and further referral action.
- In order to expand access to services, and reach remote populations, Mobile Medical Units would enable an expansion of service delivery and serve the role of enabling the provision of care and serving to establish Continuum of care.
- Medical colleges with existing audiological and ENT set up will act as tertiary referral centre.



# Medicines and Diagnostics

- Medicines supply would be as per the State's Essential List of Medicines, facility wise and buffer stocks would be maintained at all levels.
- The Drugs and Vaccines Distribution System (DVDMS) linked with Comprehensive Primary Health Care - IT application should support regular supply and availability of required medicines and diagnostics.
- Medications recommended for use in Primary Care (For Ear, Nose and Throat) are given in Annexure 2.





# Capacity Building Plan

- Medical Officers and Audiologist at the Medical college level, and the Head of the Department would be oriented in a one-day training on sensitization of objectives of the programme and role of Medical colleges in the programme.
- District Hospital ENT doctors and audiologists would be trained on their respective roles and responsibilities in the programme. In addition to the orientation on programme, a refresher training will be conducted to rebuild their skills and knowledge.
- Paediatricians and Obstetricians and Medical Officers in the district would be trained on programme and skills and techniques of early identification and primary management of ENT related problems.
- Public Health Nurses, MPWs, Anganwadi Workers' (AWW) supervisors and Community Health Officers (CHOs) would be trained on preventive and promotive care for ENT problems, related to early detection of cases, primary management, referral and follow up mechanism.
- School teachers would be trained in all aspects of ENT care, impact of ENT problems and provision of an effective learning environment for children with problems in collaboration with appropriate departments.
- ASHAs would be trained in identifying signs and symptom of common ENT related conditions, health promotion, risk factors associated with

ENT conditions, and services available at HWCs and referral centres. ASHA facilitators would also be trained for enabling better support to ASHAs in the extended package of services.

- Existing pool of State and District ASHA trainers would be trained to undertake training of ASHAs in a cascade manner.
- A one-day Orientation of Programme officers and BPM/DPM would be required so that they are in synergy with the programme features and understand the roles and responsibilities related to support (including availability of medicine and consumables), monitoring (reports, records) and supervision.



# Monitoring and Supervision

- The program and monitoring data for ENT services needs to be integrated and adopted in the present HMIS, operational under MoHFW.
- Periodic and regular monitoring of the Primary Health Care team would be of pivotal importance.
- Suggested Indicators are listed below. They can be refined over time with programmatic learning:
  - ▶ Proportion of hearing loss identified (Number of hearing loss identified /catchment population of HWC X 100).
  - ▶ Percentage of hearing loss referred (Number of hearing loss referred/total number of individuals identified for hearing loss X 100).
  - ▶ % of Ear discharge identified and referred. (Number of cases with ear discharge identified and referred/total number of home visits X 100).
  - ▶ % of hearing loss identified and referred (Number of OPD cases with hearing loss identified and referred/total number of OPD X 100)
  - ▶ % of Ear discharge identified and referred (Number of OPD cases with Ear discharge identified and referred/total number of OPD X 100).
  - ▶ % of congenital hearing loss identified at the OPD of the unit/centre.
  - ▶ Number of wax removal procedure conducted at the OPD of the unit/centre.
  - ▶ Number of nasal packing done at the OPD of the unit/centre.



# Annexures

## Annexure 1: Opportunistic and planned screening

### Community level checklist for screening by ASHA/ANM/MPW

General Information	
Name of ASHA	Village
Name of MPW/ANM	Sub Centre - HWC
PHC - HWC	Date
Personal Details	
Name	Any identifier (Aadhar card, UID, Voter ID)
Age	
Sex	Contact Number
Address	

### Checklist for referral services

Condition	Probing question (Ask)	Test (Check)	Referral site (Refer)
Hearing loss (at birth and other age groups)	For new born/infant: <ul style="list-style-type: none"> <li>Does your child respond to sound (E.g. Clapping/ noise maker etc.)?</li> </ul>	<ul style="list-style-type: none"> <li>By Clapping</li> <li>Use of a Noise maker or utensil (<i>katori-spoon</i>) and check for response of the child.</li> </ul>	If no response, then refer to District hospital

Condition	Probing question (Ask)	Test (Check)	Referral site (Refer)
	<ul style="list-style-type: none"> <li>● Has your child been screened for hearing loss at birth?</li> <li>● Does your child have any speech problem?</li> </ul> <p>For other age groups:</p> <ul style="list-style-type: none"> <li>● Do you have any difficulty in hearing?</li> </ul>	<ul style="list-style-type: none"> <li>● Ask the child to repeat the words that you say.</li> </ul> <p style="text-align: center;">OR</p> <ul style="list-style-type: none"> <li>● Ask him/her (child) to do simple actions e.g.:</li> <li>● Touch your nose, Pat your head etc.</li> </ul> <p style="text-align: center;">OR</p> <ul style="list-style-type: none"> <li>● Point to the object as you say the name e.g. Chair, pen etc.</li> </ul> <p><b>For children and adults:</b></p> <ul style="list-style-type: none"> <li>● Sit about 1 meter from the child/adult with one ear facing you. Other ear should be blocked.</li> <li>● Cover your lips while speaking (to prevent lip reading)</li> </ul> <p><i>First speak in whisper:</i></p> <p>a. Correct response = normal hearing</p> <p>b. Incorrect response: <i>Repeat in conversational voice</i></p> <p>Correct response = slight H. loss</p> <p>a. Incorrect response: <i>Repeat in loud voice</i></p> <p>Correct response = moderate H. loss</p> <p>a. Incorrect response: <i>Repeat by shouting in the ear</i></p> <p>b. Correct response = Severe H. loss</p> <p>c. Incorrect response: Deafness</p>	<p>All cases with unsatisfactory and no response should be referred to district hospital for detailed assessment and treatment</p>

Condition	Probing question (Ask)	Test (Check)	Referral site (Refer)
Ear discharge	Do you suffer from ear discharge?	Inspection of the ear with a torchlight for any discharge.	If yes, refer to Health & Wellness Centre
Congenital malformations of the ear	Does your child have any physical deformity? Does your child have any deformity of the ear?	Inspection of the ear for any deformities such as small sized ear, absent ear canal etc.	If yes for either, refer to District hospital.
Cleft lip/ Palate	Does your child have any deformity of the lip or palate?	Inspection of the lips and palate for any deformities such as cleft lip/palate.	If yes for either, refer to District hospital
Neck swelling	Have you noticed any swelling in your neck region?	Inspection of the neck region for any swelling associated with or without pain.	If yes for either, refer to Health and Wellness Centre.

## Annexure 2: List of Suggested Medicines & Consumables

S.No.	Level	Suggested Medications
1	Community Level	<ul style="list-style-type: none"> <li>● Normal Saline nasal drops – Sodium chloride (0.5% w/v)</li> <li>● Xylometazoline nasal drops</li> <li>● Wax solvent ear drops</li> <li>● Cetirizine syp/tablets</li> <li>● Boro spirit ear drops</li> <li>● Amoxycillin – Syrup/tablets</li> <li>● Paracetamol – Syrup/tablets</li> <li>● Existing equipment kit</li> </ul>
2	HWC	<ul style="list-style-type: none"> <li>● Combo ear drops (Chloramphenicol + Clotrimazole + Lignocaine hydrochloride)</li> <li>● Liquid paraffin – menthol drops</li> <li>● Nasal Speculum</li> <li>● Dressing/packing forceps</li> <li>● Tongue depressor</li> <li>● Digital scope for oral, nasal and throat examination with a digital tablet</li> <li>● Tuning fork – 512 hz</li> <li>● App and headphones for App based audiometry</li> <li>● BP instrument</li> <li>● LED head lamp</li> <li>● Sterile Gauze</li> <li>● Sterile cotton swabs/pads</li> <li>● Ear speculum – metallic, dull finish</li> <li>● Jobson – Horne probe</li> <li>● Eustachian catheter</li> </ul> <p><i>In addition to all medicines/equipment available at the community level</i></p>
3	Referral site	<ul style="list-style-type: none"> <li>● As per Indian Public Health Standards (IPHS) guidelines and NPPCD guidelines for district hospital</li> </ul>

## Annexure 3: Competencies to be acquired by ENT care provider at various levels

1. At the community level
  - a. Teaching the public how to instil nasal drops
  - b. Teaching the public how to instil ear drops
  - c. Teaching the public how to pinch nose in case of epistaxis
  - d. Teaching the public how to perform the Heimlich manoeuvre
  - e. How to perform the nasal patency test with cotton wisp
  - f. How to perform the `Rattle' test for hearing loss
2. At the Health and Wellness Centre level
  - a. All of the above
  - b. How to remove Ear-Wax by syringing
  - c. How to remove Ear-Wax by Instrumentation
  - d. How to remove Foreign Body
    - Ear
    - Nose
  - e. How to perform Scopy (Digital), differentiate between Normal and 'NOT-normal' and share image with referral centre
    - Otoscopy
    - Nasal
    - Oral/Oropharyngeal
  - f. How to perform App Based Audiometry
3. Competencies specific for ENT care provider
  - a. How to use Nasal Drops
  - b. How to put ear drops



- c. Heimlich manoeuvre
- d. Nasal foreign body removal using Eustachian catheter
- e. Ear wax removal
- f. Instrumental manipulation
- g. How to pinch nose in epistaxis
- h. How to remove foreign body in ear
- i. How to perform rattle test
- j. How to perform cotton wool test
- k. How to perform app-based audiometry
- l. How to perform scopy - digital

## Annexure 4: Self-Assessment Hearing Handicap: Short- form Scale to be used as part of IEC

Name:

Date:

Age:

Gender:

Living alone/with family:

Occupation:

Please read the following questions and indicate whether you have a problem “Most of the time (>75% of the time)”, “sometimes (25%-75% of the time)” or “Seldom (<25% of the time)”. Indicate “not applicable” if you have not encountered a particular situation.

Do you have difficulty in understanding speech in the following situations?

1. While listening to somebody whispering at a distance of six inches from your ear
  - a. Most of the time 2
  - b. Sometimes 1
  - c. Seldom 0
2. While conversing with a familiar person from a distance of 6-8 feet, when you cannot see her/his face
  - a. Most of the time 2
  - b. Sometimes 1
  - c. Seldom 0
3. While listening to a family member (without visual clue) who is speaking in a normal tone of voice from a distance of 10-12 feet
  - a. Most of the time 2
  - b. Sometimes 1
  - c. Seldom 0

4. While watching a TV program, if the TV is turned on at a normal volume, at a distance of 6-8 feet, in a quiet room
  - a. Most of the time 2
  - b. Sometimes 1
  - c. Seldom 0
5. While watching a TV program, if the TV is turned on at a normal volume, at a distance of 6-8 feet and there is other noise in the room (e.g. Others talking)
  - a. Most of the time 2
  - b. Sometimes 1
  - c. Seldom 0
6. While conversing with a familiar person seated next to you in a wedding hall, if you cannot see his/her face
  - a. Most of the time 2
  - b. Sometimes 1
  - c. Seldom 0
7. Can you hear a telephone ring from a distance of 6-8 feet?
  - a. Most of the time 0
  - b. Sometimes 1
  - c. Seldom 2
8. Can you hear a bus horn from a distance of 18-20 feet, in a quiet situation?
  - a. Most of the time 0
  - b. Sometimes 1
  - c. Seldom 2
9. Do you avoid talking to people because you have a hearing problem?
  - a. Most of the time 2

- b. Sometimes 1
- c. Seldom 0

10. Does your hearing problem make you to feel left out when you are with a group of people?

- a. Most of the time 2
- b. Sometimes 1
- c. Seldom 0

**Note:** Refer for detailed hearing evaluation if the score is more than 3.



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