Hearing Loss in Mozambique

Results from this project confirm an ongoing need for establishing National Hearing Healthcare Programs which integrate cerumen management procedures and promote good hearing health practices – to educate individuals on the potential complications which can occur from otitis media. As discovered, the greatest contribution to hearing loss in the specific region of Maxixe Mozambique is obstruction in the external auditory canal, followed, a distant second, with medical pathology and, lastly, with sensorineural hearing loss. Knowledge of which aetiologies are particularly prevalent in a specific region or country can only be beneficial to national administrators in their plans to identify, prioritise health programs and select/monitor preventive strategies.

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Screening for Hearing Impairment: Oman

SCREENING FOR HEARING IMPAIRMENT IN OMAN

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Oman is a country with a population of 2.44 million of which 1.77 million are Omani and the rest are people from other countries.[1] Oman is situated in the southern part of the Gulf peninsula and has an area of 309,500 square kilometres. It is a member country of the Eastern Mediterranean Region of the World Health Organization.

Rapid socio-economic developments from 1970 placed Oman among group 'B' countries in the WHO classification, based on mortality data.[2] Health strategies, such as an emphasis on the primary health care approach, optimum utilisation of health services, community participation, easy access to health services, etc., placed Oman among the top five countries of the WHO member countries for health service utilisation.[3]

Health Care of Children

High coverage of immunisation of children, antenatal care and a special emphasis on an organised approach to the control of diseases have resulted in a marked decline in communicable diseases in Oman.[4] Health information regarding the newborn is compiled and recorded in the child health register. The reporting of childbirth is mandatory in Oman. More than 95% of the births take place in hospitals. To achieve the objective of improving quality of life, the national health program stressed early detection and care of children with special needs.

ENT examination in the deafness clinic
Photo: Mazin Jawad J Al Khabori

Hearing loss is one of the priority health problems in Oman since 1995.[5] This health care emphasis was justified in 2000, when hearing impairment was found to be one of the leading causes of disease burden in Oman.[6] A community based prevalence study on blindness and deafness, conducted in 1996, suggested that the national prevalence of hearing impairment was 5.5%, of which 2% was of a disabling grade.[7] Unfortunately, information regarding hearing impairment among less than one year old children was not possible in the survey. Since 1995, the ear health care program introduced standard procedures for common diseases causing deafness.[8]

In 2001, the ear health care program in Oman introduced hearing screening for the newborn,[9] as a policy in the sixth Five Year Health Plan.

The Ministry of Health is divided administratively into nine regions. Al-Nahdha Hospital is the only tertiary centre with advanced diagnostic audiology services. Health staff in the maternity or paediatric wards, and the ENT department of the Ministry of Health, are trained in screening. Further periodic training is carried out by the ENT specialists of the regional hospitals. A protocol outlining the screening, referring and defaulter retrieval procedures is prepared and distributed to all regions. The regional ear care health managers

supervise the implementation in their respective regions.

Screening for Hearing Impairment

Hearing screening is performed in two stages. In Stage One, the nurse of the maternity or paediatric department uses the equipment to test hearing, usually between 24 to 48 hours from the time of birth of the baby. Those with failed test results are tested again before mother and infant leave the maternity ward. If hearing impairment is suspected, the newborn child is referred to the ENT staff of the same hospital. The ENT surgeons examine the infant for ear malformations. The ENT doctors repeat the second level screening test after six weeks. Those who fail the second level screening test are referred to the audiology unit at Al-Nahdha Hospital in Muscat for Stage Two. Appointments are arranged online through the medical records of the regional hospitals and the medical records at Al-Nahdha Hospital. The parents take their child to the tertiary centre where the hearing screening test is repeated and, in case of failure, the newborns are given an Auditory Brainstem Response (ABR) test. If the child is found to have a sensorineural hearing loss, an appropriate hearing aid or cochlear implant is prescribed.

The monthly progress of the screening and the list of neonates suspected of having hearing impairment are reported through the health information system. The data are cross-checked at regional and national levels by the ear care managers. The regional ear care team monitors the coverage, defaulter retrieval and feedback system from the rehabilitation centre. The data on the coverage of screening at different levels, equipment malfunction and care of neonates with hearing impairment are presented annually by regions at national ear care meetings.

The types of devices used are variable but all are internationally available on the market. As mentioned, the staff is given training on the use of equipment and the local agent is always available, if any technical assistance is required.

Theoretically, the program should run smoothly but there are various practical problems which we have had - some of which we are still facing. This results in less than 95% universal coverage.

The health services, mentioned earlier, are delivered by regional authorities. Local health authorities have to run various other health programs and hearing impairment is not always at the top of priority lists. Therefore, purchase of an adequate number of machines is delayed. Further, repair and procurements of disposable parts (tips, etc.) goes through a long process, full of bureaucracy - and many babies are missed.

The ownership of the machine was initially given to the maternity wards. However, some staff initially refused to cooperate, quoting, 'not our job', but were finally persuaded – only after the obstetricians were absolved of responsibility. In some hospitals, the neonatologist took over the machine and carried out screening according to their own criteria, saying, 'they know better'. Usually, they would only screen targeted, high risk babies.

Some regional health directors had to be given a special presentation on the efficacy and importance of Universal Newborn Hearing Screening, as they had been told that it is inefficient and costly.

Recently, the Mother and Child Care program was given the responsibility of conducting the screening program in collaboration with the Ear Care program.

Regions which have taken on Universal Newborn Hearing Screening (UNHS) report more than 95% yearly coverage (actually one region, Musundam, reported 110% coverage as some families from the adjacent United Arab Emirates came for the screening), but others can report less than 50% coverage. However, the trend is improving after intensive discussions and involvement of the authorities at central level in the Ministry of Health. The target for all health authorities for the coming seventh Five Year Plan for UNHS is 100%.

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Speech therapy

Photo: Mazin Jawad J Al Khabori