

# Technology transfer for hearing impaired

**B. K. Sinha**

Department of ENT, TU Teaching Hospital

**Correspondence to:** Prof. Bimal Kumar Sinha, Department of ENT, TU Teaching Hospital, Kathmandu, Nepal

Medical science is developing and getting better day by day and at a rapid pace. It is the duty and in fact a matter of great challenge for the medical personals to keep pace with all the recent advances. In a developing country like Nepal, it is very difficult for the scientists working here to have access to the recent journals, literature or facilities to improve their academic standards as well as quality of service. In poor countries, academics are given less priority because of insufficient facilities, time, low salary scale and lack of compulsion.

But despite all the constraints medical personals are trying their level best in the transfer of latest technology to this poor country. Sometimes it so happens that despite the availability of expertise and facilities, it is difficult to start a new service due to low economic status of the people. Affordability of the patients is a very important factor to start and sustain a new service in countries where health insurance system does not exist and the patients have to pay for everything from their own resources.

Introduction of new service needs meticulous planning, to make it a sustainable one. Even minor complications or a single failure during the initial stages of such new venture gives a bad impact for the long term. Sustainability also requires satisfactory results from the previous services. People with limited resources, after investing a huge sum of money, for some kind of treatment, expect highly favorable results. It is also detrimental for the scientists as well, if failure is encountered during the initial phase of such new endeavors. Hence extreme caution is to be taken before starting any new service.

In the month of December 2004, the Dept. of ENT, Head and Neck Surgery started a new service in its dept. i.e. Cochlear Implantation surgery.

Cochlear Implant (C.I.) is a device which allows a severe or profoundly deaf child to understand and develop near normal sounding speech or enable a post lingual severe or profoundly deafened adult to regain the ability to

communicate. Cochlear Implant represents an incredible medical and bioengineering achievement in the history of medical science. C.I. is the only devise which interacts more closely with the human nervous system than any other prosthetic device developed so far. Early implantation of this device helps prevent permanent disability. The problem in this country is the cost factor. It is extremely difficult for an average middle class citizen of this country to afford this kind of treatment. In addition, parents of the implantee also should be fully devoted for a longtime in taking care of the child to make it a success. The process of Cochlear implant is a team work. In developed countries it usually requires active involvement of the team comprising of a Co-ordinator, Surgeons, Audiologists, Speech & language therapists, teachers of the deaf, developmental pediatricians, child psychologist, radiologist, administrator, deaf advocate and scientific & technical support team etc.

But despite so much of problems, such service has commenced in Nepal at Institute of Medicine, T.U. Teaching Hospital which is a matter of pride for the whole institute and country.