

Report on Baseline study of the situation of cochlear implants therapy, with focus on the supporting strategies and resources for the vocational training of the SLP, in partners countries (RO, BE, PT, NL)

COUNTRY REPORT ROMANIA

1. Collection of statistical data

Indicator	Value	Source
Number of population	Romania - 19,165,130 Iasi- 317,000	https://populationstat.com/romania/ https://populationstat.com/romania/iasi (29.04.2021)
Number of new born children	Births in 2019: 188,135	https://insse.ro/cms/ro/content/evenimente-demografice-%C3%AEn-anul-2019 (29.04.2021)

Indicator	Value	Source
Number of deaf or hearing loss new-born children	45785 newborns tested for hearing loss between 2008-2014 – universal screening (OTOACOUSTIC EMISSIONS) 1,46 ‰ infants with early identification of hearing loss	GENERAL DEPARTMENT OF SOCIAL SERVICES AND CHILD PROTECTION - ROMÂNIA 2018/IAȘI 2018 NATIONAL DEAF ASSOCIATION OF ROMANIA CLINICAL REHABILITATION HOSPITAL IAȘI

Is there any National Registry for the neonatal hearing screening programmes available in your country?

Newborn hearing screening was only launched as a national programme by the Romanian Ministry of Health in 2006. However, national geographic coverage wasn't established and there was no close monitoring of the results. Consequently, there are still no official national statistics regarding the prevalence of deafness in newborns.¹³ In 2015, the Ministry of Health announced that all newborns should be tested for deafness, using audiometry, with the aim of increasing the number of newborns screened from 38,000 in 2013 to 200,000 in 2015.¹⁴ Unfortunately, the results of this project are not yet published.

In Iași the newborn screening started in September 2008 and up to this day, includes all newborns, from all maternity units (3 hospitals). The screening is currently part of the Early Intervention Project For Hearing Loss which includes the following participants:

- “Cuza-Vodă” Maternity Hospital- neonatal universal screening
- Clinical Rehabilitation Hospital Iași
 - Early diagnosis of hearing loss(Audiology Department)
 - Early auditory implant intervention – (ORL Clinic)
- The County School Inspectorate Iași



- Vasile Pavelcu Special School
- Early intervention groups -infants
- Schooling up to high school

Indicator	Value	Source
Number of cochlear implanted children	Total IC (Children and Adults) SCR Iasi: 2018: Total IC = 62 2019: Total IC = 37 2020: Total IC = 44 Institutul de Fonoaudiologie si Chirurgie Functionala - O.R.L. “Prof.Dr.Dorin Hociota”: 2019 Total IC = 62 2020 Total IC = 25	
The population of children, across age ranges (split from year of implantation) <i>(if details are available)</i>	0-12 M: 12-18M: 18-36M: 2-4 A.. No details available	
Type of implantation <i>(if details are available)</i>	uni or bilateral alone or with other type of hearing Aids IC in children with other comorbidities(syndromes, for example) No details available	
<p>Is there any National Registry for Cochlear Implants available in your country?</p> <p>There is no National Registry for Cochlear Implants available in Romania. However, it can be estimated, based on international research, that up to 8.5 newborns in every 10,000 are potential candidates for cochlear implants. With a newborn population of 185,029, this translates to approximately 157 children per year and 314 CIs for bilateral implantation. Therefore, since the introduction of the Romanian National Health Programme for the Treatment of Deafness with Implantable Hearing Devices in 2000, the number of children receiving CIs should have been approximately 2,512 in comparison to the 500 who actually received them. Therefore, a gross estimate could indicate that as few as one in five newborns with profound deafness receives a CI in Romania. Unfortunately, the distribution of implants across the country is uneven and not related at all to the population size or its needs. There is also an under-supply of CI centres – seven compared with more than 100 in Germany, for instance.</p>		



2. Existing legislation and policies in the field of cochlear implantation and also in rehabilitation of the CI children, available in your country.

2.1 The history/start of the CI implants in your country

The expertise for successful cochlear implantation already exists in Romania – there are at least eight established centres with specialist doctors and trained teams in various university hospitals. Each centre has between 13 and 15 years of experience and is city-based, so geographically accessible to a large portion of the population.

Unfortunately, cochlear implants (CIs) are not reaching all children who need them in Romania. According to the Romanian Academy of Medical Sciences, between 2000 and 2015 just 500 patients, most of whom were born deaf or became deaf within the first two years of life, have received CIs via the Romanian National Health Programme (NHP) for the Treatment of Deafness with Implantable Hearing Devices. This is just under 20 per cent, or one in five, of the 2,512 children estimated to be potential candidates. Also, the actual process of obtaining a CI in Romania can be a long and confusing journey. There is a lack of transparency from beginning to end, with frequent delays and poor communication. The candidate is reliant on the ENT physician as the sole contact.

The objective of the programme is to enable profoundly deaf people to hear with implantable hearing devices. The budget is regulated annually, through legislation issued by the Ministry of Health and the National Health Insurance House (NHIH) and the NHPs are approved by the government once every two years. The bulk of the funds allocated by the programme are designated to CIs, as opposed to other types of hearing implants, and the programme covers only the cost of the device, which was approximately 96,385 RON (€21,000) per implant in 2015, and not other costs such as the implantation procedure, batteries, rehabilitation or audio processor upgrades. Adults and children are covered equally. The cost of the surgical procedure is covered by a per-case reimbursement from hospital funds obtained from contracts with the NHIH. Through the NHP, the annual number of reimbursed implants has gradually increased, with CI surgeries rising from 51 implants per year in 2011 to 124 in 2015, for both adults and children.

2.2 List the national legislation and policies that support the CI implants and the paediatric rehabilitation after CI in your countries

A. NEWBORN HEARING SCREENING

Newborn hearing screening was only launched as a national programme by the Romanian Ministry of Health in 2014. There are still no official national statistics regarding the prevalence of deafness in newborns. (Before 2018 there were just few pilot Centers for screening – for example in 2013 there were screened 38,000 newborns and in 2015 – almost 200,000).

B. NATIONAL PROGRAM FOR HEARING LOSS TREATMENT BY IMPLANTABLE HEARING DEVICES (COHLEAR IMPLANTS AND MIDDLE EAR IMPLANTS)

ACTIVITIES:

- Hearing rehabilitation through implantable hearing aids (cochlear implant and middle ear implants).
- Replacement of the sound processor (external part) in patients with cochlear implant



1) Hearing rehabilitation through implantable hearing aids (cochlear implant and middle ear implants).

Eligibility criteria:

- a) Profound bilateral neurosensory hearing loss with thresholds higher than 90 dB, pre- or perilingual, under the age of 6 years (CI);
- b) severe / profound postmeningitis bilateral neurosensory hearing loss - priority (CI);
- c) progressive bilateral neurosensory hearing loss with loss of benefit by hearing aids (CI);
- d) profound postlingual neurosensory bilateral hearing loss on high frequencies (> 1,000 Hz) and mild / medium on low frequencies (<1,000 Hz), with vocal discrimination below 50% (CI);
- e) severe / profound bilateral neurosensory hearing loss in adults, thresholds higher than 70 dB, thresholds higher than 55 dB in open field with prosthesis, vocal discrimination below 40% with prostheses and stimulus of 65 dB HL - (CI);
- f) severe, profound asymmetric neurosensory hearing loss, including profound unilateral hearing loss with normal or near normal contralateral hearing (Baha or other bone anchored hearing aids, CI);
- g) conductive or mixed hearing loss, uni- or bilateral where cannot be used traditional hearing aids (chronic or recurrent otitis externa, chronic middle ear suppuration, stenosis or external / middle ear malformations) (Baha or other bone anchored hearing aids, middle ear implants);
- h) moderate / severe neurosensory hearing loss with discrimination over 50% (middle ear implants);
- i) conductive or mixed hearing loss, moderate / severe, with bone conduction thresholds higher than 60 dB (Baha or other bone anchored hearing aids, middle ear implants)
- j) good family support and involvement. Adequate psychological support;
- k) realistic expectations from the family regarding the results of the auditory-verbal rehabilitation.

The type of implantation - single- or bilateral, simultaneous or sequential - is determined by the implant team according to the specifics of each patient.

2) Replacement of the sound processor (external part) in patients with cochlear implant

Eligibility criteria:

- a) sound processor (external part) that has completed 7 years of operation (from the date of activation), or no longer provides optimal operating parameters, having a negative impact on the patient's hearing;
- b) failure of sound processor (external part) after completing the warranty period and can no longer be repaired according to the service report from the manufacturer's service department, which certifies the impossibility of repair.

Indicators per year (2021):

- a) number of cochlear implants: 167;
- b) number of BAHA: 29;
- c) number of implantable prostheses of middle ear: 3;
- d) number of sound processors (external part): 45;

Nature of program expenses:

- expenses with specific materials: cochlear implants (internal part, external processor), hearing aids with bone anchoring and implantable prostheses of the middle ear, external sound processor.
- 8 ENT University Clinics running the program.



Comments

- It can be estimated that up to 8.5 newborns in every 10,000 are potential candidates for cochlear implants. With a newborn population of 185,029, this translates to approximately 157 children per year and 314 CIs for bilateral implantation. Therefore, since the introduction of the Romanian National Health Programme for the Treatment of Deafness with Implantable Hearing Devices in 2000, the number of children receiving CIs should have been approximately 2,512 in comparison to the 500 who actually received them. Therefore, a gross estimate could indicate that as few as one in five newborns with profound deafness receives a CI in Romania.

3. Intervention strategies for supporting the rehabilitation of the CI children

The lack of official data on people who would qualify for a cochlear implant (CI) means that legislative provision and the allocated budget are not based on realistic patient needs or the real costs of postoperative care and rehabilitation. There is currently no assessment or monitoring of quality of life, despite the fact that the National Agency for Drugs and Medical Devices is responsible for advising on all the devices used in the Romanian health system.

Profoundly deaf children who are implanted before they learn to speak interpret the sounds provided by the CI without comparing them with anything else. They need a form of auditory training called habilitation, but it follows a development that's very similar to the way normal hearing children learn to listen and speak. However, people who have lost their hearing in later childhood or as adults tend to compare the sounds they hear with the implant to the sounds they heard before losing their hearing, making interpretation difficult initially. Their brains need to re-learn to hear, which is why they must be able and willing to follow a rehabilitation programme, also known as auditory training. This consists of regular sessions with an audiologist or speech therapist as well as frequent practice at home, and may take six to 12 months in adults and several years in children

Rehabilitation is as essential to the success of a CI as the surgery itself. A rehabilitation team consists of well-trained and highly experienced speech and language pathologists and deaf educators who collaborate to ensure that the patient develops auditory skills, spoken language and has the best possible chance of educational achievement. In addition to providing aftercare following surgery, the team liaises with audiologists, reviewing the patient's progress and programming needs, collaborates with parents and teachers, and should ideally provide direct classroom observation of children in school. However, in Romania, the current organisational culture doesn't encourage a strong and permanent link between the surgical team and the rehabilitation team. Although both work efficiently, they work separately. There's also no classroom observation of children in school.

There is currently no assessment or monitoring of quality of life for people with hearing loss and their needs after implant surgery. As a result, the budget and provision of services is inadequate. Rehabilitation is vital to the success of the surgery, yet there is a lack of appropriately trained speech and language therapists to help with habilitation and rehabilitation. As a result, patients often have to travel miles, which is both time-consuming and expensive. Health insurance does not cover postoperative costs so patients and their families have to pay for batteries, repair and maintenance of the device, spare parts, rehabilitation and travel costs.



This puts an impossible financial burden on many families. There is inadequate support to help deaf and newly implanted children to integrate into mainstream society.

One important issue is the fact that the batteries, repairs and spare parts for CIs are not covered by healthcare insurance. A bilaterally implanted patient uses approximately 730 batteries per year. Taking into consideration an average price of €0.5 per battery, the family has to spend a minimum of €365 per year, just on batteries. The family will also have to pay for any additional spare parts needed that weren't included in the original kit received from the clinic. Added to that, no repairs are covered by health insurance. The average price for maintenance and repairs per year for one CI is €375. For many families in Romania, these costs can be difficult to cover. The average net salary in Romania is €423 per month. In addition, in most cases when a child receives CIs, one of the parents has to give up his or her job in order to be able to attend the rehabilitation sessions and fittings and to take daily care of the child's auditory-speech development. However, as documented in international literature, if the profoundly deaf child doesn't receive a CI, one of the parents will have to permanently quit his or her job in order to take care of the child. Some families have an annual income per person that is equal to or even less than the yearly expenses needed for a fully functioning CI. Generally speaking, the financial situation of families with one or more members implanted is very difficult. This is why it's important to find a solution for insuring the external part of the CI system, to reduce the financial burden. In the worst-case scenario, users whose families are unable to afford spare parts or repairs may be unable to use their devices. Financial difficulties often impact on the emotional and social life of a family as well as the development and progress of the child, so long-term support is vital. This is why it's crucial that CI expenses should be covered at least for the first year after implantation, preferably two, for both adults and children.

Romania has a strong network of deaf organisations. However, there are few specialised schools for children with hearing loss, and they are not involved in programmes to ensure integration into a mainstream social life. There are no official statistics on the number of schools and training centres, but 20 is probably a good estimate. Teachers are required to be able to use sign language and must pass a test before teaching. While state support consists of benefits paid to those with disabilities, it doesn't include services to strengthen the development of independence and allow true social and professional integration. There are not enough speech therapists specialising in the rehabilitation of implanted children, and not all families can afford to travel long distances too often for speech therapy training. This inevitably impacts on social integration.

4. Training programmes for speech and language therapists

A brief history of speech and language therapy in Romania

The modern speech and language therapy approach in Romania began in early 50's with first speech therapy offices in polyclinics and some neurosurgery hospitals. In 1957 are established interschool speech therapy centers in some counties. At the same period start working speech therapy offices in special schools. At first in these working spaces activated defectologists, persons with formal training in faculties of psychology. In 1977 the specializations of psychology in universities are abolished (including the profession in the nomenclature of trades). This situation affected the employment of well trained, specialized staff in speech therapy centers and special schools.



After 1990 things returned to normal, and also arise opportunity for private practice in speech and language therapy. In Classification of Activities in the National Economy (CAEN) speech therapy is included at 8690 code “Other human health activities”. This class includes activities related to human health, which are not performed in hospitals or by doctors or dentists such as: activities of nurses, midwives, physiotherapists or other paramedics in the field of optometry, hydrotherapy, medical massage, occupational therapy, speech therapy, homeopathy, chiropractic, acupuncture, etc. These activities may be performed in medical clinics, such as those attached to businesses, schools, nursing homes, trade unions and trade union confederations, and in health centers other than hospitals, as well as in private practices or in patients' homes.

4.1 Training programmes for speech and language therapists in the formal education

In Romania, speech therapists have an initial training as graduates of the faculty of special psychopedagogy, psychology or pedagogy. In the specialization of special psychopedagogy there are the courses “Introduction to speech therapy” and “Language disorders therapy”, and optional speech therapy courses in the other specializations.

In accordance with the reform imposed by the Bologna Process, graduates of the mentioned faculties can follow a master's degree in speech therapy, a master's degree that currently exists in only two university centers, at the University of Bucharest (Speech therapy in the communication process) and at Babes-Bolyai University in Cluj (Language therapy and educational audiology).

4.2 Training programmes for speech and language therapists in the non-formal education

There is a shortage of professional training for speech therapists, which can be explained in part by a rather limited academic offer. At the national level, there are two professional associations that try to impose rigorous professional standards. These two organizations are the Association of Speech Therapists from Romania ALR (Bucharest) and the Romanian Association of Speech and Language Disorders Professionals ASTTLR (Cluj-Napoca).

ASTTLR, which is a member of the European Speech and Language Therapy Association (ESLA), has the most diverse range of accredited courses. This European organization (formerly called CPLOL) currently has over 30 member organizations in 27 European countries, representing over 50,000 professionals.

Analysing these aspects, it can be stated that there is an urgent need for training for future speech therapists but also for those who are already active.

Speech therapy intervention in auditory empowerment and rehabilitation is effective only in terms of adherence to the latest and most effective professional standards. Also, the training process of the relatives, family members of the child with cochlear implant should not be omitted as an integral part of the successful therapeutic approach.



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