

## **BIAP Recommendation 12/5:**

### **Universal Newborn Hearing Screening (UNHS) - a Multidisciplinary Task**

#### **General foreword**

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#### **Introduction**

As it is no longer a question whether a UNHS is feasible even on a national level, indicators show that a rehabilitation program including the fitting of hearing aids starting before 6 months of age can improve communication skills that are near the lower limit of a normal hearing child.

Yet the preconditions for this goal can only be achieved if UNHS interacts and is embedded in a multidisciplinary framework of audiological, medical, therapeutical and pedagogical services (Rec. 14/1) specialised in working with babies and their families (Rec. 25/1, 25/2).

#### **Recommendation**

**BIAP therefore endorses UNHS and encourages its member organisation to set up and promote a framework of multidisciplinary cooperation starting with an early identification by UNHS and continuing with a well founded early diagnosis. This will ensure an early rehabilitation before 6 months of age.**

The multidisciplinary cooperation includes:

1. Already in the planning phase

obstetrician, pediatrician, audiologist, ENT-physicians, nurses, midwives, parents-associations, other services involved in the birth itself and its aftercare

2. The Screening itself needs

- 2.1. In a clinical setting:

obstetrician, pediatrician, nurses, ENT, coordinator

- 2.2. In an outpatient setting:

midwives, nurses, pediatrician/GP, ENT, coordinator

3. Second stage screening for the babies, who failed or missed the first screening (as soon as possible within 2 weeks):  
birthing hospital, paediatrician, ENT, paediatric audiology other services involved in the birth itself and its aftercare
  
4. Confirmation, diagnosis and inducing services
  - 4.1. Full scale hearing testing:  
paediatric audiology, audiology, ENT (preferably specialised in paediatric audiology)
  - 4.2. Establishing a “working diagnosis” (diagnosis in process) by 3 months:  
paediatric audiology, ENT specialised in paediatric audiology
  - 4.3. Family support (learning to live with the diagnosis + adapting to the new demands and new social circumstances):  
parental guidance (Rec. 25/1, 25/2, 21), parent support group, early interventionist, social services
  - 4.4. further interdisciplinary assessment to determine the origin of the hearing loss and/or to rule out other disabilities:  
e.g. paediatrician, geneticist, ...
  
5. The rehabilitation requires a multidisciplinary approach (\*) starting as soon as possible but well before 6 months of age
  - 5.1. Early intervention / early promotion of communication skills  
e.g. speech therapist, special pedagogue, early interventionist, psychologist, ...
  - 5.2. Early fitting of technical devices (e.g. hearing aid, FM-System, Vibrator, ...) prescribed by an ENT specialised in paediatric audiology and fitted by a paediatric audiologist and /or specialised acoustician
  
6. Tracking and quality management  
When ever possible the UNHS should work closely together with other already existing neonatal screening programs, such as the metabolic screening, as all the programs require a similar procedure and assessment of tracking patients:  
Data (IT) management, public health services, quality management services
  
7. Continuing the existing hearing “screening” programs especially for children at risk and for the late onset hearing losses :  
Paediatrician, ENT, paediatric audiologist

When establishing an early intervention program founded on a UNHS, all the professionals involved are confronted with new challenges like further training needs as well as the need to change and adapt pre-existing service practices like:

- Training of the screening staff/nurses
- Training of audiologists and early interventionists
- Adapting and refining paediatric audiometrical procedures: utilising the full scale of diagnostic options (e.g. including frequency specific AP, high frequency tympanometry, refined behavioural audiometry...)
- Adapting and refining paediatric hearing aid fitting procedures: utilising individualised transfer functions (e.g. RECD measurements or age appropriate mean transfer values) and special age appropriate fitting algorithms
- Adapting and refining early intervention procedures: informing about and providing unbiased intervention options, supporting the psychological strains of the family ...

Services should only be provided by specialised professionals and institutions dedicated to cooperate with one another within a common protocol. Well organised ways of information exchange and feedback (including parent organisations) will help overcome initial pitfalls and will be a fundamental safeguard and keystone for an overall and long-term success of the whole UNHS and early rehabilitation program.

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**This recommendation was created and approved in a multidisciplinary cooperation between professionals of all audiophonologic disciplines, which are medicine, pedagogy, speech therapy, psychology and hearing instrument audiology.**

**The original language of this document is English.**

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President of the commission 12: Th. Wiesner (Germany)

Members of the commission 12: M. Antoniadis-Hitoglou (Greece), A. Bohnert (Germany), P. Chapuy (France), A. Enderle (Germany), M. Delaroche (France), J.P. Demanez (Belgium) + L. Demanez (Belgium), G. Dessy (Belgium), D. Hennebert (Belgium), N. Herman (Belgium), C. van der Heyden (Belgium), A. Juarez Sanchez (Spain), V. Leflere (Belgium), J. Leman (France), Th. Lhussier (Belgium), B. Martiat (Belgium) , N. Matha (France), N. Melis (France), R. Proença Melo (Portugal), T. Renglet (Belgium), Ph. Samain (Belgium), M.-N. Serville (Belgium), G. Schram (Switzerland), P. Verheyden (Belgium)

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