including training in the use and maintenance of hearing devices. Health care professionals identified the importance of obtaining the perspective of both PwD and care partners with respect to establishing baseline functioning and identifying goals for treatment.

Conclusion: PwD, caregivers and health care professionals recognise the impacts of untreated hearing impairment and a need for individualised hearing support for PwD that includes both the PwD and their care partner(s).

Conflicts of interest (if any): none to report

ID: 04069 - P071

Involving older adults with dementia and hearing and/or vision impairments in a multi-site European research programme

Jahanara Miah[1], Suzanne Parsons[1], Piers Dawes[2], Chryssoula Thodi[3]

[1] *University of Manchester*
[2] *Public Programmes Team*
[3] *European University Cyprus*

Keywords: Dementia, hearing impairment, vision impairment

Background, Involvement of older adults with dementia and hearing and /or vision impairments in research has traditionally been considered impractical. However, without involving older adults with dementia and hearing and /or vision impairments and their caregivers in research it will be challenging to ensure that research findings have meaning and enable the effective promotion of mental wellbeing.

Material and methods, Research User Groups (of older people with memory, vision and/or hearing problems) have been established in Manchester, Nice, Nicosia and Athens to involve older adults and their carers with lived experiences of these problems in a European Union funded research programme (SENSE-Cog). SENSE Cog aims to investigate the combined impact on patients of memory, vision and / or hearing problems, and to develop new tools and at-home support to improve older people's quality of life and to optimise health and social care budgets and resource allocation across the research sites. The groups received research awareness training to increase their awareness, and understanding of research and their confidence in becoming meaningfully involved in the SENSE Cog study. The training has been adapted for local implementation in Manchester, Nice, Nicosia and Athens to ensure it is appropriate in terms of language, culture, age and, cognitive and sensory disabilities. To evaluate the RAT, we selected the Training Acceptability Rating Scale (TARS). The TARS is a self-administered paper questionnaire and takes approximately 5-10 minutes to complete.

Results: The results of the quantitative questions show overall satisfaction with the acceptability and perceived impact of the Research Awareness Training. 67% of participants rated 'a great deal' on the overall satisfaction with the training, participants commented that they found the whole experience enlightening, of interest and informative.

Conclusion: The study has helped us to understand the acceptability and appropriateness of training to support patient involvement in European dementia research. On the basis of the findings from this study, the RAT package can be used to train older adults with dementia and hearing and/or vision impairment provided they are supported and key factors outlined above are implemented, including tailoring the training to the group's needs. SENSE Cog Group submission

ID: 04072 - P072

Auditory screening at school age: about the grounds

Paula Lopes, Helena Moreira

Escola Superior de Saúde do Politécnico do Porto

Introduction Hearing loss is a pathology with high prevalence among school-age youth and when unidentified can lead to school failure, affecting behavior, self-esteem and socio-emotional skills. Auditory screening tests, which are essential for the early detection of hearing loss, are currently being implemented, aiming at the earliest possible intervention. The Newborns Hearing Screening is the first, effective, rapid and noninvasive auditory screening test to be performed. The multifrequency tympanometry test is also important for auditory evaluation, up to seven months of age, since with a specific probe (1000 Hz) the changes in the middle ear (namely the presence of otitis media) are detected. Later in school age, the Auditory Screening at School Age is also important, because audiological pathologies can be detected and controlled when the intervention is timely.

Goals Verify the relationship between the children who did not perform auditory screening tests (for newborns), versus those who performed it, assessing the incidence of hearing loss; which are the otological factors related to the highest prevalence of hearing loss between six and eight years of age.

Methodology Evaluation of 150 children (81 females and 68 males) who attended the 1st year of primary education. belonging to five schools distributed by four school groups. The Auditory Screening at School Age was performed with the following protocol: otoscopy; tympanometry; tonal audiometry.

Results After collecting and analyzing the data, it was concluded that 74.3% of the sample evaluated did not perform the Newborns Hearing Screening. It was also verified that no element of the sample performed multifrequential tympanometry. Regarding otological findings, 63% of the sample population presented alterations: most of them identified by type B tympanogram (21%) – serous otitis - and tympanogram type C (11%) - characteristic of tubal dysfunction. There was also a prevalence of 3% of situations with hypoacusis, but no relation with the performance of the Newborns Hearing Screening was evidenced.

Conclusions The results obtained are in agreement with the literature: in the studied age group, the children are propitious to middle ear dysfunctions, which result in the described as otological alterations; the existence of a clear relationship between the presence of hearing loss and the performance of the Newborns Hearing Screening is not described. Early detection of hypoacusis - at school-age or before - is evidenced and fundamental to children\'s well-being and to ensuring a complete and harmonious development of children.

ID: 04073 - P073

Carina changes in actuator impedance measurements: what does it mean for patients?

Jane Humphries

Oxford Auditory Implant Programme

Keywords: Carina, middle ear implants, totally implantable, actuator, impedance measurements

Background: The Carina® middle ear implant is indicated for people with a moderate to severe sensorineural (SNHL) or mixed hearing loss, who do not benefit from conventional hearing aids or qualify for other implantable hearing solutions. The system is comprised of a totally implantable microphone, processor and rechargeable battery, and an electromagnetic actuator. The actuator can be coupled to different middle ear structures (incus, stapes, round window), driving sound transmission directly to the cochlea.

In Oxford we have fitted 10 Carina implants. Outcomes have generally been positive. We present our outcomes in a separate poster.

Carina implant patients are seen for switching on of the implant, 8 weeks post surgery, an initial follow up 6 weeks later and then on an annual basis. During the Carina implant operation and at each appointment, a test is carried out which looks at the impedance of the actuator on the middle ear structures. This verifies that the implant's actuator is correctly loaded and verifies the correct electrical connection between the actuator and the implant body.

In Oxford we have seen some changes in these impedance measurements and in this poster we show those changes and discuss the implications.

ID: 04087 - P080

Better Hearing Rehabilitation (BEAR) study in Denmark: introducing the Centralized Clinical Database

Gérard Loquet[1,2], Vijay Narne[3], Tobias Piechowiak[4], Anne Wolff[5], Sabina Storbjerg Houmøller[3,6,], Dan Dupont Hougaard[1,5], Jesper Hvass Schmidt[3,6,], Dorte Hammershøi[2]

[1] *Department of Clinical Medicine, Aalborg University, Aalborg, Demark*
[2] *Department of Electronic Systems, Aalborg University, Aalborg, Denmark*
[3] *Department of Clinical Research, University of Southern Denmark, Odense, Denmark*
[4] *GN Hearing Danmark A/S (GN ReSound A/S, Ballerup, Denmark*
[5] *Department of Otolaryngology, Head & Neck Surgery and Audiology, Aalborg University hospital, Aalborg, Denmark*
[6] *Department of ORL - Head & Neck Surgery and Audiology Odense University Hospital, Odense, Denmark*
[7] *OPEN, Odense Patient data Explorative Network, Odense University Hospital, Odense, Denmark*

Keywords, Audiology, Hearing aid, Clinical data, Subsets

Background, The purpose of the BEAR project is to improve hearing loss management by revising diagnostic techniques and hearing aid fitting practices based on individual hearing profiles, expectations and lifestyle. As a starting point, a large clinical database has been prepared to better characterize the current clinical status in Denmark. The analysis will be used to identify the main challenges faced by hearing aid users in order to develop appropriate tools to improve performances.

Method, The study is a multicentre, prospective, open, non-randomized, single-arm trial with sequential enrolment of all qualified patients, conducted under a common clinical investigation plan. Up to almost 2,000 evaluable patients have been enrolled from two Danish clinics. After having undergone medical and audiological examination and other assessments (health related and quality of life questionnaires), the patients were prescribed a hearing aid and got a fitting. Approximately 2 months later, a follow-up visit took place and whenever needed an adjustment was offered (plus other assessments). An across-center database, hosted independently from clinics, universities and hearing-aid manufacturers but accessible by all parties, was created to gather the data (access granted to each partner if data managers adhere to ethical permissions and requirements for data security).

Results, The investigation generated approximately 30'000 patient records and we started by characterizing the general distribution of audiometric data (air and bone conductions, speech tests) and questionnaires (health, speech, hearing aids, tinnitus and quality of life related). The analysis focused specifically on correlations detection between demographics, audiometric tests and questionnaires in order to classify patients into subsets.