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British Academy of Audiology
Annual General Meeting 2016

Thursday 10th November
13:30 in the Lomond Suite

All members of the BAA are invited to the AGM to hear what your professional body has been doing for you over the past 12 months and what our priorities are for the next 12 months.

The Agenda

- Welcome and introduction and apologies (this meeting will be recorded for the minutes)
- Approval of previous minutes
- Treasurers report
- Acceptance of accounts and approval of auditors
- Outgoing presidents report
- Report on elections and confirmation of incoming board members
- Confirmation of election of new president and vice president
- Any other business

Why attend the AGM?

- Meet the new president and vice president who will be representing you over the next year
- Hold your board to account
- Put faces to the names of the BAA board, and hear about what they have been doing
- See where your membership money has gone
- Take the opportunity to ask questions and discover what lies ahead for us all in audiology
- Hear about the issues we manage as a professional body and how you could influence this
- Meet the BAA’s new Chief Executive Officer

Straight after the conclusion of the AGM we will be celebrating success with the annual BAA awards!
Welcome to Glasgow and our 13th Annual BAA Conference

I am thrilled to welcome you to historic medieval Scottish city of Glasgow and our 13th BAA annual conference for People in Audiology. I would like to personally thank Claire Benton BAA Conference Board Director, the Scientific Programme Team: John Fitzgerald, Leah Cooper and Charlotte Murray-Smith and the conference organising committee members. They have all worked tirelessly over the last year to conjure up an amazingly diverse and interesting programme which I am sure you will agree caters for every audiology professional.

The programme this year has been purposefully redesigned. We have reduced the number of parallel tracks in the hope you will be able to attend more of your favourite sessions without the need to make too many agonising choices. Such a world-class programme would not be possible without our amazingly talented speakers and poster presenters. You will have an opportunity to not only hear from renowned national and international researchers but also from our home grown clinical talent too. I hope you will find their sessions not only interesting to hear but will come away inspired to get involved and drive forward innovative audiology research and clinical practice.

For the tech savvy members we are introducing the new BAA conference app to help you keep track of programme details. Throughout the programme there is plenty of time to visit the exhibition and support our exhibitors and sponsors. I would like to thank all our sponsors for their continued support in helping us make our conference the best ever yet.

As members of BAA, I urge you all to attend our AGM, Thursday after lunch where Board will update you on work we have been doing behind the scenes on your behalf. The format for the awards ceremony has also changed this year and will take place immediately after the AGM. So please do attend for the awards ceremony has also changed this year and will have been doing behind the scenes on your behalf. The format for the awards ceremony has also changed this year and will take place immediately after the AGM. So please do attend and support the successful nominees.

To fit in with the spectacular gala dinner venue our dress code theme is “Around the World” so I hope to see you all in your international glad rags ready to relax, network, catch up with colleagues and friends, and party the night away.

I look forward to catching up with many of you during our 2-day conference extravaganza. On behalf of BAA Board and the conference team I thank you all for your on-going support and contributions that continue to make BAA conferences the largest and most successful professional audiology event in the UK.

Dr. John E. Fitzgerald
BSc PhD CS
Consultant Clinical Scientist
Head of Audiology
Norfolk & Norwich University Hospital NHS Trust
BAA Programme Lead

Charlotte Murray-Smith
Clinical Scientist
Norfolk & Norwich University Hospital NHS Trust
BAA Programme Lead

Dr. Jagjit K. Sethi
MSc, DAud, MSc (Healthcare Leadership) CS, Healthcare Scientist, Consultant Clinical Scientist (Audiology), Head of Hearing and Balance Services, & President of British Academy of Audiology, Berkshire Healthcare NHS Foundation Trust, Hearing & Balance Services, King Edward VII Hospital.

Leah Cooper
Lead Clinical Scientist (Audiology)
Norfolk & Norwich University Hospital NHS Trust
BAA Programme Lead

It is with great pleasure that we welcome you to the British Academy of Audiology 13th Annual Conference.

The programme this year has focused on giving you the tools and skills you need to implement immediate improvements to your clinical practice. With this in mind, we are proud to introduce the All You Need to Know Sessions (AYNTK): an hour of interactive workshops straight after lunch each day. These sessions will be supported with online resources to take back to your clinic. So if you have ever wondered how to monitor ototoxicity, how to streamline your referrals for dizzy patients or how to look after your newly qualified Audiologists, these are the sessions for you. There are many diverse AYNTK sessions on offer which are sure to be popular.

We have invited key note speakers whose names you will recognise for their ongoing contribution to Audiology. With both international and UK presenters, we are confident that these talks will be inspiring and rejuvenate your passion within our exciting profession.

As usual the conference delivers both clinical insights as well as new scientific developments at the forefront of Audiological research. We welcome speakers from a broad range of disciplines, to inform us on the latest advancements in Audiological medicine and innovations in hearing aid technology.

As we all know, the demands on the profession in the UK are ever-changing. We felt it was important to incorporate the challenges we face nationally, giving local examples of how to implement changes at service level. To give perspective on our position globally, we are joined by speakers from New Zealand, America, and charities working with 3rd world countries. They are sure to bring thought-provoking perspectives within the dynamic field of Audiology world-wide.

We hope that you enjoy the new streamlined programme which was introduced in response to your feedback from previous years. Enjoy this unique opportunity to network, debate, learn and appreciate the People in Audiology.
Programming telecoils increases customer satisfaction & decreases returns - find out why

Find answers to these questions:

- Why aren’t hearing aids, BAHA or cochlear implants the complete solution?
- How modern Assistive Listening Systems work with aids and implants?
- Why Hearing Loops are still the preferred and most current technology?
- Why hearing aid users are campaigning for more (and better) Hearing Loop facilities?
- What do you need to know to properly advise your clients about using Hearing Loops?

Join Lorraine & James for the Assistive Listening seminar on Friday afternoon - Pick up a receiver at the Hearing Loop station.

Please check the conference agenda for details.

Dr Lorraine Gailey BSSc, PhD, Dip CCS, MIOD - Lorraine has been the Chief Executive of Hearing Link and its predecessors for nearly thirty years.

James Bottrill BSc, MISCE - James has worked at Ametronic for over 10 years and is one of the World’s leading experts in Assistive Listening Technology.
**Accreditation and CPD**

The 2016 conference programme has been accredited with 9 CPD points by the British Academy of Audiology, 5 for Day 1 and 4 for Day 2.

The conference has been awarded 11 CPD points by British Society of Hearing Aid Audiologists (BSHAA). 6 points for day 1 and 5 points for day 2. An additional point is awarded each day for visiting the exhibition (per 3 stands visited with evidence, maximum 2 points) giving a maximum possible 13 points.

**Admission to Sessions**

You must ensure you are wearing your lanyard and badge to ensure admittance to conference sessions. Whilst in sessions, please ensure that phones and other electronic devices are switched off or are on silent.

**Annual General Meeting**

The British Academy of Audiology AGM will be held on Thursday 10th November from 13:30 – 14:20 in the Main Auditorium in the Lomond Suite. The AGM is open to BAA members only. If you are not a member please spend your time exploring the exhibition or networking with colleagues.

**Awards & Posters**

The results of the awards nominations will be announced immediately after the AGM on Thursday 10th November between 13:30–14:20. More information on the awards can be found on the awards page of this book. Poster winners will be announced at 14:00 during lunchtime of Friday 11th November in the exhibition hall.

**Badges**

You will be issued with a badge onsite; you must wear this badge at all times within the Scottish Exhibition & Conference Centre. The lanyard colours determine attendees as follows:

| Dark Blue | Delegates |
| Light Blue | Exhibitors and Exhibition visitors (Conference attendance allowed) |
| Red | Organisers and Board Members |

**British Academy of Audiology Secretariat**

The organising secretariat for the conference is:

Fitwise Management Ltd
Blackburn House
Redhouse Road
Seafield
West Lothian
EH47 7AQ

Tel: +44 (0)1506 811 077

**Certificate of Attendance and Evaluation**

Certificates of attendance will be sent electronically following completion of the conference evaluation. We appreciate all feedback and encourage all delegates to share their thoughts and ideas for the 2017 conference.

**Cloakroom**

A cloakroom is provided free of charge in the main entrance foyer of the centre for the duration of the conference.

**Conference Planning Team**

If you have any questions during your time at the conference, Fitwise Management will be on site to help and answer queries. They will be based at the registration desks in the entrance foyer; you can also approach one of the conference planning team who have put in a lot of hard work to make this conference a success. We really appreciate the time they give to the conference and would like to thank them for their hard work.

**Conference App – New for 2016**

For the first year, BAA have a conference app available for you to download and use throughout conference.

All the information available in this handbook is published in the app. To download the app, please visit your mobile devices app store, search for BAA-2016 and follow the onscreen instructions.
Conference Sponsors
The British Academy of Audiology would like to acknowledge the following sponsors for their significant contribution towards our 13th Annual Conference:

Platinum Sponsors:

Programme – New for 2016
New for BAA 2016 are a series of talks entitled All You Need to Know. The aim of these sessions is to introduce newly qualified delegates and to update experienced staff on practical areas of Audiology. Delegates should be provided with all the information and tools needed to take back to their departments and implement the given test/technique/knowledge straight away.

There will be live online resources so delegates can download the ones they need from each talk as they happen. Extra time for questions has been allocated to encourage a fully interactive session.

All You Need to Know sessions happen during the first session after lunch on both days.

Interactive Debate Noticeboard
The Debate Café has been replaced this year with the Interactive Debate Noticeboard.

Different questions will be posed each day on a large poster within the exhibition hall. There will be pens/post-its for delegates use to respond. All the information on the boards at the end of each day will be collated and placed on the BAA website.

Disabled Access and Other Requirements
Scottish Exhibition & Conference Centre (SECC) is fully accessible, if you require assistance while onsite please alert a member of staff at registration or SECC stewards.

All conference rooms are fitted with hearing loops. Please read the signage in each room to confirm how to access the hearing loop systems. If you require assistance with this please speak to the AV technician available in each room or one of the staff at registration.

If you have any other requirements we can assist with please speak to the staff on the registration desk.

Armistice Day
Armistice Day is Friday 11th November and we will hold a two minutes silence at 11:00.
Exhibition and Passport Competition

Featuring a wide array of companies working within Audiology, the exhibition provides the ideal opportunity to discuss your audiology requirements directly with representatives from a wide range of companies, discover new products and procedures and arrange meetings with both existing suppliers and new companies. A list of exhibitor and company editorials is published at the back of this handbook and the floor plan is published at the front. The exhibition will be open during the following times:

- Thursday 10th November: 08:00 – 17:30
- Friday 11th November: 08:00 – 14:25

Each delegate will receive a ‘passport’ in their delegate bag. For a chance to win one of the many prizes on offer delegates should travel around the exhibition collecting signatures from participating exhibitors. Once completed, the passport should be handed into the British Academy of Audiology stand by 10:50 on Friday 11th November to enter the prize draw. The prize draw will take place at 13:30 on Friday 11th November in the exhibition hall at the BAA stand.

First Aid

If you require first aid assistance please contact one of the SECC or Fitwise staff. Dedicated first aiders will be onsite throughout the event.

Insurance

The British Academy of Audiology secretariat accepts no liability for any travel problems getting to and returning from the conference nor personal injuries sustained during or as a result of the conference, nor for loss or damage to property belonging to conference delegates.

Internet Access

Wi-Fi is available on site free of charge for delegate use for checking emails etc.

Posters and Free Paper Presentations

The poster display and free paper presentations are an essential part of the conference’s educational content and we would like to thank everyone who took the time to submit an abstract for consideration. We had an exceptional number of people submitting their research and we have included as many as possible within the programme as well as having a large display of posters within the exhibition hall. There will be dedicated poster viewing times during each lunch break with authors standing by their posters to answer questions. Odd numbered posters will be presented on Thursday lunchtime and even numbered posters will be presented on Friday lunchtime. There will be awards for the best posters and these will be announced at 14:00 on Friday during lunch in the exhibition hall. We hope that this year’s successful entries inspire you to consider submitting for 2017.

Programme Key

Last year the British Academy of Audiology have introduced a session key to allow you to make a more informed choice about which session to attend. The key is as follows:

- **Parallel Session** – Held in a theatre style setting, designed to be informative sessions.
- **Workshops** – Held in a more informal setting, designed to be interactive with some group discussions.
- **Sponsors Track** – A mixture of informative and interactive sessions hosted by our Platinum Sponsors.
- **All You Need to Know Sessions**

Registration Desk

The registration desk will be located in Hall 1 area and will be open at the following times:

- Wednesday 9th November: 16:00 – 19:00
- Thursday 10th November: 08:00 – 17:30
- Friday 11th November: 08:00 – 17:00

Students

After another busy year and successful student conference the student and trainee team have put together what will be an informative, varied and interactive programme for the 2016 BAA conference. With talks on student experiences with the STP; Clinical research advise; and New outcome measures for mild - to moderate hearing losses, there is plenty to get the old grey cells firing. There is also the Oticon Student of the year prize up for grabs.

The team will be manning the BAA stand so please come over to say ‘hi’ as we are always keen for feedback/new ideas from students or if you prefer, get in touch with us via email students@baaudiology.org. We are also planning the agenda for the student conference 2017, so if there is anything you would like to see on the programme let us know!

Venue for 2017

The Bournemouth International Centre
Exeter Road
Bournemouth
Dorset
BH2 5BH
Every year at the British Academy of Audiology Annual Conference, we take the time to acknowledge those individuals and teams who have excelled, or shown exceptional commitment to the audiology profession, over the past year. There are five awards in total with four open for nominations. Thank you to everyone who has entered a nomination.

**Audiologist of the Year award in memory of Peggy Chalmers**

This award will recognise an audiologist who stands out from the crowd with regards to patient care. We are looking for an individual who has gone above and beyond to put the patient first, or improve the experience for a patient in even a small way, that made a difference for that individual. The award is focused on patient care and we particularly welcome testimonials and case studies from patients, or colleagues, highlighting the reasons their audiologist should be nominated. Peggy contributed immeasurably to audiology in many ways, improving professional standards and training and supporting hundreds of students from the UK and overseas. Her hard work and enthusiasm has inspired many professionals in audiology and with this award we hope each winner will continue to inspire with their excellent work.

Please note the nominations have had to be edited to show no more than 300 words.

The nominees are:

**Andrew Bignall**, Adult Diagnostics Team, Royal National Ear Nose and Throat Hospital

Andrew joined our department as a student about 14 years ago. From all accounts he was keen, hardworking, engaged, had a thirst for knowledge and a degree in Archaeology. To this day, Andrew still possesses these qualities but now has an almost encyclopaedic knowledge of audiology and qualifications to support this. His thirst for knowledge remains however, unsated. Andrew is now a highly respectable Advanced Audiologist who has been heavily involved in the overwhelming success of our pioneering Audiologist Led Clinic. Andrew deserves recognition for being the most highly skilled Audiologist that we have the pleasure of knowing. He is passionate, works harder than most and always works to the best of his ability. His deep, broad understanding of diagnostic and rehabilitative audiology makes it easier to talk to him for half an hour rather than spending half a day in the library. He is blessed with the ability (and patience) to relay information to patients, students and colleagues in a clear, concise manner.

**Clare Bates**, Chief Audiologist, Freeman Hospital, Newcastle

Clare has vast experience in Audiology and has worked within the NHS for over 23 years. She is an outstanding member of the team and her enthusiasm and dedication to her job is admirable. She specialises in audiological diagnostic testing and vestibular rehabilitation as well as helping ensure the day to day running of the department goes smoothly. She always puts the patients at the heart of everything she does and her commitment to driving the service forward is a credit to her. She is always the first to arrive in the department and the last to leave and constantly strives to improve the quality and efficiency of services in Audiology. She copes with her demanding role very well and juggles this with a busy family life, yet always has time for people when they need any support both professionally or personally. She is involved in training other members of the balance team as well as supporting students whenever they come through our department.

She manages to maintain good relationships with all the people she works with and outside of work has helped establish a patient self-help support group for patients with Balance problems. She runs a Balance awareness day within the hospital one a year and is actively involved in educating patients and GPs about balance problems and the treatment of them.

She works closely with the Falls and Syncope clinic and has set up group vestibular rehabilitation sessions in the department. These benefit the patient as they can see they are not alone in their suffering and they also help control hospital waiting times to ensure patients are seen, and treated, quickly.
**Anna Lindstrand**, Audiologist, Nottingham University Hospitals

Anna was recruited into a band 6 post in 2015 to provide a brand new audiology service for inpatients across a large acute hospital trust. Her work is with patients on healthcare of older people wards, with a focus on ensuring access to good communication for patients who have cognitive decline. Since commencing the role she has worked tirelessly to ensure its success and consistently 'goes the extra mile' for the patients and their families. The profile of her work is such that we now receive referrals across the hospital from palliative care to admission wards. Anna has helped to develop strong relationships with inpatient staff who work in a very different manner and with very different pressures to that of what is perhaps familiar in audiology work. Her role is demanding both in terms of the geographical spread of the wards and the emotional labour of attending to patients who are often end of life and very sick on a daily basis whilst supporting families and explaining a patient's hearing and/or communication needs to medical staff. Anna's role assisted in her team winning a local award in 2015 and we continue to build strong relationships across the trust and beyond. She has also developed the profile of the work regionally and nationally with written pieces across the trust and beyond. She has also developed the profile of the work regionally and nationally with written pieces and presentations. Her continued efforts have helped the team to develop better communication between health and social care and become more innovative in how we offer services and support the needs of our patients. Ensuring the underserved of our patient population has access to good communication at a point in life when they and their families need it most.

**Sara Gibson**, Chief Audiologist, United Lincolnshire Hospitals NHS Trust

The team there work with next door to nothing, short staffed and through their lunchtimes most days, all with a smile and such dedication to the patients. Sara in particular will come in early, go home late and turn her hand to absolutely anything, she manages the department, cares for patients and staff so very well.

**Mohamed Dirir Abdi**, Audiologist, London North West Healthcare NHS Trust

I nominated Mohamed Abdi for Audiologist of the year. He has been a huge asset to the patients of our area and to the department/team as well. Many Audiologists get recognised for one moment where they shine, Mo continuously stands out. The patients love him, he has left our dept over the past few days to take up a new post nearer to his family, but patients have been asking him to reconsider. The Friends and Family test that is completed by the patients is continuously giving Mo a mention by name, saying how good he is. From a staff perspective he is ever helpful and continuously goes out of his way to help anyone who needs it. He's never without a smile and is truly an example to all Audiologists regardless of grade. I feel that this award would be a fitting thank-you and goodbye from all the staff and patients of Rotherham for all his work and efforts above and beyond the call of duty over his years here.

**Team of the Year Award**

The British Academy of Audiology Team of the Year Award was created in 2004 to celebrate the coming together of the different professions within audiology. The prize is awarded to a team which has worked together to improve the quality of service in their area. Teams which work within an audiology department, in education, in research, or in an organisational capacity, are all eligible. Past winners have shown particularly innovative and original ideas, or worked on a specific project directly connected to audiology.

**The nominees are:**

**Lorn & Islands Hospital, Oban**

**Mental Health and Dementia screening within Audiology in Argyll and the Isles**

Over the years the audiology department in Argyll and the Isles have done some extensive research into associated health conditions associated with hearing loss. So the audiology department in Oban (Argyll and the Isles covers 5 hospitals and 5 islands – 10% of Scotland) looked at why costs of hearing loss were so high to society, NHS and the individual.

So, audiology took the lead and looked at Mental Health and Dementia patients and found that in the elderly, patients with a hearing loss were twice as likely to develop mental health problems.

We summarised that with earlier hearing screening intervention this should improve the outcomes for both Mental health and Dementia patients or both. Audiology arranged a meeting with both the mental health and dementia/social work teams and provided training on the Mental Health/dementia wards for both managers and nursing staff how to use Siemens Hearcheck hand held screeners (purchased by audiology) to test all inpatients. All failed hearing tests would be referred to audiology directly.

At this time Audiology completed a referral Pathway for both Mental Health /Dementia patient for all referrals to follow. This service is unique and does not happen anywhere else in the UK.

For many years we have looked at local unmet need (local research paper 2012 enclosed showed average of 40% unmet need locally for over 65’s) and we thought how could we reach the majority of patients with one of the most geographically challenging areas in the UK.
So audiology put a business case together to make a DVD to be given to each hearing impaired patient to take home and watch in the comfort of their own home. This DVD would contain normal information of how to utilise individual programs (i.e. omni/directional/loop) how to insert moulds/open fits etc and how to clean aids. We successfully got £2000 to make audiology DVD from Argyll and Bute Health and Wellbeing network.

However, through our Mental health /Dementia research we wanted to include a simple explanation about sensorineural hearing loss and realistic expectations and how continued every day use may provide significant health benefits for both mental health and dementia patients.

Now within Argyll and the Isles all hearing aid patients are reviewed in 15 minute appointments every 6 months and this has made sure the majority of our patients wear their hearing aids all provided locally.

DVD can be viewed on: https://www.youtube.com/watch?v=BrLG38GVg

NEW AWARD FOR 2016

Placement Supervisor of the Year Award

The BAA award for the Placement Supervisor of the Year is an award that will recognise an audiologist who stands out from the crowd with regards to supervising and supporting a student while on placement. We are looking for an individual who has gone above and beyond to provide a supportive learning environment on placement for students, providing leadership and guidance as well as inspiration. The award is focused on the mentoring of students and we particularly welcome testimonials and case studies from student, colleagues and university placement teams highlighting the reason a particular audiologist should be nominated.

The nominees are:

Eifion Williams, Chief Audiologist, Wrexham Maelor Hospital

This is a combined nomination from Service Leads at Betsi Cadwaladr University Health Board and Swansea University. Eifion is an exceptional placement supervisor and mentor. He has a great understanding of how to bring the best out in students and support them to meet their full potential. Feedback from students about Eifion following placement is always positive.

Jacqueline Galston, Chief Audiologist, NHS Lanarkshire

Jacqueline was an excellent supervisor, and her dedication to her work is inspiring. I really felt like Jacqueline viewed me as a peer rather than just a student, and she gave me the opportunity to take on more responsibilities and go above and beyond what I expected I could achieve. Weekly feedback was always constructive, and she always listened to what I felt like I needed more experience with and structured my time with her accordingly. Jacqueline gave me the confidence I have now, particularly with working in paediatrics, and I feel she truly deserves to be recognised for her outstanding contribution to Audiology, and her guidance of soon-to-be Audiologists!

Gillian Reed, Audiological Scientist, Great Western Hospitals NHS Foundation Trust

Gillian has been a student supervisor for many years and has successfully mentored over 30 students in Swindon, with the first being in 1980. She has been an integral fixture in the department for decades, and deserves recognition for all of her fantastic work over the years.
Julia Collins, Senior Audiologist, Placement Co-ordinator, Lancashire Teaching Hospitals NHS Foundation Trust

Fantastic one to one support offered and feedback on session performance was very prompt and thorough.

Kathryn Lewis, Head of Audiology, University Hospitals of South Manchester NHS Foundation Trust

During my STP, my first host Trust became unable to provide further training. Kath went above and beyond her role to co-ordinate the transfer of myself and two other students to alternative placements within the region. Despite already hosting three other postgraduate students and a number of undergraduate students, Kath welcomed two of us into her department to complete the remainder our clinical training. Her patience and support made a difficult transition period feel relatively stress-free.

In addition, Kath also hosts tutorials for BSc and MSc Audiology students based in local Trusts. The tutorials reinforced our clinical knowledge and developed our leadership skills.

Overall, Kath is a calm and patient supervisor who provided invaluable support and gave me the confidence to practice independently as a clinical scientist.

Christine Brindle, Senior Audiologist, Harrogate District Hospital

I am nominating Chris Brindle for being such an amazing, inspirational and helpful placement educator. She always look after her students, she ensure that all student are treated fairly and equally, she goes above and beyond to ensure all her student get the best out of their placement.

Layla Mohamed, Queen Alexandra Hospital, Portsmouth

Outstanding attitude to training in Clinical Placement

Each year many Audiology students enter their clinical placements throughout the UK.

For many it is the first time they have spent a significant amount of time away from home and have to deal with this life style change as well as meet the learning demands of the placement and academic requirements of the course. Layla had to meet these challenges slightly behind her course mates due to reasons outside of her control and was not able to make frequent visits home very often due to the distance and cost of travel. Being away from home presented some significant challenges for her and no small amount of anxiety.

However, rather than see this as a barrier, Layla very much saw this as a challenge and opportunity and applied herself to her learning experience whole heartedly. Her positive can do attitude allowed her to achieve and integrate into the clinical team well and developed as an individual as well as a clinician.
Her dedication and smiley nature won her the respect and admiration of those training her (as well as the patient she treated) and was presented with the placement award at her university, followed by a small dance of joy before she left the graduation podium. In keeping with her character Layla has agreed to act as an additional point of contact for future students in order to support those worried about meeting the challenges that clinical placements present.

Hannah Snowdon, Freeman Hospital, Newcastle Upon Tyne

Hannah has been one of the best students we have had. She applies herself fully to the role and demonstrates a kind and caring attitude towards people at all times. She progressed really quickly during her placement here and was working to a standard which was comparable to more senior Audiologists. She took on extra training in both paediatrics and vestibular testing to increase her knowledge and abilities even though her logbook did not require it. However, she was keen to become registered with the RCCP when she finished her degree. She manages her time well and even had other students on her course asking for her help to point them in the right direction with their dissertations. She has demonstrated flexibility to the service and never complained when there were short notice changes to timetables or we needed help to cover clinics if someone was off sick. She has a happy, cheerful disposition which is a breath of fresh air in a busy and often stressful working environment. She does not get flustered easily which is such a useful trait and I have seen her deal with some very demanding and quite aggressive patients during busy repair sessions with tact and patience. However, she always recognised when it would be best to get assistance from a more senior member of staff. She has received lovely comments from patients about the care they have been given and as a student she always performed above whatever we expected from her. Hannah is simply a lovely person and so far has managed to achieve a good work/home life balance and spends her free time with a family that adore her and a boyfriend who has just whisked her off to Paris for her birthday. It has been a pleasure to see her develop into a confident, practical Audiologist during her time with us and we are very lucky that she has decided to stay with us as a permanent member of staff.

Lindsey Tutaj, DeMontfort University

In recognition of her hard work, dedication and outstanding final year project, it is with great pleasure that I nominate Lindsey Tutaj for this year’s Lisa Bayliss award. During Lindsey’s studies at De Montfort University, she has stood out as a truly remarkable student having to balance her studies alongside her busy home life as a young mother. Not only did she manage to achieve this, she has excelled beyond all expectations. For her final year placement, Lindsey trained at Nottingham Audiology Services. During this time she chose to undertake a challenging scoping review centred on the use of combined amplification and sound generation for tinnitus management for her final year dissertation. Under the guidance of Dr. Magda Sereda of the Nottingham Hearing Biomedical Research Unit, Lindsey tirelessly reviewed over 2000 articles before filtering them down to 79 for the main review. So good was the quality of her work, Lindsey presented it at a large international tinnitus conference – the Tinnitus Research Initiative which was held in Nottingham this year. Despite the conference occurring around the time of her clinical assessments, Lindsey bravely chose to showcase her work as an undergraduate student amongst a field of internationally renowned experts, a testament to her passion for audiology and willingness to go the extra mile.

Unsurprisingly, Lindsey went on to achieve the highest marks for her dissertation across the entire cohort of final year audiology students.

After Lindsey successfully completed her final placement she even volunteered to stay on at Nottingham Audiology Services working with patients for several more weeks! She has now since graduated and taken up position as a band 5 audiologist at Burton Hospital NHS.

To finish, my words do not do Lindsey enough justice. I cannot think of a better person neither past or present who deserves this award more. It is the teacher which should inspire the student, however in Lindsey’s case it has been the opposite way round.
The Jos Millar Shield
Jos Millar started his career in audiology at the Royal Victoria Hospital in Belfast. He had an interest in sound and radio and when an opportunity within audiology came along, he moved to this field and went to Manchester to complete his training. He was always fond of paediatric audiology so returned to the Royal Belfast Hospital for Sick Children. Later in his career he embarked on a new challenge to set up a paediatric service in his home town of Ballymena. Within his long standing dedication to audiology, it was only fitting for an award to be named in his honour. The Jos Millar Shield is a long standing award given each year for the best contribution to a BAA publication. The recipient is chosen from all articles printed in the previous year’s magazine and newsletter and is chosen by the publicity and communications team.

The BAA 2016 winner is:

Improving Audiological Issues for Adults with Learning Disabilities and Hearing Loss
Dr Lynzee McShea, Senior Clinical Scientist, City Hospitals Sunderland

Oticon Student of the Year award
The Oticon Student of the Year award is presented every year to the student who best presents their research during the student session. Oral presentations are judged during the student session by highly esteemed representatives of the profession. Each student has to pass set criteria to win the award. The winner holds the title and trophy of “Oticon Student of the Year” along with a cash prize and an all expenses trip to Oticon Headquarters in Hamilton, in order to make and follow through their own ITE.
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Below is a session key to allow you to make a more informed choice about which session to attend. The key is as follows:

**Parallel Session – Held in a theatre style setting, designed to be informative sessions.**

**Workshops – Held in a more informal setting, designed to be interactive with some group discussions.**

**Sponsors Track – A mixture of informative and interactive sessions hosted by our Platinum Sponsors.**

**All You Need To Know Sessions**

### Thursday 10th November

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Lunch, poster and exhibition viewing – Halls 1 & 2
Posters in Hall 1 and exhibition viewing – Hall 2

Dockart 2
12:30–13:25
Action on Hearing Loss Workshop – “Commissioning and cuts – How can BAA and Action on Hearing Loss Help?
Jagjit Sethi, BAA and Chris Wood, Health Policy Manager, Action on Hearing Loss,

Lomond Auditorium
13:30–14:20
British Academy of Audiology Annual General Meeting – (BAA members only)
Awards.

14:30–15:00
Monitoring Ototoxicity with DPOAEs
Ghada Al-Malky, Senior Lecturer, The UCL Ear Institute, University College London

14:30–15:00
Writing a business case (it’s just like buying a new car!)
Helen Martin, Clinical Scientist, Head of Audiology, South Tees Hospitals NHS Trust

14:30–15:00
One child, one family, many brains
Dr Sarah Hogan, LSLS Auditory Verbal Therapist, Auditory Verbal
Sponsored by Phonak

14:30–15:00
Otoscopy and tips on impression taking
Paul Lamb, Technical Director, Starkey Hearing Technologies

15:00–15:30
ABR in older children
Michelle Foster, Clinical Scientist (Audiology), Hearing Services, Sheffield Children’s NHS Foundation Trust

15:00–15:30
Direct Referral Vestibular clinic
Lee Fox, Balance Service Lead, Royal Berkshire Hospital

15:00–15:30
Cognitive measures of hearing aid benefit
Alison Stone, Training Manager & Audiologist, Oticon
Sponsored by Oticon

15:00–15:30
The Big Fat Quiz of The ‘ear’
Jennifer Pow, Service Manager, Forth Valley
End of Programme.

15:30–15:55
Refreshment break and exhibition viewing

16:55–17:30
Panel Discussion – Future Challenges and opportunities in Audiology
Associate Professor Grant Searchfield, Director Hearing and Tinnitus Clinic, Audiology and Centre for Brain Research, The University of Auckland Brain Research New Zealand, Ian Windmill, Clinical Director, Cincinnati Children’s Hospital Medical Centre, Huw Cooper, Immediate Past Chair for BSA, Jagjit Sethi, President, British Academy of Audiology

Main Auditorium  Lomond Suite  Moderator: Ruth Thomsen
16:55–17:30
Panel Discussion – Future Challenges and opportunities in Audiology
Associate Professor Grant Searchfield, Director Hearing and Tinnitus Clinic, Audiology and Centre for Brain Research, The University of Auckland Brain Research New Zealand, Ian Windmill, Clinical Director, Cincinnati Children’s Hospital Medical Centre, Huw Cooper, Immediate Past Chair for BSA, Jagjit Sethi, President, British Academy of Audiology
Join us on tour and experience sights, sounds and tastes from around the world.

**Destination:**
Merchant Square
71 Albion Street
Glasgow G1 1NY

Merchant Square offers an eclectic selection of restaurants and cafes. We will have exclusive access to the internal courtyard, with a welcome drinks reception followed by a 3 course hot canape and buffet dinner with dessert.

**Itinerary:**
7:00pm  Welcome drinks reception, sponsored by Glasgow City Guild.
7:30pm  Dinner is served. Starters will be served as you mingle with your colleagues, then select the buffet of your choice from one of the restaurants and sit wherever you please, desserts will be brought to you.
9:00pm  Live music brought to you by Tom McGuire & the Brassholes with DJ Stuart McCorrisken taking over around 10.30 to provide us with a disco.
12:00pm  Supper, help yourselves to some light refreshments to set you up for your onward connections.
1:00am  Tour ends.

**Dress code:**
We invite you to dress to impress, be inspired by all things travel related or your favourite country. Please note formal wear is not required at the Captain’s table.

**Connections:**
**By coach:** There are a limited number of coach seats available.
Outbound: departure at 18:45 from Crowne Plaza hotel.
Tickets required for boarding, these can be collected from the registration desk through-out Thursday.
Return: departure at 22:30 and 00:30 from Merchant Square (drop off at Crowne Plaza hotel).
Return seats allocated on first come first served basis.

**By train:** Exit the SECC and turn left, crossing the footbridge to Exhibition Centre Train Station.
Take the train from Platform 1 to Argyle Street Station (in the direction of Cumbernauld), Exit Argyle Street Station onto Argyle Street. Journey time is between 5 to 9 minutes. The walk from Argyle Street to Merchant Square takes 6 minutes.

**By Taxi:** the taxi number is 0141 429 7070.
Stewards will direct you to the rank at Merchant’s Square.
Please note entrance to Merchant Square is by ticket only; please ensure you have your ticket with you before departure. They will also entitle you to three complimentary drinks once inside.
Audiology and Neurotology provides a forum for the publication of the most advanced and rigorous scientific research related to the basic science and clinical aspects of the auditory and vestibular system and diseases of the ear. This journal seeks submission of cutting edge research opening up new and innovative fields of study that may improve our understanding and treatment of patients with disorders of the auditory and vestibular systems, their central connections and their perception in the central nervous system. In addition to original papers the journal also offers invited review articles on current topics written by leading experts in the field.

The journal is of primary importance for all scientists and practitioners interested in audiology, otology and neurotology, auditory neurosciences and related disciplines.

Audiology and Neurotology

Founded: 1996
Category: Basic Research
Fields of Interest: Audiology, Otorhinolaryngology

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The Action Plan on Hearing Loss – update on progress
Fiona Carragher
Deputy Chief Scientific Officer, NHS England

Jagjit Sethi
President, British Academy of Audiology

09:15–09:45 MAIN AUDITORIUM
Moderator: Jagjit Sethi

Inaugural Adrian Davis Lecture – Paradoxes in Audiology
Professor Adrian Davis

The up, down and upside down of pure tone audiometry
Professor Kevin Munro
Ewing Professor of Audiology, Director of the Manchester Centre for Audiology and Deafness, University of Manchester

Abstract
Sir Alexander Ewing, University of Manchester, claimed to be the first person (in the UK) to purchase a commercially available pure tone audiometer (1928). Around this time, physicist Harvey Fletcher made one of the biggest blunders in the emerging science of audiology: he changed the ordinate of the audiogram chart from “percent of normal hearing” to “sensation level”, without inverting the axis. As a result, 100% normal hearing became 0 dB sensation loss and the audiogram chart was doomed to be forever upside down. Despite this lack of scientific convention, we have become besotted with pure tone audiometry. It has acquired the status of the ‘gold standard’ hearing test. Heaven help anyone who casts aspersions on this audiological sacred cow. Well, let’s start with this list of 10 limitations: [That’s a pity: the online abstract submission form will not allow me to add the list of limitations] Apart from that, what has pure tone audiometry ever done for us? It allows us to: (i) quantify the degree of hearing loss, in each ear separately, (ii) gain information about the site of lesion, (iii) in some cases, the nature of the cause, and (iv) is required for most hearing aid prescription procedures, but this may be changing.

Biography
Kevin J Munro is Ewing Professor of Audiology at the University of Manchester, currently the only UK professor of audiology. He is also an honorary consultant clinical scientist at Central Manchester Foundation Trust. He is Director of Research for the Manchester Centre for Audiology and Deafness and will lead the Hearing Health theme of the NIHR-funded Manchester Biomedical Research Centre, which commences April 2017.
10:50–12:30 MAIN AUDITORIUM
Moderator: Rosemary Monk

Getting to grips with acoustic trauma
Jonathan Gale, PhD
Interim Co-Director and Reader in Auditory Cell Biology UCL Ear Institute

Abstract
Our understanding of hearing loss caused by noise exposure is growing in interest and importance. Research at the cellular level is essential to increase our understanding so that we can better diagnose, manage and even possibly prevent this type of hearing loss in the future. In this talk I will provide an update on current research on what happens in the cochlea and the auditory nerve during noise trauma and consider the potential for future treatments and therapies.

Key Learning Objectives
- To briefly review the history of research into noise-induced hearing loss
- To update current research into the effects of noise on the cochlea
- To discuss the prospects for future therapies

Biography
Jonathan Gale is a Reader in Auditory Cell Biology and Interim Co-Director of the UCL Ear Institute. He is a founding member of the UCL EI (formed in 2003) and an affiliate member of Cell and Developmental Biology at UCL. He did his PhD with Professor Ashmore (FRS) at the University of Bristol. Subsequent post-doctoral research self-funding came from a Hearing Research Trust/Colf Foundation Fellowship, a Wellcome Trust Prize –International Travelling Fellowship and then a Royal Society University Research Fellowship (1999-2007). In 2000 he established his own laboratory at UCL which studies the mechanisms of damage, repair and regeneration in the inner ear funded by (past and present) AoHL, Wellcome Trust, BBSRC, EPSRC and MRC. Jonathan organises and teaches Anatomy & Physiology modules at the EI. He is a Faculty member on MBL Biology of the Inner Ear Course (USA) and has been an Associate Editor for the JARO.

Stem Cells and the future of Cochlear Regeneration
Marcelo Rivolta
Professor of Sensory Stem Cell Biology, Centre for Stem Cell Biology and Department of Biomedical Sciences, University of Sheffield

Abstract
The manipulation of human embryonic stem cells has opened new horizons for regenerative medicine. Hopes have been fuelled further by the potential to generate patient-specific, induced-pluripotent stem cells (iPSCs). Pluripotent stem cells need to be driven into the desired cell types. In our laboratory, we initially tackled this problem by isolating stem cells from the human fetal cochlea, and used them to unravel the basic signals involved in producing sensory cells. We then developed a method to generate olfactory cells from human embryonic stem cells (hPSCs) using molecules that induce the formation of the ear in vivo. When hESC-derived olfactory progenitors were transplanted into an animal model of auditory neuropathy, they survived, engrafted and differentiated into neurons. Moreover, they connected with the hair cells and the brain and, more remarkably, they elicited a functional recovery represented by improved ABR thresholds. We are now exploring if hESC-derived auditory neurons could interact with experimental cochlear implants. The field is still at an early stage, but the progress already achieved is substantial. Although the use of stem cells for hearing loss is likely to be initially limited to some conditions, this will probably change with the development of more efficient ways of producing sensory cells and with the improvement of delivery and grafting techniques. In summary, the presentation will revise the recent advances produced by our laboratory and the impact that this new technology could have in the future ways we treat this condition.

Biography
Marcelo Rivolta qualified in Medicine and Surgery in Argentina and did his fellowship and doctoral work at the NIH, USA. He has held post-doctoral positions at the NIH and at the Universities of Bristol and Sheffield in the UK. He is now Professor of Sensory Stem Cell Biology at the University of Sheffield, where he leads a research group dedicated to develop the therapeutic applications of stem cells for hearing loss. In the late nineties he pioneered the isolation and immortalisation of mouse auditory progenitors. During the past decade he identified and isolated a population of stem cells from the human foetal cochlea, a seminal work in the field. This paved the way to develop protocols to coerce human pluripotent stem cells into olfactory cell types. In a recent landmark study, he has established the proof of concept that olfactory progenitors can be used to functionally repair the damaged cochlea. His program of research has been continuously supported by the MRC, the EU, charities and industrial collaborations. He belongs to one of the five Hubs of the UK Regenerative Medicine Platform, a national program to develop stem cell therapies. He is a member of the board of Trustees of The Ear Foundation.

Hearing Aids and music: Let's Rock!
Associate Professor Grant Searchfield
Director Hearing and Tinnitus Clinic, Audiology and Centre for Brain Research, The University of Auckland
Brain Research New Zealand

Abstract
Modern hearing aid technology has become very good at transducing speech. The optimisation of music has not been a high priority. Although there is increasing research in the field, the literature directly comparing hearing aid algorithms for music appreciation is limited. Anecdotally, many hearing aid users feel that they do not gain as much satisfaction out of listening to music through their hearing aids, as they did before their hearing impairment. This sentiment is acutely felt by musicians, who are able to discriminate sounds better than non-musicians. This presentation will review the current state of the art related to music processing by hearing aids, with a focus on different music genres. Two empirical studies of music perception will be described. This research examined sound quality ratings of music transduced using different signal processing strategies. The specific qualities of music that are necessary for listening satisfaction through hearing aids will be considered. The views of musicians and non-musicians will be contrasted. Suggestions on the selection of music settings for Classical versus Jazz and Rock will be made. Let’s make those aids Rock!

Key Learning Objectives
- Find out the key differences in amplification of speech and music
- Learn how hearing aid engineers try and account for these differences
- Discover musicians and non-musicians opinions of current music processing in hearing aids

Biography
Grant D. Searchfield is an Audiologist and neuroscientist. In 2001 he became the inaugural director of the University of Auckland’s Hearing and Tinnitus Clinic. He obtained his Doctorate in Audiology from the University of Auckland in 2004, and was head of the Audiology program from 2007-2014. He is a primary investigator in the University of Auckland’s Centre for Brain Research and Brain Research New Zealand. Assoc Prof Searchfield is a member of the Scientific Advisory Committee of the American Tinnitus Association. His research has a strong emphasis on the development of new clinical assessment and
management methods for tinnitus and their neuro-cognitive basis. In addition to tinnitus research he is involved in the study of the neurological basis of multisensory integration, and accessible hearing technologies. He is an international editorial associate for the Journal of the American Academy of Audiology and associate editor for the International Journal of Audiology. Grant is also the scientific director of Tinnitus Tunes an internet-based tinnitus treatment resource for clinicians and patients.

Disruptive Innovation in Clinical Audiology
Ian Windmill
Clinical Director, Cincinnati Children’s Hospital Medical Centre

Abstract
Disruptive innovations are concepts, products, services, rules, values or models that change operations in a current market or create new markets. In audiology, disruptive innovations have the potential to change assessment, management or treatment paradigms, or to change the service delivery model directly. Recently, the President’s Council of Advisors on Science and Technology (PCAST) and the National Academy of Medicine produced recommendations on hearing care in the U.S. that could disrupt the delivery of audiologic care. Pharmaceutical treatments, expanded use of personal technologies, and alternative delivery systems are all emerging as potential disruptions to historical models of hearing care. While the genesis of this presentation are disruptions within the U.S. market, the potential for global disruptions must be considered.

Key Learning Objectives
At the conclusion of this session, the participant will be able to:
• Understand the market forces that are impacting the delivery of hearing care in the U.S.
• Identify external market forces that may impact ideologic practice in the future
• Develop strategies to respond to current and potential disruptions to the historical model of hearing care delivery

Biography
Dr Windmill serves as the Clinical Director of Audiology at Cincinnati Children’s Hospital Medical Center and as an adjunct Professor in the Department of Otolaryngology at the University of Cincinnati. He began his career at the University of Louisville School of Medicine as a faculty member in the Division of Audiology of the Department of Surgery. He was a partner in University Surgical Associates, a 50-doctor multi-specialty group, where he was elected both secretary and treasurer. From 2009 through 2014, he served as Chief of the Division of Communicative Sciences in the Department of Otolaryngology and Communicative Sciences at the University of Mississippi Medical Center. Dr Windmill is the current President of the American Academy of Audiology. He served on the Board of Governors of the American Board of Audiology, and is past Chair of the Board of Directors of the Accreditation Commission for Audiology Education. His interest areas include the diagnosis of hearing disorders, health care policy, and education of audiologists.

Does fine tuning hearing aids make a noticeable difference?
William M. Whitmer
Senior Investigator Scientist, Medical Research Council/Chief Scientist Office Institute of Hearing Research Scottish Section (Glasgow Royal Infirmary)

Abstract
During a hearing aid fittings, patient feedback is a crucial part of the process. Adjustments to the device as well as the acoustic changes of current technologies may fall below the threshold of the patient, leading to confirmation bias and decreased adherence, respectively. To improve fittings, we argue that adjustments should be greater than the smallest immediately detectable change – just noticeable difference (JND) – in hearing-aid parameters. Using robust adaptive procedures, we measured the JNDS for changes in speech-to-noise ratios (SNR) for various stimuli, as well as the JND for positive and negative gain changes away from a prescription reference. From individual psychometric functions we have also estimated Intelligibility JNDS, the detectable change in performance. The SNR JND was 2.5-4.4 dB, a dramatic (one-third to two-thirds) increase in the level of the speech relative to other sounds. The behavioural equivalent was 13-33% JND in improved intelligibility. The JND for gain changes was 6 dB, far greater than the current practice. These results provide a framework for fitting hearing aids using adjustments that elicit reliable responses that can help enhance clinical practice and optimize fitting software.

Key Learning Objectives
• How psychophysics relates to the fitting process
• What differences you can expect a patient to hear during fitting
• Establishing expectations of noticeable benefit with patients

Biography
I’ve whittled away a few decades with hearing-aid design, development and evaluation, sound localization, patient-reported outcome measures and good ol’ psychophysics. I also take a fancy to unconventional hearing prostheses (rethinking the transducer, receiver, and bits between), more ecological validations (surely there’s a better bridge between the lab and the field) and better measures of benefit. I was born in the former screw capital of the world and now live in the former shipbuilding capital of the world.

10:50–12:30 ALSH 1 & 2
Moderator: Claire Benton

Free Paper
Eleanor Brown
Paediatric Audiologist, Chesterfield Royal Hospital NHS Foundation Trust

Abstract
The purpose of this study is to critically evaluate the school entry hearing screen (SEHS) in North Derbyshire, focusing on the effectiveness of the screen as a tool for identifying permanent childhood hearing impairment (PCHI). It is known that most cases of PCHI are present from birth. It is acknowledged that some form of screening in needed to identify late onset hearing loss. (Bristow et. al. 2008) It is less certain that the SEHS is the best way to pick up these cases. (Bristow et. al. 2008).

Method:
A retrospective data analysis was carried out to identify the number of cases of PCHI first identified by the SEHS. Children born after September 2002 and present on the North Derbyshire PCHI database before September 2015 were included. This ensures that all children in the
study were born after the introduction of Universal Newborn Hearing Screening in North Derbyshire. These cases were critically evaluated to identify any common features of the cases identified.

Results:
Over the 13 year period the data showed that on average the SEHS picks up 4 cases of PCHI per year. Most of these cases (69%) were mild, but a significant amount of children identified needed amplification (45%). Of the cases of PCHI identified 72% were sensory neural, 22% had a fixed conductive loss and 6% had a mixed loss. The majority of cases of PCHI (78%) had previously passed newborn hearing screening.

Conclusion:
The SEHS in North Derbyshire is identifying a significant number of cases of PCHI

Key Learning Objectives
• Make audience aware of North Derbyshire’s School Hearing Screening Protocol
• Understand the possible benefit of continuing a school entry hearing screening programme
• Provide an insight into the nature of permanent childhood hearing impairments detected by school entry hearing screening

Biography
I currently work as a Paediatric Audiologist at Chesterfield Royal Hospital where I have worked for around 20 years. I have recently completed a MSc in Health and Social Care at Derby University and my presentation is based on the service review I carried out to complete my dissertation. I have always had an interest in the school hearing screen and have provided annual update training to our school nursing team.

Hyperacusis in children
Rosie Kentish
Consultant Clinical Psychologist, Royal National Throat Nose and Ear Hospital, UCLH Foundation Trust

Abstract
Sensitivity to sound is a fairly common complaint in childhood, ranging from mild discomfort in response to sound, to extreme distress, pain, and avoidance of sounds and situations where they occur. In severe cases it can significantly impact the child both at home and at school, and cause disruption to family life. There is little research to inform our clinical practice with regard to treatment for children. Sound therapy and/or behavioural desensitisation are often advocated. This presentation will cover prevalence of hyperacusis in children, and associated audiological and neurodevelopmental conditions. A multidisciplinary approach to the management of clinically significant hyperacusis is advocated. For each individual child, management involves assessing the impact of hyperacusis, and the interaction between hyperacusis, fear of sound and anxiety. A child friendly model used for explaining hyperacusis to children and their parents will be provided.

Key Learning Objectives
• Develop skills in psycho-educational counselling of children with hyperacusis using a simple, child friendly model
• Understand the principles of desensitisation techniques, and
• When and why this approach is likely to benefit children with hyperacusis

Biography
Rosie Kentish joined the Royal National Throat Nose and Ear Hospital in 1987 as Head of the Paediatric Clinical Psychology Department, providing psychological support for children with a range of audiological conditions, including tinnitus, hyperacusis, misophonia, and cochlear implants. Her particular clinical interest is in developing psychological approaches to the management of childhood tinnitus and hyperacusis, and she has written a number of chapters and articles on childhood tinnitus. Recently she co-authored the new British Society of Audiology’s Practice Guidance on the Assessment and Management of Tinnitus in Children and was chair of the working party. She is joint director of the UCL Ears Institute’s Tinnitus and Hyperacusis Masterclass, and is also co-organiser of the British Tinnitus Association’s course on Managing Children with Tinnitus.

Free Paper
Cochlear implant candidacy – time for a NICE change?
Tracey Twomey
Consultant Clinical Scientist, Nottingham Auditory Implant Programme

Abstract
Introduction
In 2009 NICE issued a technology appraisal which formed the guidance underpinning current CI candidacy in UK. Since then surgical procedures have improved and there have also been major changes in technology.
In 2015 BCiG surveyed members on key priorities for the organisation and candidacy was seen to be the most critical aspect. In response BCiG prepared a supplement for Cochlear Implants International outlining current issues and challenges.

Method
Members were invited to submit articles on evidence to support candidacy changes or clinical issues faced in the field. All submitted articles were peer reviewed prior to acceptance.

Results
Twenty articles were accepted to the specialist supplement outlining the evidence and issues.

The areas covered showed that our criteria are some of the most conservative worldwide, that we should consider changing the audiometric cut-off point and revisit the speech perception assessment battery.
In addition, the candidacy criteria should be appropriate for a range of populations to include those with English as an additional language, prelingually deaf adults and those with asymmetric hearing losses.
Free Paper
Candidacy for Best of Both Worlds- Electric Acoustics Stimulation for Children with Partial Hearing

Marsha Jenkins
Clinical Scientist, St Thomas’ Hearing Implant Centre

Abstract
Audiologists can be unaware of the changing criteria for CI and implantation in children with residual hearing. In the UK, such children are likely to have profound high frequency hearing loss within current NICE guidance (>90dBHL at 2 & 4kHz), and much better hearing in the low frequencies. We explored the clinical criteria and timing of implantation for this patient group.

Methods
25 children (31 years) with low frequency residual hearing, who were implanted at Birmingham’s Children’s and St Thomas’ centres between 2008 and 2015 were reviewed.

Results
The post-implant scores for both the CAP2 and SIR show an upward trend over time. All SIR scores remained stable or improved post-implant. Limited or no improvements in speech intelligibility were observed with older children.

Discussion
All children in our group perform better with their CI than with their hearing aids, regardless of the level of hearing preservation. Early implantation is equally important for children with partial hearing as with more “traditional” candidates. More professional education is required for timely referral, audiologists need better understanding of the candidacy and the limits of acoustic aiding in profound high frequency losses.

References

Biography
Marsha is joint Lead Audiological Scientist at the Paediatric Hearing Implant Centre at St Thomas’ Hospital, London. The centre offers all hearing implants and Marsha also co-ordinates the Bone Conduction and Middle Ear Implant Programme. Marsha has over 15 years’ experience of working in the field, joining the team in 1998.

Marsha graduated with a B.Sc. (Hons) in Biochemistry from Glasgow University then undertook an M.Sc. in Audiological Science at University College London, qualifying in 1998.

The team at St Thomas’ are particularly experienced in dealing with children who have complex needs as well as significant hearing loss and strive to promote language for this patient population and improve their quality of life.

Marsha is currently interested in non-traditional cochlear and bone conduction implant candidates with particular emphasis on early referral to maximise outcomes.

SPONSORS TRACK
10:50–12:30 SEMINAR SUITE
Moderator: Lizanne Steenkamp

Smart Hearing Aids, Smart Phone Apps, The Cloud…Bringing it all together!
Robert Ryman
Business Development Manager, Sivantos
Sponsored by Sivantos

Abstract
Modern hearing aids can have a multitude of functions and settings. Obtaining early adoption and continued hearing aid use after fitting is dependent on clarity of tone, richness of sound, how natural things sound and comfort when listening to loud noises. Added benefit comes from the ability to minimise back ground noise, ease of adjusting settings, ability to tell direction of sound and the degree it manages feedback.

We took all these factors into account to make a specific smart hearing aid for new users, with age related hearing loss, and we are adding more to create a patient centred approach!

What was the reaction of the Audiologists taking part in a pilot when Sivantos trialled these new smart hearing aids?

Key Learning Objectives
• Can hearing aid innovation change our fitting pathways?
• How much fine tuning do we let the patient do?
• What impact will the cloud have on our clinical practice?

Biography
Rob has worked in Audiology since 1976 training at St. Mary Abbotts Hospital in London and went on to further training as a Hearing
Participants will be able to describe 2-3 benefits of advanced E-health hearing care ecosystem could be used to empower especially, the eHealth platforms online and internet and apps and
Participants will be able describe the benefits of visual cues for eHealth can open for new possibilities and a change of roles in the especially, apps and online rehabilitation can lead to a
Discussion eHealth can open for new possibilities and change of roles in client journeys. Especially, apps and online rehabilitation can lead to a paradigm shift and increased client involvement. Clinicians could have a central role in future interventional audiology as data and information providers in a holistically based solving of chronic diseases in the elderly population. Concerns regarding reliability of apps, legal frameworks, data safety, and reimbursement are issues to solve for successful implementation of eHealth.

Key Learning Objectives
- eHealth can open for new possibilities and a change of roles in the audiological client journey.
- Especially, the eHealth platforms online and internet and apps and mobile technologies may contribute to a paradigm shift with increased client involvement and empowerment, personalization of hearing aids, and involvement of clinicians in future interventional audiology.
- An eHealth hearing care ecosystem could be used to empower both clients and clinicians through a client-clinician relationship management system, real-time client experiences with HAs, and evidence-based clinical support through big data and information exchange.

Biography
Annette Cleveland-Nielsen is a DVM and holds a PhD in epidemiology and has worked several years with eHealth within Public One Health risk management and communication and eHealth within audiology at the Eriksholm Research Centre since 2015.

ASSISTANT AND ASSOCIATE WORKSHOP
10:50–12:30
FORTH ROOM, CLYDE AUDITORIUM
Moderator: Iain Edgar

Enhancing Earmould Selection
Sue Falkingham
Audiologist Education and Training, Starkey Hearing Technologies

Abstract
Earmould selection is a commonly underestimated part of the hearing system as a whole. The earmould can have a great effect on comfort, wearability, acceptance and acoustics of the overall system. As a cost high volume item the earmould selection process often becomes routine and habit driven. This presentation will focus your mind for 30 minutes on what you should think about when selecting earmoulds as part of your technology offering.

Biography
Sue Falkingham is a qualified Audiologist, Hearing Therapist and Registered Hearing Aid Dispenser. Currently working for Starkey Hearing Technologies in the UK as part of the Training and Education Team.
1:30–2:30 MAIN AUDITORIUM

Monitoring Ototoxicity with DPOAEs

Ghada Al-Malky
Senior Lecturer, The UCL Ear Institute, University College London

Abstract

Ototoxicity is damage to the ears following exposure to medications. It is a common yet preventable cause of hearing and/or balance problems. There are hundreds of drugs and chemicals that can cause hearing loss with the most established ototoxic drugs including aminoglycoside antibiotics and platinum-based chemotherapeutic drugs like cisplatin where high frequency progressive hearing loss develops initially through damage of the outer hair cells of the basilar turn of the cochlea then progresses apically to affect frequencies needed for speech and communication. Early detection of damage is key to prevention of further damage and can only be achieved by active monitoring of hearing/balance function as waiting for patients to start complaining means that permanent damage has already occurred. Previous research has shown that high frequency audiometry has the highest sensitivity to detecting early ototoxicity however as it is a time-consuming procedure requiring active patient cooperation DPOAEs have significant advantages in the active repeated monitoring of the generally unwell patients exposed to these drugs. During this presentation we will explore key points to consider when using DPOAEs for ototoxicity monitoring including repeatability of DPOAEs and parameters used in monitoring protocols, what constitutes a significant change, how sensitive they are to change, how and when to use them and how to record/report results in order to allow clinicians to make informed decisions to avoid this adverse effect while maintaining the survival and general wellbeing of their patients.

Key Learning Objectives

• Introduction to ototoxicity and the need for active audiological monitoring to allow for early detection and prevention of further damage
• Exploring the evidence base supporting the use of DPOAEs in monitoring for auditory damage caused by ototoxicity
• Identifying key points needed in order to effectively use DPOAEs as a monitoring tool e.g. recording parameters, repeatability and pass/fail criteria that confirm cochlear damage, precautions that need to be considered to increase test sensitivity and specificity

Biography

Dr Al-Malky specialized in Audio-vestibular medicine in 1996 at the Faculty of Medicine, Alexandria University, Egypt, where she completed her Master’s Degree and training in 1996. She then moved to the UK in 2000 where she worked in the NHS at Glen Otwyd Hospital, North

Forth Valley Open access model

Jennifer Pow
Service Manager, Forth Valley

Abstract

How one NHS clinic has approached the increasing number of return patients requiring Audiology services, and how ATO / SATO assist in the delivery of this – why we felt the old way had to change – what we hoped to achieve with new thinking – what an ATO / SATO contributes to the process.

Key Learning Objectives

• Triage at open access
• The valuable role that assistants have in clinical work
• The value of volunteers

Biography

Jennifer – I have worked in Audiology for over 30 years; with a mainly adult caseload throughout the first 20 years and since then specialising in Paediatrics. My current role is as Head of Audiology in NHS Forth Valley in Scotland. I have been actively involved in the improvements seen in NHS Audiology Services, firstly through the modernisation programme and more recently Quality Standards, Forth Valley Audiology Team have been successful on 3 occasions in recent years in winning the BAA Team of The Year award for implementing team driven change and improvement in our service.

Stephanie – I qualified as an Audiologist in 1993 and since then have worked across NHS Greater Glasgow and, more recently, NHS Forth Valley. Since joining the team here in 2005 we have won BAA Team of the year 3 times! During my time here I have also had the opportunity to take on secondments with NHS Education for Scotland and the Scottish Government, Healthcare Science Team. I was involved in the creation of the recent Scottish Government Healthcare Delivery Plan as Scottish Lead for Physiological Sciences. As well as my qualifications in Audiology I have post grad qualifications in Leadership & Management and I am a qualified Coach & Mentor. In September 2014 I returned to Audiology full time as Lead for the adult Hearing Service in Forth Valley, we began roll out of the Open Access Service that Autumn which has been hard work for all involved but a fantastic success.

My main interests are Adults with complex needs and I am also the Transition lead for young adults moving up to the adult services and the Audiology volunteer lead. However, I dabble in most things!

Personally, I have been married to Paul for nearly 20 years, we have 2 teenagers and my interests outside Audiology include the gym, eating Thai food and drinking good wine.
Wales for several years before taking up an academic role at the Ear Institute, UCL, London, where she is currently a Senior Lecturer. Dr Al-Malky’s research interests include: * Translational research aiming at bridging the gap between laboratory auditory biophysics and genetics research and clinical applications in human patients. * The verification of the clinical usefulness of the continuous advances in auditory rehabilitation and establishing how they could be best utilized to improve patients’ quality of life. Her current specific research is related to investigating otoxicity in children from an audiological, genetic susceptibility and clinical impact perspective. One of her major future aims is to establish collaborations to enhance the role of the UK audiology profession in the provision of ototoxicity monitoring and to help establish UK guidelines and standards of care for the management of patients with ototoxicity.

**ABR in older children**

**Michelle Foster**  
Clinical Scientist (Audiology), Hearing Services, Sheffield Children’s NHS Foundation Trust

**Abstract**

The aim if the session is to introduce a new document that is being developed by the BSA Electrophysiology Special Interest group (BSA EPSIG) Auditory Brain Stem Response testing post newborn and adults. It will be available soon for consultation. The scope of this document covers testing infants, children and adults using Auditory Brainstem Response (ABR), an electrophysiological technique. This document’s purpose is to support the current Auditory Brainstem Response testing in babies 2013, by specifying to clinicians what parameters can be changed safely if the test conditions are less than ideal i.e. in operating theatre, if the child is older etc.). The document includes general requirements, test strategy and the use of Neurological ABR (nABR).

**Outcomes:**

- To understand the scope and purpose of the document. To understand the rationale behind the clinical testing and parameters that can be altered to help obtain waveforms and its limitations. To understand neurological ABR.

**Biography**

Michelle Foster is a clinical scientist in Audiology at Sheffield Children’s Foundation NHS Trust. After completing a PhD in Medical Biochemistry in 2002, she began her training in Audiology at Manchester University and subsequently at Sheffield-Hallamshire Hospital. Michelle went on to specialise in paediatric audiology at Sheffield Children’s Hospital where, she has over 13 years’ experience. The department has recently successfully received IQIPs accreditation. Michelle’s particular interests are in Auditory Processing Disorder in children and advanced testing in paediatrics. Her current involvement in the BSA Electrophysiology Special Interest group (BSA EPSIG) has led to editing a document that should be available soon for consultation, Auditory Brain Stem Response testing post newborn and adults. Michelle is responsible within the department for the development of the Health Care Science Apprenticeship’s which have been a huge success. Michelle also has a keen interest in training and developing students on the STP program, and she is currently an examiner. Her real passion is to deliver highly specialised diagnostic audiology and to help families engage and enjoy their experience in Audiology.
Key Learning Objectives

- How AV intervention differs from other programmes of intervention
- The outcomes for children whose families have participated in AV for more than 2 years
- The elements of partnership working that parents find particularly beneficial

Biography

Sarah has worked as an audiologist with both paediatric and adult populations within the NHS, Academic and Charity sectors. At the University Laboratory of Physiology, Oxford, she conducted a prospective, longitudinal study into the effects of OME on the developing binaural auditory system as part of her doctorate studies. She returned to the NHS, working at the Royal Berkshire Hospital, before leaving to set up a newly formed, independent assessment centre for children with hearing impairment, The Burwood Centre. More recently, Sarah was a lecturer for the BSc Audiology at Aston University. Sarah is now part of the team at Auditory VerbalUK®. She is a former Chair of the Royal College of Speech and Language Therapists’ Auditory Verbal Clinical Excellence Network. She is the first British-trained audiologist to qualify as a listening and spoken language specialist certified auditory-verbal therapist (LSLS Cert AVT).

Cognitive measures of hearing aid benefit

Alison Stone
Training Manager & Audiologist, Oticon
Sponsored by Oticon

Abstract

Speech performance in noise is a well-established measure of the benefits of new hearing technology features. But does this measure tell the full story? What about the cognitive load, and can we measure this reliably? A novel approach to measuring the cognitive benefits of hearing aid technology will be explored in this presentation. Three studies were carried out with the new MSAT class of hearing aids, which provides the wearer access to multiple speakers in a dynamic environment.

Key Learning Objectives

- An appreciation of the relationship between hearing, cognition, and listening performance in noise
- An understanding of the principles of MSAT technology
- An appreciation of the role of measures of effort and cognitive load in evaluation hearing aid performance

Biography

Alison’s journey in Audiology began with an honours degree in Speech Pathology and Audiology at the University of the Witwatersrand. Her clinical roles have included audiology at a government community health centre, dispensing hearing aids in private practice, and electrophysiological & vestibular diagnostics for ENT practices. Alison joined Oticon South Africa in 2005, heading up the Customer Relations department. In 2008 she joined Oticon UK and currently leads all training and education activities.
ASSOCIATE/ASSISTANT TRACK

14:30–15:30
FORTH ROOM, CLYDE AUDITORIUM
Moderator: Iain Edgar
Otoscopy and tips on impression taking
Paul Lamb
Technical Director, Starkey Hearing Technologies

Abstract
During the session Paul will discuss how to safely take an ear impression and also point out contraindications. Also during this session final fitting of an impression will be discussed so students understand minimum criteria a manufacturer requires to manufacture earmoulds and custom in-the-ear hearing aids.

Key Learning Objectives
- How to safely inspect an ear and check suitability for an aural ear impression
- Understand the advantages and disadvantages of various impression materials
- How to inspect your final ear impression for suitability

Biography
Paul Lamb has worked for Starkey Hearing Technologies for 29 years. During his career he has worked to create training programmes to ensure students learn their skills efficiently to provide good care and safe practice to their patients. Paul has a varied role teaching on various accredited courses and he also lectures on behalf of Starkey at numerous academic and industry events throughout Europe. Paul is also a registered hearing aid dispenser with the HCPC.

15:55–16:55 MAIN AUDITORIUM
Moderator: Christine DePlacido
Hearing aids, combination devices and tinnitus management: What, Why, How?
Associate Professor Grant Searchfield
Director Hearing and Tinnitus Clinic, Audiology and Centre for Brain Research, The University of Auckland
Brain Research New Zealand

Abstract
Sound therapies are commonly used alongside psycho-education in audiology-based treatments. The use of sound in the management of tinnitus is not without a number of controversies as to what it is, why it should be used and how it should be done. Sound therapy can provide immediate relief and in many cases acts as a treatment. Evidence for sound therapy has not, historically, been strong, but new research is beginning to address this. Psychoacoustic models of tinnitus and sound therapy appear to have fallen out of favour since the 1980s. This work supports a psychophysical model of tinnitus sound therapy that incorporates: signal detection, attention, memory and the individual psychology of patients. The aim of this review is to consider emerging and existing evidence for sound’s ability to relieve or treat tinnitus, and present an evidence-informed sound therapy framework that attempts to unite different protocols under an “Adaptation Level theory”. A focus is on how to identify individual patient needs and modify clinical approach accordingly. Clinically useful tools for selecting and fitting hearing aids and combination hearing aid sound generators will be introduced and described.

Key Learning Objectives
- Discover what the role of hearing aids and combination aids are in tinnitus therapy
- Learn why hearing aids and sound therapy provide therapeutic benefits
- Understand how to account for individual differences to improve hearing aid/sound therapy success

Biography
Grant D. Searchfield is an Audiologist and neuroscientist. In 2001 he became the inaugural director of the University of Auckland’s Hearing and Tinnitus Clinic. He obtained his Doctorate in Audiology from The University of Auckland in 2004, and was head of the Audiology program from 2007–2014. He is a primary investigator in the University of Auckland’s Centre for Brain Research and Brain Research New Zealand. Assoc Prof Searchfield is a member of the Scientific Advisory Committee of the American Tinnitus Association. His research has a strong emphasis on the development of new clinical assessment and management methods for tinnitus and their neuro-cognitive basis. In addition to tinnitus research he is involved in the study of the neurological basis of multisensory integration, and accessible hearing technologies. He is an international editorial associate for the journal of the American Academy of Audiology and associate editor for the International Journal of Audiology. Grant is also the scientific director of Tinnitus Tunes an internet-based tinnitus treatment resource for clinicians and patients.
Abstract

Cochrane systematic reviews including a meta-analysis provide the highest level of clinical evidence as they focus on well-conducted controlled trials. A Cochrane review on hearing aids in adults with mild to moderate hearing loss (MMHL) was prompted by two reasons. First, a previous systematic review on hearing aids only included studies up until 2004 and so the time is right to update this evidence. Second, potential changes to the funding of hearing aids in the NHS have highlighted the need for high-quality evidence to inform clinical decision-making.

Method

The review protocol, published by the Cochrane Collaboration, aims to evaluate the effectiveness of hearing aids for MMHL as defined by the World Health Organization, in adults. The review included randomised controlled trials only. The primary outcome measure was self-report of hearing-specific health-related quality of life (QoL), and secondary outcome measures were generic health-related QoL and adverse effects.

Results

The search was carried out on the 15th January 2016 across a range of electronic databases. 2518 abstracts and titles were identified for screening, of which 83 full texts were obtained. A total of four texts met the inclusion criteria for data extraction and analysis, currently ongoing.

Discussion

The Cochrane review will be published in Autumn 2016 alongside a horizon scanning review of new and emerging technologies for hearing loss. These will provide up-to-date high-level evidence on the effectiveness of a wide range of hearing devices for adults with MMHL.

Key Learning Objectives

- To describe the hierarchy of research evidence
- To explain a forest plot
- To summarise the evidence on the effectiveness of hearing aids

Biography

Dr. Melanie Ferguson is a Consultant Clinical Scientist (Audiology) at Aston University in Birmingham. She is actively involved in professional affairs and is currently the Chair for the British Society of Audiology Adult Rehabilitation Interest Group, Lead examiner for the British Academy of Audiology and is a member of the Honors Committee for the American Academy of Audiology. She is the NIHR lead advocate for Audiology and is a full member of the NICE Guidelines Committee for Hearing Loss.

Abstract

Meniere’s disease is an idiopathic aural disorder that is defined as recurrent self-limited attacks of acute hearing loss, tinnitus and vertigo. Since the discovery of Maniere’s disease over 150 years ago, many therapeutic trials have been studied. These include a low salt diet, diuretics, vestibular sedatives, life style change, intratympanic injections (Gentamycin and more recently Steroids) as well as destructive surgery. A national survey of UK otolaryngologists on the treatment of Meniere’s disease revealed that 94% used Betahistine, 71% salt restriction, 63% diuretics and approximately 50% insertion of a grommet. Betahistine is a strong H3 antagonist and a weak H1 agonist, it was first used in Europe in the 1970s. There have been several studies trying to assess the efficacy of Betahistine in the management of recurent vertigo attacks in Meniere’s patients and to lesser extent its effect on the hearing loss. Betahistine has a dose-dependent effect on the increase of blood flow in cochlear capillaries according to animal studies. Therefore, few trials have proposed the use of high dose of Betahistine to treat Meniere’s patients who suffer from intractable vertigo attacks. In this presentation, we will discuss the role of high dose of Betahistine in the management of Meniere’s disease. I will also discuss our own data and experience at the Balance clinic (Heartlands Hospital in Birmingham) in the use of high dose Betahistine in the management of intractable Meniere’s disease.

Key Learning Objectives

- Literature review regarding the use of high dose Betahistine in the treatment of Meniere’s disease
- Case review of 10 patients who were treated with high dose of Betahistine and their outcome measurement
- Discussion round alternative treatment of intractable Meniere’s disease

Biography

I am an ENT Associate Specialist at Heartlands Hospital in Birmingham. I developed a special interest in Balance Disorders after having done a master’s degree in Audiology Medicine in 2003 at University College London (UCL). I have been the lead Clinician in the Balance Clinic at Heartlands Hospital since 2006. I became an Honorary Lecturer at Aston University in 2012.
Abstract
A relatively new clinical entity which is migraine associated dizziness (MAD) has become a very common disorder. The objective of this study is to describe the auditory vestibular findings in MAD, which could play a major role in facilitating diagnosis and creating better awareness of the condition.

The study included 50 adults who were divided into two groups; the study group (cases) consists of 40 adults, all suffering from MAD, and a control group comprising 10 adult migraineurs. All patients in both groups were subjected to basic audiological and vestibular assessment. Vestibular assessment included VEMP, VNG, and SOT tests.

Results showed 77% of cases had normal peripheral hearing thresholds, the rest had SNHL. Caloric test gave the highest percentage of abnormal results (47.5%), followed by VEMP (30%). Positioning test revealed abnormality in 12.5%, positional test gave 5% abnormal results, and only one case showed down beating post head shake nystagmus.

There appears to be no typical pattern in vestibular testing for establishing diagnosis of MAD, which reinforces even further need for a carefully taken history and audiological assessment.

Keywords: migraine, dizziness, Audiometric findings, vestibular testing.

Key Learning Objectives
- Understanding the term Migraine Associated Dizziness (MAD)
- Audiometric and vestibular tests done in MAD
- Auditory and vestibular profile of MAD

Biography
Hedayat El-Fouly is assistant professor of Audiology at Cairo university hospitals. She graduated from the faculty of medicine, Cairo university in 1999, finished internship in 2001. El-Fouly had three years residency of audiology at the audiology unit, ENT department in Cairo university till 2004. El-Fouly finished her master degree in audiology in 2004. El-Fouly joined the cleft palate team in the pediatric hospital of Cairo university by that time. El-Fouly had her medical doctorate in audiology in 2007. She was assigned as a lecturer of audiology then. In the year 2012 she was promoted as an assistant professor of audiology. She joined the cochlear implant team at Cairo university hospitals in the year 2014 till now. Her main interests are in vestibular medicine and cochlear implant rehabilitation programme.

Access clinic for BPPV, altering the patient pathway and implementing a new triage system in the hope of reducing wait times and number of visits. An experienced audiologist carried out history and diagnosis and patient information sheets were produced. Figures taken from AuditBase referrals from the period of 01/04/2015-31/03/2016 show that 302 patients were seen in the clinic. 216 (71.5%) were treated and discharged, 10 (3.3%) cancelled prior to their appointment as symptoms had resolved, 4 (1.5%) did not attend and 72(23.8%) were referred on to ENT. Of those seen and treated by audiology only 35 (16%) required more than one follow up appointment. Results show that Audiology clinics can directly manage cases of BPPV reducing the burden on ENT vestibular clinics. It is expected that referrals on to ENT will reduced further with improved referral triaging.

SPONSORS TRACK
15:55–16:55 SEMINAR SUITE
Moderator: Sue Fallkingham

Considering Cognition
Dr Jeff Cruckley
Senior Research Scientist, Starkey

Abstract
Do you ever have questions that you would like to investigate in your practice setting? This session will provide opportunity for discussion regarding small scale clinical research.

Key Learning Objectives
- Identify key points from the literature regarding the relationship between cognitive decline and hearing loss
- Identify key points from the literature regarding the relationship between hearing aids and cognitive decline
- Explain the implications of cognitive capacity for benefit from hearing aid features

Biography
Jeff Cruckley, Ph.D., earned his undergraduate degree in biology and psychology from McMaster University. At The University of Western Ontario (Western University), Jeff earned his M.Sc. in audiology in 2007 and his Ph.D. in Hearing Science in 2011 and a funded internship at Vanderbilt University in 2008. Jeff completed a post-doctoral fellowship at the Brain & Mind Institute at Western University and worked as a clinical audiologist in private practice. Jeff is now a Senior Research Scientist at Starkey Hearing Technologies, adjunct lecturer at the University of Toronto, and adjunct faculty at McMaster University. He engages in research on naturalistic approaches to understanding auditory ecology, and the relationships between hearing loss, cognition, and technological innovations. Jeff is passionate about hearing science and enjoys teaching on the topic.
**Day 2 Programme – Friday 11th November 2016**

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<tr>
<th>Time</th>
<th>Main Auditorium Lomond Suite</th>
<th>Alsh 1 &amp; 2</th>
<th>Seminar Suite Sponsors Track</th>
<th>Forth Student Track</th>
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<tr>
<td>08:00–08:45</td>
<td>Exhibition Opens – Hall 2</td>
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<tr>
<td>08:15–08:45</td>
<td>Breakfast Symposium – IQIPS: How audiology can lead the quality assurance of science and diagnostics across your trust</td>
<td>Ruth Thomsen, NHS England</td>
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<td>08:15–08:45</td>
<td>NHIR Workshop – Research Priorities to Research Questions; your chance to influence funding in hearing research</td>
<td>Kathy Tier, Research Manager, NIHR Evaluation Trials &amp; Coordinating Centre and Dr Melanie Ferguson, Consultant Clinical Scientist (Audiology), Nottingham Hearing Biomedical Research Unit</td>
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<tr>
<td>09:00–09:15</td>
<td>Welcome to Day 2 of Conference – Michelle Booth, Incoming President, British Academy of Audiology</td>
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<td>09:15–09:45</td>
<td>Families of children with hearing loss: How and why to have the brain conversation – Bamford Lecture</td>
<td>Carol Flexer, Distinguished Professor Emeritus, Audiology, The University of Akron, Ohio</td>
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<tr>
<td>09:45–10:15</td>
<td>The Science of Repulsing Patients (and how to avoid it)</td>
<td>Curtis Alcock, Founder of Audira, An Online Think Tank for Hearing</td>
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<td>10:15–10:45</td>
<td>Refreshment break and exhibition viewing – Hall 2</td>
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<td>Fiona Barker, PhD Clinical Scientist and visiting research fellow, University of Surrey</td>
<td>11:10–11:30 Fatigue, Hearing Loss and Hearing Aids</td>
<td>10:10–11:10 Teaching, Supervision and feedback for your students Hannah Offer, Clinical Educator – AHP/Science, Nottingham University Hospitals Foundation Trust</td>
<td>11:00–11:10 Do you need to adjust for a multi-cultural Britain? Helen Schmidt, Pre-registered Hearing Aid Dispenser, Hidden Hearing</td>
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<td>There will be a 2 minute silence at 11am.</td>
<td>11:10–11:30 Leadership</td>
<td>11:00–11:20 Everything you ever wanted to know about HCS but were too afraid to ask… Adrian Carragher, Healthcare Science National Lead for Physiological Science</td>
<td>11:45–12:00 Free Paper Hearing Aid Dispenser. Help or Hindrance Kathryn Woodside, Pre-registered Hearing Aid Dispenser, Hidden Hearing</td>
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<td>11:30–11:50</td>
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<td>11:30–11:45</td>
<td>11:45–12:00 Free Paper Hearing Aid Dispenser. Help or Hindrance Kathryn Woodside, Pre-registered Hearing Aid Dispenser, Hidden Hearing</td>
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<td>Hyperacusis in adults Don McFerran, Consultant ENT Surgeon, Colchester Hospital NHS Foundation Trust</td>
<td>11:50-12:10 Hyperacusis in adults</td>
<td>11:45–12:00 Free Paper Hearing Aid Dispenser. Help or Hindrance Kathryn Woodside, Pre-registered Hearing Aid Dispenser, Hidden Hearing</td>
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<td>James Jackson, Associate Principal Lecturer in Psychology, School of Social and Health Sciences, Leeds Trinity University</td>
<td>11:50–12:10 Hyperacusis in adults</td>
<td>12:05–12:30 Demystifying Dementia Curtis Alcock, Director, Audify</td>
<td>12:00–12:15 Understanding the habilitation decisions parents make about their children with unilateral hearing loss: a qualitative study Amy Jauncey, Berkshire Healthcare NHS Foundation Trust, Aston University</td>
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<td>Free Paper Audiology in Primary Care: Evaluation of Initial Pilot Data Matt Evans, Principal Clinical Scientist / Primary Care Lead, Barts Candlerdard University Health Board</td>
<td>12:10–12:30 Locus of control and tinnitus distress</td>
<td>12:05–12:30 Demystifying Dementia Curtis Alcock, Director, Audify</td>
<td>12:15–2:30 Awards</td>
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## Day 2 Programme – Friday 11th November 2016

### Lunch, poster and exhibition viewing – Halls 1 & 2

#### Posters in Hall 1 and exhibition viewing – Hall 2

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<tr>
<td>12:30–14:25</td>
<td>Dockart 2</td>
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<td>Ampetronic – Programming Telecoils increases customer satisfaction and decreases returns – find out why by joining Awards.</td>
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<td>Dr Lorraine Gailey, Chief Executive, Hearing Link and James Bottrill, Ampetronic in Dockart Room 2</td>
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<th>Time</th>
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<tr>
<td>12:30–14:25</td>
<td>Main Auditorium Lomond Suite  Moderator: Karen Shepherd</td>
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<td>14:30–15:30 Developing a dementia service</td>
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<td></td>
<td>Charlotte Rogers, Hearing Therapist, Nottingham University Hospitals</td>
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<td></td>
<td>14:30–15:00 Looking after your new workforce – Preceptorship Programmes</td>
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<td>Hannah Offer, Clinical Educator – AF/Science, Norfolk and Norwich University Hospitals Foundation Trust</td>
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<td>14:30–15:30 Smart Hearing Aids – are you fitting to target or fitting to patient?</td>
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<td>Robert Ryman, Business Development Manager – Sivantos</td>
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<td>15:00–15:30 Free Paper</td>
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<td>Timely, Patient-Centred and Efficient: Open Access for Existing Hearing Aid Users</td>
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<td>Susannah Goggins, Principal Clinical Scientist, Betsi Cadwaladr University Health Board</td>
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<td>15:00–15:30 Screen and Fit value pathway could provide high value in identifying and supporting people with hearing loss earlier</td>
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<td>Jagjit Sethi, President, British Academy of Audiology</td>
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<td>15:40–16:00 Free Paper</td>
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<td></td>
<td>What do adults with mild and moderate hearing loss tell us about their experience of hearing loss?</td>
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<td>Rosemary Monk, Senior Teaching Fellow in Audiology, Aston University</td>
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<td>15:45–16:00 Integrating Services in the NHS</td>
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<td>Shamethera Rajakuladevan</td>
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<td>16:00–16:30 Measuring the impact of hearing loss on social participation: A mixed methods study</td>
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<td>Ethnie Heffernan, PhD Student, NIHR Nottingham Hearing Biomedical Research Unit, University of Nottingham</td>
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### 15:30–15:40 Comfort Break

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<td>15:40–16:30</td>
<td>Main Auditorium Lomond Suite  Moderator: Barbara Gregg</td>
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<td>15:40–16:00 Free Paper</td>
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<td>Susannah Goggins, Principal Clinical Scientist, Betsi Cadwaladr University Health Board</td>
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<td>15:40–16:00 Higher Specialist Scientist Training (HSST) Programme in Audiological Science: What is it all about?</td>
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<td>Dr Kai Uus, Reader in Audiology, University of Manchester</td>
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<td>16:00–16:20 Free Paper</td>
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<td>Screen and Fit value pathway could provide high value in identifying and supporting people with hearing loss earlier</td>
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<td>16:30–16:40 Closing Speech</td>
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### 16:30–17:00 Closing Remarks

- **Michelle Booth**, Incoming President, British Academy of Audiology

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The BAA Scientific Programme Committee reserves the right to make changes to the conference programme and speakers without prior notice.
The recently-announced Lead Healthcare Scientist (LHS) role highlights the importance of healthcare science leadership – and accreditation – in improving the delivery of quality care. With more key developments to be announced, IQIPS and other accreditation schemes will become an increasingly important part of profiling quality assurance across scientific and diagnostic services. Audiology services make up the bulk of IQIPS accreditations to date, and have a clear role to play in spreading the learning and good practice of accreditation across their organisations.

Join Ruth Thomsen, Scientific Director for NHS England (London), and other speakers (TBA) to learn more about how you can get ahead of the curve, and lead the quality assurance of diagnostics and healthcare science in your trust.

**Biography**

My career in Healthcare Science started in 1984 as a student NHS Medical Physics and Physiological Measurement Technician (Audiology). Whilst the majority of my career has been dedicated to the NHS I have also spent some years in Education and Training, Manufacturing and Humanitarian Audiology.

I have represented Audiology nationally for the British Academy of Audiology, and the Academy of Healthcare Science. I participated in working groups for Modernising Scientific Careers, Audiology Networks and the Professional body. Following a Clinical Leadership Fellow program in 2012 I was seconded to the Chief Scientific Officers (CSO) team at Department of Health where I worked closely in Any Qualified Provider early review and with Professor Adrian Davis OBE as Audiology advisor to the CSO.

I was appointed Scientific Director for London two years ago. I work within the Medical Directorate at NHSE (London). This role gives me a unique opportunity to enable Healthcare Science and diagnostic services in London to have strong representation at strategic level. I chair the LSDN and work in collaboration with many groups and networks across HCS in London. Nationally I work closely with the Chief Scientific Officer and her team to ensure that NHSE work streams are carried through to the regions. I continue to work clinically one day a week at Imperial. I am supported in my role by three wonderful teenage daughters and some truly inspirational colleagues and friends.
09:15–09:45 MAIN AUDITORIUM
Moderator: Michelle Booth

Families of children with hearing loss: How and why to have the brain conversation – Bamford Lecture
Carol Flexer
Distinguished Professor Emeritus, Audiology, The University of Akron, Ohio

Abstract
For 100’s of years, conversations about hearing loss have focused on the ear. Today, the conversation centers on the brain because we hear with the brain; the ear functions to channel sound to the brain. That is, the ear is the “doorway” to the brain for auditory information. The challenges posed by hearing loss result primarily from problems in the peripheral auditory system (the “doorway”) that keep sound from reaching the brain. If auditory information can be transmitted to the brain in a timely and expeditious fashion, via technology, then the negative consequences of unmanageable hearing loss on speech, language and literacy development can be averted. As pediatric audiologists, we have been talking about the brain-basis of hearing loss for years, but how effective are our brain conversations with families? Do we still have families who are not keeping technology on their children every waking moment? Do we still have some children whose brains are not stimulated with enhanced developmentally appropriate conversation in all environments – home, school and community? This presentation will offer some information and conversations we can have with families as we advocate for their infant/child’s auditory brain development and growth of intelligence.

Key Learning Objectives
- Describe auditory brain development as the foundation for listening, language and literacy for all children
- Discuss the relationship of neuroplasticity to the use of hearing aids, cochlear implants and remote microphone technologies
- Generate a conversation that describes hearing loss as a “doorway” problem

Biography
Carol Flexer, PhD, CCC-A, LSLS Cert. AYT is Distinguished Professor Emeritus of Audiology, The University of Akron. An international lecturer in pediatric and educational audiology and author of more than 155 publications including 14 books, Dr. Flexer is a past president of the Educational Audiology Association, the American Academy of Audiology, and the AG Bell Academy for Listening and Spoken Language. For her research and advocacy for children with hearing loss, Dr. Flexer has received four prestigious awards; two from The Alexander Graham Bell Association for the Deaf and Hard of Hearing -- the Volta Award and Professional of the Year Award, one from the American Academy of Audiology; the 2012 Distinguished Achievement Award, and one from Kent State University, The EHHS Hall of Fame Distinguished Alumni Award, 2015.

The Science of Repulsing Patients (and how to avoid it)
Curtis Alcock
Founder of Audira, An Online Think Tank for Hearing

Abstract
All of us that work within the hearing care profession know firsthand how life changing our work is. We’ve witnessed (and been involved with) dramatic improvements in both the provision and the technology. Yet despite our best efforts, there are still more people out there who avoid hearing care than approach it. Why? It seems that the attitudes of society towards their hearing have failed to keep pace with our own progress, so even after all these years we find ourselves bemoaning how long people wait before taking action, not to mention “the denial” and other barriers we encounter when they finally attend their first appointment. Is this always to be our profession’s fate? Will we be forever trying to persuade people to have something they simply do not want, no matter how good the technology, how attractive the design, and how accessible our service? Will we be having these exact same discussions in ten, twenty, fifty years? In this presentation we will approach the question from the perspective of the social sciences, by looking at how attitudes are formed and shaped. We will discover that much of what we do and say as a profession are, at best, maintaining many of society’s outdated attitudes – and at worst, may actually be creating some of the very barriers that make our jobs harder. Along the way we will learn the science behind what repulses people – and more importantly, the simple changes we each can make to avoid doing so.

Key Learning Objectives
- To understand and recognise three primary motivations of avoid/approach behaviour in humans
- To recognise how avoid/approach motivation explains the attitudes of people towards hearing care and hearing technology
- To be able to use this understanding to reframe hearing care services and appointments to make it easier for people to accept hearing technology

Biography
Curtis Alcock began his career in design and marketing before making the transition into hearing care 15 years ago. He now runs an independent hearing care practice. When he found that traditional approaches to public awareness did not nearly have the same effectiveness for hearing care experienced in other professions, he began a personal research project to identify where these barriers came from, and what could be done to address them, turning to the literature of the social sciences. Curtis has written extensively on the future of hearing care, the patient journey, and transforming society’s attitudes to hearing technology. He has lectured internationally in Europe, the US, Canada and Australia. Presentations on his practical how-to framework, “The 4 Questions: a framework for creating a new social norm for hearing”, have attracted standing-room-only crowds at major US conferences, and he has had opportunity to address members of the European Parliament on hearing and deafness. In 2013 he won the Ida Institute’s award for best public awareness campaign, which has since been used in the United States and across Europe and translated into 12 different languages.
10:50–12:30 MAIN AUDITORIUM
Moderator: Rosemary Monk

Supporting hearing aid use: behaviour change techniques in hearing aid fitting consultations
Fiona Barker
Clinical Scientist and visiting research fellow, University of Surrey

Abstract
The consequences of poorly managed hearing loss can be ameliorated with hearing aid use but rates of use are sub-optimal. The impact of audiologist behaviour on subsequent use, particularly over the long-term, is unknown. This presentation describes the role of the Behaviour Change Wheel in developing an intervention to introduce and embed particular clinical behaviours into adult hearing aid fitting consultations, within the framework of the Medical Research Council guidance on complex interventions. Audiologist behaviours that might influence hearing aid use were identified based on a systematic review and qualitative work with audiologists. An analysis, using the COM-B model, identified potential drivers of the target behaviours. This was used to select intervention functions and behaviour change techniques likely to influence behaviour in this context. This is the first study to use the Behaviour Change Wheel to develop a complex intervention in the context of audiology. The theory-based development of the intervention will facilitate evaluation of its feasibility and effectiveness.

Key Learning Objectives
- To understand the key role of behaviour in determining outcome
- To understand the importance of theory in developing behaviour change interventions
- To introduce the COM-B model and Behaviour Change Wheel

Biography
Fiona has been a clinical scientist for over 20 years, working in the NHS and private sector, specialising in vestibular assessment and rehabilitation. She holds a post-graduate certificate in evidence based psychological therapy and has a research interest in the interaction between patient and clinician behaviour and its influence on health. She recently completed a PhD in clinical and experimental medicine at the University of Surrey.

Fatigue, Hearing Loss and Hearing Aids
Graham Naylor
Section Director, Medical Research Council/Chief Scientist Office Institute of Hearing Research – Scottish Section

Abstract
Fatigue is common in a variety of chronic health conditions and can have significant negative effects on quality of life. Clinical experience and recent research suggest that persons with hearing loss may be at increased risk for fatigue, in part due to effortful listening that is exacerbated by their hearing impairment. However, the mechanisms responsible for hearing loss-related fatigue, and the efficacy of audiological interventions for reducing fatigue, remain unclear. In this presentation the core constructs, consequences and methods for assessing fatigue are described. Also, current knowledge linking hearing loss and fatigue will be summarised, as follows:- Hearing impairment increases the risk of subjective fatigue and vigour deficits.- Adults with hearing loss require more time to recover from fatigue after work, and have more work absences.- Sustained, effortful, listening can be fatiguing.- Optimal methods for eliciting and measuring fatigue in persons with hearing loss remain unclear.- Amplification may minimize decrements in cognitive processing speed during sustained effortful listening, but it is not known whether clinical interventions for hearing loss reduce persistent fatigue.

Biography
Graham Naylor has recently taken up the post of Director of the Scottish Section of the MRC/CSO Institute of Hearing Research (IHR) in Glasgow, Scotland. He leads the institute’s research programme in the areas of hearing disability and hearing aids, with projects seeking to understand real-life auditory behaviour, improve methods of assessing disability and intervention benefit, and propose innovative solutions for hearing problems. Prior to joining IHR, Graham worked for 20+ years at Oticon’s Eriksholm Research Centre, from 2000-2013 as Director. Here he was instrumental in promoting numerous research projects which have impacted the wider field of hearing-aid R&D. Graham is currently President-elect of the International Collegium of Rehabilitative Audiology.

Hyperacusis in adults
Don McFerran
Consultant ENT Surgeon, Colchester Hospital NHS Foundation Trust

Abstract
Hyperacusis is a word that denotes a particular form of impaired sound tolerance but is also used as an umbrella term for all types of impaired sound tolerance. In the late 20th century, disorders of sound tolerance were divided into three types: hyperacusis – a dislike of all sound above a certain intensity; recruitment – abnormal loudness growth; phonophobia – fear of certain sounds. It became clear, however, that some people have an aversion to particular sounds but are not fearful of them. A new word, misophonia, was therefore developed in 2001, defined as a strong dislike of sound. Phonophobia became reclassified as a subdivision of misophonia when fear is the dominant emotion. More recently some cases of misophonia have been reported in people with psychological conditions, particularly obsessive-compulsive disorder and anxiety and there have been calls to reclassify misophonia as a mental health condition. This taxonomy of disorders of sound tolerance has been challenged and in 2014 an international working group proposed dividing such disorders into loudness hyperacusis, pain hyperacusis, annoyance hyperacusis, and fear hyperacusis. Just as the nomenclature remains contentious, there is still considerable uncertainty regarding the clinical features, epidemiology and treatment options for all forms of impaired sound tolerance.
Personality is a key moderator of tinnitus distress. It is highly
provide structured and constructive student feedback
understand key aspects to creating a supportive and high quality
all manner of low-level interventions can boost self-control
identify qualities of a good, effective practice educator

Abstract
This presentation considers the effects of personality on tinnitus
distress – namely that every individual will appraise their tinnitus (and
the distress caused by their tinnitus) based on their personality, their
mood, the social support they have around them, and their environment.
One important variable is “locus of control” – the degree to which
tinnitus patients believe they can exert some control over their
perception of the tinnitus sensation. There are others and we will cover
them briefly, but the focus will be on locus of control, supporting
research evidence, and suggestions as to possible low-level
psychological interventions and why they may be effective.

Key Learning Objectives
- Personality is a key moderator of tinnitus distress. It is highly
  subjective
- Some aspects of personality – e.g. self-control – are key
- All manner of low-level interventions can boost self-control

Biography
James is a Chartered Psychologist and an Associate Fellow of the
British Psychology Society. Having tinnitus himself, James has always
been interested in the subjective and personal nature of the condition,
and his doctorate considered the effects of tinnitus distress on
concentration and task performance. His research interests include
how people cope with their tinnitus, how tinnitus affects individual
sufferers, and the individual differences that affect appraisal of the
tinnitus sensation. James is a psychology lecturer at Leeds Trinity
University, and has taught there for eight years. He regularly speaks at
a number of tinnitus self-help groups across the north of England and
is also a reviewer for the International Journal of Audiology.

Locus of control and tinnitus distress

James Jackson
Associate Principal Lecturer in Psychology, School of
Social and Health Sciences, Leeds Trinity University

Teaching, Supervision and feedback for
your students

Hannah Offer
Clinical Educator – AHP/Science, Norfolk and Norwich
University Hospitals Foundation Trust

Abstract
Working in a busy clinical environment and training students can be a
challenge for the practice educator and students alike. This session
aims to provide key information regarding the provision of good
practice education in a clinical setting. Aspects will include creating a
high quality learning environment within your own clinical practice,
qualities of a good practice educator and providing constructive and
beneficial feedback to your learners.

Key Learning Objectives
- Understand key aspects to creating a supportive and high quality
  environment
- Identify qualities of a good, effective practice educator
- Provide structured and constructive student feedback

Biography
Hannah graduated in Dietetics from Coventry University in 2008 where
she was awarded HCPC registration as a Dietitian. During her early
career, she worked in clinical research and co-wrote patient education
lectures and seminars. Hannah moved into clinical practice and
alongside her clinical work became a student coordinator, assessing
and supervising pre-registration dietetic students. She also supervised
the training of one of the first assistant practitioners in her department.
Currently, Hannah is working as a Clinical Educator for AHP and
Scientists, for the Practice Development and Education Department, a
role new to the Norfolk and Norwich University Hospital. She has set
up the role in line with Health Education England strategy and agenda.
Hannah’s current role offers support to a variety of Allied health and
Healthcare science professions to maintain high quality and consistent
pre-qualified/registered trainee education. In addition to her pre-qualified
work, Hannah also works with these professions in supporting their
newly qualified practitioners.

Leadership in Audiology

Darren Cordon
Chief Audiologist, Deputy Manager Hearing Services
Dept., Leicester Royal Infirmary

Charlotte Rogers
Hearing Therapist, Nottingham University Hospitals

Abstract
Leadership and leadership behaviours develop at any point in our
career journey. This talk explores leadership in the clinical world and the
importance of frontline healthcare staff in innovative, engaged practice
that benefits our patients and improves experiences for those we care
for and those we work with. The outcome of the Francis report 2013
called for a collective approach to leadership in the NHS. Creating
organisational culture in which all take responsibility for the success of
the whole, rather than a more traditional focus on individual capability.
In the microcosm of our own departments and clinical encounters
leadership behaviours influence and shape the workings of team
dynamics and even play their part in patient management. Both speakers recently completed postgraduate programmes in healthcare leadership. They speak candidly about the challenges, benefits and obstacles to enabling change in their organisations and their personal leadership journey.

**Key Learning Objectives**
- Consider the role of leadership in the clinical setting
- Understand the impact of leadership on patient experience
- Comprehend personal challenges, benefits and obstacles to enabling change in their organisations

**Biography**

**Darren** – Darren has been an Audiologist since 2007 and is Deputy Head of the Hearing Services at the University Hospitals of Leicester (UHL) NHS Trust. He graduated with a BSc in Audiology from De Montfort University in 2007, undertaking training at Derby and Nottingham Audiology Services. Darren is passionate about his profession and has been a volunteer representative for the BAAS Trent Region for the last five years, organising regular meetings on a variety of topics with guest speakers. One of his specialist areas of interest is service improvement for patients and he was proud to be part of Leicester’s NHS Improvement project, ‘Triage in primary care’ which was published nationally. He is committed to improving the patient experience and promoting Deaf awareness. His recent work in this area has been presented to the UHL Board and at the BAA conference in 2015. Darren was one of the 2012 cohort of the NHS ‘National Clinical Leadership Fellowship’ and holds a Post graduate certificate in Leadership and Service Improvement. He has recently completed the national Elizabeth Garrett Anderson leadership course and is due to graduate with a Master’s degree in Healthcare Leadership from the University of Birmingham in December 2016.

**Charlotte** – Charlotte leads a team of audiologists whose clinical role reflects the growing evidence base between cognitive decline and hearing loss. Her post graduate qualification in leadership provides a framework for this element of her work. Teaching, training and course delivery have been an extensive part of the previous five years in Charlotte’s audiology rehabilitation practice and have led to further invitations to discuss and disseminate good practices both within the realm of her clinical expertise and as a leader in healthcare. An audiology professional with fifteen years’ experience of working in specialist and complex rehabilitation with children and adults. Charlotte co-authored the British Tinnitus Association ‘Tinnitus in children and teenagers - Practice Guidance’ 2014 and lectures on the BTA course Tinnitus in Children and teenagers.

**Abstract**

We’ve all been aware of commissioning challenges over the past number of years. It’s been a time of change and uncertainty. Equally we’re aware of the funding black hole in the NHS, predicted to be a rising £30 billion by 2020/21. As such, there is a need for Commissioners to continue to look at models of delivery and seek contractual savings. This session will look at practical ways to prepare for and approach such challenges. It will review the successes and otherwise experienced by our service over the years, from shaping our AQP contract and influencing contractual elements, through to a call from the Priorities Committee to defend both mild/moderate and bilateral hearing aid fitting. There will be a practical focus on what evidence you can collate to improve chances of success, or at least try influence a decision. It will also draw on wider experiences, for instance, what was learnt from North Staffs and what are other services doing to demonstrate value and improved outcomes. Also, we are building a Commissioning Toolkit to promote sharing of information. It includes examples of evidence-based papers, audits and service evaluation. We encourage others to add to it. Working as a professional network, we can share ideas and resources and be greater than the sum of its parts.

**Key Learning Objectives**
- Understand the resources available – don’t reinvent the wheel
- The power of audit and service evaluation data – what may help you understand your service better?
- Review your service – identify opportunities and potential challenges

**Biography**

Rachel McCarthy is Consultant Clinical Scientist and Head of Audiology at the Royal Berkshire NHS Foundation Trust, where she has been for the last 10 years. Rachel has a doctorate in molecular biology and spent a number of years in scientific publishing and medical communications, before Audiology presented itself as an unexpected change in career path. Clinically, her main interest lies in Paediatric Assessment and Rehabilitation, particularly the 0-5 years.
Abstract

Introduction:
In June 2016, Betsi Cadwaladr University Health Board (BCUHB). Recruited three Audiology Primary Care Area Leads to develop and implement the first Primary Care Audiology Service in the UK. This was driven by the current GP recruitment crisis across North Wales and a need to deliver a sustainable model of working. This new service will allow patients with hearing, tinnitus and balance problems direct access to an Advanced Audiology Practitioner.

Method:
BCUHB covers a patient population of 694,000. The Health Board consists of three main hospitals and is geographically divided into three areas across North Wales. The West area covers Gwynedd and Anglesey, Central area covers Conwy and Denbighshire and the East area covers Flintshire and Wrexham. Each Primary Care Lead is responsible for piloting the service within their area, starting with 4-6 GP surgeries. Data will be recorded for each patient seen and results from a patient questionnaire analysed. This will allow ongoing evaluation and monitoring of the service.

Results:
The collection of audit data will start in August 2016. Although this will be ongoing for several months, we aim to present the initial pilot data collected over a 10-12 week period. The results obtained will be used to evaluate and develop the service.

Discussion:
We will evaluate the benefit of this service in terms of GP appointment time saved, patient satisfaction and quality of referrals into secondary care.

References:

Biography
Matt Evans completed his MSc Audiology at the University of Manchester in 2005. He has worked in Audiology as a Clinical Scientist for over 10 years, specialising in Adult Rehabilitation. In 2016 he took on a role as Central Area Lead for a new Audiology Primary Care Service in North Wales, along with colleagues Sarah Canton (East Area Lead), and Beverly Soden (West Area Lead). The team is now working to develop, implement and expand the service across North Wales.

Implementation of the brain conversation with newly diagnosed families in a London hospital: A pilot investigation

10:50–12:30 SEMINAR SUITE

Moderator: Claire Benton

Abstract

Audiologists at St. Thomas Hospital have been collaborating on a project with Professor Carol Flexer in researching the effectiveness of having brain conversations with both new and experienced families of children with hearing loss.

Parent and professional focus groups have been held, and materials have been developed to facilitate the brain conversation about hearing loss. We are very excited about the effectiveness of the “doorway” conversation on family understanding of hearing loss and on their use of technology. This workshop will discuss how to have the brain conversation with newly diagnosed families, and how to use the analogy of the ears being the doorway to the brain for sound/auditory information. Newly developed materials will be shared as useful tools to facilitate understanding of hearing loss for families of infants and children with hearing loss.

Key Learning Objectives
- Discuss the possible communication outcomes for newly diagnosed children with hearing loss
- Detail tips for developing listening, talking and reading skills in their child, if those are desired outcomes
- Practice having a brain conversation with the families of babies and children who have been diagnosed with hearing loss

Biography
Carol – Carol Flexer, PhD, CCC-A, LSLS Cert. AVT is Distinguished Professor Emeritus of Audiology, The University of Akron. An international lecturer in pediatric and educational audiology and author of more than 155 publications including 14 books, Dr. Flexer is a past president of the Educational Audiology Association, the American Academy of Audiology, and the AG Bell Academy for Listening and Spoken Language. For her research and advocacy for children with hearing loss, Dr. Flexer has received four prestigious awards; two from The Alexander Graham Bell Association for the Deaf and Hard of Hearing – the Volta Award and Professional of the Year Award, one from the American Academy of Audiology; the 2012 Distinguished Achievement Award., and one from Kent State University, The E-HS Hall of Fame Distinguished Alumni Award, 2015.

Kerri – Kerri Le Roux is the Clinical Lead of the Paediatric Audiology Service at Guy’s and St Thomas’ NHS Foundation Trust. Kerri obtained her BSc in Audiology at the University of Cape Town, South Africa in 2005. Since moving to the United Kingdom in 2007 Kerri has worked in different departments across the country settling in London in 2012 after honing her clinical skills as a paediatric audiologist. Kerri moved into more senior roles and went on to become the Team Leader for the Newham Paediatric Audiology service in 2015 before taking up her current position as Clinical Lead in December 2015.

Kerri is currently leading on the development of the Hummingbird Clinic for complex needs and autistic children. Kerri has a special interest the service offered to infants with hearing loss and is a peer reviewer for the
Key Learning Objectives

- The learner will be able to describe the guidelines for selection and fitting of amplification for children with bimodal devices.
- The learner will be able to describe assessment when working with bimodal devices for children.
- The learner will be able to describe outcome measures for children using bone conduction devices.

Abstract

Evidence-based practice guidelines for fitting hearing aids to children have been available to clinical audiologists for almost twenty years. More recently, specific protocols for assessment, verification, and validation of paediatric amplification have been developed. However, children who use bone conduction and bimodal devices can challenge clinicians in the application of these protocols. This presentation will discuss some practical solutions to the challenges hearing care professionals may face when working with these special populations.

Biography

Dave Gordey has been a pediatric audiologist for twenty-three years. He previously worked in a pediatric clinical practice in Victoria and Vancouver, British Columbia. Dave is currently the director of knowledge implementation and business relations for Oticon A/S. He is an adjunct professor at the University of British Columbia where he teaches classroom amplification. Dave is a Ph.D. candidate at York University in Toronto and his interests include amplification, implantable devices, auditory processing disorders, counselling and the social and emotional development of children with hearing loss.

Key Learning Objectives

- To gain a greater understanding of the Audiology scientist training programme from a student’s perspective.
- To learn about the convergences and divergences in the student experience.
- To increase awareness about the challenges and experience of the STP Audiology student that may offer insight into how better to support students.

Abstract

There is currently no existing research into the lived experience of students participating in the Audiology STP. For this reason, an explorative research methodology is appropriate to offer some insight in this field. This research takes an interpretative phenomenological analysis approach (Smith et al, 2009). The final superordinate themes that emerged were a physical journey of evolution, workload, and hope at the end of a lonely struggle. Given the lack of any pre-existing literature in this field this research offers some initial exploration into the Audiology STP experience. The conclusion of which was that the training programme became so much more than a professional training. The intense and emotive experience lived by participants suggests the need to recognize the ‘journey’ the trainees go through on their STP training.

Key Learning Objectives

- To gain a working knowledge of dementia and Alzheimer’s, including how they are diagnosed.
- To understand how dementia affects a person and the clues we can pick up in our own patients.

Abstract

Dementia has become something of a hot topic within audiology recently. Firstly, there are those studies telling us the likelihood of getting dementia increases with hearing loss. Secondly, many of the symptoms of dementia appear similar to unaddressed hearing loss. Thirdly, with 1 in 6 people over the age of 80 affected by dementia, chances are we’ll encounter patients with dementia on a fairly regular basis. This is a practical primer for anyone who wants a better insight into how dementia and Alzheimer’s affects a person’s thinking and behaviour and what this means for audiology and the patient journey.

Key Learning Objectives

- To think through the implications of dementia from the perspective of audiology and the patient journey.

Biography

Curtis Alcock began his career in design and marketing before making the transition into hearing care 15 years ago. He now runs an independent hearing care practice. When he found that traditional approaches to public awareness did not nearly have the same effectiveness for hearing care experienced in other professions, he began a personal research project to identify where these barriers came from, and what could be done to address them, turning to the literature of the social sciences. Curtis has written extensively on the future of hearing care, the patient journey, and transforming society’s attitudes to hearing technology. He has lectured internationally in Europe, the US, Canada and Australia. Presentations on his practical how-to framework, “The 4 Questions: a framework for creating a new social norm for hearing”, have attracted standing-room-only crowds at major US conferences, and he has had opportunity to address members of the European Parliament on hearing and deafness. In 2013 he won the Ida Institute’s award for best public awareness campaign, which has since been used in the United States and across Europe and translated into 12 different languages.

Abstract

Can you hear me?’ Student experiences of the Audiology Scientist Training Programme: An interpretative phenomenological analysis

Lydia Paniccia

Clinical Scientist (trainee), Portsmouth Hospitals NHS Trust

Key Learning Objectives

- To gain a greater understanding of the Audiology scientist training programme from a student’s perspective.
- To learn about the convergences and divergences in the student experience.
- To increase awareness about the challenges and experience of the STP Audiology student that may offer insight into how better to support students.

Biography

Lydia Paniccia has just completed the Scientist Training Programme in Audiology at Portsmouth Hospitals NHS Trust and Aston University. Lydia came to the STP from a background in Human Biology (BSc Hons at Loughborough University) and Human and Applied
Physiology (MSc at King's College London). Prior to the STP Lydia was working in Sleep and Respiratory Clinical Research at The Royal Brompton and Harefield NHS Foundation Trust and Imperial College London. Having completed the STP Lydia now plans to focus on her clinical work and is considering a future in academia and research.}

Assistant to a CEO of a large leisure organisation, I moved to Glasgow as my husband decided on a career change and is now studying Prosthetics and Orthotics at Strathclyde University which is what brought us from Northern Ireland to Scotland.

My sister, Lydia Glasgow, is an Audiologist for NHS Northern Ireland and she spoke so highly of her profession. Lydia loves her job and the people she gets to meet and she inspired me to get involved with Audiology. After careful consideration, I applied for a job with Hidden Hearing as a trainee Hearing Aid Dispenser. Hidden Hearing have the only employer led course which leads to HCPC registration. After successfully completing the course and Pre-Reg period I will qualify in January 2017. I decided to work for an independent provider as I enjoy the bespoke service we can offer and we can help people in their homes. I also enjoy that there is an element of commercial awareness accompanying the clinical healthcare role.

Free Paper
Do we need to adjust for a multi-cultural Britain?
Helen Schmidt
Pre-registered Hearing Aid Dispenser, Hidden Hearing

Abstract
As Britain becomes more culturally diverse and the number of people speaking different languages increases, there may be more to consider than just the audiogram when fitting a hearing aid. I have looked at what can be done to enhance the experience of using a hearing aid for people who speak different languages, and whether manufacturers should be doing more to support hearing aid dispensers and audiologists with respect to the fine-tuning of hearing aids so that the client will gain maximum benefit from their instruments. I looked at the seven main hearing aid manufacturers supplied within the UK to see if they had a feature or programme to accommodate for clients speaking a foreign language, and present my findings and suggestions for the future.

Biography
I became interested in the world of hearing during my BSc Neuroscience degree at the University of Sussex. Here, I wrote my dissertation on how the length of hearing loss impacts upon the success of cochlea implants with regards to speech and music. After graduating, I joined Hidden Hearing’s in-house training scheme to become a fully qualified Hearing Aid Dispenser. I have just taken my final exams in October and, all things going well, will be fully registered at the start of January.

Free Paper
Hearing Aid Dispenser, Help or Hindrance
Kathryn Woodside
Pre-registered Hearing Aid Dispenser, Hidden Hearing

Abstract
I decided to research the public’s perception and knowledge of the role of Hearing Aid Dispensers. My sister is an Audiologist with the NHS, when I hear her speak of her job people are, for the most part, aware of what her job is and recognise the title as a medical professional title. When I have informed people of my career change and explain I am studying to be a Hearing Aid Dispenser, more than once I have been told “surely anyone can dispense hearing aids”. When I explain I will be registered with the Health and Care Professions Council, detail what I have learnt on the course and the degree to which I was examined, both practically and academically people are frequently shocked then apologetic. I have found this to be somewhat concerning, if this is what people close to me are willing to explain about the profession I am studying towards, this raises the question of what do the greater general public understand and is the actual title of “Hearing Aid Dispenser”. The research shows to an extensive degree, that the public are not aware of the title, or the fact we are a registered profession with a protected title. My conclusion is this topic needs further researching and urgent addressing either in terms of revising the title, or better education for the public about who we are, what we are trained for, the standards we are trained to and the register to which we are accountable.

Biography
I originally studied for my degree in Consumer Studies, I worked in America in Country Clubs for a year before working as an Executive
14:30–15:30 MAIN AUDITORIUM

Moderator: Karen Shepherd

Developing a dementia service
Charlotte Rogers
Hearing Therapist, Nottingham University Hospitals

Abstract
Nottingham Audiology services have developed their existing services for patients experiencing cognitive decline as a result of dementia. There are three elements to the programme of work comprising outpatient, inpatient and domiciliary care. This look at dementia friendly audiology care will explore the needs of our patients and their carers within our services. The co-relationship between cognition and hearing is widely acknowledged, although we do not have exacting ideas within the research as to causative neurological relationships. For our patients experiencing dementia it is important that we consider the impact of this illness as part of a wider biopsychosocial approach to hearing care. Our service developed to focus on this model of care with aim of improving access to communication for a population who remain under-served and who struggle to access generic services.

Key Learning Objectives
- Gaining an appreciation of the impact of cognitive decline on our patient caseload
- Consider one’s own role in influencing how we improve care for our patients with or without dementia diagnoses
- The importance of access to communication and how we might achieve and improve that for this group

Biography
Charlotte leads a team of audiologists whose clinical role reflects the growing evidence base between cognitive decline and hearing loss. Her post graduate qualification in leadership provides a framework for this element of her work. Teaching, training and course delivery have been an extensive part of the previous five years in Charlotte’s audiology rehabilitation practice and have led to further invitations to discuss and disseminate good practice both within the realm of her clinical expertise and as a leader in healthcare. An audiology professional with fifteen years’ experience of working in specialist and complex rehabilitation with children and adults, Charlotte co-authored the British Tinnitus Association ‘Tinnitus in children and teenagers - Practice Guidance’ 2014 and lectures on the BTA course Tinnitus in Children and teenagers.

Free Paper
Targeted testing for congenital cytomegalovirus (cCMV) in babies identified with a sensorineural hearing loss (SNHL) through the newborn hearing screening programme (NHSP)
Kate Johnston
Head of Paediatric Audiology, Newcastle Upon Tyne Hospital NHS Foundation

Abstract
Recent guidance from the National Screening Committee at Public Health England (June 2016) advises against using the newborn hearing screen to identify babies for universal testing for cCMV. However, in Newcastle, targeted testing for cCMV has proven successful in babies identified with a SNHL. Evidence supports the use of oral anti-viral medication (Valganciclovir), started before 4 weeks of life, to minimise further replication of the virus and its impact on hearing. Guidance for babies referred from NHSP recommends that confirmation assessments are carried out after 4 weeks corrected age to allow for maturation of the ABR response. We therefore aim for the initial assessment to be before 3 weeks age, to trigger cCMV testing. Our clinical experience is that suspected SNHL at this point is reliable.

Methods
Liaison between Audiology and Paediatric Infectious Diseases has enabled the pathway to be modified so that babies with a SNHL can be tested for cCMV within the required time. Following the initial diagnosis of SNHL, parents are offered screening for cCMV. Audiology provides a nappy pad for urine collection, and the baby is referred immediately for cCMV testing.

Results
So far 5 out of 23 babies with SNHL (22%) have tested positive for cCMV, consistent with the literature.

Conclusions
Targeted testing for cCMV adds value to NHSP by identifying children who may benefit from antiviral treatment and allows early identification of the cause of hearing loss. It rationalises parental anxiety by only identifying children with symptomatic cCMV.

Key Learning Objectives
- To gain an understanding of how a targeted screening programme for cCMV can be effective
- How teams can work within NHSP guidelines to implement a screening programme for cCMV.
- How collaborative working can be used effectively to add value to the newborn hearing screening programme

Biography
Kate completed her masters in Audiology at the University of Southampton in 2000. She carried out her clinical training at the Freeman Hospital in Newcastle upon Tyne. Following qualification, her first job was to set up the newborn hearing screening programme in the North of Tyne region starting with Northumberland and then rolling it out to North Tyneside and Newcastle. She became Team Leader of the North of Tyne newborn hearing screening programme in 2010 when she took on a new post at the Freeman Hospital. She now heads up the Paediatric Audiology section and specialises in assessment, diagnosis and habilitation of babies and children with hearing loss under the age of 5. Kate lives in Northumberland where she enjoys juggling a busy life of being a mum of 3 children aged 11, 8 and 5 as well as being a Beaver Scout Leader. She has a love of swimming, walking and cycling and generally being outdoors.
14:30–15:30 ALSH 1 & 2
Moderator: Leah Cooper

Looking after your new workforce – Preceptorship Programmes

Hannah Offer
Clinical Educator – AHP/Science, Norfolk and Norwich University Hospitals Foundation Trust

Abstract
The healthcare landscape has changed dramatically over recent years. This session is designed to look at the challenges a newly qualified workforce may face in the clinical environment, including the provision of a Preceptorship programme that can be used to aid a smooth transition from a pre-qualified student to a newly qualified employee. The session aims to explore the Preceptorship process, examine its uses for the individual and the organisation and to look at the roles of Preceptor and Preceptee.

Key Learning Objectives
- Understand the challenges a newly qualified workforce face in the current healthcare climate and how Preceptorship can help with these challenges
- Examine the use of Preceptorship for the individual and the employing organisation
- Identify the roles of Preceptor and Preceptee

Biography
Hannah graduated in Dietetics from Coventry University in 2008 where she was awarded HCPC registration as a Dietitian. During her early career, she worked in clinical research and co-wrote patient education lectures and seminars. Hannah moved into clinical practice and alongside her clinical work became a student coordinator, assessing and supervising pre-registration dietetic students. She also supervised the training of one of the first assistant practitioners in her department. Currently, Hannah is working as a Clinical Educator for AHP and Scientists, for the Practice Development and Education Department, a role new to the Norfolk and Norwich University Hospital. She has set up the role in line with Health Education England strategy and agenda. Hannah’s current role offers support to a variety of Allied health and Healthcare science professions to maintain high quality and consistent pre-qualifed/registered trainee education. In addition to her pre-qualified work, Hannah also works with these professions in supporting their newly qualified practitioners.

Registration for Audiologists

Dr Christine DePlacido
Senior Lecturer in Speech and Hearing Sciences, Queen Margaret University, Edinburgh

Abstract
If you are concerned that you do not understand the registration process for audiologists, you are not alone. Many members are confused as to whether they should be registered with RCCP, AHCS, or HCPC. In this talk, I will explore the different paths to registration so that you can decide which is most appropriate for you and your practice. I will also address future developments and their implications for members.

Key Learning Objectives
- To understand the purpose and need for registration
- To understand the different pathways to registration for Audiologists
- To understand the process for registration

Biography
I worked in the NHS for 30 years starting as a student Audiologist in NHS Lanarkshire and finishing as Principal Clinical Scientist and Head of service in NHS Fife. In 2005, I moved to Queen Margaret University in Edinburgh as a lecturer and in 2006 became a senior lecturer in speech and hearing Sciences. I originally trained at the school of audiology in Glasgow, then did a BSc. Hons. in Health Science at Queen Margaret, followed by my Masters in Audiology at UCL and my Ph D back at QMU! I am also a Registered Hearing Aid dispenser, and qualified counsellor. I have served on many professional committees and am presently BAA board director with responsibility for the HTS, Professional issues and registration. I am currently chair of the Academy for Health Care Science neurophysiology equivalence committee and sit on the Academy education committee and the NSHCS neurophysiology board. My research interests are, psychosocial impact of hearing loss, rehabilitation in older adults, end of life communication needs and the phenomenology of Tinnitus.

SPONSORS TRACK
14:30–15:30 SEMINAR SUITE
Moderator: Paul Bruins

Smart Hearing Aids – are you fitting to target or fitting to patient?

Robert Ryman
Business Development Manager, Sivantos

Abstract
Trials were performed at two sites for new hearing aid users with age related hearing loss. Audiologists at both centres were quite sceptical initially by the process as it was quite different from their normal working routine. We will discuss their findings and how and why it changed attitudes and how it also could benefit patients, staff and services. Audiologists from the trial shared their experiences.

Key Learning Objectives
- Do we standardise our fitting process too much?
- New generation of users can feel patronised by existing process/pathways
- Changing audiologist’s mindsets

Biography
Rob has worked in Audiology since 1976 training at St. Mary Abbotts Hospital in London and went on to further training as a Hearing Therapist and Lip-reading Teacher at the City Literary Institute in London. After working in various hospitals in the London area Rob left the NHS in 1986 to help start up a new company Rastronics which pioneered the development and introduction of the first REM systems. Since 1992 Rob has worked for Siemens (now Sivantos limited) in various roles with his present position being in business development.
Wireless Super-Power Hearing Aids: More Benefits than High Gain and Output

John Nelson
Vice President of Global Audiology, GN ReSound
Sponsored by GN ReSound

Abstract
For years, super-power hearing aids provided high gain and output to individuals with severe-to-profound hearing losses. This was a critical need for these individuals to hear and especially to communicate. During the past few generations of super-power devices, advanced signal processing and wireless communication has provided increased benefits in the areas of communication and quality of life. This presentation will provide an overview of the benefits; clinical research; case studies; and how ReSound wireless seamlessly works with Cochlear devices.

Key Learning Objectives
• Participants will be able to describe 2-3 benefits of advanced processing in super-power hearing aids
• Participants will be able to list 2-3 benefits of using wireless accessories with super-power hearing aids
• Participants will be able to describe the benefits of visual cues for understanding speech and how advance wireless can provide those cues

Biography
John A. Nelson, PhD is Vice President at ReSound and responsible for Global Training and Education. He is based in Glenview, Illinois, USA. He joined GN ReSound in 2004 and relocated to Copenhagen, Denmark to work at the corporate headquarters for three years. Dr. Nelson completed his bachelor degree at the University of Minnesota and his master degree in Audiology at the University of South Carolina. In 1998, he earned his PhD degree in Speech & Hearing Sciences at the University of Iowa focusing on psychoacoustics, amplification, and digital signal processing. He has held a faculty appointment at the University of Texas.

STUDENT TRACK
14:30–15:30
FORTH ROOM, CLYDE AUDITORIUM
Moderator: Sarah Holliday

Small scale clinical Research tips and protocol advice

Dr Jeff Cruckley
Senior Research Scientist, Starkey

Abstract
This presentation will elucidate the current buzz around cognition and audiology. First, the relationships between hearing loss, hearing aids, and cognitive decline will be unpacked. Second, the implication of cognitive factors for hearing aid use and benefit will be considered from an ecological perspective. What do we know, and where should we go next as a field? This presentation will seek to prompt consideration and discussion of these questions.

Biography
Jeff Cruckley, Ph.D., earned his undergraduate degree in biology and psychology from McMaster University. At The University of Western Ontario (Western University), Jeff earned his M.Sc. in audiology in 2007 and his Ph.D. in Hearing Science in 2011 and a funded internship at Vanderbilt University in 2008. Jeff completed a post-doctoral fellowship at the Brain & Mind Institute at Western University and worked as a clinical audiologist in private practice. Jeff is now a Senior Research Scientist at Starkey Hearing Technologies, adjunct lecturer at the University of Toronto, and adjunct faculty at McMaster University. He engages in research on naturalistic approaches to understanding auditory ecology, and the relationships between hearing loss, cognition, and technological innovations. Jeff is passionate about hearing science and enjoys teaching on the topic.

Maximising Technology in the NHS

Haleema Rasheed
Trainee Clinical Scientist, Berkshire Healthcare NHS Trust

Abstract
With the development of smart phones allowing patients to access various mediums of technology at their fingertips, there is the opportunity to utilise such advances to improve the healthcare experience. This talk will provide an overview of how technology, specifically video conferencing, can be planned, developed and managed in order to maximise both patient and staff satisfaction within a large service provider. Furthermore, the presentation will also examine the challenging aspect of introducing a new service to patients and staff whilst managing expectations throughout the phasing in period.

Key Learning Objectives
• To appreciate how services can be improved to enhance the patient experience
• To gain an insight into how a new service can be introduced within a department
• To understand how video conferencing can be utilised effectively for patients and staff

Biography
Haleema Rasheed is a Trainee Clinical Scientist in the Hearing and Balance department at Berkshire Healthcare. She is interested in correlating hearing losses with neurobiological alterations, implantable
devices and improving patient outcomes. Her academic background includes degrees in Neuroscience (BSc), Psychiatric Research (MSc) and currently Clinical Science (Neurosensoryst Science) (MSc). Past research projects led by Haleema have been pioneering; specifically furthering the field of developmental neurobiology while her most recent investigations have been published in Schizophrenia Research (2014).

15:40–16:30  MAIN AUDITORIUM
Moderator: Barbara Gregg

Free Paper
Timely, Patient-Centred and Efficient: Open Access for Existing Hearing Aid Users
Susannah Goggins
Principal Clinical Scientist, Betsi Cadwaladr University Health Board

Abstract
The need for hearing aid users to have easy access for minor interventions and timely reassessment is well known (Goggins and Day, 2009). In Wales, there are quality standards for access of hearing aid servicing, and target waits for existing hearing aid users equal to those of new pathways. To meet this need, the Adult Rehabilitation team at Betsi Cadwaladr University Health Board mapped a vision for an open access service for all existing patients across North Wales. In Wrexham, open access repairs has been available for existing hearing aid users for over 15 years, but those identified as requiring reassessment were added to a waiting list. At other sites across Betsi Cadwaladr University Health Board, hearing aid users were initially seen through booked repair appointments. In January 2016, a full open access service was introduced across BCUHB ensuring patients could have hearing aids serviced and be reassessed on the same day (which includes hearing assessment, individual management plans and any actions from this that could be completed immediately, such as hearing aid exchange, onward referral etc). The impact of the new system will be discussed, including number of patients seen, resources needed and patient and clinician satisfaction.

Reference

Biography
Susannah is a Principal Clinical Scientist based at Betsi Cadwaladr University Health Board. She is currently the lead for adult rehabilitation, adult diagnostic and vestibular audiology at Wrexham Maelor Hospital, where she has been based for the past 14 years. She has a particular clinical interest in vestibular testing, vestibular rehabilitation, and adult diagnostics.

Free Paper
What do adults with mild and moderate hearing loss tell us about their experience of hearing loss?
Rosemary Monk
Senior Teaching Fellow in Audiology, Aston University

Abstract
It has long been known that there are weak relationships between pure-tone hearing thresholds and self-report of activity limitations and participation restrictions. Identifying key difficulties for people with mild and moderate hearing loss is essential for providing appropriate patient-centred management, particularly in light of recent commissioning decisions and NHS funding pressures. Qualitative methodologies provide insights into what matters to the individual and are increasingly being used in healthcare to investigate the patient experience. The aim was to explore the lived experiences of people with mild and moderate hearing loss.

Methods
Semi-structured interviews were collected from 25 adults with mild or moderate hearing impairment[1]. The majority of participants were hearing aid users. Thematic analysis was used to analyse the interview data to identify key themes for mild hearing loss and key themes for moderate hearing loss.

Results
Results from ongoing analysis will be presented. The data will be explored within the context of clinical assessment and management, particularly with reference to perceptions of hearing aids and their use.

Discussion
Findings will be related to the existing evidence in the literature, and similarities and differences between the two groups (mild, moderate hearing loss) will be examined. Insights provided by the data into the communication difficulties and other effects of hearing loss on the everyday lives of the participants will be discussed. The application of the findings within hearing clinics will also be presented.


15:40–16:00  ALSH 1 & 2
Moderator: Gemma Leadbetter

Free Paper
Higher Specialist Scientist Training (HSST) Programme in Audiological Science: What is it all about?
Dr Kai Uus
Reader in Audiology, University of Manchester

Abstract
While the DoH programme of Modernisation Scientific Careers has meant modifications to existing pre-registration undergraduate and postgraduate programmes, a significant development for the clinical profession is the provision of the Higher Specialist Scientist Training (HSST) Programme. University of Manchester is responsible for the programme in Audiological Science. It is a privilege for Manchester to train clinical scientists at the doctoral level. It is an exciting challenge to engage and inspire the trainees with already high levels of pre-existing expertise and clinical experience. The programme is using blended learning with an emphasis on clinically-integrated independent learning, peer learning and community of practice approach. Because our trainees are busy clinicians working across the country, on-campus sessions are kept to the minimum and designed to be highly interactive (e.g. role-plays, genomics boot camp, flipped classroom, blunder cases etc). We go beyond the prescribed curriculum and provide “Esteem Lectures” by world-leading experts in the field to hear about...

13th British Academy of Audiology Annual Conference 2016
the cutting-edge research carried out in Manchester. Leadership and management modules are delivered by Manchester Business School. An essential part of the programme is designing, conducting and presenting of a doctoral thesis leading to Doctor of Clinical Science (D Clin Sci) degree. The 2015 launch of the HSST Audiology Science Programme (and the first cohort to graduate in 2020) is a long-term investment in the best quality highest level audiology training in the United Kingdom which will not only raise the profile and reputation of audiology and improve services for the patients and their families.

Biography
I am a paediatrician by background, but quite early on in my career I developed an interest in paediatric audiology. I came to the UK in 1998 as a Wellcome Trust Research Fellow to do my PhD in Audiology Medicine. After I completed my thesis, Prof John Bamford invited me to work with him on the evaluation of the NHS Newborn Hearing Screening Programme (NHSP) in England. My interest in Auditory Neuropathy Spectrum Disorder developed in the screening and early support context.

After years of being an MSc in Audiology Programme Director, I am now the academic lead for the Scientist Training Programme in Neurosensory Science and Higher Specialist Scientific Training in Audiology Science at the University of Manchester.

Free Paper
Screen and Fit value pathway could provide high value in identifying and supporting people with hearing loss earlier

Jagjit Sethi
President, British Academy of Audiology

Background
In the absence of a policy to screen for adult hearing impairment evidence needs to be acquired. One of the arguments made for not having a screening policy is that the capacity to deal with such an approach is not in the current NHS hearing health care system (incl. AQP). We set out to examine whether a “screen and fit” (SF) pathway could provide efficiency and effective support in the short as well as the long term for those with mild–moderate symmetrical sensorineural hearing impairment.

Method & Results
Study selected people referred to two different NHS clinics wishing to have a hearing assessment and trial of hearing aids in accordance to suitability and red flag criteria. They were fitted from a set of four pre-configurations of a commercially available Siemens hearing aid (HA) as defined by the HearCheck® screener results and followed up 10-weeks later.

In total 251 referred service users were invited of which a total of 121 were fitted with HAs; overall suitability rate of 42-48% with equal gender distribution males (57%) and females (43%), and age range 26-87 years with mean 73 and 69 years across the two sites.

Participants were randomly assigned to one of three conditions (1) SF (30 mins), (2) SF + (60 min with initial 30 mins same as SF and then further 30 mins with a different clinician for additional assessments), (3) current assess and fit pathway at that site (90 mins). In all condition HAs were randomly programmed to either include or exclude learning (Keidser & Alamudi 2013) facility. Participants and clinicians were both blind to who had which. All participants were given the same instructions and information and by end of study underwent full assessment and verifications.

It is acknowledged that there may be clinical, scientific and/or professional risks in such an approach. Therefore, proof of concept, pilot and study trials in differing clinical contexts were done to identify and eliminate/reduce risks and refine red-flags. Post-trial analysis reveals red flag high sensitivity and specificity with no false positive selections and only 4 false negative rejections for study inclusion.

There were equivalent/good outcomes from GHABP and IOI-HA with 82% reporting being helped at least moderately with excellent use and satisfaction from all groups and only 19 requiring fine-tune adjustments.

Conclusion
Screen and Fit is a highly efficient pathway that is acceptable to service users and provides with equivalent/good outcomes for those with moderate hearing loss. We saw no difference in outcomes for those with 20-34 dB HL compared with benefits to those with 35 dBHL impairments. This work argues that screening could be carried out cost-effectively if this type of pathway was adopted.

Conflict of interest
Please note that this work was supported and funded by Siemens Audiology and Sivantos in England through a research agreement between Professor Adrian Davis at Royal Free NHS Trust, Public Health England and AD CAVE Solutions Limited

STUDENT TRACK
15:45–16:00
FORTH ROOM, CLYDE AUDITORIUM
Moderator: Sarah Holliday

Free Paper
Integrating Services in the NHS
Shamethera Rajakuladevan
Measuring the impact of hearing loss on social participation: A mixed methods study

Abstract
Patients benefit from care that is centred and co-ordinated within healthcare. For care to be integrated, organisations and care professionals need to bring together all of the different elements of care that a person needs. This is a short presentation which talks about a current project within the hearing and balance service at Berkshire Healthcare NHS Foundation Trust, and its on-going efforts to integrate services within the health and social care community. This includes ensuring information is freely and easily shared, as well as building formal relationships with other internal and external services. This is in hope to improve communication and promote relevant services to patients to make them more easily accessible.

Key Learning Objectives
• Understanding what Integrated Care is and why it is important?
• Learning about the various on-going projects at Berkshire Healthcare NHS Foundation Trust, in relation to integrated care

Biography
Shamethera Rajakuladevan is a qualified and dedicated audiologist from the University of Leeds, working with paediatric and adult patients. Her main passion is working with families and carers to diagnose and manage paediatric patients. Shamethera’s current goal of becoming a qualified Clinical Scientist has certainly opened up new opportunities to build skills in this area. She is currently working towards completing an MSc Neurosensory Science and her HCPC registration.
Measuring the impact of hearing lost on social participation: A mixed methods study

Eithne Heffernan
PhD Student, NIHR Nottingham Hearing Biomedical Research Unit, University of Nottingham

Abstract
There is a need for a high-quality measure of the impact of auditory rehabilitation on social participation that is suitable for use in clinical trials and clinical practice. Therefore, this research aimed to develop a gold-standard questionnaire that can assess social participation in adults with mild-moderate hearing loss (MMHL). The questionnaire was developed across four studies. In Study 1, 25 adults with MMHL and 9 hearing healthcare professionals were interviewed about the psychosocial impact of MMHL. The aim was to generate content for the questionnaire. In Study 2, 20 international experts completed a survey and 14 adults with MMHL participated in cognitive interviews. The aim was to evaluate the relevance and clarity of the questionnaire. In Study 3, Rasch analysis (i.e. modern psychometric analysis) was applied to data collected from 279 adults with MMHL. Finally, in Study 4, Classical Test Theory analysis (i.e. traditional psychometric analysis) was applied to data collected from 102 adults with MMHL. The aim was to assess the psychometric properties of the questionnaire. These studies led to the development of a 19-item social participation questionnaire that contains two subscales: a social behaviours subscale and a social perceptions subscale. Each subscale had good psychometric properties, including good structural validity, convergent validity, and internal consistency. The measure was also regarded as clear and relevant. This research demonstrates the value of using best practice techniques, such as engaging key stakeholders and using modern psychometric analysis, to develop an outcome measure for use in research and clinical practice.

Key Learning Objectives
- Understand the importance of outcome measurement in audiology research and clinical practice
- Learn how to develop a valid outcome measure using best practice techniques
- Build an awareness of the value of applying health psychology theory to audiology research and clinical practice

Biography
Eithne Heffernan is a PhD student and researcher at the NIHR Nottingham Hearing Biomedical Research Unit, UK. The primary aim of her PhD research is to develop a self-report outcome measure, or questionnaire, that assesses social participation in adults with hearing loss. As part of this research, she has gained expertise in both quantitative techniques, such as Rasch analysis, and qualitative techniques, such as cognitive interviewing. Eithne previously worked as a psychometrician at the Peninsula College of Medicine and Dentistry, which was part of the Universities of Plymouth and Exeter, UK. She obtained a BA in Psychology from the National University of Ireland in Galway and an MSc in Work and Organisational Psychology from the University of Limerick, Ireland.
**Oticon at BAA 2016**

**SPONSORS TRACK**  
**SEMINAR SUITE - Concourse 1st Floor**

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<tr>
<th>Time</th>
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<tr>
<td>THURSDAY 10 NOV</td>
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<td>12:05 - 12:30</td>
<td>How eHealth can bring your clinic into the future</td>
<td>Annette Cleveland-Nielsen</td>
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<td>15:00 - 15:30</td>
<td>Cognitive measures of hearing aid benefit</td>
<td>Thomas Behrens &amp; Alison Stone</td>
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<td>FRIDAY 11 NOV</td>
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<td>11:40 - 12:05</td>
<td>Case Studies in Pediatric Amplification: Considerations when working with children with severe to profound hearing loss and those with bimodal devices.</td>
<td>Dave Gordey</td>
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**OTICON BREAKOUT ROOM**  
**BOISDALE 2 - Ground Floor**

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<td>THURSDAY 10 NOV</td>
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<td>12:45 - 13:30</td>
<td>Frequency Lowering: Verification and Outcome Measures</td>
<td>Dave Gordey &amp; Alison Stone</td>
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<td>13:45 - 14:15</td>
<td>An Introduction to the NEW Ponto Processor Range, including the World's First Abutment-Level Super Power</td>
<td>Mark Watson Oticon Medical</td>
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<td>FRIDAY 11 NOV</td>
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<td>12:45 – 13:15</td>
<td>REM AutoFit: Efficient fittings that free up time for counselling</td>
<td>Alison Stone</td>
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<td>13:20 – 14:05</td>
<td>Thin Tube Hearing Device Fittings in Children: Practical Tips for Clinicians</td>
<td>Dave Gordey</td>
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*Attend a break out session & receive your FREE gift!*
A view from a patient

I have had decreased hearing in my left ear for a few years now due to Ménière’s disease. I had found it so difficult to hear in all different situations, at home it’s quiet but my tinnitus is so loud, at a coffee shop it’s noisy and I can’t hear my friends talking and in the car the noise of the road takes over.

I had been given a hearing aid but it was only good for one of those situations, not all of them. I was then given my latest hearing aid, the Teneo, and I can say with hand on heart that it copes with all of those scenarios. I have been able to set up different programs, including one to use with my tinnitus and I can control it through my iPhone too. It is small and discreet so I don’t feel awkward wearing it because most people don’t even know I’m wearing one! I would say that the best thing about it is that it has given me some control back to a situation where I had no control over my hearing loss.” Ameila, Torbay

All Teneo models feature 24 channel automatic directionality, 12 adjustment handles for flexible fine tuning, automatic acclimatisation, touchControl App™ and easyTek™ compatibility.

For more information please contact your Sivantos Audiologist, contact our Customer Services department on 01293 423700 or visit www.bestsound-technology.co.uk

* Teneo is a Latin word meaning to understand, to grasp, to know.

Life sounds brilliant.
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Save the Date!

16th and 17th NOVEMBER 2017

14th Annual Conference
Bournemouth International Centre

Highlights to include:

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- Awards programme to acknowledge individuals and teams who have excelled in the audiology profession
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Ageing & Cognition

Poster: 29
Is social handicap the link between hearing loss and cognitive decline?
Miss Jenna Litteljohn, University of Sheffield
Dr Daniel Blackburn, University of Sheffield
Professor Annalena Venneri, University of Sheffield

Development and validation of a new tool: SEAH, to assess this. The links between hearing loss (HL), cognitive impairment and dementia have been well documented, but factors mediating this relationship remain unknown. Major consequences of HL are social and emotional dysfunction, and as the risk of dementia increases linearly with the severity of HL, it is plausible that socio-emotional difficulties may play a role in this association. It is therefore imperative to measure whether subjective hearing handicap (HH) contributes more significantly to risk of cognitive decline compared with hearing thresholds alone. The aim of this study was to design and validate a tool to accurately analyse present levels of socio-emotional handicap as a result of HL. 50 participants were asked to score a list of scenarios according to their level of HH in each situation. The 14 highest scoring items were selected to create the new SEAH which was tested on 95 participants with varying degrees of HL. Participants also undertook audiometry screening and completed two validated questionnaires; HHIE and SAC. Considerable evidence was found for the internal and external reliability of the SEAH with high construct validity in terms of distinguishing HL/normal hearing. Concurrent validity showed strong correlations between SEAH and HHIE (.909 [.856, .944]), SEAH and SAC (.899 [.790, .971]) and test-retest values of the SEAH, r=.787 [.513, .965]. All values significant with P<0.01. The SEAH is a more relevant instrument to assess current levels of HH which can be used to assess subjective handicap in people with HL to assess impact on cognitive decline.

Poster: 35
Hearing and Learning Disabilities Special Interest Group
Dr Lynzee McShea, Hearing and Learning Disabilities SIG
Colin Beard, Hearing and Learning Disabilities SIG
BJ Martin, Hearing and Learning Disabilities SIG
Mandeep Dubb, Hearing and Learning Disabilities SIG
Chris Corkish, Hearing and Learning Disabilities SIG

We are a Special interest Group (SIG) for professionals interested in people with learning disabilities (PwLD) and hearing loss. The SIG aims to:

a) Raise awareness of the high prevalence of hearing loss in PwLD.
b) Improve the clinical practice of those working with PwLD who have hearing loss.
c) Increase the evidence base and knowledge around hearing loss and learning disabilities by coordinating projects, working groups, research and publications.

We formed a new HaLD committee earlier this year and have been working on developing aspects of the group, including:

1. Revamping our website with a fresh look and logo, as well as including a discussion forum, guest blogs and a members chat area.
2. HaLD regional representatives – a network of more local contacts who are helping us to map national services for people with learning disabilities and provide regional updates.
3. A web directory of useful contacts, services and organisations.
4. Creation of HaLD member working groups – looking at topics such as easy read information and peer review of adult electrophysiological testing.
5. A regular annual face to face meeting to network and share best practice.
6. Launch of an annual online e-HaLD event, attracting international speakers and updates.

Poster: 60
Hearing assessment performance and hearing aid use in stroke survivors
Miss Stamattia Staikoudi, NHS Lothian

Introduction:
Stroke survivors had their hearing assessed through the Lothian Audiology Pathway for Stroke. We analysed their performance and hearing aid use.

Methods:
Patients were referred by Community Stroke Services and Stroke Units and seen at a specialist Audiology clinic. Comprehensive medical history was taken and pure tone audiometry performed. Patients were issued with hearing aids and auditory training where appropriate. A review was carried out at three months of aural rehabilitation.

Results:
Stroke survivors exhibited distinct behaviour during testing. 95% of patients referred required aiding. Hearing aid acceptance in general, as well as binaural aiding and monaural proceeding on to binaural aiding was higher in the stroke population compared to regular patients in our clinic. At the time of their review, no patients had rejected their hearing aids.

Discussion:
Almost all referrals that came through the Lothian Audiology Pathway for Stroke were appropriate referrals. The pathway and specialist clinic contribute to better aural rehabilitation which in turn facilitates stroke rehabilitation and enhances quality of life.

References:

Poster: 65
Meeting the need of patients with dementia – integrating and innovating audiology services for inpatients
Ms Anna Lindstrand, Nottingham University Hospitals

Introduction:
It is suggested that those with hearing loss are more likely to develop dementia (Lin et al, 2011). Evidence examining the relationship between hearing and cognition has continued to develop, and a recent study suggests strong correlation between hearing aid use and cognitive ability (Davies, 2014).

Methods:
We initiated an inpatient hearing loss triage and aid repair service and distribution of hearing aid boxes across our large acute trust. We are integrating this with our existing outpatient and home visit services to provide a streamlined service and to avoid vulnerable people missing out on hearing care. In addition we are providing training and support to ward staff, healthcare providers and social and charitable sectors locally.

Results:
Over the past eleven months the inpatient audiology team have
delivered bedside audiology care to just under one thousand patients across Nottingham University Hospitals. Staff awareness of the prevalent issue has grown and we continue to work closely with the hospital’s healthcare of the elderly team and the dementia matron.

Discussion:
The service meets the hearing aid needs of a population that is underserved and often lack access to standard pathways of audiology care. It also encourages and enables improved communication between patients, hospital staff and caregivers; and raises ward staff awareness. Service evaluation data suggest growing success with both of these objectives.

References:
Piers Dawes (2014). Can hearing aids prevent cognitive decline and dementia? Piers Dawes. Audacity, BSA.

Diagnostic and Medical Audiology

Poster: 8
First experience of school screening in Armenia

Mrs Gayane Sargsyan, YSMU
Mrs Anna Sargsyan, YSMU
Mrs Elya Muradyan, YSMU
Mr Vigen Bakhshinyan, National Research Centre for Audiology and Hearing Rehabilitation
Mr Arthur Shukuryan, YSMU

Introduction:
Hearing disorders in children are not always congenital, it can be acquired during early childhood. Progressive or acquired hearing loss can develop even in those children who had positive results of neonatal hearing screening; 9-10 per 1000 children will have identifiable permanent hearing loss in one or both ears by schoolage (Sharagorodsky, 2010).

Aim:
To detect hearing loss among the children of early school age with the use of a screening program, financed by the State committee of science of Armenia.

Methods:
In a timeframe of 4 months has been examined 1530 children. The PTA with signal of 25dB of air conduction on 500, 1000, 2000, 4000 and 8000Hz has been used for screening.

Results:
116 children from 1530 did not pass screening, and were sent to specialized clinics for further work up. The results of further work up in those 116 were: In 35 children repeat examination revealed normal hearing; 25 patient had earwax; 28 children were diagnosed with tuboottitus; 11 children had otitis media with effusion; 8 children were diagnosed with unilateral sensorineural hearing loss; 1 child had bilateral high frequency hearing loss; 8 children did not show up.

Discussion:
School screenings can be beneficial in detecting children with hearing loss. Minimal hearing loss can stay unnoticed by parents, teachers, which will have its detrimental effect on child’s school progress and social life.

References:

Poster: 9
Auditory Steady State Response in Cochlear Implantees

Professor Takwa Gabr, Audiology Unit, ENT dep. Tanta University Hospitals

Introduction:
The widespread implementation of hearing screening program led to early diagnosis of children with hearing loss with early intervention including cochlear implant (CI) (Firszt et al., 2002). Such early intervention urges the need for a reliable objective test to evaluate the aided benefit in such young age cochlear implantees.

Methods:
Aided Auditory steady state response (ASSR) thresholds were compared with aided sound field (SF) thresholds in 15 children aged 6-11 years fitted with CI.

Results:
Aided-ASSR thresholds were 13-20dB above aided behavioral SF thresholds along the frequency range of 500-4000Hz.

Discussion:
This work showed good correlation between aided-ASSR and aided SF thresholds. This was similar to results of Dimitrijevic et al, (2002) and suggested that functional gain can be computed using ASSR in CI users.

Conclusions:
ASSR can be used as an objective reliable procedure for evaluating aided thresholds in cochlear implant users for whom behavioral thresholds cannot reliably acquired.

References:

Poster: 10
Speech processing in children with cochlear implant

Professor Takwa Gabr, Tanta University Hospitals
Professor Mohammad Hassan, Zagazig University Hospitals

Introduction:
Cochlear implants (CIs) can be used effectively in the profoundly impaired children individuals (Eddington et al., 1997). Assessing speech processing at brainstem and cortical level in children fitted with CIs provide an opportunity to investigate the possible influence of brainstem processing of speech on the cortical processing in those children.

Methods:
Twenty children fitted with CIs underwent aided sound-field audiologic evaluation, speech evoked cortical auditory evoked potentials (S-CAEPs) and according to the results, children were classified into two groups: group I with good cortical response and group II with poor cortical response. This was followed by complex auditory brainstem response (c-ABR) recording.

Results:
P1 component of CAEPs was recorded in all children while other component showed variable results. Complex-ABR was recorded in all children even those with poor S-CAEPs response, however, with delayed latencies.
Discussion:
Children fitted with CI showed immediate cortical activation following device programming (Sharma et al., 2006). This activity depends on the age of implantation as well as the child’s age.

Conclusions:
Complex-ABR provides a new clinical tool that showed an important role of brainstem in the processing of complex sound that influences to the auditory processing at the cortical level.

References:

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**Poster: 13**

Objective assessment of auditory figure-ground deficit

Dr. Mohammad Hassaan, Faculty Of Medicine – Zagazig University – Egypt

Introduction:
The remediation process of auditory processing disorder relies largely on the availability of auditory plasticity in the brain. This necessitates growing of diagnostic tests of auditory processing disorders to fit for very young children. The auditory figure-ground ability (AFG) is very critical for daily learning tasks. Deficit of this ability can be diagnosed using speech tests that are not fit for very young children. This work demonstrates an objective method for assessment of auditory figure-ground deficit. It constitutes recording of auditory evoked cortical potentials with ipsi-lateral competing noise.

Methods:
The cortical P1-N1 complex with and without ipsilateral competing noise (ICN) was measured for 20 schoolchildren demonstrating an AFG deficit psychophysically. Their results were compared to a group of normal children and to another group of children with auditory processing disorders, not including AFG deficit.

Results:
The P1-N1 complex was reproducible in all groups, however the morphology was distorted and the amplitude was depressed when recorded with an ICN. The impact of an ICN on recording was more evident in the group of AFG deficit.

Discussion:
The P1-N1 complex threshold with an ICN is a useful tool to diagnose an AFG deficit. It can be considered a physiological correlate of the auditory figure-ground deficit. All cortical measurements were sensitive to diagnose an AFG deficit, while only the threshold of the P1-N1 complex in ICN was specific to it.

Aim:
This study tries to clarify the effect of air-bone gaps on VEMPs induced by bone conductive stimuli and air conducted stimuli in patients with conductive hearing loss.

Methods:
Twenty six patients with different causes that result in conductive hearing loss were examined as well as ten individuals as control group. All of them had pure tone audiometry for air conduction and bone conduction as well as VEMPs by air conduction and bone conduction.

Results:
It was found that 69% had VEMPs to bone conduction stimulation while 35% had VEMPs to air conduction stimulation.

Conclusion:
VEMPs can be used to test the presence of conductive hearing loss as bone conduction VEMPs can be elicited with higher degree of accuracy.

Key words:
VEMP – Conductive hearing loss – Air bone gap – Air conduction – Bone conduction.

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**Poster: 40**

Vestibular Evoked Myogenic Potential in Patients with Different Air-bone Gap Levels

Dr Tarek El Dessouky, Faculty of Medicine Beni Swif University
Dr Hedyaet El Fouly, Faculty of Medicine Cairo University

Introduction and aim of the work:
VEMPs has recently been broadly studied in vestibular disorders. As it is evoked by loud sounds stimulation, even mild conductive hearing loss may affect VEMPs results. Conductive hearing loss is one of the commonest diseases that result from a multitude of causes. Sound elicited VEMPs requires an intact conductive system. To overcome the conductive element, stimulation could be performed by bone conduction.
Posters:

**Poster: 81**
**Unexplained Air-Bone Gaps – Large Vestibular Aqueduct Syndrome**

*Mrs Marsha Jenkins*, St Thomas’ Hearing Implant Centre
*Ms Katherine Wilson*, St Thomas’ Hearing Implant Centre

**Introduction:**

Audiological management of LVAS children may be especially misleading due to the presence of an apparent air-bone gap affecting mainly the low frequencies. Merchant, et al have speculated that the improved bone conduction thresholds result from the large vestibular aqueduct acting as a ‘third window’.

**Methods:**

A retrospective review was carried out on all patients found to have LVAS while under assessment for CI at St Thomas’ Paediatric Implant Centre from 1996 to 2015.

**Results:**

We found air-bone gaps affecting 90% of our patients, i.e., presented with a mixed hearing loss. In many cases, the air-bone gap was found to be as large as 40dBHL. Tympanometry typically revealed normal middle ear function, supporting the fact that the conductive component of the mixed losses was not related to middle ear disease.

**Discussion:**

Hearing loss with LVAS may be mild to profound, progressive and/or fluctuant, with a sudden or gradual onset. Rehabilitation often involves amplification, and in children where the hearing loss is severe to profound, cochlear implantation has been shown to be as safe and effective. It is important that audiologists are aware of this air-bone gap and do not automatically assume it is due to a middle ear cause which in turn could delay appropriate management.

**References:**


**Poster: 89**
**Urinalysis for inflammatory biomarker monitoring of the effect of inflammatory state on age-related hearing loss**

*Rachel Kidd Soton*

**Introduction:**

Evidence identifies a relationship between ageing and low-grade chronic inflammation known as inflammaging. Low-grade systemic inflammation is associated with the progression of age-related neurodegenerative diseases such as Alzheimer’s disease and age-related hearing loss. Monitoring inflammatory biomarkers will give insight into the risk of worsening of age-related neurodegenerative diseases. Inflammatory biomarkers are present in urine, a non-invasively collected biofluid that is suitable for long-term monitoring. Raman spectroscopy is an analytical technique that can provide the biochemical fingerprint of a sample with minimal preparation and is therefore suitable for rapid and easy detection of metabolites in biofluids.

**Methods:**

Urine samples were collected monthly over a 12 month period from 60 adults aged 65-75 whose hearing thresholds were measured at the beginning and end of this period. ELISA was used to measure levels of inflammatory biomarker in urine, however, this is a time consuming and costly technique. A Raman spectroscopic measure for detection of inflammatory biomarkers in urine is now being developed as a cheap, fast and reliable technique that would be suitable for long-term monitoring of patients within a clinical setting.

**Poster: 26**
**How do we enhance the student placement experience? A precursor to successful NHS recruitment?**

*Mr Paul White*, University Of Leeds

The quality of the student placement experience in NHS Audiology departments is suspected to be an influence on subsequent NHS recruitment success. Clinical Educators providing these placements for BSc Healthcare Science (Audiology) students in the Yorkshire region were asked their opinions in a focus group at the University of Leeds in June 2016, on what they consider makes for a quality placement experience for their students. A themed analysis of Educator responses produced several recommendations for enhancing the student clinical placement experience. These included incorporating the students into...
the clinical department team; facilitating clinical staff time for student education; and actively encouraging student aspirations for future audiology department employment. The findings could improve the prospective recruitment applicant levels in NHS departments and contribute towards the health professional education research strategy at the University of Leeds School of Healthcare.

References:

Implantable Technologies

Poster: 38
Adults using a cochlear implant (CI) and contra-lateral hearing aid (HA): what are their experiences?
Dr Sheetal Athalye, The Ear Foundation
Dr Sue Archbold, The Ear Foundation
Mrs Sarah Allen, The Ear Foundation
Mr Zheng Yen Ng, The Ear Foundation

Introduction:
The benefit of binaural hearing is well established; however NICE (2009) recommends only unilateral cochlear implantation for most adults. Bimodal hearing through a CI and contra-lateral HA may be one way to achieve the potential benefits of binaural hearing. Most studies have focussed on the benefits of bimodal hearing for speech recognition and/or localisation. There is little research exploring the impact of bimodal hearing in daily listening situations or why many adults give up wearing their hearing aid.

Methods:
A national online survey of adults with a unilateral CI was undertaken, with closed and open questions. The questionnaire was designed to explore the influences on the decision to wear a hearing aid with a cochlear implant. The open questions were subject to content analysis to identify the emergent issues.

Results:
The results provide information on: Perceived quality of bimodal hearing in daily listening situations, impact on communication, quality of life, benefits, challenges and future needs; Provision of advice to those contemplating a contra-lateral HA and ongoing support; Influences on decision to use the contra-lateral HA or not.

Discussion:
Clinicians may advise the wearing of the contralateral hearing aid, but the final decision is made by the adult themselves. This study provides information on what influences their decision and how clinicians may be able to support the provision of binaural hearing for adults with cochlear implants.

Poster: 43
Fine Structure Speech Coding Strategy Results Among Adults Cochlear Implant Users
Dr Tarek El Dessouky, Faculty of Medicine, Beni Swif University
Dr Maha Hassan, Faculty of Medicine, Cairo University
Dr Amira El Shennawy, Faculty of Medicine, Cairo University

Introduction:
Speech perception with cochlear implants has drastically improved to a point where patients reach near-normal levels in quiet environments. The algorithms to translate the acoustic signal into patterns of electrical stimulation the so-called speech coding strategies, are one of the factors that have helped to achieve these high levels.

Aim of Work:
Evaluation of Fine Structure Processing (FSP) strategy in comparison with their variations of the standard Continuous Interleaved Sampling (CIS) strategy denoted CIS+ and High Definition CIS (HDCIS).

Methodology:
This study group consisted of twenty adult post-lingual CI users (17-60 years) implanted with MED-EL SONATA implant, using OPUS II speech processor, using F54 strategy then replaced with HDCIS strategy. All patients were subjected to mapping first with F54 then with HDCIS, aided sound-field and Arabic version of Nijmegen Cochlear Implant Questionnaire (NCIQ).

Results:
This study revealed significant improvement in hearing thresholds after cochlear implantation, slight non-significant higher results of speech discrimination in quiet and +10 SNR with HDCIS and slight non-significant higher results in 0 and -10 SNR with F54 strategy. Also, we found slight non significant improvement in music appreciation and in telephone and TV usage with F54.

Conclusion:
Patient’s subjective perception of benefits due to CI is not directly linked to the objective performance level. The recipients should be given the opportunity of choosing between the strategies. Crossover studies are needed to avoid the learning effect over time and adaptation to test material.

Key words:
Cochlear implant, fine structure processing (FSP), HDCIS, NCIQ.

Poster: 47
Consideration of treatment options in patients with single-sided deafness
Miss Kerry Downes, St George’s NHS Foundation Trust

27 adults with single-sided deafness (SSD) were studied retrospectively. All patients were offered the choice of wireless CROS/BiCROS hearing aids and subcutaneous bone conducting implants; 25 of them completed trials of both devices (processor on softband imitating implant). Following the trials; 16 opted to keep their CROS/BiCROS aids (Group A) and 9 chose to pursue a subcutaneous implant (Group B). 2 people reported minimal benefit and consequently declined both. This study examines the reasons for treatment choice in SSD patients. Considering hearing loss on the good ear; high frequency hearing in patients’ better ears was worse in Group A; with average thresholds at 4 and 8 kHz: 15.6dB and 28.4dB compared with Group B: 12.7dB and 21.6dB. This indicates that patients with more pronounced high-frequency hearing loss in their better ear experience added benefit of amplification on this side from a BiCROS system. The average age of patients was slightly lower in Group B compared to Group A. However, the oldest patient assessed (81 years) chose to proceed with implantation – indicating that age is not an overriding factor in the decision-making process. Previous treatment for acoustic neuromas also did not seem to impact patient’s choice; with both...
groups having roughly half of patients with SSD as a result of neuromas. Considering this study’s findings, it may be beneficial for all SSD patients to trial both CRDS aids and processors in order to assess benefit on an individual basis.

**Poster: 67**

Patient benefit from a new range of bone anchored hearing implants

Mr William Brassington, Nottingham University Hospital

Introduction:
Recently, new signal processing and wireless connectivity have been available for bone conduction hearing implant systems. These latest generation sound processors have been developed to deliver improved signal processing features, feedback cancellation algorithms and wireless capabilities through the 2.4GHz protocol. Importantly, we need to validate the patient benefits from this new technology through formal evaluation with existing bone anchored hearing implant users.

Methods & Materials:
Adult patients using a bone conduction hearing solution either with a direct abutment connection or magnetic attachment were evaluated using the latest generation processors. Patients were also offered one of four wireless accessories. Each patient was upgraded from their current sound processor with measurements collected at pre-fitting, fitting and 4-6 weeks post fitting. Evaluation measures included a measurement of speech recognition in noise (BKB-SIN), and two questionnaires (SSQ-12 and a subjective assessment of performance).

Results:
Data is currently being analysed and will be presented at the conference.

Conclusion:
We will discuss the potential benefits obtained from the new sound processing algorithms and wireless possibilities from this latest generation of sound processors. Importantly, we will discuss how these benefits impact the management of existing a patients and those new patients being assessed for candidacy for bone anchored hearing implants.

**Poster: 75**

Patient Outcomes with the new Cochlear BAHA 5 Power Processor

Mrs Jane Beavan, Countess of Chester Hospital

Introduction:
The new Cochlear BAHA5 Power processor is a highly advanced bone conduction sound processor featuring advance signal processing and wireless technology, with a fitting range for bone conduction thresholds 55dB HL (averaged across 500-4000Hz).

Methods:
Twelve existing BAHA users currently using BP110 (n=10) or Intenso processors (n=2) were upgraded to the BAHAS Power. Patients were asked to rate sound quality, speech understanding and overall loudness at fitting and at follow-up 6 weeks later. Comparative benefit of the new BAHAS Power was evaluated using the SSQ12 patient outcome questionnaire and the QuickSIN to assess hearing in noise.

Results:
Data collection ongoing (July 2016). To date, those patients upgraded to the BAHAS Power (n=7) have rated sound quality as good or very good and have rated the loudness as ideal even at their 6 week follow-up. The SSQ12 questionnaire showed a reduction in self-reported auditory disability when wearing the BAHAS Power compared to the BP110 or Intenso BAHA. Patients showed improved speech scores in noise with the BAHAS Power when compared to their BP110 or Intenso BAHA.

Discussion:
Data collected to date (July 2016) suggests that the Cochlear BAHA5 Power offers patients an improved listening experience with a reduction in self-reported auditory disability and improved hearing in noise compared to their previous BP110 or Intenso BAHA.

References:

**Poster: 79**

Audiological outcomes with the MED EL VIBRANT SOUNDBRIDGE

Miss Caroline Rae, NHS Tayside

In June 2012, NHS Tayside became the first audiology department in Scotland to issue the MED EL VIBRANT SOUNDBRIDGE Amade audio processor. Since then the implant team have continued to implant and issue the devices with great success. With the aim to get the most out of the processor by providing and individualised patient management plan which includes a comprehensive assessment for candidacy and expectation management. The introduction of the SAMBA audio processor in 2015 with its new features generated interest from both audiologists and patients alike. As the Amade processors have been effective and well received it is expected that the SAMBA will live up to and surpass the expectations and performance of its predecessor. The aim is to investigate the audiological outcomes of the VIBRANT SOUNDBRIDGE, looking more recently at outcome measures of the SAMBA processors and retrospectively at those of the Amade. This will include looking at patient outcome measures, speech perception scores and individual patient experiences.

**Poster: 82**

Feasibility of adding AB word scores to cochlear implant candidacy assessment for adults

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Mr Razun Miah, Bridgend Cochlear Implant Programme
Ms Nicola George, Cardiff Adult Cochlear Implant Programme
Ms Francesca Pinto, University College London Hospital Implant Programme
Mrs Anne Hall, University College London Hospital Implant Programme
Dr Ghada Al-Maliky, University College London
Dr Pádraig Kitterick, National Institute for Health Research
Nottingham Hearing Biomedical Research Unit

In June 2012, NHS Tayside became the first audiology department in Scotland to issue the MED EL VIBRANT SOUNDBRIDGE Amade audio processor. Since then the implant team have continued to implant and issue the devices with great success. With the aim to get the most out of the processor by providing and individualised patient management plan which includes a comprehensive assessment for candidacy and expectation management. The introduction of the SAMBA audio processor in 2015 with its new features generated interest from both audiologists and patients alike. As the Amade processors have been effective and well received it is expected that the SAMBA will live up to and surpass the expectations and performance of its predecessor. The aim is to investigate the audiological outcomes of the VIBRANT SOUNDBRIDGE, looking more recently at outcome measures of the SAMBA processors and retrospectively at those of the Amade. This will include looking at patient outcome measures, speech perception scores and individual patient experiences.
Introduction:
Adult cochlear implant (CI) candidacy is assessed in part by the use of speech perception measures. In the United Kingdom (UK) the current cut-off point to fall within the CI candidacy range is a score of less than 50% on the BKB sentences presented in quiet (presented at 70 dB SPL). For many CI teams this criteria is too restrictive and many individuals who clinicians believe could benefit from a CI do not receive one. The specific goal of this research was to review the benefit of adding the AB word test to the assessment test battery for candidacy to improve the sensitivity of the assessment.

Methods:
The data was collected as part of the British Cochlear Implant Group (BCIG) adult CI service evaluation across ten cochlear implant centres in the UK. BKB and AB word and phoneme scores collected at the pre-implant assessment were analysed.

Results:
The AB words showed good sensitivity and specificity when calculated based on both word and phoneme scores. The word score equivalent for 50% correct on the BKB sentences was 18.5% and 34.5% for phoneme scores; these scores are in line with those used in centres in Wales (15% AB word score).

Discussion:
These indications suggest that AB words, in particular scored by phoneme could increase the accuracy of the pre-implant assessment. In addition it could allow for better assessment of adults with pre-lingual deafness and those with English as an additional language.

Poster: 90
The Real Cost of Hearing Loss: what does it cost NOT to provide for hearing loss?

Sue Archbold, Ear Foundation
Brian Lamb, Ear Foundation
Ciaran O’Neill, Ear Foundation

Introduction:
The demands on the health service to cut costs are increasing leading to attempted rationing of hearing aids for adults. Yet this does not take into account the costs of not addressing hearing loss.

Methods:
Using data from the 2009 British Household Panel Survey (BHPS), we looked at additional health and social service use and reduced income arising from hearing impairment, looking at the costs to society of those with hearing loss in terms of use of GP (primary care physicians) services, and social care costs.

Results:
The additional burden of quality of life costs were estimated at £26 billion per year, £4bn in lost earnings, additional GP costs were estimated at £76 million, and social services costs at £60m. The extent of lost earnings was estimated at £2.136bn, with both higher unemployment rates and lower earning power in those with hearing loss. In total the study estimated that the costs associated with hearing loss were £30.13 billion per year.

Discussion:
Taken together with the growing evidence of the impact of hearing loss and its relation to other long-term conditions which requiring managing, it is increasingly evident that managing hearing loss effectively with today’s technologies is cost-effective compared with the cost of not addressing hearing loss. This also questions the current candidacy requirements and cost-effectiveness assumptions for Cochlear Implants which are based on outdated modelling and also the cost effectiveness assumptions for Adult Hearing Screening.

Poster: 91
Surgical complications of Bone Anchored Hearing Devices (BAHD):

Michael Mather, James Cook University Hospital
A Bannerjee, James Cook University Hospital
K Blackmore, James Cook University Hospital
J Ramsbottom, James Cook University Hospital

Introduction:
Bone anchored hearing devices (BAHD) are well-established, surgically implanted systems to improve hearing for patients with both conductive or sensorineural hearing losses. Despite improvements in their 30-year history, complications still ensue which confer patient morbidity. We sought to audit surgical complications of BAHD implantation at our centre.

Methods:
We undertook a retrospective case-note review at a single tertiary centre in northern England. This audit was conducted annually over 4 years (2012-15) using an electronic pro-forma and compared to specified clinical standards.

Results:
139 patients were identified over the 4-year period. Changes to BAHD implantation following early audit cycles included adoption of single incision surgical technique and ceasing use of hydroxyapatite. There was a sustained decline in the incidence of soft tissue overgrowth (34.6 to 8.7%), skin infections (17.3 to 4.3%), and persistent granulation tissue (57.7 to 8.8%). The incidence of persistent pain was often greater than the set standard of <1% (prevalence ranging 0 to 4.3%). The incidence of exposed bone and persistent bleeding was never higher than 3%.

Conclusion:
There has been a consistent decline in the incidence of minor complications. Severe complications remained rare throughout. Persistent pain remains an area for targeted improvement. Ceasing use of hydroxyapatite and adoption of a single incision surgical technique at our site during this time appears to have reduced minor surgical complications.

Reference:

Poster: 92
Cochlear implant electrode impedance and hearing preservation: A retrospective study of MED-EL CI users

Tracey Newman, University of Southampton
Alan Sanderson, University of Southampton
Karl Verschuur, University of Southampton

It has been suggested that inflammation affects the interface between the cochlear implant (CI) and the auditory system and can therefore impact patient outcomes. Studies show that changes in CI electrode impedance (EI) reflect tissue and chemical changes at this interface and can be associated with poor CI performance. Although impedance telemetry is performed routinely in the clinic the results are rarely analysed at group level, especially in the light of post-implantation hearing preservation. The objectives of this study were to establish a long-term temporal model of EI and investigate its relationship with hearing preservation. We analysed historical data from 180 MED-EL CI users seen at the University of Southampton Auditory Implant Service (USAIS). Results show an EI reduction across all channels following CI switch-on. In the following 2 years an increase in EI was seen in basal electrodes, whereas a reduction was observed in apical electrodes. Results of hearing preservation were pending final analysis at the time.
of writing. Previous research suggests the slow increase in EI is caused by the development of fibrotic tissue which is driven by an inflammatory response. Studies have shown that immune cell infiltration and fibrosis are greatest at the base, nearest to the site of surgery, which may explain the EI increase in basal electrodes observed here. Our long-term temporal model of EI establishes a norm that can be used by clinicians interpreting impedance telemetry results, especially in complex cases of sub-optimal CI performance.

Innovation & Service Development

Poster: 28
I've seen body parts no audiologist expects to see: The trials and tribulations of an Advanced Audiology Practitioner

Mr Neil Summerfield, Salford Royal Nhs Foundation Trust

A discussion on how undertaking the MSc in Advanced Practice has changed my role and outlook as an Audiologist in a world gaining innovation and cost effecting working could this be a future role for Audiologists in the modern NHS. The international Council of Nurses defines Advanced Practitioners as: ‘A Nurse Practitioner/Advanced Practice Nurse is a registered nurse who has acquired the expert knowledge base, complex decision-making skills and clinical competencies for expanded practice, the characteristics of which are shaped by the context and/or country in which s/he is credentialed to practice. A master’s degree is recommended for entry level’ (ICN, 2001). This role is well defined in nursing with a widespread understanding and acceptance of the benefits of the role across numerous specialities. In practice Advanced Nurse Practitioners (ANPs) use the four pillars of practice Nurse is a registered nurse who has acquired the expert knowledge base, complex decision-making skills and clinical competencies for expanded practice, the characteristics of which are shaped by the context and/or country in which s/he is credentialed to practice. A master’s degree is recommended for entry level’ (ICN, 2001). This role is well defined in nursing with a widespread understanding and acceptance of the benefits of the role across numerous specialities. In practice Advanced Nurse Practitioners (ANPs) use the four pillars of practice.
Poster: 64
Service Development of Dementia Service – gathering current opinions and standardising approach
Mrs Alissa Moakes, Nottingham Audiology Services, Nottingham University Hospitals NHS Trust

Introduction:
Evidence suggests the concurrence of hearing loss and dementia (Jorgensen et al (2014); Lin et al (2011)) indeed a recent study suggests strong correlation between hearing aid use and cognitive ability (Dawes, 2014). A Dementia Service was developed in 2012 and there has been a steady increase in the number of referrals into the service both from Primary care and acute care over this time.

Methods:
A review of the current case notes for this cohort of patients within the service revealed a difference in what information was gathered and recorded during patient history and opinions varied on how comfortable clinicians are in asking about Dementia. A survey was sent to all current audiologists with >3 years’ experience: establishing current knowledge of the link between hearing loss and dementia; how clinicians felt about asking about dementia at direct referral and the relevance placed on this information; as well as asking opinion on what an ‘Ideal Dementia Service’ would consist of. The survey will then also be sent to trainees on the BSc Healthcare Science Audiology course and new graduate < 3 years’ experience and the results compared.

Conclusions and implication:
The results of the survey and the themes in the answers for the different groups of audiologists will be explored. Recommendations about how to standardise the approach to talking about Dementia within a clinical history and how to improve audiologists’ confidence in this area will be made.

Poster: 78
SoundSpace Online: a comprehensive online resource on hearing loss and its management
Mr Zheng Ng, The Ear Foundation
Dr Sue Archbold, The Ear Foundation
Professor Connie Mayer, York University

Introduction:
The internet is a continuously growing source of health information; information about hearing loss is spread widely and access is challenging. The literature highlighted a need for an up-to-date tool providing information and resources on hearing loss and its management.

Methods:
SoundSpace Online website has been developed by experts in e-learning, audiology, education, research and hearing loss and informed by measures of quality, readability and usability. The website has been extensively piloted, undergone several iterations and has been refined with input from families, professionals and organizations in the field of hearing loss. Through direct access to topical papers, helpful videos and resources and links to other useful sites, the latest information is quickly available to the user.

Results:
Section 1 of SoundSpace Online was launched in June 2016, with over 400 users and over 2,500 page views in its first month online (Google Analytics). Visitors to the website come from all over the world, and include families, adults with hearing loss, audiologists, teachers of the deaf, speech and language therapists, researchers and many more. Sections 2-8 are currently in development.

Discussion:
The newly launched website “SoundSpace Online” uniquely provides a single point of access to a wide range of concise, up-to-date, evidence-based information and resources on hearing loss and its management, improving information accessibility for families, professionals working with them, funders, policy makers, and other interested parties. Section 1 is available at www.soundspaceonline.com.

Poster: 80
The National Bone Conducting Hearing Implant (BCHI) Registry: evidence for users and professionals
Mr Zheng Ng, The Ear Foundation
Dr Imran Mulla, The Ear Foundation
Marion Atkin, University Hospitals, Birmingham NHS Foundation Trust
Arti Patel, The Ear Foundation
Dr Sue Archbold, The Ear Foundation

Introduction:
Funding, policy and practice for Bone Conducting Hearing Implants (BCHIs) vary across the UK and there is limited robust information about figures of BCHI users. Research is vital to provide evidence of clinical cost-effectiveness and outcomes.

Methods:
The National BCHI Registry was developed by experts in BCHIs, audiology, education and research and collects key information of users on their hearing loss, audiologist and BCHI usage in daily life. The National Bone Conducting Hearing Implant Registry is hosted by The Ear Foundation and supported by Cochlear Europe and Oticon Medical.

Results:
13 participating BCHI centres across the UK have already collected information for over 300 children and over 3,000 adults with unilateral and bilateral hearing loss. The most common aetiology in adults is Chronic Suppurative Otitis Media (CSOM); in children among the most prevalent are syndromes associated with hearing loss and isolated atresia. In this group 95% of adult BCHI users with bilateral loss (n=1558) and 88% with unilateral loss (n=455) use their BCHI all or most of their waking hours. 97% of children with bilateral loss (n=166) and 68% with unilateral loss (n=87) use their BCHI all or most of their waking hours.

Discussion:
This unique data is now available for a wide range of clinical and research purposes, to increase awareness of BCHIs and to provide invaluable information not only for professionals, but also for users and their families. To develop this national picture further, BCHI centres across the UK are invited to join the BCHI Registry.

Paediatrics
Poster: 2
‘Acoustic Accessibility’ MESH guide: Translational research and evidence base for improving signal to noise ratio
Dr Joy Rosenberg
Mary Hare with University of Hertfordshire

This workshop investigates the use of MESH (Mapping Educational Specialist knowHow) Guides to support evidence-based educational audiology. MESH Guides are ‘a sustainable system using resources already available in education’ (MESH, 2015). Literature review revealed a very current knowledge and research base underpins education of the deaf, including educational audiology, and is currently managed through a few main peer-review journals and websites. Focus group findings were generally positive though cautious in their view toward engaging with MESH Guides as a learning and teaching activity including graduate and postgraduate optional educational modules in audiology degree programmes. Findings from the literature revealed a

Poster: 11
BERA in preterm SGA (IUGR) neonates
Ms Jyoshna Tanigundala, Fernandez Hospitals
Dr Tejo Pratap Oleti, Fernandez Hospitals
Dr Srinivas Murki, Fernandez Hospitals

Background:
Preterm Small for gestational age (SGA) or preterm Intra uterine growth retardation (IUGR) neonates are at higher risk for hearing loss compared to term AGA babies.

Objective:
The present study was designed to look at the performance of preterm SGA (IUGR) and AGA neonates on BERA at 40 weeks and to compare the absolute and interpeak latencies for peaks I, III, & V and I-III, III-V & I-V by adjusting the important risk factors found significantly different between the two groups.

Methods:
A retrospective observational study was performed on a total of 170 preterm neonates who satisfied inclusion criteria (32 SGA & 138 AGA).

Results:
Among the infants in which the peaks (10.9% vs. 3.1%, p=0.3) were identified the mean latencies of all waveforms and the inter-peak latencies were similar between the two groups. On linear regression correcting for the gestational age, IUGR infants had a significant delay in the latency for wave III-V in both the ears in comparison to AGA infants. The latencies and inter-peak latencies greater 1SD from the reference mean of term gestation infants was similar between IUGR and SGA infants expect for wave III and any peak >1SD in the left ear. However, these differences too disappeared when adjusted for gestational age.

Conclusions:
The effect of IUGR status on the waveforms is negligible when corrected for gestational age and other risk factors.

Poster: 36
Cochlear Microphonics Recording During ABR Threshold Testing in Children
Dr Abeir Osman Dabbous, Cairo University

Background:
Cochlear microphonics (CM) arise mainly from outer hair cells (OHCs) in normal cochlea (Sellick and Russell, 1980).

Objective:
The aim of this research is to study the CM characteristics in different hearing profiles in children.

Methods:
This is a retrospective study that included 76 children (age ranged from 6-96 months), including children with autism spectral disorders (ASD), cochlear sensorineural hearing loss (SNHL), auditory neuropathy/auditory dysynchrony (AN/AD) and normal hearing healthy controls. Both CM and ABR were simultaneously recorded using alternating split polarity ABR.

Results:
There were statistically significant greater CM amplitudes and lower CM threshold in controls, ASD, and AN with Distortion product otoacoustic emission (DP) compared to the other groups. ASD did not significantly differ from controls. CM are preserved in AN/AD despite absence of DP, but with significantly lower amplitude than AN/AD with DP. There was a statistically significant negative correlation between age and CM amplitude at 70dBnHL, and a positive correlation between age and CM threshold.

Conclusion:
Hypersensitivity to sounds in ASD are not explained by loudness recruitment. CM should always be searched for when testing young children when there is absence of ABR response with absence or presence of otoacoustic emission, to avoid any false negative results for AN/AD. CM can be preserved in children with SNHL with loudness recruitment, and are confused with AN/AD, so CM should be traced down to threshold for an appropriate diagnosis.

Key Words:
Auditory Brainstem Response; Autism Spectral Disorders; Auditory Neuropathy/ Auditory Dys-synchrony; Cochlear Microphonics; Sensorineural Hearing Loss.

Poster: 39
Demonstrating detection of speech-like stimuli in infants using aided cortical auditory evoked potentials: update from the Manchester ‘Ladies in the van’ study
Mrs Jo Brooks, University of Manchester, Central Manchester University Hospitals NHS Foundation Trust
Dr Anisa S Vasram, University of Manchester, Central Manchester University Hospitals NHS Foundation Trust
Dr Michael A Stone, University of Manchester, Manchester Academic Health Science Centre
Professor Kevin J Munro, University of Manchester, Manchester Academic Health Science Centre

Introduction:
Our previous data from 104 normally hearing babies suggest that cortical auditory evoked potentials (CAEPs) are a clinically useful and feasible procedure to indicate detection of speech-like stimuli in infants. The ‘Ladies in the van’ are now out on the road collecting data to validate the procedure in hearing-impaired infants.

Methods:
125 babies with hearing loss are expected to complete the study. CAEPs will be recorded in the soundfield with hearing aids at 3-6 months old, using mid and high frequency stimuli at conversational levels. The stimuli were designed to evoke a frequency-specific cortical response whilst being processed in a speech-like manner by the hearing aids. Participants will subsequently be tested at age 7-9 months in order to establish minimum response levels to the same stimuli using aided visual reinforcement audiometry. We will use the behavioural data to establish the proportion of infants in whom an aided CAEP can be recorded at different sensation levels. Interviews and questionnaires will investigate parental experiences of the procedure. To make participation easier for families, and to maximise recruitment from around the UK, all testing takes place in a bespoke Mobile Research Unit which visits families close to their homes.

Results/Discussion:
Preliminary results suggest that aided CAEPs are recordable in a large proportion of (co-operative) infants. So far, families’ experiences of the test and of the Mobile Unit are positive. The Mobile Research Unit is proving a valuable tool to reach families, providing a practical space and repeatable controlled environment for testing.
Poster: 44
Exploring the use of FM/RM systems with pre-school children
Mrs Sarah Allen, The Ear Foundation
Dr Imran Mulla, The Ear Foundation
Mr Zheng Ng, The Ear Foundation
Dr Sue Archbold, The Ear Foundation

Introduction:
The importance of improved signal to noise ratio (SNR) for speech intelligibility is widely established. Remote Microphone (RM) technology is frequently used to improve SNR in education; however, little use is made with young children at home where daily situations are often noisy and compromise essential early listening and language development. Mulla (2011) demonstrated that pre-school hearing aided children can make consistent use of FM technology with benefits to language and listening.

Methods:
To explore current use of RM systems with pre-school deaf children, online surveys were completed by Parents (206), Teachers of the Deaf & Educational Audiologists (40) and CI centres (6).

Results:
Survey findings demonstrated strong support amongst both parents and professionals, describing many positive benefits, including listening at home, outdoors and at distance, communication development, behaviour management and the value of early access. Access and funding are key challenges; issues with limited awareness and understanding of the technology, practical management and lack of evidence-based information underpin patchy provision.

Discussion:
Given the known benefits of early diagnosis and intervention and improved signal-to-noise ratio, this state of uncertainty and inequity means that many children are being deprived of an important opportunity for early language learning. This study demonstrates that parents can manage this technology at home and observe benefits. A study in collaboration with the National Deaf Children’s Society to evaluate the use of RM systems objectively in pre-school children is underway across England, and early results will be given.

Poster: 83
Perception of voice characteristics by normally hearing children
Mrs Jemima Philipott, Ear Institute, University College London
Deniz Baskent, Ear Institute, University College London
Etienne Gaudrain, Ear Institute, University College London
Jacqueline Libert, Ear Institute, University College London
Deborah Vickers, Ear Institute, University College London

Voice characteristics provide important cues for many speech-related tasks, such as gender categorization, vocal emotion perception and speech perception in the presence of competing voices. These tasks are known to be difficult for cochlear implant (CI) users. Much research has looked at perception of voice fundamental frequency (F0) in normal hearing listeners compared to CI users which has shown that it is more weakly perceived by CI users. Smith et al. (2009) have shown another vocal cue, vocal tract length (VTL) is important. Research by Fuller et al. (2014) showed there is even less perception of VTL in CI users than the F0 cue. Aim to understand how perception of Fundamental frequency (F0) and Vocal Tract Length (VTL) changes with age? What age do children match an adult’s perception? The study involved testing normal hearing children, age 5-9 years old. Comparison with normal hearing adults. Each participant carried out three computerised listening tasks measuring voice characteristics perception. Statistical analysis and review of results is in progress. Data gathered from ongoing work with the University Groningen will enable a better understanding of the development and comparison to CI children. This will help inform and design programmes for children with Cochlear Implants.

Reference:

Poster: 84
The Auditory Verbal Approach in Britain: A 10 year audit of outcomes for pre-school children
Sarah Hogan, Auditory VerbalUK

Introduction:
Promoting learning through listening is key to the success of the Auditory Verbal approach. This analysis, focussing on spoken language outcomes, is based upon 279 pre-school children and their families, who embarked on a programme of early intervention using AV therapy at Auditory VerbalUK in the period from 1 September 2003 to 31 August 2013.

Methods:
Children with a permanent hearing impairment whose families attended individualised therapy sessions for at least 4 consecutive terms (15 months) at a frequency of at least 2 sessions per month were included. Spoken language scores (receptive, expressive and total language scores) were obtained using the Pre-school Language Scale assessment (PLS-3 (UK) and PLS-4 (UK)). Children who had data arising from more than one PLS assessment were included in the analysis.

Results:
Of the 279 children, data from 134 children was included in the analysis. Of children who were on the programme for two years or more 80% graduated from the AV programme with age appropriate language (AAL) by the time the children started Key-Stage 1. Of these children, 25% had challenges in addition to their hearing loss. Thirty five percent (n=13) of the remaining children who did not achieve AAL had challenges in addition to their hearing loss.

Discussion:
A family-centred approach to early intervention for hearing impaired children which considers the child as a listener and a thinker can support a pre-school child in developing spoken language competences on a par with typically hearing children by the age of school entry.

Rehabilitation
Poster: 12
Auditory training program for Arabic-speaking children with auditory figure-ground deficit
Dr Mohammad Hassaan, Faculty Of Medicine – Zagazig University – Egypt

Introduction:
Listening to speech in noise makes up a great challenge for school children with auditory processing disorders mainly those with deficit in auditory figure ground (AFG) ability. These children are candidates for auditory training programs targeting AFG such as noise-desensitization programs. This work aimed to develop a new training material in Arabic language targeting this ability.
BMR resulted in a significant improvement of speech in noise. BMR gives not only information on central auditory processing, but correlates with localization performance.

**Results:**
The paired sample t-test revealed significant improvement of all trained children after training period in their psychophysiological and electrophysiological results. The electrophysiological threshold of signal to noise ratio decreased from 5.3 dB to 11.3 dB after training.

**Discussion:**
The current study developed and evaluated training material that targeted AFG deficits. The nature of the training material simulated the formal training programs in their reliance on special equipment, such as the audiometer, and the defined intensity levels of material presentation. At the same time, it conserved the malleability of informal programs in the live interaction between trainers and children and the free selection of stories according to their performance and preference. Following the training period, children significantly improved not only in their AFG ability but also in the other impaired auditory abilities. We attributed this finding to the interactive nature of processing in the central auditory nervous system.

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**Poster: 15**
**Assessing binaural masking release for running speech in clinical practice as a measure of central auditory processing**

Mr Mark Laureyns, International Amplifon Center For Research & Studies

When providing hearing care – the audiogram is a very limited source of information. It only evaluates when people start to hear pure tones at different frequencies… we need to look at all dimensions of hearing “performance” and how the “person” perceived these dimensions. We started a multicentre study on the feasibility to use “Binaural Masking Release” as a tool to assess Central Auditory Processing in clinical practice. 66 subjects participated in this study. We had a group of normal hearing young subjects, a group of hearing aid users and a matched control group (age and gender). First we identify the comfortable level for running speech presented on one ear, then we add speech weighted noise on the same ear and ask the subject to indicate the level where they start missing (losing) words. And finally we present the same noise on the same ear and ask the subject to indicate the level where they start missing (losing) words. This condition is called the Binaural Masking Release for Running Speech (BMR).

**Results:**
- BMR resulted in a significant improvement of speech in noise performance for all groups and both under headphones and in free field.
- BMR correlates with localization performance.
- BMR gives not only information on central auditory processing, but also assesses understanding speech in quiet and understanding speech in noise – so 3 dimensions of hearing.
- BMR has very good test/retest reliability, better than pure tone audiometry and comparable to ANL (Acceptable Noise Level).

**Poster: 16**
**A single institution’s experience in rehabilitation of patients with visually induced vertigo**

Mr Christopher Boves, Sheffield Teaching Hospitals
Mr Panos Dimitriadi, Sheffield Teaching Hospitals
Mr Ahmed Allam, Sheffield Teaching Hospitals
Mrs Asmaa Moaty, Sheffield Teaching Hospitals
Professor Jaydip Ray, Sheffield Teaching Hospitals

**Introduction:**
The term “visual vertigo” was introduced to describe the visual over-reliance that certain patients developed following an insult of the vestibular system. Customized vestibular physiotherapy is thought to be the gold standard in managing these patients. Aim of this study was to assess the effects of customized graded therapy in patients’ quality of life and frequency of symptoms.

**Methods:**
This is a retrospective, cohort study of 63 patients that were referred to our Visual Vertigo clinic. A customized visual vertigo therapy protocol was used for all patients. The validated questionnaires that were used included the Situational Characteristics Questionnaire [SCQ], the Dizziness Handicap Inventory [DHI] and the Hospital Anxiety and Depression Scale [HADS].

**Results:**
The mean pre-rehab score of the SCQ was 2.36 [SD: 0.67], while the mean post-rehab score was 1.95 [SD: 0.83] [p<0.01]. Similarly, for the DHI, the mean pre-rehab score was 64.5 [SD: 8.97], and the post-rehab score 57.9 [SD: 7.54] [p<0.05]. HADS scores were within normal limits throughout, although a non-significant improvement of the HADS-Anxiety subscale was noted.

**Discussion:**
Customized visual vertigo therapy helps to alleviate vestibular symptoms in individuals with dizziness provoked by visually challenging stimuli by using central mechanisms of neuroplasticity [adaptation, habituation and substitution]. We found statistically significant improvement in patients’ quality of life and frequency of symptoms as shown by the DHI and SCQ questionnaires respectively.

**Poster: 17**
**Hearing aid users reports of the challenges of adapting to a new high power hearing aid**

Dr Piers Dawes, University Of Manchester
Dr Greg Nassar, Central Manchester University Hospitals NHS Trust
Adam Walker, Central Manchester University Hospitals NHS Trust
Julie Neel Weile, Oticon AG

**Introduction:**
Because users of high powered hearing aids are highly dependent on their hearing aids and well-used to a particular hearing aid, moving to a new hearing aid can be challenging. We interviewed users of high-powered hearing aids who had recently changed to a new hearing aid and asked i) What is HA users experience of transitioning to a new device? ii) Which factors are particularly problematic? and iii) What factors support transition to a new device?

**Methods:**
Users of power hearing aids (N=22) were fit with a new high power hearing aid. 17 completed the study and 5 discontinued the study (3 due to not finding the new hearing aid agreeable and 2 withdrawing from participation for unspecified reasons). After two weeks experience with the new hearing aid, participants completed a structured interview about their experiences adapting to the new hearing aid and completed a questionnaire of hearing aid benefit (IOI-HA). Interviews were audio recorded, transcribed and analysed according to qualitative content.

**Results:**
The positive themes reported by patients were benefits in speech
understanding, general benefit and benefit in hearing environmental sounds. Negative themes were difficulties with volume control, feedback associated with hearing aid and coupling to the hearing aid.

Discussion:
Most participants successfully made the transition to a new hearing aid. Difficulties with feedback problems and design features (e.g. volume control) might be addressed by i) careful attention to moulds and sound leakage and ii) instruction on hearing aid features that differ from the previous hearing aid.

Poster: 18
Assessing binaural hearing aid microphone features with a simultaneous speech identification and sound localisation task
Miss Bhavisha Parmar, University College London
Dr Jennifer Bizley, University College London
Dr Debi Vickers, University College London

The purpose of this study was to evaluate three types of directional processing implemented by the same pair of publicly available behind-the-ear hearing aids and assess performance using a new simultaneous speech identification and sound localisation task. The types of directional processing were 1) Omnidirectional 2) Directional and 3) Bilateral beamformer. Areas of assessment were speech discrimination, localisation, reaction time (listening effort) and subjective preference. 5 adult hearing aid users with mild to moderate sensorineural hearing loss were recruited and fitted with Phonak Sky Q behind the ear hearing aids. They trialled the hearing aids for 6-8 weeks and completed the ‘Microphone Performance Questionnaire’ (Cord 2002) for each of the three hearing aid microphone settings. Each participant then carried out a simultaneous speech discrimination and sound localisation task in an anechoic chamber. The word groups from the Chear Auditory Perception test (Marriage et al 2011) were presented in the presence of multi-talker male babble. The testing paradigm was developed by Bizley and Wood (2015). Participants had to repeat the words they heard and the location from which the sound came from.

Results:
Still in analysis but MSc submission date is 07.09.2016 so final project will be completed by 01.09.2016.

Poster: 19
The Complexities of Music Listening for Hearing Aid Users: Initial Findings From a UK Interview Study
Dr Harriet Crook, Sheffield Teaching Hospitals NHS Foundation Trust
Dr Alinka Greasley, School of Music, University of Leeds
Dr Robert Fulford, School of Music, University of Leeds
Dr Jackie Salter, School of Music, University of Leeds

Music listening has significant health and well-being benefits, including for people with all levels of hearing impairment. Digital hearing aids (HA) are typically optimised for speech amplification and can present difficulties for music perception. A UK-based project is currently exploring the individual nature of hearing loss (e.g. type, level, duration); levels of musical engagement (e.g. daily exposure, training) and contexts (e.g. recorded music at home/travelling, live performances). These studies provide new data on a poorly understood topic that will be used to inform the design of a national survey which seeks to identify patterns in the listening behaviour of a wider population of HA users.

Poster: 42
The development of a new outcome measure to assess social participation in adults with mild-moderate hearing loss
Ms Ethne Hefferman, NIHR Nottingham Hearing Biomedical Research Unit, Division of Clinical Neuroscience, University of Nottingham
Dr David Maitland, NIHR Nottingham Hearing Biomedical Research Unit, Division of Clinical Neuroscience, University of Nottingham
Dr Johanna Barry, MRC Institute of Hearing Research, University of Nottingham
Dr Neil Coulson, Division of Rehabilitation and Ageing, University of Nottingham
Dr Melanie Ferguson, NIHR Nottingham Hearing Biomedical Research Unit, Division of Clinical Neuroscience, University of Nottingham

Introduction:
This research aimed to develop a new self-report outcome measure that can assess social participation in adults with hearing loss. This questionnaire could be used in research or clinical practice to assess the impact of hearing loss interventions on social participation. In a previous study, the content of the questionnaire was developed through semi-structured interviews and evaluated through cognitive interviews and expert panel feedback. It contained questions about behaviour, emotion and identity.

Methods:
In Stage 1, 279 adults with hearing loss completed the questionnaire. Rasch analysis, a modern psychometric technique, was used to reduce the number of questions in the questionnaire and to assess its structural validity. In Stage 2, 102 adults with hearing loss completed the questionnaire, as well as three validated measures. Traditional psychometric analysis was used to assess internal consistency and convergent validity.

Results:
Stage 1 led to the removal of 34 questions from the questionnaire. Two subscales, a nine-item Social Behaviours subscale and a ten-item Social Perceptions subscale, were created from the remaining questions. Each subscale displayed good fit to the Rasch model, unidimensionality, and good targeting. Stage 2 demonstrated that each subscale had strong internal consistency and convergent validity. A short form of the questionnaire, which contained five items, was also developed for clinical use.

Discussion:
This research has produced a new outcome measure with strong psychometric properties that could be used in research and clinical practice. This demonstrates the value of using best practice techniques, such as Rasch analysis, to develop questionnaires.

Poster: 48
Is the impact of a hearing loss taken seriously?
Mrs Lidia Best, National Association of Deafened People

National Association of Deafened People is a UK charity, representing deafened people views and interest since 1984. Hearing loss and sudden hearing loss is a life changing event for anyone who experienced it. There are interconnecting conditions which are affecting
us such as tinnitus and vertigo. We will discuss how the medical profession and social care react to hearing loss event and connected issues, and what can be done to support patients. We will explain how working closely with patients can achieve the best outcomes. We would like to raise mental health issues which relates to sudden hearing loss and severe balance problems as well as social-economic impact of the person’s life. We will look at successes of hearing technology and how social model of disability can be implemented by the medical professionals working with those who experience sudden hearing loss. Are the patients the experts? We will bring best practice examples in a positive and constructive way.

**Poster: 50**

**Participatory design of gaming applications to facilitate the use of appropriate hearing aid functionalities in different acoustic contexts**

Dr Harshada Patel, University of Nottingham
Dr Madeline Hallewell, University of Nottingham
Dr Mirabelle D’Cruz, University of Nottingham
Dr Sue Cobb, University of Nottingham
Dr Richard Eastgate, University of Nottingham
Dr Lorenzo Picinali, Imperial College

**Introduction:**
Individuals who do not fully understand how to use their hearing aids (HAs) may miss out on all their potential benefits (Desjardins and Doherty, 2009). The 3D Tune-In (3DTI) project is developing apps for children and adults using gaming techniques with 3D sound simulations to provide training on correctly using digital HA features in different contexts. Typical HA users’ activities and their challenges must first be understood to highlight specific needs which the 3DTI apps can support.

**Methods:**
18 HA users took part in a paired interview and questionnaire study to discuss typical communication problems and their use of HAs in different contexts.

**Results:**
Most users were unsatisfied with the quality and amplification of sound in many contexts. Their main issue was a reduced capacity to follow conversations with background noise. The majority of HA users were unaware of, or unwilling to use different HA functionalities due to a lack of knowledge or confidence to change settings without interfering with their audiologist’s set up. The interview themes were incorporated into six personas and eleven current scenarios describing typical end-users and their daily experiences to facilitate games developers’ understanding of this target group.

**Discussion:**
The 3DTI apps will support HA users’ requirements, addressing motivational issues, lack of awareness and self-confidence with regards to using their HAs available functionalities in different acoustic environments.

**References:**

**Poster: 51**

**Coping together with hearing loss: A qualitative meta-synthesis of the psychosocial experiences of people with hearing loss and their communication partner**

Dr Alex Barker, NIHR Nottingham Hearing Biomedical Research Unit
Dr Paul Leighton, NIHR Research Design Service for the East Midlands
Dr Melanie Ferguson, NIHR Nottingham Hearing Biomedical Research Unit, Nottingham University Hospitals Trust

**Introduction:**
Hearing impairment can result in psycho-social difficulties for both the person with hearing loss (PHL) and their communication partners (CPs). The effect of hearing loss on the PHL and their CPs, and coping strategies used, has been examined separately in the literature. However, the interaction between the PHL and CPs is important because the CP affects the PHL’s experiences in audiological enablement and rehabilitation. The psychosocial effects of hearing loss, and coping in response to this, should be considered from both perspectives together to gain a greater understanding of its effects.

**Methods:**
A meta-synthesis of the qualitative literature was conducted.

**Results:**
Twelve papers were included. Four themes on the psychosocial experience of hearing loss were found: (i) the effect of the hearing loss, (ii) the response to hearing aids, (iii) stigma and identity, and (iv) coping strategies. Hearing loss affected both PHL and CPs. Although hearing aids resulted in positive effects, these were often outnumbered by negative effects. Non-use of hearing aids was often influenced by stigma. Coping strategies often related to how the PHL perceived their self, and how the CP perceived the relationship. Aligned coping strategies appeared to have a positive effect on both partners.

**Discussion:**
Hearing loss affects both PHL and CPs. Aligned coping strategies can facilitate adjustment to hearing loss. The themes identified form a framework for assessing the similarities and differences between the two groups that can inform the development of interventions to align coping strategies between both people.

**Poster: 58**

**Views towards interventions to promote uptake of rehabilitation support among UK adults: A qualitative study using the Behaviour Change Wheel**

Ms Crystal Rolfe, Action On Hearing Loss & UCL
Dr Benjamin Gardner, Department of Psychology, Institute of Psychiatry, Psychology and Neuroscience, King’s College London

**Objective:**
Effective hearing loss rehabilitation support options are available. Yet, people often experience delays in receiving rehabilitation support. This study aimed to document support-seeking experiences among a sample of UK adults with hearing loss, and responses towards potential strategies to increase rehabilitation support uptake. People with hearing loss were interviewed about their experiences of seeking support, and views towards seven hypothetical intervention strategies, including public awareness campaigns, a training programme for health professionals, and a national hearing screening programme.

**Design:**
Semi-structured qualitative interview design with thematic analysis.

**Study sample:**
Twenty-two people with hearing loss, aged 66-88.

**Results:**
Three themes, representing barriers to receiving rehabilitation support

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and potential areas for intervention, were identified: making the journey from realisation to readiness, combating social stigma, and accessing appropriate services. Barriers to receiving support mostly focused on appraisal of hearing loss symptoms. Interventions enabling symptom appraisal, such as routine screening, or demonstrating how to raise the topic effectively with a loved one, were welcomed.

Conclusions:
Interventions to facilitate realisation of hearing loss should be prioritised. Raising awareness of the symptoms and prevalence of hearing loss may help people to identify hearing problems and reduce stigma, in turn increasing hearing loss acceptance.

Poster: 59
Interface of Bottom-up and Top-down Approaches in Enhancing Listening Ability of Pupils with Perceptual Difficulties in Complex Environments

Miss Abiodun Adewunmi, Learning Disabilities Unit, Department Of Special Education, University Of Ibadan, Nigeria
Miss Olubukola Adeduro, Learning Disabilities Unit, Department Of Special Education, University Of Ibadan, Nigeria

The need to develop a measure of improving the listening ability in noise of children with perceptual difficulties necessitated the study, as it is suspected as the underlying cause of specific reading and language disabilities. A randomised controlled trials of interventions (RCT) was adopted as a research design, using 10 instruments– Otoscopy, Maco 53 Audiometer, Tymanometer, Children’s auditory processing performance scale (CHAPPS α = 0.47- 0.97), Tests for auditory processing disorders in children (SCAN-2, C α = 0.84- 0.98), Random gap detection test- expanded (RSDT-Expanded α =0.76), wechsler intelligence scale for children– fourth edition (WISC-IV α =0.79-0.83), Rosenberg self-esteem scale (RSES α =0.88), Informal graded word recognition test (IGWRT α =0.83), and Canadian ADHD resource checklist (CADDRA α =0.89) to identify 60 single-profiled pupils with APD (male and female) aged 7 years 0 months through 11 years 11 months, exposed to 10 weeks training of eight weeks therapeutic sessions, two weeks of pre and post-test moderated on gender, tested on two null hypotheses, at 0.05 level of significance, and analysed with analysis of co-variance (ANCOVA), and Fisher’s least significant difference (LSD). There was main effect of treatments on listening with analysis of co-variance (ANCOVA), and Fisher’s least significant difference (LSD). There was main effect of treatments on listening with analysis of co-variance (ANCOVA), and Fisher’s least significant difference (LSD). Then, multi-modality cues should be encouraged among teachers to augment classroom instruction.

Reference:

Poster: 61
Alternative listening devices to conventional hearing aids for adults with hearing loss: a systematic review

Dr David Maidment1,2
Dr Melanie Ferguson1,3
Dr Alex Barker1,2

1 National Institute for Health Research, Nottingham Hearing Biomedical Research Unit
2 Division of Clinical Neuroscience, School of Medicine, University of Nottingham
3 Nottingham University Hospitals NHS Trust

Introduction:
Recent technological advances have led to a rapid increase of alternative listening devices to conventional hearing aids. These include hearing aids that can be customised using a smartphone, smartphone-based ‘hearing aid’ apps, self-fitting personal sound amplification products, and wireless hearing products. However, the evidence for the effectiveness of these new emerging devices is not clear. The objective of this study was to systematically review existing evidence assessing whether alternative listening devices are an effective intervention for adults with a mild-to-moderate hearing loss.

Methods:
A systematic and narrative review. Retrospective or prospective studies, randomised controlled trials, non-randomised controlled trials, and before/after studies were all eligible for inclusion. The intervention was any alternative listening device to a conventional hearing aid. Studies were restricted to outcomes associated with the consequences of hearing loss.

Results:
Of 10 included studies, the effectiveness of the following devices were evaluated: FM Systems (6), Bluetooth devices (2), the Ear Lens system, and the EsteemTM hearing implant. A range of outcome measures were used across studies, including objective measures of speech intelligibility (e.g. Hearing in Noise Test) and self-reported hearing-specific quality of life (e.g. Hearing Handicap Inventory for the Elderly). All studies suggested that alternative devices resulted in significantly better outcomes in comparison to conventional hearing aids alone.

Discussion:
Alternative listening devices can improve speech intelligibility and self-reported outcomes in adults with mild or moderate hearing loss. Even so, further high-quality evidence is necessary to establish the efficacy of more recent technological innovations.

Poster: 66
Application of health behaviour theory to hearing healthcare research: The state of play and beyond

Ms Ethne Hefferman, NIHR Nottingham Hearing Biomedical Research Unit, Division of Clinical Neuroscience, University of Nottingham
Dr Neil Coulson, Division of Rehabilitation and Ageing, University of Nottingham
Dr Helen Henshaw, NIHR Nottingham Hearing Biomedical Research Unit, Division of Clinical Neuroscience, University of Nottingham
Dr Melanie Ferguson, NIHR Nottingham Hearing Biomedical Research Unit, Division of Clinical Neuroscience, University of Nottingham

Introduction:
In recent years, there has been a notable rise in the application of theories and models from the field of health psychology to hearing healthcare research. These frameworks have primarily been used to improve the understanding of hearing-related health behaviours, particularly help-seeking, uptake, and adherence. The aim was to review the principal health psychology theories and models that have been utilised in hearing healthcare research in order to guide researchers and clinicians as regards the applications and appropriateness of each framework.

Methods:
We invited national and international researchers to contribute to a supplement of the International Journal of Audiology on the topic of applying health psychology theory to audiology (Ferguson et al., 2016). Each framework from this supplement was reviewed, including their benefits and limitations.

Results:
The most dominant frameworks, the Transtheoretical Model and the Health Belief Model, can provide insights on hearing-related health behaviours but also have serious limitations. The Self-Regulatory Model and Self-Determination Theory are less prevalent but may have greater potential. Finally, the newly developed COM-B Model is already gaining recognition due to its strong theoretical foundation and its pertinence to clinical practice.
Discussion:
Health psychology theory, particularly newer frameworks like the COM-B Model, can enhance current understanding of hearing-related health behaviours. Future research should investigate ways to translate theory into practice.

References:

Poster: 73
Towards a personalised m-health programme to manage hearing loss for the smartphone generation
Dr Melanie Ferguson, NIHR Nottingham Hearing Biomedical Research Unit
Dr David Maidment, NIHR Nottingham Hearing Biomedical Research Unit
Mr Will Brassington, Nottingham University Hospitals NHS Trust
Prof Heather Wharrad, University of Nottingham

Mobile phone-access to the internet more than doubled between 2010 and 2014 (24% to 58%). Opportunities for using m-health technologies to deliver hearing healthcare and education, and to increase access to hearing-related interventions, are increasing year-on-year. An RCT of C2Hear, a series of multimedia videos for first-time hearing aid users (n=203) showed a number of benefits. These included greater knowledge of hearing aids and communication, better hearing aid handling skills, and higher hearing aid use in suboptimal users. In addition, the RLOs were rated as highly useful, increased patient’s confidence to discuss hearing aids and communication, and were preferable to written information. C2Hear Online, is now freely available online via YouTube. In order to future-proof the concept, further developments of C2Hear are underway, which aim to (i) increase the user’s interactivity with the programme, and (ii) personalise the programme by tailoring information to meet individuals’ needs. We are currently developing m-RLOs for communication partners in the form of a web-based app on communication tactics, understanding hearing loss, and the psychosocial aspects of hearing loss. The development of the next stage, a personalised m-health programme, involves the identification of the short 1-2 minute segments of C2Hear. This will be based on the theoretically driven health behaviour change model (COM-B), alongside an ecological approach that will use a synchronous, real-time Think Aloud analysis. Self-evaluation and text-messaging will also be incorporated to develop a self-management m-health programme. Future research will extend this underpinning m-health technology for non-audiological healthcare practitioners and the general public.

Tinnitus
Poster: 25
Decision making in tinnitus – what information do tinnitus help-seekers need?
Dr Helen Pryce, Aston University
Dr Rachel Shaw, Aston University
Ms Beth-Anne Culhane, St Georges Hospital NHS Trust
Ms Sarah Swift, UHBristol NHS Trust
Ms Beth Claesen, Sirona Care and Health
Dr Amanda Hall, UHBristol NHS Trust

Background:
Shared Decision Making (SDM) is a component of patient centred care. Unfortunately shared decision making is still not commonplace in hearing healthcare. In tinnitus services there is a striking level of dissatisfaction with treatment options on websites such as NHS Choices. There is also a considerable national variation in NHS care. There is a common mis-communication in tinnitus services between patient preferences for outcomes (not to hear tinnitus) and preferences for treatments (to use psychological or acoustic interventions to reduce the time listening to tinnitus). This work is the first stage package of a series of projects to produce an Option Grid TM decision aid for tinnitus and prepare for trial of shared decision making approaches. The work package research questions are:
1. What informational and decisional needs do patients have when they present for help with tinnitus in audiology?
2. What are patient preferences in coping with tinnitus?

Methods:
We employed qualitative methods to interview and derive themes from a diverse population of help-seekers with tinnitus. We recruited participants for interviews and ethnographic videos in Bath, Bristol and London NHS tinnitus service sites.

Results:
We identified decisional and informational needs. We will present our thematic analysis on the decision and information needs of people seeking help with tinnitus. This new understanding will inform audiologists of the content that matters in their appointments.
Poster: 27

A systematic review of the reporting of tinnitus prevalence and severity

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Mr Mark Edmondson-Jones, Nhr Nottingham Hearing Biomedical Research Unit,
Mrs Sarah Somerset, Nhr Nottingham Hearing Biomedical Research Unit, Otology and Hearing Group, Division of Clinical Neuroscience, School of Medicine, University of Nottingham
Professor Deborah Hall, Nhr Nottingham Hearing Biomedical Research Unit, Otology and Hearing Group, Division of Clinical Neuroscience, School of Medicine, University of Nottingham

Introduction:
Tinnitus prevalence figures vary widely depending on the populations studied, and the definition and methodologies used. Given the variety of international studies we proposed to assess and collate published tinnitus prevalence and severity estimates, creating a narrative synthesis of the data, and examining variability.

Method:
A systematic review included all adult population studies reporting the prevalence of tinnitus post 1980.

Results:
Five databases identified 875 papers and 16 were identified through manual searching. After title, abstract and full text screening, 39 papers representing 16 countries, were available for data extraction. There were 8 different types of definitions of tinnitus, the most common being “tinnitus lasting for more than five minutes at a time” (36%). Only 18% of studies gave any justification for the question that was used, or acknowledged the lack of standard questions for tinnitus. Twenty-four studies (65%) reported tinnitus prevalence by age. Half (54%) of the studies reported tinnitus prevalence by gender. Overall prevalence figures for each study ranged from 5.1% to 42.7%. For studies that used the same definition of tinnitus, prevalence ranged from 11.9% to 30.3%.

Conclusion:
There is widespread inconsistency in defining and reporting tinnitus, leading to variability in prevalence estimates. The available data is heterogeneous thereby preventing the ability to pool results. Sources of heterogeneity include different: diagnostic criteria; age groups; study focus; and reporting and analysis of the results. Thus comparisons among studies are impracticable. Surveys should be consistent in the definitions and measurement of tinnitus in order to combine results.

Poster: 37

An adult tinnitus service: observations and recommendations for service development following the first 2½ years

Dr Sarah Mitchell, Altnagelvin Hospital

Introduction:
An adult tinnitus service was developed in Altnagelvin Hospital in response to a perceived gap in the audiology services.

Method:
The tinnitus service pathway and clinic protocols were revised based on anonymised data from 416 clients (196 females [59.6 ± 14.1 years] and 220 males [57.7 ± 13.9 years]). The data consisted of scores from the completion and subsequent analysis of Hospital Anxiety and Depression Scale (HADS), Tinnitus Handicap Inventory (THI), a Tinnitus Visual Analogue scale (VAS), Insomnia Severity Index (ISI), Hyperacusis Questionnaire (HQ) and selected medical history regarding anxiety, depression and sound intolerance.

Results:
The THI was completed by 367 individuals of whom 68.9% (253) were in the moderate to catastrophic categories. Of the 385 people who filled in the HADS questionnaire 40.2% (144) reported abnormal symptoms of anxiety and 25.1% (90) reported abnormally depressive symptoms. During history taking 45.6% (162/355) clients reported current or previous episodes of anxiety or depressive symptoms. Three hundred individuals completed the ISI, of whom 54% (162) scored in the moderate or severe insomnia category.

Conclusions:
The high proportion of tinnitus sufferers presenting with a current or past symptoms of anxiety and depression and/or sleep problems highlighted a need for referral for psychological support. Stress management and sleep hygiene would appear to be key elements of any individual or group therapies. Additionally, a low uptake (less than 25%) for community based services indicates that further advertising of these services as well as more general advertising of the service to GPs would be beneficial.

Poster: 53

What we talk about when we talk about a psychological intervention for tinnitus: An audiologist’s guide

Mr Dean Thompson, National Institute for Health Research Nottingham Hearing Biomedical Research Unit, Otology and Hearing, University of Nottingham
Professor Deborah Hall, National Institute for Health Research Nottingham Hearing Biomedical Research Unit, Otology and Hearing, University of Nottingham
Dr Dawn-Marie Walker, University of Southampton
Professor Mary McMurran, Institute of Mental Health, University of Nottingham
Mrs Amanda Casey, Aston University
Mr David Stockdale, British Tinnitus Association
Miss Debbie Featherstone, Clitheroe Therapies Clinic
Dr John Taylor, National Institute for Health Research Nottingham Hearing Biomedical Research Unit, Otology and Hearing, University of Nottingham
Dr Derek Hoare, National Institute for Health Research Nottingham Hearing Biomedical Research Unit, Otology and Hearing, University of Nottingham

Introduction:
Psychotherapies are effective in improving tinnitus-related distress, and though some audiologists deliver psychological interventions, these audiologist-delivered interventions are not standardised across the UK. Our aim was to determine, asking the two key stakeholders of people who make audiology services, patients and clinicians, which components of psychological therapy are most important to include in a low-intensity audiologist-delivered psychological intervention for tinnitus.

Methods:
A panel of 18 patients and 21 clinicians (including audiologists, hearing therapists, and psychologists) completed a 3-round Delphi survey. Panelists were asked an open-ended question, ‘what are essential components of an audiologist-delivered psychological intervention for people with tinnitus’. Their responses were coded using thematic analysis and combined with results of a literature review to produce a comprehensive list of components. These components were then presented as closed questions asking how important each was to include in an audiologist-delivered psychological intervention for people with tinnitus, using a 7-point Likert scale.

Results:
Consensus was defined as >80% of panelists agreeing that any given component was either unessential or essential to an audiologist-delivered psychologically informed intervention. Consensus was reached to
include 76 components. These tended to be common therapeutic skills such as Socratic questioning and active listening, rather than specific CBT techniques like graded exposure therapy and cognitive restructuring.

Discussion:
Efforts to develop a manual specifically for audiologists to deliver for people with tinnitus should consider including important common therapeutic skills and the inclusion of any specific techniques should be justified.

Vestibular Science

Poster: 20
Vestibular profile in BPPV patients pre- and post-canal repositioning procedure

Dr Hedayat Elfouly, Faculty Of Medicine Cairo University
Professor Tarek Ghannoum, Faculty Of Medicine Cairo University
Dr Tarek Dessouky, Faculty of Medicine Beni-Suef University
Dr Iman Mostafa, Faculty of medicine Beni-Suef university

BPPV is one of the most common diseases of the inner ear. BPPV main cause is mostly unknown (idiopathic) or secondary to any inner ear disorder. Head trauma is the most common secondary cause of BPPV. Our aim of this study was to properly assess BPPV patients to find out if other vestibular manifestations may co-exist and could be masked by BPPV symptoms. Fifty diagnosed BPPV patients were included in our study and subjected to; history taking, otological examination, bedside vestibular evaluation, videonystagmography (VNG), cervical vestibular evoked myogenic potential (cVEMP), sensory organization test (SOT). Canal repositioning procedure was done to all patients, who were a week later re-evaluated for BPPV signs. If nystagmus still existed we repeated the procedure till it disappeared. Finally, all tests which revealed abnormalities at the beginning were repeated after BPPV nystagmus disappeared. Our results revealed 62% of our patients were of idiopathic cause, 10% associated with unilateral canal weakness, 12% were associated with migraine, 6% associated with Ménière’s disease, 6% were post-traumatic, and finally 4% of patients had osteoporosis. Follow up done one month after disappearance of signs in idiopathic BPPV patients revealed that 12.9% of them still complained of subjective instability in spite of negative positioning test, 3.5% still had unilateral absent cVEMP waves whereas 16.1% still had absent waves bilaterally, and 9.7% had decreased composite score and vestibular ratio of SOT test.

Poster: 21
Early Vestibulospinal Reflex Changes in Type II Diabetes Mellitus in Relation to Peripheral Neuropathy

Mrs Maha Abou-Elew, Cairo University- Faculty Of Medicine
Mr Mostafa El-Khosh, Cairo University- Faculty Of Medicine
Mrs Amira El-Shennawy, Cairo University- Faculty Of Medicine
Mrs Randa Abd Al-Salam, Cairo University- Faculty Of Medicine
Mrs Marwa Shabravy, National Research Center
Mr Ahmed Lotfy, National Research Center

Introduction:
Balance dysfunction was found to be 70% higher among individuals with diabetes mellitus (DM). The aim of this study is to assess the cervical vestibular evoked myogenic potential (cVEMP) in diabetic patients as an indicator of the integrity of the vestibulospinal reflex (VSR) that plays a pivotal role in balance function. Methods: Forty adult patients with type 2 DM underwent cVEMP. Results of these tests were compared with those of 20 age and gender matched control subjects. Both patients and controls did not show indications of peripheral nor central vestibular disorders. The grade of peripheral neuropathy, level of HbA1c and duration of DM were compared with vestibular test results.

Results:
Patients had higher cVEMP threshold with longer P13 and N23 waves’ latency than controls. Neuropathic patients, patients with poorer glycemic control and patients with disease duration > 5 years had significant higher cVEMP threshold and prolonged waves latencies in both ears than other patients. Severity of neuropathy had the strongest correlation with cVEMP results followed by level of HbA1c and finally the disease duration.

Conclusions:
There are some evidences from the case/control study that diabetic patients have altered VSR in the form of delayed waves and elevated threshold of cVEMP response which is correlated with neuropathic changes found in these patients. DM affects both labyrinthine and retro-labyrinthine parts of the VSR pathway. Diabetic patients have a subclinical vestibular deficit that may appear with progression of diabetic complications.

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Action on Hearing Loss

Contact: Catherine Tees
Email: Catherine.Tees@hearingloss.org.uk

We offer a range of services for deaf and hard of hearing people and provide information and support on all aspects of deafness, hearing loss and tinnitus. As a membership charity, we aim to achieve a radically better quality of life for deaf and hard of hearing people. Our work involves campaigning and lobbying, providing services, training, products and equipment, and undertaking medical and technical research. We work throughout the UK.

Advanced Bionics

Contact: Victoria Cornwell
Email: Victoria.Cornwell@phonak.com

Advanced Bionics is a global leader in developing the most advanced cochlear implant systems in the world. Founded in 1993 and a subsidiary of the Sonova Group since 2009, AB develops cutting-edge cochlear implant technology that allows recipients to hear their best. AB offers the most sophisticated cochlear implant system on the market, the HiResolution™ Bionic Ear System, with five times more sound resolution than its competitors, designed to help recipients hear in noisy settings and enjoy the full dimensions of music and tonal languages. With sales in over 50 countries and a proven track record for developing high-performing, state-of-the-art products, AB’s talented group of technologists and professionals from all over the world are driven to succeed, work with integrity and stay firmly committed to quality.

AGS Noise Control

Contact: Phil Deft
Email: phil@agsnoisecontrol.co.uk

AGS Noise Control Limited manufacture and install Audiology booths in Hospitals around the UK. We can provide a complete package including silenced air conditioning, electrical works, VRA patch-panels, intercoms, complete an adult or paediatric diagnostic Audiology facility. Our associate consultancy, Noise Air Consultants can provide an independent Acoustic consultancy service including verification of acoustic performance of existing facilities or post installation testing of new facilities to confirm compliance with HTM 08-01 and ISO 8253-1:2010. We offer a refurbishment service of existing booths with acoustic performance assessments of the existing booths prior to and post refurbishment works.

Albert Waeschle

Contact: Martin Waeschle
Email: martin@waeschle.com

With over 50 years experience supplying the UK medical profession, Albert Waeschle is pleased to offer the Opticlar range of diagnostic equipment. From simple pocket otoscopes, standard size otoscopes, ENT loupes and headlights to ENT microscopes there is sure to be an item of interest from the Opticlar range and with Opticlar’s unique LED illumination you never have to worry about spare bulbs!

Amplifon

Contact: Rachel Keogh
Email: rachael.keogh@amplifon.com

Listen, learn and change lives at Amplifon. Our mission is to make lives better through dedicated expertise and superior service. While changing our customers’ lives, we create unparalleled value for our people. If you want to offer customers the latest and most comprehensive hearing care solutions and technological innovations, coupled with unmatched professional development and engaging recognition opportunities, then discover a career with Amplifon.
Amplivox

Contact: Neil Court  
Email: neco@amplivox.ltd.uk

Amplivox are a UK based company with over 80 years proven experience in the design and supply of audiological equipment on a global basis. Amplivox will be have the new Amplivox Otowave 302 tympanometer available which is designed to meet the requirements of a modern audiology clinic for both standard and high frequency tympanometry the new Otowave is very easy to use. Come and see for yourself!

Arlington Labs

Contact: Chula Bishop  
Email: chula_bishop@arlingtonlabs.co.uk

Arlington Laboratories was founded in 1997. Over the years we’ve grown into one of the largest earmould manufacturers in the UK, supplying both the NHS and the private sector. We work in partnership with Mary Hare School, which supports the educational development of deaf children and young people. Mary Hare also offers a wide range of courses and training opportunities for anyone working in the field of deaf education or audiology.

Aston University

Contact: Amanda Casey  
Email: a.e.a.casey@aston.ac.uk  
Website: www.aston.ac.uk

Want to develop your career in audiology? Aston University can help you with academic programmes for practitioners from level 4-8. We offer CPD courses as well as post-graduate modules which can be done as CPD. Want to find out more? If so, come and meet us at our stand or visit www.aston.ac.uk.

Auditdata

Contact: Rikke Junker Bundgaard  
Email: rikke@auditdata.com

Spend your time where it matters! The integrated clinic management software and measuring equipment from Auditdata are designed to improve your clinic workflows. Start your measurement via the Primus panel in AuditBase and enjoy a seamless fitting experience, saving you precious time throughout the day. Get complete solutions with AuditBase, a hospital clinic management system or Strato, a clinic management system for private practices, and a wide range of stand-alone and pc-based audiometers, fitting systems, and accessories.

BAA CPD

Email: admin@baaaudiology.org  
Website: www.baaaudiology.org

This year’s BAA stand will be an open area for delegates to discover and learn more about BAA. The stand will be manned during breaks by members of the BAA Board, keen to talk to you about the work going on within their teams. Find out how being a BAA member can help you in your career and learn what BAA is doing to help secure and develop audiology as a profession. Details of all activity on the BAA stand will be available on the plasma screen situated on stand, so hopefully you will not miss anything. Come and interact with the debate wall on the stand, each day we will be posing a question, let us know your thoughts!

Our CPD team will also be on the BAA stand this year and will be available during the breaks to demonstrate BAA’s new and refreshed CPD resources and answer any questions you might have about it. We will be keeping you up to date via Twitter and Facebook throughout conference this year, so please tweet us @BAAudiology or join the Facebook group/page-British Academy of Audiology. We look forward to seeing you at the stand.
Boots Hearingcare
Stand No: 43
Contact: Faye Gathercole
Email: Faye.gathercole@bootshearingcare.co.uk

At Boots Hearingcare, we believe no one should live with an untreated hearing loss. Through our network of 470 practices located in Boots Opticians and Boots health & beauty stores, we offer our customers personalised, professional care and exceptional products. We are committed to providing our customers with an accessible solution for their hearing loss and ensure we have the greatest range of hearing aids available within the private hearing aid market.

British Tinnitus Association
Stand No: 39b
Contact: Sue Pickett
Email: sue@tinnitus.org.uk
Website: www.tinnitus.org.uk

The British Tinnitus Association (BTA) is a world leader in providing support and advice about tinnitus. We provide accurate, reliable and authoritative information via a freephone helpline – 0800 018 0527; our series of information leaflets, written by leading medical professionals; Quiet, our quarterly magazine; the website www.tinnitus.org.uk containing information and advice for all audiences, including health professionals awareness raising events across the UK. We also support clinical research and provide training for health professionals.

BSA
Stand No: 2
Contact: Laura Turton
Email: laura@thebsa.org.uk

The British Society of Audiology is a non-profit learned society. It is the leading UK organisation for all professionals integrating the latest science and best practice for their application in improving the lives of people with hearing and balance problems.

BSHAA
Stand No: 14a
Contact: Professor David Welbourn
Email: marketing@bshaa.com

The British Society of Hearing Aid Audiologists is the professional body representing independent hearing aid dispensers in the United Kingdom, Ireland and worldwide. As well as being the public voice of independent hearing care professionals wherever they practice, the Society provides support and learning opportunities for its 1,600 members. The Society helps members deliver the highest level of care for clients and runs the only independent hearing care complaints resolution service in the UK.

Cochlear Europe
Stand No: 32
Contact: Kate Melton
Email: kmelton@cochlear.com

As the global leader in implantable hearing solutions, Cochlear is dedicated to bringing the gift of sound to people with moderate to profound hearing loss. We have helped over 400,000 people of all ages live full and active lives by reconnecting them with family, friends and community. We aim to give our recipients the best lifelong hearing experience and access to innovative future technologies. For our professional partners, we offer the industry’s largest clinical, research and support networks. That’s why more people choose Cochlear than any other hearing implant company.
Eckel Noise Technologies

Contact: Pam Arrow
Email: pam@eckeleurope.com

ENT & Audiology

Contact: Heather McLaughlin
Email: Heather@pinpoint-scotland.com

ENT and Audiology News is a unique bi-monthly publication that includes reviews of otolaryngology, audiology and related journals. Our aim is to continue to develop as an invaluable forum for the communication of news and information from every aspect of ENT and audiology. As well as forging further links between all specialties, we will continue to combine first-class articles, conference news, book reviews, journal reviews and information on the latest product and company developments.

GN ReSound

Contact: Katie Guinan
Email: kguinan@gnresound.com
Website: http://www.danologic-ifit.com/

At GN ReSound we pride ourselves on being a technology company. We have been responsible for many of the great innovations of the last 25 years including WDRC, open-fitting and true Wireless using 2.4GHz. All of our advances have been driven by our belief in the importance of providing real-life improvements to people experiencing hearing loss.

ReSound Danalogic is a family of hearing aids developed specifically to meet the needs of the NHS. They contain our distinctive technology, tailored so you can offer the right audiological solution for each patient. A complete range of form factors offer suitable choices for a full range of hearing losses, life-styles and dexterity requirements. They are simple to fit, easy to wear and reliable.

We believe that in partnership with the NHS, ReSound Danalogic can help you improve the lives of people with hearing loss. Thank you to all those individuals across the industry who are working to make this happen.
GN Otometrics

Contact: Jodie Cox
Email: jcox@gnotometrics.com
Website: www.otometrics.co.uk

GN Otometrics is the audiology industry leader providing instrumentation, software solutions, and sound rooms to hearing and balance care professionals worldwide. With more than 500 employees and offices in 34 countries, we help our customers succeed in improving the quality of life for millions of people by delivering expert knowledge, reliable solutions and trusted partnership. For more information, please visit www.otometrics.co.uk. At GN ReSound we pride ourselves on being a technology company. We have been responsible for many of the great innovations of the last 25 years including WDRC, open-fitting and true Wireless using 2.4GHz. All of our advances have been driven by our belief in the importance of providing real-life improvements to people experiencing hearing loss. ReSound Danalogic is a family of hearing aids developed specifically to meet the needs of the NHS. They contain our distinctive technology, tailored so you can offer the right audiological solution for each patient. A complete range of form factors offer suitable choices for a full range of hearing losses, life-styles and dexterity requirements. They are simple to fit, easy to wear and reliable. We believe that in partnership with the NHS, ReSound Danalogic can help you improve the lives of people with hearing loss. Thank you to all those individuals across the industry who are working to make this happen.

Hidden Hearing

Contact: Chris Shaw
Email: crsh@hiddenhearing.co.uk

We are the only company within the private sector to have its own dedicated training centre and recently became the first independent hearing company to receive HCPC approval for an education programme. In addition we have a working partnership as part of the AQP initiative to provide hearing services to NHS Patients.

InHealth

Contact: Laura Rendell
Email: Laura.Rendell@inhealthgroup.com

InHealth is a leading independent provider of managed diagnostic services and healthcare solutions to the NHS and the independent sector. InHealth has worked collaboratively with Trusts & CCGs across the UK, delivering a portfolio of MRI/CT, PET-CT, DXA, ultrasound, mammography, X-ray, endoscopy, audiology and interventional cardiology from 350 mobile and static sites to over 1 million patients each year. InHealth is committed to improving accessibility, affordability and speed of diagnosis, whilst delivering excellence in care.

Interacoustics/Guymark

Contact: Karen McKenzie
Email: kmac@interacoustics.com

At Interacoustics, we appreciate that the only way to fully understand your needs is to work closely with you on issues that are important to you. We pride ourselves on listening to and supporting you to deliver the very best diagnostic solutions for your patients. Dedicated to understanding your needs, we are interested in everything that you do. We look forward to welcoming you onto our stand at the conference.

Guymark UK are exclusive distributors in the United Kingdom and Republic of Ireland for GSI, Maico, MedRx, Micromedical Technologies, Otopront, and Vivosonic. Also available Path Medical, Guymark free field systems, Guymark VRA, Entomed and a complete range of consumables and accessories. Guymark provides a complete audiological calibration and repair service.
Intricon UK Ltd (PC Werth)  
**Stand No: 49**

**Contact:** Stewart Howell  
**Email:** showell@pcwerth.co.uk

Kestrel Medical Ltd  
**Stand No: 32b**

**Contact:** George Ponsford  
**Email:** george@kestrelmedical.co.uk

Kestrel Medical Ltd is a family owned business established in 2001 that distributes ENT products in the UK, Ireland, Australia and New Zealand.

MED – EL UK Ltd  
**Stand No: 31**

**Contact:** Clare Trueman  
**Email:** clare.trueman@medel.com

Hearing implants from MED-EL offer in-tact skin solutions for patients of all ages experiencing conductive, sensorineural, mixed, or a profound hearing loss. State-of-the-art technology within our bone conduction, middle ear, and cochlear implant systems are the result of almost 40 years of research and development. At BAA you can trial our new non-implantable bone conduction device for patients with a conductive loss. Visit stand 44 to find out more.

Mediplacements  
**Stand No: 24**

**Contact:** Simon Woodward  
**Email:** Simon@mediplacements.com

Mediplacements is the UK’s leading healthcare recruitment company, specialising in the placement of temporary and permanent Audiology staff since our inception in 1995. As Crown Commercial Service (CCS), HealthTrust Europe (HTE) and London Procurement Service (LPP) awarded suppliers, we can offer our candidates access to the best selection of temporary Audiology vacancies throughout the UK. Please visit stand 24 and meet Simon Woodward and the team to discuss your specific recruitment requirements.

Minerva Hearing  
**Stand No: 51**

**Contact:** Pernille Gallagher  
**Email:** pernille.gallagher@minervahearing.co.uk

With over 60 years of experience in ear mould manufacture and supply to the NHS, and more than 10 million ear pieces produced, Minerva Hearing is the leading provider of Custom Hearing Protection Products and accessories in the UK. From our laboratory in Cardiff, 3D print technology and highly skilled technicians ensure that the highest quality is crafted into each and every ear mould thus ensuring best possible fit, outstanding comfort and ultimate hearing protection.
Exhibitors

Oticon Ltd
Contact: Michelle Henderson
Email: mehe@oticon.com
Website: www.oticon.co.uk

BrainHearing™ Technology from Oticon. It’s your brain that hears, not your ears. Centred around the brain’s capability of processing and making sense of sound, Oticon’s BrainHearing™ is the foundation for all present and future products. Oticon’s unique BrainHearing™ technology supports the way the brain makes sense of sound resulting in listening with less effort. Our technology makes the total communication experience more natural, helping patients to understand more of what is said, rather than just hear more sounds. It is not enough to focus on the damaged ear. You have to understand how the brain processes sound. It is part of an enhanced focus on personalization; we know that people have individual preferences regarding sound and we know that in order to get an optimal understanding of sound you need to know how the brain works with sound. Explore our comprehensive product portfolio of hearing health care devices, including hearing aids from Oticon and Bernafon, and bone anchored hearing systems and cochlear implants from Oticon Medical. Be sure to also ask about our bimal fitting tools on Stand 19!

Otodynamics
Contact: Jon Parsons
Email: jon.parsons@otodynamics.com

Otodynamics, the leading voice in OAE technology for over 28 years, has recently enhanced its LLOv6 clinical OAE software for PC based Echoports as well as adding ABR screening to their comprehensive Otoport range of handheld advanced diagnostic and screening instruments. Driven by its in-house innovative research and development team, Otodynamics is dedicated to delivering quality, reliability and performance. Standing out as the gold standard, Otodynamics is consistently selected as the first choice in Audiology.

Path Medical GmbH
Contact: Russell Higgs
Email: Higgs@pathme.de

PATH MEDICAL GmbH develops, manufactures and distributes audiology solutions (ABR, ASSR, Tympanometry, OAE, Speech/Tone/play Audiometry, and pathTrack tracking software) through a network of distributors in over 70 countries worldwide. Designed and manufactured in Germany, all PATH products provide outstanding quality and reliability with the convenience of fully flexible modular configuration options in both SENTI and SENTIERO platforms.
At Phonak we are **Passionate** about the NHS and the individuals who make it what it is, and are fully committed to supporting you in every aspect of patient care.

This year we bring to you our **brand new** power portfolio, based on our industry leading Naida form factor. Our new **Naida™ V70** has more power than ever before with up to 6dB more output while making it 25% smaller than its predecessors. Alongside this, Phonak **Sky™ V** is the latest addition to the Phonak paediatric portfolio and is available across 5 models including a new M-312 battery, ideal for those small ears. Its ground-breaking features and technologies also include SoundRecover2 as well as AutoSense Sky OS, Roger and directional setting.

We now offer you the most comprehensive range of technology available to the NHS alongside a wide range of counseling tools, education and business support packages. We measure our success by the positive impact our technologies and our support have on both the hearing care professionals and patients. This is what truly inspires and motivates us.

Everything we do is evidence based and we have a wealth of information behind all our features which are accessible at a touch of a button on our Phonak Pro website. **Please visit our stand to learn more about our comprehensive new range.**

---

**Puretone Ltd**

**Stand No: 39**

**Contact:** Gerry Allchorne  
**Email:** gerry@puretone.net

Founded in 1976 and celebrating their 40th Anniversary, Puretone are the UK’s only remaining independent hearing aid manufacturer, having a wide range of digital hearing systems to suit any requirements and budget. Puretone are also the UK’s largest manufacturer and supplier of tinnitus relief systems, including generic, custom-made, BTE and other relaxation devices. Apart from hearing systems, Puretone are also the UK’s largest supplier of Audiological accessories, with a range that includes over 1000 products. An extensive range of Audiological equipment needs are provided by being the exclusive distributor for Inventis. New for 2106 are the Asiga 3D Earmould printers, Detax 3D printing material and the Puma soundproof booths.

---

**Royal British Legion**

**Stand No: 4**

**Contact:** Deborah Pike  
**Email:** DPike@britishlegion.org.uk
Sivantos Group is one of the world’s top manufacturers of hearing aids. We provide Siemens hearing aids along with the complementary accessories, fitting software, diagnostic and fitting equipment as part of our main portfolio. Our roots go back to 1878, when Werner Von Siemens developed a telephone receiver with substantially improved transmission quality. The Sivantos story continues today, helping people to hear, with products such as Teneo™ which is available to the NHS.

Soundbyte Solutions developed the portable and easy to use Parrotplus system, which automates the presentation of speech discrimination tests to aid the assessment of hearing loss in adults and children. Our range now includes the BKB test and foreign language tests. All the tests can be performed in quiet or noise and upgrades to existing systems are available.

Starkey Hearing Technologies are pleased to be positioned as a platinum sponsor for BAA’s flagship congress. Visit our team on stand 22 to learn how they can help you deliver a superb hearing service.

The focus is on the first made for iPhone solution to be offered to the NHS. ‘Kinnect’ allows the user to have full control over their hearing instrument without the need for expensive ancillary devices. The wearer downloads an app that allows them to stream any audible signal from their smart phone, to make adjustments to how the hearing instrument sounds in different listening environments and use their smart phone as a remote microphone making hearing in difficult situations even easier.

The Starkey team will highlight the Propel range of hearing instruments that deliver uncompromising power with an absence of feedback both in a mini BTE and very affordable RIC format.

Specialist product options for either bone conduction solutions or body worn aids continue to be valuable assets from Starkey Hearing Technologies and will be on show for discussion.

Starkey Hearing Technologies operate the most efficient ear mould lab in the world and all audiology departments will be interested to learn how this can help to improve their service.

We look forward to talking with you in Glasgow.
Taylor & Francis

Contact: Laura Byrne
Email: laura.byrne@tandf.co.uk

Taylor & Francis partners with world-class authors, from leading scientists and researchers, to scholars and professionals operating at the top of their fields. We publish in all areas of the Medicine, Science, Technology, Social Sciences, Behavioural Sciences, and Humanities sectors. We are one of the world’s leading publishers of scholarly journals, books, eBooks, text books and reference works. From our global network of offices we provide local expertise and support to editors, societies and authors.

UKAS

Contact: Keyleigh Gregory
Email: kg@ukas.com

IQIPS is a professionally-led accreditation scheme that aims to improve the quality of service, care and safety for patients undergoing physiological tests, examinations and procedures. Recognised by the CQC and supported by NHS England, IQIPS accreditation gives confidence to patients, commissioners and staff about the safety, effectiveness and sustainability of a physiological science service. UKAS has been appointed by the Royal College of Physicians to manage and deliver the IQIPS assessment and accreditation scheme.

UK Hearing Care

Contact: Clare Kewney
Email: clare.kewney@ukhearingcare.co.uk

Varta Microbattery Gmbh

Contact: Stuart Young
Email: stuart.young@varta-microbattery.com

powerone for longer hearing times. Experience, steady investment in manufacturing and quality processes guarantee the top quality of the powerone hearing aid batteries. All Mercury Free cells are “Wireless Approved” to give best possible experience for the user.powerone hearing aid batteries set the standard!

Widex UK

Contact: Jodie Collier
Email: Jodie.Collier@widex.co.uk

Widex’s mission is to provide the absolute best hearing aids and customer services. We offer the most advanced, natural sound on the market. Our products let people connect and communicate easily.Not familiar with Widex? Come and find out more on the Widex stand. Our team is looking forward to sharing the spirit of Widex with you and to keep you informed of latest product releases and options available to you.

Your World Recruitment Group

Contact: James Stanyer
Email: James.Stanyer@ywrec.com

Being the largest supplier of audiologists within the UK, Your World Healthcare has a wide range of exclusive audiology jobs at the best rates of pay. Our specialist audiology Recruitment Consultants have built a strong reputation, finding quality vacancies for high-calibre candidates in a diverse range of audiologist positions throughout the NHS and private sector. Our consultants specialise in the placement of hearing aid dispensers, audiologists and audiological scientists. Call us on 0207 220 0811 or email audiology@ywrec.com
Careers in Audiology
Amplifon Audiologists transform the lives of people of all ages living with hearing loss. Join our growing UK team and have the freedom to offer your customers bespoke diagnostic testing methods and the latest innovative technologies in an expert clinical setting. In return, we’ll give you all the exceptional benefits and world-class career development you’d expect from the global hearing specialist.

For rewarding Audiology Careers that give back the colours of hearing, visit careers.amplifon.com/uk, because life is for listening.
Meet the British Academy of Audiology Board

Please come to the BAA stand to meet with members of the BAA board and members of the CPD team who will also be on the stand during all breaks. Laptops will be available so that members can see the new online CPD facility. Members of the Conference planning team will also be on hand.

Thursday 10th November 2016

10:15–10:45  Alison Walsh • Karen Shepherd
12:30–13:30  Harriet Crook • Gemma Leadbetter
15:30–15:50  Matt Murray • Jagjit Sethi • Rosemary Monk

Friday 11th November 2016

10:15–10:45  Michelle Booth • Neil Summerfield • Barbara Gregg
12:30–13:30  Christine dePlacido • Lizanne Steenkamp
13:30–14:00  Claire Benton • Sue Falkingham
14:00–14:30  Sarah Holliday • Paul Bruins
The British Academy of Audiology would like to thank the following sponsors for their significant contribution towards our 13th Annual BAA Conference:

**PLATINUM SPONSORS:**

- **Oticon**
- **Phonak**
- **Resound Danalogic**

- **Sivantos**
- **Starkey Hearing Technologies**

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