ReSound

For people with Cochlear Implants

Spring 2020 Issue 66

New Spring Arrivals

Manchester Cicada — a charity supporting implant patients

This newsletter has been produced on behalf of the Manchester CICADA Charity

contents

Editorial

Welcome to the Spring edition of Resound.

As I put this issue together we are hopefully looking at reducing the restrictions we have all been living under for the past three or more months.

It has been said on many occasions recently that we are in unprecedented times, and I would agree with that.

All of the things that we normally set out to achieve as a charity will be affected over the coming months and so this issue is smaller than normal as a result.

The next newsletter to hit the streets will be the July edition due out in a couple of weeks so if you have anything interesting to report, experiences of thelockdown, issues, solutions (hopefully) then please feel free to send it to me.

I also encourage everyone who may have information or experiences to pass on, to take full advantage of our Facebook site to keep in touch with others.

CICADA contimues to work closely with the Implant team at the MRI to help both new and existing CI users with information and advice to keep us all safe and also maintain the service that the MRI provide to us all.

We have an article from the newest member of the Implant team who you may meet the next time you are down at the clinic.

Once again, if you have a story to tell about your journey with the implant program or an everyday occurrence we would love to hear from you, this magazine after all is about you.

We hope you enjoy this issue and if you've any comments, or stories to send along please let me know.

Kevin Williams - Editor

MORE ON RELAY UK AND NO APOLOGIES!

by John Newton

I can be accused of banging on a bit about RELAY UK but I don't apologise because, although it should be quite well known, at least to deaf people since it's been around in one form and another since 1991, it's not so well understood by the people and organisations you might wish to call.

In case you haven't heard about it I should say that it's a way of making a phone call when your respondent's words are turned into text on your screen.

It started out being called Type Talk and required you to have special phone with a keyboard and a screen. You talk and read the responses, the special phones are still around but now it also works on smart phones, tablets and laptops.

Because it's been around for nearly thirty years, it comes as a bit of a surprise to find that some people have never heard of it, and especially people like Doctors, local government officers and insurance companies who deal with the public all the time.

The best way to overcome this ignorance is to use the app more. I was able recently to have a "telephone consultation" with a hospital doctor using it (to avoid having to risk the virus by attending the hospital) but first I had to explain in an email what it was and how to get the connection. The simplest way that has worked for me is to ask the correspondent who wants to talk to you, to send you a text message with a number. You then call them back using RELAY UK.

I use my Smart Phone (iPhone) to make the calls and it requires both mobile signal and an internet connection, in practice for me means that I use it at home.

I use it mostly for "business" calls like to the Doctor or bank. I have tried using for social calls but I find it inhibits relaxed social chat and there are so many other methods of keeping in touch now including various video calling apps.

My increasing deafness stopped me making voice calls about 15 years ago but I now find that I can lip read effectively enough in a video call.

So please get up to speed with it (see https://www.relayuk.bt.com/) and use it.

If you have any difficulty getting started, ask the youngest person you know to go through the website with you, it's not complicated.

How to use the App

1. Open the app on your smartphone, tablet, or computer.

2. Dial 18001 followed by the phone number
If you're using a smartphone with the Relay UK app, 18001 is automatically included before the number you want to dial.

3. Go back to the app

On the NGT Lite app, toggle back to the app on your smartphone, tablet, or computer. If the app has timed-out while you've been dialling the number, press Reconnect.

Press Join to join the call.

4. Start the conversation

When the person you're calling answers, the Relay Assistant (RA) will introduce the call and explain how the Relay UK service works if necessary.

The RA will then type the other person's conversation for you to read in the app. You can either type your reply or just speak through the phone as normal.

5. Finish the call

When you've finished your conversation, disconnect the call on your phone and close the app on your smartphone, tablet, or computer.

JSN240620

A new member of staff for the Implant team has just been appointed

Lianne Riley

Let's hear from Lianne. "*I have worked at Manchester Royal Infirmary for 5 years, I am a qualified audiologist with a keen interest in rehabilitation and tinnitus management.*

My new role will involve coaching and guiding newly implanted patients through the early days and weeks following their CI switch on. As you will be aware these appointments take place over weeks and months and usually run alongside the progressive mapping of the implant.

In addition to in-clinic or virtual contact the patient will have some homework tasks to keep them progressing.

The aim of rehabilitation is to use structured exercises alongside other tools such as apps and online resources to help the person make sense of the sound signal from the cochlear implant.

Each patients' rehabilitation programme will be tailored to them. By using a base line assessment tool I will be able to guide the patient to appropriate listening exercises – with the goal of it being achievable but challenging. As the patient gains confidence we will be able to explore more challenging exercises and topics such as music appreciation and telephone use (where appropriate).

I will also be able to help with assistive listening devices and tinnitus management."

Virtual Cochlear Implant Information Session

by Lianne Riley, Rehabilitation Audiologist

The recent COVID-19 pandemic has led us to re-evaluate the way we can see patients throughout our cochlear implant service.

In order to keep our patients and staff safe and reduce footfall through the department we have re-designed the way we present our pre-implant information session from a face to face group presentation to a recorded version that will be accessible online.

The team has worked hard to adapt the existing presentation ensuring that it is accessible to a range of different patient groups, with the addition of a live voice recording and captioning.

The presentation is designed to deliver all the information a patient will need to make a decision about having a cochlear implant.

The presentation can be paused and viewed as many times as required from home with family and friends, which will give the patient and their significant others

time to discuss and understand the cochlear implant process. We anticipate that this may lead to a better understanding about cochlear implants and the rehabilitation process.

Patients, together with their family members and friends, are offered a virtual follow up appointment using the 'Attend Anywhere' platform which provides an opportunity to discuss the process in more detail with a member of the cochlear implant team. Details online at:https://england.nhs.attendanywhere.com/resourcecentre/Content/Public_Topics/Discover_TheButton.htm

In some situations, a virtual information session may not be appropriate because of language barriers, learning difficulties or visual impairments. For these instances, a one to one appointment in clinic is still available.

Attending your appointment via video

Where appropriate, you can attend your consultation online via a video call.

Video calling is as convenient as a phone call, with the added value of face-to-face communication.

It can save you time and money, and brings your care closer to home.

Where do I go to attend my appointment?

Go to:

Instead of travelling to your appointment, you enter the clinic's online waiting area. The health service is notified when you arrive, and your clinician will join you when ready.

There is no need to create an account.

No information you enter is stored.

What do I need to make a video call?

- **A good connection to the internet** If you can watch a video online (e.g. YouTube) you can make a video call
- **A private, well-lit area where you will not be disturbed** during the consultation
- **One of these**:
  - Google Chrome web browser on a desktop or laptop, or on an Android tablet or smartphone
  - Safari web browser on an Apple iMac, MacBook, iPad, or iPhone
- **Web-camera, speakers and microphone** already built into laptops or mobile devices

Is it secure?

Video calls are secure; your privacy is protected.

You have your own private video room that only authorised clinicians can enter.

How much internet data will I use?

You don't use any data while waiting for a clinician to join you.

An Attend Anywhere video call uses a similar amount of data to Skype® or FaceTime®.

How much does a video call cost?

The video call is free
(except for your internet usage).

Smartphone and tablet users
If you can, connect to a home or work Wi-Fi network to avoid using your mobile data allowance.

See over for more information on how to make a video call

Get ready to make video calls

Make sure that you use one of the following web browsers

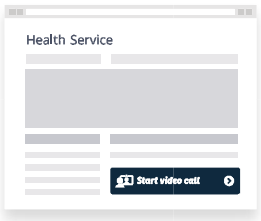
Google Chrome
Windows 7+, Android 5.1+, MacOS 10.11+

Apple Safari
MacOS 10.12+, iOS 11.4+, iPadOS 13+

Go to:

1

On this web page, click the **Start video call** button and follow instructions

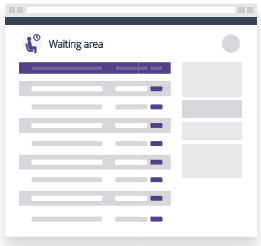


2

Wait in your own private video room

3

Your healthcare provider sees you arrive in the waiting area queue...



4

...and joins you in your video room when they are ready

What do I do if something is not working?

Visit https://nhs.attendanywhere.com/troubleshooting

More information

Powered by attendanywhere®

Vision loss influences perception of sound

Study finds link between level of vision impairment and audio accuracy

People with severe vision loss can less accurately judge the distance of nearby sounds, potentially putting them more at risk of injury, according to new research published in the journal Scientific Reports.

Researchers from Anglia Ruskin University's Vision and Eye Research Institute (VERI) tested participants with different levels of vision loss, presenting them with speech, music and noise stimuli, and different levels of reverberation (echoes).

Participants were asked to judge the distance of the different sounds, as well as the size of the room.

People with severe visual loss judged closer sounds more inaccurately compared to those whose vision loss is less severe, who in turn, were less accurate when compared to people with normal sight.

For more distant sounds, people with severe visual loss judged these to be twice as far away when compared to normal sighted individuals. Participants with severe sight loss also judged the rooms to be three times larger than the control group of normal sighted individuals.

Professor Shahina Pardhan, Director of VERI, said: "Vision loss means people rely more on their hearing for awareness and safety, communication and interaction, but it was not known how hearing is affected by the severity of partial vision loss.

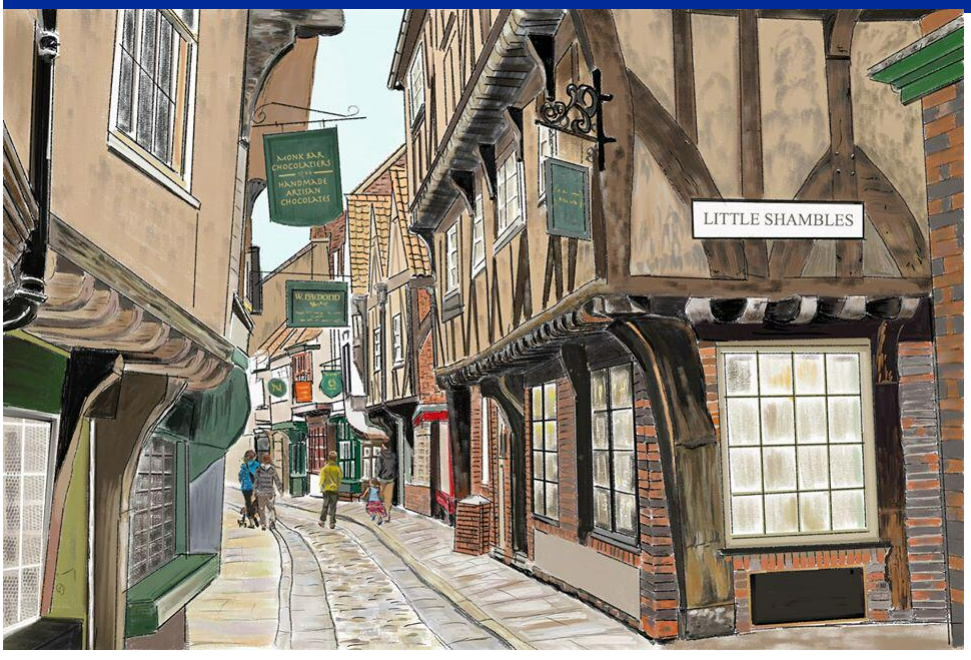
"The results demonstrate that full blindness is not necessary for judged auditory distance and room size to be affected by visual loss, and that changes in auditory perception are systematic and related to the severity of visual loss.

"Our research found that more severely visually impaired people were less accurate in judging the distance of closer sounds, which may make it harder for them in real-life situations, for example such as crossing busy streets."

Story Source:

Materials provided by Anglia Ruskin University. Note: Content may be edited for style and length.

Snippets!



And now for something completely different! This is a view of a family social distancing and getting out as well! It's from a collection of prints, if you want a copy just get in touch, all donations go to Macmillan Cancer Support. More are on my facebook site at https://bit.ly/2Vjczdd.

Kevin

Regulatory Genes and Healthy Hearing

Scientists at UCL have discovered sets of regulatory genes, which are responsible for maintaining healthy hearing. The finding, made in fruit flies, could potentially lead to treatments for age-related hearing loss (ARHL) in humans.

Globally one third of people (1.23 billion people) aged over 65 experience hearing impairment, and while there are thought to be more than 150 candidate genes which may affect hearing loss, there is no unified view on how to use these to develop novel preventive or curative hearing loss therapies.

In the study, published in Scientific Reports, researchers at the UCL Ear Institute assessed the hearing ability of the common fruit fly (Drosophila melanogaster) across its life span (around 70 days*), to see if their hearing declines with age.

The fruit fly is a powerful model in biology and its ear shares many molecular similarities with the ears of humans, which make it an ideal tool for the study of human hearing loss. However, so far, no study had assessed the fruit flies' hearing across their life course.

Using advanced biomechanical, neurophysiological and behavioural techniques**, the researchers found that the antennal ears of fruit flies also display ARHL with nearly all measures of sensitive hearing starting to decline after 50 days of age.

With this knowledge, the researchers turned their interest to the time before flies developed ARHL: they wanted to know if there were any 'age-variable' genes in the flies' Johnston's Organ (their 'inner ear'), which have kept the ears healthy for 50 days of their lives.

Using a combination of molecular biology, bioinformatics and mutant analysis, the researchers identified a new set of transcriptional regulator genes: these are so called 'homeostasis genes', meaning they are the genetic actuators, so they control the activity which keeps the ear sensitive.

For researchers, one of the principle advantages of the fruit fly model is that it allows for easily testing the roles of individual genes by either increasing their function (overexpression) or silencing them (RNAi interference). Exploiting these tools, researchers also found that manipulating some of the homeostasis genes could prevent the flies from getting ARHL.

Lead author Professor Joerg Albert (UCL Ear Institute) said: "While many studies have been conducted into the hearing function of fruit flies, ours is the first to look at the mechanistic and molecular detail of their auditory life course.

"Our twin discoveries that fruit flies experience age-related hearing loss and that their prior auditory health is controlled by a particular set of genes, is a significant breakthrough. The fact that these genes are conserved in humans will also help to focus future clinical research in humans and thereby accelerate the discovery of novel pharmacological or gene-therapeutic strategies.

"Building on our findings from Drosophila, we have already started a follow-up drug discovery project designed to fast-track novel treatments for human ARHL."

Dr Ralph Holme, Executive Director of Research at Action on Hearing Loss, said: 'We urgently need to find effective treatments able to prevent or slow the loss of hearing as we age.

"Hearing loss affects 70% of people aged over 70 years old, cutting people off from friends and family.

"Action on Hearing Loss is proud to have been able to support this exciting research that has identified genes involved in maintaining hearing.

"It not only advances our understanding of why hearing declines with age, but importantly also opens the door to the future development of treatments to prevent it."

*At 25 degrees, one day for a fruit fly is equivalent (approximately) to one year for a human.

**Techniques: Laser Doppler Vibrometry (biomechanics), Compound Action Potential (CAP) recordings (neurophysiology), Sound-induced locomotor activity (behaviour).

Story Source:

Materials provided by University College London. Note: Content may be edited for style and length.

Cochlear CI developments

FDA Approves New Cochlear Implant

New model uses piezoelectric material used in microphones and high-end speakers

The FDA has approved the Cochlear Osia 2 System (Cochlear Acoustics), the first active osseointegrated steady-state implant.

The Osia System can be used to treat hearing loss in adults and children 12 years and older with conductive hearing loss, mixed hearing loss and single-sided sensorineural deafness associated with conditions including chronic otitis media, otosclerosis and atresia/microtia.

The system features the Osia OSI200 Implant, which attaches to an osseointegrated BI300 Implant to send sound through the bone.

The thin profile and monolithic design of the implant help to simplify surgery for the system. On the outside, the Osia 2 Sound Processor captures sounds and sends both the sound signal and power to the internal implant.

The implant, which contains a transducer made of piezoelectric material, is designed differently from traditional bone conduction transducers.

Driven by a wireless digital link, the transducer expands and contracts to create powerful vibrations that stimulate the inner ear while optimizing transfer of power and sound quality.

Piezoelectricity has been used for years in many products like microphones, high-end speakers and medical equipment, but this is the first time it is being used in this type of hearing implant application.

One of the many advantages of the Piezo Power transducer, the manufacturer says, is its ability to amplify high frequencies, the area of sound most important for speech understanding.

Results of a multicenter clinical investigation show a significant improvement in patients' ability to hear in both noise and quiet compared to unaided and aided preoperative testing.

The Piezo Power transducer is made of piezoelectric layers that expand and

contract to send vibrations through to the cochlea.

The piezoelectric effect is the ability of certain materials to generate an electrical charge from mechanical stress, or in reverse, to generate vibrations from an electrical charge.

The advantages of the Piezo Power transducer include its sensitivity at high frequencies important to speech and its suitability for implantation where there is a high demand on power, size and reliability.

1 Unlike electromagnetic transducers first designed for external use, the Piezo Power transducer has no movement between parts that can cause wear over time.

2 Furthermore, the OSI200's unique Piezo Power™ transducer has a digital link that transfers 100% of the signal* with minimal risk of interference

3.The Osia OSI200 Implant is designed to allow for a straightforward surgical procedure. The monolithic design is intended to make coil insertion easy and ensure there is no coil migration.

Its thin profile and fixation to the BI300 Implant minimizes the need for extensive bone removal and risk for dura exposure.

A pre-operative CT scan is not required.

OSIA System external processing

The Cochlear Osia System is like no other hearing implant system.

It's the world's first osseointegrated steady-state implant (OSI) that uses digital piezoelectric stimulation to bypass non-functional areas of the natural hearing system and send sound directly to the cochlea.

It is designed to meet the needs of patients with conductive hearing loss, mixed hearing loss and single-sided deafness (SSD).

The Osia System utilizes unique Piezo Power™ transducer technology and a digital link that transfers 100% of the signal* with minimal risk of interference1.

Powered by the Ardium™ Smart platform, the slim, off-the-ear sound processor features SmartSound® iQ signal processing and advanced wireless connectivity.

More power. More gain. Better hearing.

When it comes to hearing, more power can bring greater opportunity.

The high output power and gain of the Osia System enables a fitting range of up to 55 dB SNHL to help you treat a broad range of patients.

With plenty of headroom, the system has the capacity to allow better hearing from the day the sound processor is activated and keep patients hearing even as their needs change over time.

High power

Thanks to Piezo Power technology and efficiencies in design, the Osia System produces output power on par with 55 dB percutaneous bone conduction implant systems.

High gain

The system's stable gain architecture, made possible by the implant's monolithic design, ensures a consistent distance between the sound processor's microphones and the transducer. The Osia System delivers an average 12 dB more patient available gain at high frequencies compared with percutaneous bone conduction implant systems.

Osia Smart App

Recipients can easily customize their sound experience with the Osia Smart App. They can manage, monitor and control their sound processor to ensure they're hearing their best. From their compatible Apple® or Android™ device they can quickly and easily:

- Change programs
- Start wireless streaming
- Adjust the volume, treble and bass (if enabled by clinician)
- Save custom settings for your favorite locations
- Get help finding your lost sound processor!

Off the ear sound processors

[Ed. Not sure if it works underwater though John]

Nothing in, on or around the ear. Just light and comfortable. The slim, off-the-ear sound processor is light and comfortable to wear.

As an all-in-one magnet retained unit, your patients can simply place it, adjust their hair and they are ready to go.

There are no small pieces to manage for patients with limited dexterity, and the ear canal is left open and free to reduce the risk for recurring infections and irritation.

SmartSound® iQ

The Osia 2 Sound Processor utilizes SmartSound® iQ which actively scans the user's environment 200 times a second to define the nature, position and characteristics of the sound.

It acts fast to boost speech and provide details from all directions, while actively minimizing noise without reducing the richness of the complete sound environment.

Wireless Connectivity

With the Osia 2 Sound Processor, recipients can take full advantage of Made for iPhone (MFi) technology to stream directly from their iPhone® while effortlessly enjoying movies, music and phone calls from friends and loved ones.

For Android™ devices or other smartphones, they can stream directly to their sound processor using our True Wireless Phone Clip.

Additionally, Cochlear True Wireless accessories connect to their sound processor using Bluetooth® technology; without any cords, neck loops or wires required, a truly wireless experience.

That means recipients can receive stereo-quality sound straight to their Cochlear sound processor, no cords attached.

[Ed. Note: *This information relates to releases of equipment in the US and not necessarily adopted by the NHS at this time*]

Similar brain glitch found in slips of signing, speaking

When we speak, we give little thought to how the words form in our brain before we say them. It's similar for deaf people using sign language.

Speaking and signing come naturally, except when we stumble over words, or swap one word for another when we speak or sign too quickly, are tired or preoccupied.

Fluency and the occasional disfluency both happen because of how we choose what to say or sign, when a neural mechanism takes place in our brains as we make decisions and monitor how we communicate.

It's this mechanism that fascinates San Diego State University researchers Stephanie Ries and Karen Emmorey in the School of Speech, Language and Hearing Sciences. Their analysis could help inform rehabilitation therapy for those relearning how to speak or sign after a stroke.

Using electroencephalogram (EEG) recordings, they studied how hearing and deaf signers process the act of signing and found the same monitoring mechanism took place in the brains of both groups. Among deaf signers, it was more prevalent with those for whom American Sign Language (ASL) is their first language.

"When we are doing an action, whether it's speaking, signing, pressing buttons or typing, we see the same mechanism," Ries said. "Any time we are making a decision to do something, this neural mechanism comes into play."

Their study, published by MIT Press in the Journal of Cognitive Neuroscience on April 30, may advance our understanding of how deaf individuals recover their ability to sign after a traumatic brain injury or stroke, when they suffer aphasia: the inability to understand others or express themselves due to brain damage.

"When stroke victims are more aware of their speech errors and have a better functioning speech monitoring mechanism, they have a better chance of recovering than those who don't have that awareness," Ries said. "This study helped us extend that understanding to signing ability for deaf people."

Melding speech with sign language expertise

The work also represents a long-held dream to combine the skills and training of two researchers with niche expertise in complementary fields -- speech monitoring and sign monitoring.

Ries is an assistant professor specializing in the neuroscience of speech and language disorders who first met Emmorey at a workshop on language production in 2007 when Ries was a Ph.D. student in Marseille. Emmorey, a distinguished professor, sign language expert and director of the Laboratory for Language and Cognitive Neuroscience at

SDSU, presented a study about sign monitoring which sparked an abiding interest in Ries, who wanted to work with Emmorey. When they crossed paths at another conference five years ago, Emmorey urged her to apply for the assistant professorship at SDSU, and they eventually began working together.

"I've always been interested in what inner signing would be like, and if it's similar to inner speech," said Emmorey, the study's senior author. "It's an internal process. When you speak, you can hear yourself. But if you're signing, are you seeing yourself like in a mirror, or is it a mental image of you signing, or a motor representation so you can feel how you sign?"

These were the underlying aspects of signing no one quite understood, and it has long been Emmorey's goal to tease them apart so we truly understand what sign language processing is like. Knowing this will help sign language educators figure out the best learning strategy for signers, much like the techniques used to teach hearing people foreign languages.

Since Ries was already working on speech monitoring with hearing people in France, when she joined SDSU, the two researchers combined their expertise to study sign monitoring in hearing and deaf people.

Monitoring for self-editing

They used the EEG data recorded with 21 hearing signers and 26 deaf signers in the Neurocognition Lab of Philip Holcomb and Katherine Midgley, colleagues in the psychology department. The participants were shown pictures to identify by signing, while wearing an EEG cap with 32-channel tin electrodes to monitor the mechanism behind signing.

"We wanted to study sign monitoring in-depth to understand the underlying mechanism and whether it's universal," Ries said. "Before people start to sign, you see this component rising, and we observed it happen with hearing signers as well, except it wasn't as clear."

This difference was possibly because deaf signers were more proficient in ASL than hearing signers. It's important to note that both deaf and hearing signers are bilingual in English and ASL, except ASL is more dominant for deaf signers.

"When we're speaking we catch ourselves when we are about to make an error. That's thanks to this monitoring process which is located in the medial frontal cortex of the brain," Ries said. "It peaks 40 milliseconds after you begin speaking, so it's extremely fast. We make an error because we may not have selected the right word when semantically related words are competing in your brain."

Words that share similar meanings such as 'oven' and 'fridge' or names may be switched in the brain (e.g., swapping your children's names). Other times, syllables get transposed.

Such errors can happen in signing too, when signs for different words are mixed up or an incorrect handshape is swapped for the desired handshape, which indicates signers are actually assembling phonological units during language production, similar to assembling the phonemes in a spoken word.

"Learning how sign production is represented in the brain will help us understand sign language disorders, and if a signer needs epileptic surgery we will know which part of the brain processes sign," Emmorey said.

Story Source:

Materials provided by San Diego State University. Original written by Padma Nagappan. Note: Content may be edited for style and length.

Novel PET/CT systems provide quantitative assessment of brain stem nuclei in patients with hearing loss:

Reviewed by Emily Henderson, B.Sc. Mar 25 2020

Novel, fully digital, high-resolution positron emission tomography/computed tomography (PET/CT) imaging of small brain stem nuclei can provide clinicians with valuable information concerning the auditory pathway in patients with hearing impairment, according to a new study published in the March issue of The Journal of Nuclear Medicine.

Using 18F-FDG PET/CT imaging, researchers found that patients with asymmetrical hearing loss have reduced glucose metabolism in parts of the brain stem and primary auditory cortex.

The latter may be influenced by cortical reorganization and thus, hopefully help to predict the chance that a cochlear implant will improve hearing.

With the possible exception of few dedicated high-resolution research scanners, earlier PET/CT systems with lower resolution did not permit clear-cut identification and assessment of brain stem nuclei.

Today, the use of fully digital clinical PET/CT systems permits greatly enhanced imaging and quantitative assessment of small brain stem nuclei, such as the inferior colliculus (IC), the part of the midbrain that acts as a main auditory pathway for the body."

Iva Speck, MD, resident of otorhinolaryngology at the University of Freiburg Medical Center in Freiberg, Germany

In the study, 13 patients with asymmetric hearing loss underwent 18F-FDG PET/CT imaging. The scans were reviewed by two experienced readers who examined regional glucose metabolism in the IC and the primary auditory cortex (PAC)--a part of the brain known to undergo metabolic changes based on acoustical outside input and transformation to neuronal signals from the cochlea hair cells to the auditory nerve fibers.

The readers rated the scans as to whether glucose metabolism showed no asymmetry or mild, moderate or strong asymmetry to the left or to the right for the IC and PAC separately.

Statistical analyses were performed to determine the effect of the duration of hearing impairment on glucose metabolism and to compare glucose metabolism between the IC and PAC.

Regional glucose metabolism of both the IC and PAC was significantly reduced on the contralateral (opposite) side of the poorer-hearing ear, as compared to the ipsilateral (same) side. In addition, a longer duration of hearing impairment was associated with a higher metabolism on the contralateral PAC.

By contrast, duration of hearing impairment did not predict regional glucose metabolism for the ipsilateral PAC or either side of the IC.

"Previous studies suggest that the association between longer duration of hearing impairment and higher glucose metabolism indicates cortical reorganization.

In bilateral deaf patients this has been shown to lessen the benefits of cochlear implants," said Speck. "Prediction of a successful cochlear implant outcome might benefit from improved imaging with fully digital PET/CT systems, as large parts of the auditory system, including small brain nuclei such as the IC, can be assessed for preoperative patient characterization."

She continued, "Beyond this topic, the study's findings are of interest for other neurological research fields, like neurodegenerative diseases, which often affect brain stem nuclei early in disease course," Speck remarked. "Digital PET pushes the limits of what can be imaged and contributed to patient care by molecular imaging."

Source:

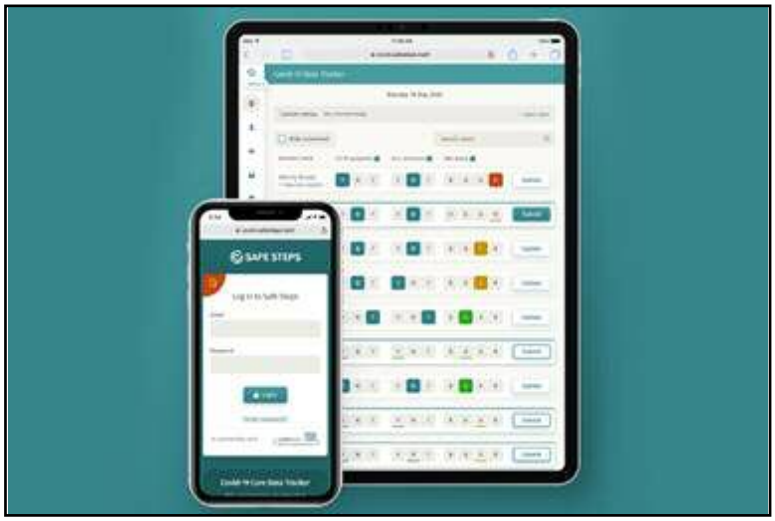
Society of Nuclear Medicine and Molecular Imaging

COVID-19 Tracker App

by Kevin Williams

Here is something that is happening with my hospital at Tameside where a new app is being tested in our area.

Health and care professionals from Greater Manchester have got together with a tech company, Safe Steps, and created a UK first digital tool which helps care homes to track COVID-19.



It will also coordinate care with GP practices, social care and hospitals to protect vulnerable residents.

The digital tool allows staff within care homes to input information about a residents' COVID-19 related symptoms and track for signs of deterioration more easily, using a national scoring system called RESTORE2 mini. The information is also able to be shared directly with the resident's GP and NHS community response team.

I think this is quite remarkable as this will ensure quick assessments and responses.

This also means that the NHS can monitor more closely how care homes are doing across the locality.

Our patch, Tameside and Glossop, is one of the first localities where this new digital technology is being tested.

Health and care teams are now able to be proactive and support the health and wellbeing of more than 700 residents across 24 care homes looking for signs of COVID-19 and taking swift action.

Notes

As these are exceptional circumstances and as a result of the current virus situation we do not have events to remind people of.

However we thought that if we could give you links /contact details then you would not be short of someone to ask if you need assistance or advice.

The key to getting through all this is to follow advice, and if you encounter a situation that causes you risk then don't hesitate to shout for help.

Our website has a dedicated page for the Clinic, so, in no particular order :-

CICADA

Website:www.manchestercicada.org.uk

Facebook group:Manchester CICADA club

Secretary direct contact:Text 07533217730

Main contacts for cicada listed at the bottom of this page.

Manchester Implant Centre

The Richard Ramsden Centre for Auditory Implants,Peter Mount Building, Manchester Royal Infirmary, Oxford Road,Manchester, M13 9WL
Main Contact Details:
TeL: 0161 701 6931 (Appointments)
TeL: 0161 276 8079 (repairs and spares)

* Please check the website regularly for updates on what the clinic are doing in the light of the virus outbreak.

http://www.manchestercicada.org.uk/implant-clinic/

National Support organisations

British Tinnitus Association:
https://www.tinnitus.org.uk/
Hearing Link:
https://www.hearinglink.org/
RNID (Action on Hearing Loss):
https://www.actiononhearingloss.org.uk/
Disabled Travel Advice:
http://www.disabledtraveladvice.co.uk/
Meniere's Society:
http://www.menieres.org.uk/
National Deaf Children's Society:
http://www.ndcs.org.uk/
National Association of Deafened People (NADP): http:// www.nadp.org.uk/

Equipment Suppliers for Deaf People

Sarabec: https://www.sarabec.com/
Connevans: http://www.connevans.co.uk
Hearing Link UK: https://www.hearinglink.org/
RNID (Action on Hearing Loss):
https://www.actiononhearingloss.org.uk/

COVID-19 information links.

(Just some official ones which you can subscribe to to get updates)
Main government website whih has links to information and also a facility to be on a mailing list for updates which is handy.

https://www.gov.uk/coronavirus

Most local council websites now have a corona virus section to tell us what they are doing and what services may be affected.

If you need help for other thngs during the duration of the virus then contact social services in the first instance.

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