Technology and Innovation in the NHS

Response to Question 2: What key opportunities exist for the use of technology in health and social care over the next 10 years?

Set out below are a few ways that technology can be used to enable and assist people with hearing loss. We feel it needs to be recognised that it is not just about new technologies being needed, it is also about making better use of current technologies, and it is most especially about making sure people have the knowledge, skills and confidence to explore and use the technology that has been developed for their potential benefit.

**Tablets to access speech transcription apps.** The quality and effectiveness of speech transcription apps is getting better all the time. Having this technology available in health settings to aid communication could assist hugely. Low-tech LCD e-writers can equally provide valuable assistance. Tablets can also support access to remote communication assistance for those who require additional support. Likewise, can link to other software that can assist patients with speech impairments.

Text transcription is, of course, also available via communication professionals and can also be delivered remotely via online platforms.

**Telephones and emergency alert systems.** There is an opportunity to improve the way people with hearing loss remain connected to family, friends and wider services through use of a new UK digital innovation that enhances the speech intelligibility of voices calls made by phone or internet. This technology also opens up the possibility for more effective delivery of audio communication for telehealth services and emergency alert systems.

Ideas for Ears was involved in gathering independent data during the proof-of-concept clinical trials that concluded January 2017. The trial focused on use of the technology across a mobile phone network. The findings suggest it has strong potential to deliver significant benefit to people with hearing loss of mild to severe degree.

The user performs a straightforward hearing test that is linked to the software and this sets up their hearing profile. They then use their phone as normal (no special phone or special equipment required) and the software adjusts the sound, live as the call takes place, to reflect the user’s particularly hearing needs.

Telephone use continues to be a key problem for very large numbers of people who have hearing loss. Most of the 11 million people with hearing loss in the UK have mild to severe loss, which can be managed with the right solutions. At least 70% of those aged 70+ have some degree of hearing loss.

The technology is almost at the stage of commercial roll-out for mobile phone use. From our engagement with the innovator and developer, additional development would be required to make it available for use on landlines and internet-based calls but it is entirely possible. The technology is a UK innovation.

**Patient calling systems in waiting rooms.** Some health centres use a patient calling system to alert people to their appointment. Many others continue to call out people’s
names. This is stressful and undignified if you do not hear well. It is compounded by the use of music in waiting rooms, which makes listening and hearing harder still for many people. This is basic technology that already exists but it needs to be more widely used.

**Assistive listening systems.** Induction hearing loops are the most widely used assistive listening system for reception/information points and for consultation rooms. They assist hearing aid and cochlear implant users. This technology has been around for a long time but is not delivering the benefit it could/should be, either because it has been incorrectly specified and installed so the quality is poor, staff do not switch it on and maintain it, or the user isn’t aware it is available because of lack of signage or lack of their own knowledge.

Loops can make an enormous difference to users and they should be available. This is especially essential where conversation can be hushed for privacy reasons. When used in consultation rooms, they need to be set up to ensure minimal/no spillage of the magnetic signal to ensure confidentiality and to avoid interference from adjacent loops. Infrared systems are less likely to be used by patients for effectiveness, dignity and hassle reasons.

There is now a shift beginning towards digital wifi systems. These currently require that the user access the system via a smartphone App. It also requires users to have an intermediary device between the phone and their hearing aids, or to have ‘made for iphone’ hearing aids, or to use a neck loop or headset. As soon as equipment is required, there are barriers introduced. However, this is something that could increasingly be adopted as a way to improve communication in certain situations.

**Hearing aids.** This is the single most important way that an individual can empower themselves to manage their hearing loss. However, there is a big gap between provision of hearing aids and knowledge of how to get the best from the technology. It is not unusual to come across long-term hearing aid users who do not realise hearing aids can have more than one programme setting; or to come across people who have been given hearing aids but aren’t using them because “they just don’t work for me”.

Living with unmanaged hearing loss is strongly linked to isolation, depression and dementia. Hearing aids are tiny technological wonders that can assist hugely but the patient journey towards adjustment and proficient use of them is not working nearly as well as it could or should. The phrase ‘after care’, which is used to describe follow up support after hearing aids have been given to someone, in practice means ‘hearing aid maintenance’. Audiology teams have very little time/resource to deliver actual the practical/emotional care and support that could transform outcomes. Third sector support is in place but needs to be bolstered hugely, in terms of availability, quality and breadth of support/information it offers.

**Assistive devices & equipment.** As with hearing aids, there is a big and growing gap between technology available to assist people and knowledge/awareness amongst potential users that it exists. There is a role to be played by the NHS to connect people to information about products that potentially could transform their lives.