University of Southampton

Professional Update

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Does a child you work with have a Nucleus 5 implant?

Cochlear has told us of some problems with the power-up of the N5 cochlear implant and this has been found to be associated with a small number of device failures. SOECIC has found only one failure of this device as of September 2011. CP810 and Freedom speech processors can be used with the N5 implant.

For CP810 users:

If you notice that the child's processor is flashing orange to indicate a fault, please check the remote assistant display and run through basic trouble shooting e.g. change batteries, check the coil is on securely etc. If the display indicates a coil error (as shown in the pictures) then change the coil and cable. If this doesn't resolve the problem report the difficulties to SOECIC and to the parents.

For Freedom users:

Freedom processors do not have a remote assistant for troubleshooting, however, they do have a display which indicates problems. If they experience an H3 error on their processor display, when the coil is on the head, the advice for N5 Freedom users would be to change the coil/cable and follow the basic trouble shooting, e.g. change batteries, check coil is on securely. If this doesn't resolve the problem report the difficulties to SOECIC and to the parents.

Policy for lost processors

We have recently made some changes to the policy regarding lost processors. We will be sending a summary of our new policy to all our patients. The cost of a lost processor is currently absorbed by SOECIC. If a patient reports a lost processor, we require a police report number since this might lead to the processor being recovered. We will also require a letter explaining how the processor was lost and what was done to search for it. We will not be able to send any further replacement equipment or batteries until this letter and the police report number is received by SOECIC.

All the manufacturing companies have retaining equipment for the processors which should help keep the processor in place. We encourage patients to use this in order to avoid processors being lost.

If a patient loses 2 processors in any 2 years (regardless if they are bilaterally implanted or not), SOECIC will switch the processor configuration to a bodyworn one or a baby worn configuration. This configuration should help the patient retain the processor and avoid it being lost – this will be issued for a minimum of 6 months, but could be for a longer period. At the end of the period a discussion between the key contact, family and local services will be held to see how the patient is bonding with the processor. A decision could be made to try out the original configuration the patient had or to stay on the body/baby worn version with a further review in 6 months. If a patient is implanted bilaterally, both processors will be changed over to a body/baby worn configuration.

If a patient loses more than 2 processors in 2 years and these are not found, the family will be asked to meet with SOECIC staff to discuss if there are any issues which are contributing to processors being lost.

Time for Change

The South of England Cochlear Implant Centre has rapidly expanded over the past 10 years due to the steadily increasing number of patient referrals we have had. The number of clinicians at the Centre has continued to rise to cope with the increasing workload. We are now a team of over 40 supporting almost 650 adults and children with cochlear implants.

With the aim of further improving our service the team will split into three smaller teams - East, West and Central, and the care of an individual cochlear implant user will be assigned to one of these teams. We have also made some changes to the frequency that we continue to see children and adults after their implant operation. We will continue, as always, to see patients at other times if requested, however, the planned reviews will be as follows:

Children:

Surgeons will see a child for at least 3 years after their initial tuning and until the child is 7 years old. The audiologists will continue to see the children and teenagers annually until they are 18 years of age when they will transfer to the adult programme.

Adults:

Adults will receive an appointment for an annual audiology and medical review for the first 3 years after their initial tuning and on the 5th annual review and at subsequent five year intervals from the anniversary of initial tuning. In all other years questionnaires will be sent to decide if a review is needed.

The new system will start on 1st October and we are confident that this will offer better care for our patients and their families.

Changes to the SOECIC Training Programme for Professionals

We have run a successful and popular training programme here at SOECIC for some years now. We realise that it is vital that people working in local services receive training in order to ensure that implanted children get the most from their implant.

This year we are trialling a different way of providing this training. We are offering more locality based training in your area. We would be happy to tailor the content according to your staff needs, and this could if successful become an annual, or if need dictates a bi-annual event.

We have already circulated a letter to Heads of Hearing Support Services to inform them of this opportunity (this includes more details of costs etc). In order to help cover costs and improve local liaison we would suggest it might be a good idea to invite as many local professionals as possible (e.g. Local Teachers of the Deaf, Resource based teachers, Speech and Language Therapists, Audiologists and other supporting staff such as teaching assistants in local schools).

Please feel free to contact me directly should you wish to discuss this further (Sue White sr1@isvr.soton.ac.uk or 023 8059 2522) or ask a member of the SOECIC team for more information.

Nucleus 5 Workshops

These half day workshops are for anyone supporting a child with a cochlear implant who would like to feel more confident using and handling the new Nucleus 5 speech processors. You will have time working in small groups handling the processors and accessories. This is an excellent course in order to feel more confident in handling and troubleshooting with this new processor.

Dates:
Tuesday 1st Nov 2011, 1.30-3.30pm
Tuesday 28th February 2012, 1.30-3.30pm
Tuesday 15th May 2012, 1.30-3.30pm

Venue:
SOECIC, Building 19,
University of Southampton

Fee:
Free (to those supporting SOECIC patients)

Cochlear Implants – the impact on people around you

Chinese new year celebrations

For some time we have been thinking about how to give new patients more information about SOECIC in a way that they can share it with their friends and family. First of all we decided to produce a leaflet (which is now ready for new patients) about changes in the ways that families communicate when the profoundly deaf person has more access to sound following cochlear implantation. Sometimes the partner (and even the children) of the patient finds his or her role as 'spokesperson' changes radically and they can feel a bit left out.

Following on from this we tried to think of ways in which we could give more information about the assessment process to patients' wider circle, who might not be able to attend the Centre and who might feel anxious about what the process entails.

We decided to make a film, and some of you might have seen the camera in action at the Chinese New Year party at the University in February. Several patients, both adults and children, and their family members were interviewed, and the film will also show group meetings, hearing tests, and tuning sessions.

The DVD will be available to all patients and we will also have a link to the film on the SOECIC website. We hope it will be ready some time this summer.

The DVD is being paid for partly by a sponsored bike ride being organised by one of our patients. She and her friends are going to be joined by staff from SOECIC to cycle just under 60 miles on 17 September, and details of how to sponsor participants will be circulated nearer the time. In the meantime if you would like to make a contribution towards this very worthwhile patient resource please make your cheque payable to The University of Southampton and send it to The South of England Cochlear Implant Centre for the attention of Mrs Nikki Stephens.

Nucleus Series 5 CP810 Processors

We have recently started the upgrade programme for children currently using the Freedom processor, moving to the Nucleus series 5 CP810 processor. We are aware that there are some significant financial implications for local education services related to FM users who currently use the Freedom Microlink ear level system. You will have received a letter to explain how we hope to work with local services to ensure that no child is left without access to appropriate FM systems as a result of the upgrade process. If you have not received this letter please contact Sarie Cross, Tamara Turchet or Roberta Buhagiar at SOECIC.

We are also now carrying out a Service Evaluation of the CP810 processor in combination with the new Phonak ML14i ear level FM receiver. Initial feedback from patients using this combination is very positive and we are confident that the systems we have set up with users so far are working well together and giving good FM support to patients. We will have more information on the outcomes of the service evaluation in the autumn – watch this space!

Please remember to give the FM radio aid equipment to any family who has an upgrade appointment so that we can ensure that the system is still optimally set with the new processor.

If you have any comments or concerns regarding the upgrade process and/or how this affects FM use for children that you work with please do not hesitate to contact us.

Connecting the CP810 (N5) to FM Ear Level Systems

ML14i

For all accessories, the silver flap near the bottom of the processor needs to be lifted, whether for the ML14i, the Euro accessories adaptor (below), the freedom adaptor, the earphones or the test box checking leads. This can be tricky. If a fine pointed implement is not available, the flap can be lifted more easily by first removing the battery pack. Remember to switch the processor back on.

MLxs and Mlxi

When an ML14i is not available the MLx series and MLxi are compatible with the N5 A Euro accessory adaptor is necessary for use with Ear level receivers such as the Amigo and the MLx series. For ear level receivers the connection order is not important. Initial trial results have been very encouraging.

ML14i

CP810 with MLxi connected

CP810 with MLxS connected

SOECIC Staff

There have been quite a few new faces this year. Guoping Li, Steve Bell and Srikanth Chundu have all joined us as Audiological Scientists. Steve is part time. Anna Duncan has joined us a Speech and Language Therapist. We have recently said goodbye to two members of our team. Fiona Jones has gone to work at the Spire Hospital, Southampton as Cardiac Surgery Administration Co-ordinator and Debbie Brooks has started a new job at the Southampton Eye Unit as private patient co-ordinator. We welcome Annabel Beales, Michaela Rogerson and Helen Bolton to the Administration Team.

Neurelec binaural device – adults can now have implants in both ears!

For about a year, we have been offering adults another choice of cochlear implant device. Our newest device is the Neurelec Digisonic SP Binaural implant. This device has a single implant package, but two electrode arrays, which allows stimulation of both ears. During surgery, a standard implant operation occurs on the side of the implant package, then the long electrode array is passed over the head, under the scalp, and implanted in the other ear. The Binaural device works with a single processor – a lightweight microphone is worn on the other ear.

We can usually only obtain funding for adults to receive a single implant, unless they are blind or have other disabilities which mean that they depend upon hearing sounds for spatial awareness. Since the Neurelec Binaural device is a single implant, we can receive funding for it. This is a great opportunity for adults to obtain hearing in both ears. To date, five adults at this centre have chosen this exciting option.

The South of England Cochlear Implant Centre believes in offering all patients the choice of the implant device they receive, unless there is a surgical or other issue which suggests they would hear better with one particular device. We are pleased to add the Neurelec Binaural implant to the three other devices that we offer.

SOECIC Research

Although our primary focus is clinical work, we believe very strongly in evidence-based medicine and as such are involved in clinical research. Four members of our clinical staff are currently pursuing part-time PhDs. Members of our team also supervise many BSc, MSc and PhD students.

Music

Although cochlear implants often provide very good speech perception, many cochlear implant users struggle to enjoy music. This continues to be a focus of our research, in terms of improving access to speech sounds through speech processing, evaluating patients' music perception skills, and providing rehabilitation focused on music. We are currently working with a composer to design a purpose-built music rehabilitation package for cochlear implant users.

Children with additional needs

At SOECIC we are fortunate to work with a large and varied patient caseload, with many patients having additional special needs. Recent research from our department has evaluated the outcomes for children with additional needs, and has highlighted the importance of diagnosing any difficulties in addition to deafness as young as possible.

Bilateral implants

Many children are now receiving a second (bilateral) cochlear implant, which gives them the chance to learn to use two ears together, to help listening in background noise and localising sounds. We are conducting research in adults and children to evaluate the difference this makes to a patient's quality of life. We also have a growing population of patients who are able to use residual hearing on the non-implanted side and obtain great benefit from a hearing aid used in conjunction with the cochlear implant (bimodal hearing). We continue to conduct research in this area and are finding that the amplified acoustic information complements the electrical stimulation via the cochlear implant.

National Paediatric Bilateral Audit

Guidelines from the National Institute of Health and Clinical Excellence have recently supported the implantation of both ears in all suitable children – bilateral cochlear implants. To fulfil NICE's review requirement, we are currently coordinating a large multicentre audit of the benefits to children and families of receiving a second (bilateral) cochlear implant. Thirteen United Kingdom cochlear implant centres are collaborating to collect outcomes on the children who receive two cochlear implants; we are coordinating the data collection across the UK, and will analyse and report the final data.

Auditory neuropathy

In some cases of hearing loss, the cochlea remains intact but the sensory cells or auditory nerve may not function adequately. This is described as Auditory Neuropathy Spectrum Disorder (ANSD). Members of our team are studying outcomes in implanted children with ANSD in order to counsel parents appropriately.

Clinical trials with cochlear implant companies

We are often involved in clinical trials with the four cochlear implant companies. We have just finished a trial of a new product to test the integrity of the internal cochlear implant; 25 subjects were involved. We have also completed an upgrade trial – fitting existing cochlear implant users with a new updated processor.

Adult Music Workshop

Telemedicine

It is predicted that in seven years' time there will be seven times as many cochlear implant users. In order to improve patient access to the centre's services, and allow us to manage ever increasing numbers of patients, we started a telemedicine research project in 2011. The first part of the trial tests patient's speech perception remotely (in their own homes). Later on, some patients will be issued with customized hardware allowing them to test their hearing and check their implant devices at home.

Contact us

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