

Melatonin sedative for ABR hearing testing

You have been given this leaflet because your child might have a hearing loss and it has been difficult to test your child accurately. This leaflet will tell you about the use of melatonin to help children fall asleep in order that their hearing can be tested using ABR (auditory brainstem response) testing.

What is melatonin?

Melatonin is a naturally occurring substance produced by the brain in the evenings, as it gets dark, to prepare the brain for the night's sleep. In clinical practice it is prescribed for patients with certain sleep disorders. Melatonin is widely used as a prescribed medicine in the UK to induce sleep in children during an EEG. An EEG (electroencephalogram) is a test that records the brain's electrical activity.

ABR testing involves measuring electrical activity in the brain in response to sounds, so in some ways it is similar to EEG. For ABR we use melatonin in the form of a solution (liquid) or capsule. In most cases the testing will be done at home.

Melatonin is regarded as a dietary supplement in the USA and is readily available in health food stores and pharmacies over there. Melatonin does not have a product license in the UK but can be prescribed by a doctor. (See attached sheet from the Royal College of Paediatrics and Child Health explaining why some unlicensed drugs may be prescribed to children.)

Are there any risks or side-effects?

Children usually wake quite quickly from melatonin-induced sleep, with less lasting sleepiness than other sleep-inducing drugs. The medicine is generally well tolerated with no serious side effects. Your child's temperature may fall a little after taking melatonin. This is a normal reaction. There is no evidence of any link between melatonin and epilepsy; however, if your child seems unwell, please contact your GP or take them to hospital.

In order for the melatonin to be effective, your child will need to be kept awake for longer than usual and not allowed to have a full night's sleep the night before testing. You will be given clear instructions about what you need to do in a separate leaflet.

What will happen now?

If your child is under the care of a consultant, we will write to them to consider prescribing melatonin to help your child sleep during the ABR testing. We will ask whether they think that your child is suitable to receive melatonin or needs further paediatric assessment before a decision can be made. If your child is not under the care of a consultant, we will write to ask advice from our consultant community paediatrician who is the medical lead for children with hearing impairment. It is possible that your child will need a paediatric assessment to decide if they are suitable to receive melatonin; if this is the case then you will receive an appointment.

The consultant will send the prescription to the audiologist for collection of the melatonin at the hospital pharmacy. The audiologist will telephone you before the appointment for ABR testing to check that you have understood this leaflet and the leaflet provided about sleep deprivation and answer any questions you might have about the testing.

It is also essential that you follow the sleep deprivation instructions that you will be given, as melatonin may not be effective at inducing sleep without sleep deprivation.

How is melatonin given?

Melatonin solution is measured using a syringe, but can be transferred to a cup. Your child can have a small drink at the same time. If you are given capsules, these can be opened and the contents mixed with a drink (water, milk or fruit juice) or yoghurt if necessary.

Please be aware that the audiologist doing the ABR testing is not qualified to administer medication, but will give you the melatonin and advise you when to give it to your child.

You are responsible for giving the melatonin.

What happens during the ABR testing?

Auditory brainstem response testing (ABR) is a technique used to gather more information about your child's hearing levels. The audiologist will clean the skin on your child's forehead and behind their ears and place three sensors on the skin in these areas. They will place 'insert' earphones which play sounds into your child's ears. Your child's ears should produce tiny electrical responses when the sounds are played and these responses are measured by the sensors. Your child needs to be deeply asleep as we are looking for very small responses to the sounds. These responses are analysed with the help of a computer. Sometimes, we need to place a bone conductor behind your child's ear to test the inner ear function. The testing lasts between 45 minutes to 2½ hours. If necessary we can take a break in the testing. We can do the test in any room of the house, wherever your child is likely to settle best, but we might need to move to a different room if there is any electrical interference which can affect testing. We might therefore ask you to switch off electrical devices, such as radios, televisions, routers or computers, to help with the testing.

What happens after the test?

The audiologist will remain with you for the duration of the testing and for a short while afterwards. After the audiologist has left, if you have any concerns about any side effects then please contact your GP (during normal hours) or NHS Advice on 111.

If you have any questions, please contact:

Department of Audiology, Telephone 0118 322 7238, Fax 0118 322 7075

Email: audiology@royalberkshire.nhs.uk Website: www.royalberkshire.nhs.uk/audiology

If you would like this leaflet in other languages or formats (e.g. large print, Braille or audio), please contact the Audiology Department.

Audiology Department, April 2013

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