

## Melatonin sleep electroencephalograph (EEG) in children

### Other formats

If you need this information in another format such as audio tape or computer disk, Braille, large print, high contrast, British Sign Language or translated into another language, please telephone the PALS desk on 01271 314090.

### What is melatonin sleep electroencephalograph (EEG)?

A sleep EEG is a recording of the natural electrical activity of the brain taken while your child is asleep.

Recording EEG when the child is sleeping may provide useful information not previously obtained when awake. It is also much easier for your child if we do EEG when they are asleep.

Your child will be given melatonin to encourage natural sleep. Melatonin is a naturally occurring hormone found deep inside the brain and is thought to be important in the production of sleep. We use a man-made version that comes as a tablet or capsule. The dose is calculated to help your child fall asleep and will not cause sleepiness on waking.

### What preparations are needed?

Wash and dry your child's hair and keep it free from all hair products such as gel, oils or spray.

Please do not stop any prescribed medication, unless you have been specifically told to do so.

Meals should be taken as usual. Your child should not arrive hungry. Avoid caffeine drinks.

Bring a favourite bed-time comforter and/or bottle if you like.

### Where is it done?

On arrival at North Devon District Hospital (NDDH), please go straight to Caroline Thorpe Ward first. This ward is located on top floor of the Ladywell Unit (please follow the signs).

### How is melatonin given?

It is usually swallowed with a drink or stirred into a favourite yoghurt if this is easier. It usually takes about 20 to 60 minutes to work. If necessary, a top-up dose may be given later.

## **How do we encourage your child to sleep?**

We try to ensure a quiet, peaceful environment. A baby or young child may like to cuddle on your lap or lie on a bed if they prefer. We will darken the room and wait until your child is asleep or drowsy before the EEG test begins.

## **What happens during the test?**

Once your child has gone to sleep or is drowsy, we measure the head and gently apply wires to the surface of head, using a water-soluble paste and gentle rubbing. Then a computer records the brainwave activity for about 20 to 30 minutes onto video. Afterwards the wires are removed and you can tidy your child's hair. The paste washes out easily afterwards.

## **Why do we record a video?**

A digital video is recorded so we can easily interpret the EEG reading. Only sections that help with interpretation are kept. We will ask your consent for us to record the video before the test.

## **How long will the test take?**

We anticipate that you will need to be at NDDH for three hours. It is difficult to give you an exact time as all children are different and it depends upon how long it takes your child to settle to sleep. Once we start the EEG, it usually takes about an hour.

## **What happens if my child does not sleep?**

We always strive to achieve the best result we can for each child. Occasionally, a child does not sleep despite melatonin and we cannot obtain a recording. If this is the case, we will inform the referring doctor.

## **Are there any side effects?**

There are no side effects from recording an EEG. However, your child might feel tired afterwards from the melatonin. If you have any concerns after the test, please seek advice from your doctor.

## **When will we get the results?**

Results are sent to the doctor who requested the test. This usually takes between one to three weeks.

## **Further information**

If you have any questions, please telephone the neurophysiology department at North Devon District Hospital, Barnstaple on **01271 322313**. Staff will be happy to help you.

You could also visit the website [www.ansuk.org](http://www.ansuk.org) that provides some information about the EEG test.

## References

1. Wassmer E, Carter PFB, Quinn E, et al. (2001) Melatonin is useful for recording sleep EEGs: a prospective audit of outcome. *Dev Med Child Neurol*; 43:735–8.
2. NICE Clinical Guideline 020: Diagnosis and Management of Epilepsy in Children.  
Sweis D. (2005) The uses of Melatonin. *Arch Dis Child Educ Pract Ed*; 90:74-77.

### **PALS**

The Patient Advice and Liaison Service (PALS) ensures that the NHS listens to patients, relatives, carers and friends, answers questions and resolves concerns as quickly as possible. If you have a query or concern call 01271 314090 or e-mail [ndht.pals@nhs.net](mailto:ndht.pals@nhs.net). You can also visit the PALS and Information Centre in person at North Devon District Hospital, Barnstaple.

## Have your say

Northern Devon Healthcare NHS Trust aims to provide high quality services. However, please tell us when something could be improved. If you have a comment or compliment about a service or treatment, please raise your comments with a member of staff or the PALS team in the first instance.

'Care Opinion' comments forms are on all wards or online at [www.careopinion.org.uk](http://www.careopinion.org.uk).

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