

Combined video-EEG telemetry with formal sleep study

This leaflet explains about combined video-EEG telemetry. If you have any questions or concerns about the test or recording period, please contact the department, t: 020 7188 9209, Monday to Friday, 8.30am-5pm to discuss them.

We look forward to welcoming you to Evelina London Children's Hospital's Telemetry Unit. Evelina London is in a unique position to offer this combined study.

Your child will be admitted to a telemetry room on Savannah Ward (4th Floor). The purpose of the telemetry is to record any events seizures your child is having. This room is fully equipped to carry out continuous EEG monitoring with video. Sound is also recorded as this can give useful information if your child has a seizure. Your child can move freely around the room.

What is a combined EEG telemetry?

An EEG (electroencephalogram) is a test to record the electrical activity of your child's brain. The nerve cells in the brain produce tiny electrical signals. Recording and checking these can give doctors useful information about how your child's brain is working. EEGs can be used to diagnose and monitor seizure disorders, sleep disorders, movement disorders, development and changes in behaviour. These are commonly known as events.

Telemetry is an EEG that records the brainwaves for longer (1-5 days depending on the amount of information needed). It can be helpful to understand your child's events, to pinpoint an area of the brain that is causing seizures, or to obtain a complete recording of one night of sleep.

What happens during the test?

In most cases 22 electrodes (small discs) will be applied to your child's head with special adhesive, and another 2 electrodes will be attached to each arm. This is painless and takes up to 1 hour to do. Once the electrodes are in place, telemetry monitoring can commence. The electrodes will stay in place until the tests are complete, including overnight.

At about 6pm a sleep physiologist will add more recording apparatus including a chest-band, electrodes applied to the limbs and nasal airflow monitor for the sleep-study recording.

Your child will not be able to take a shower or bath, or have a hair wash while the electrodes are attached. They can do this when the electrodes have been removed at the end of the recording if they want to.

Although monitoring will continue throughout your child's stay, the cable may be disconnected so that your child may leave the camera range to use the toilet. In some circumstances it may be possible for your child to leave the room for a short time but this is strictly by arrangement with the telemetry staff.

How long will the test last?

The length of the test depends on the reason for referral. It can vary from 2-5 days but will be discussed with you during clinic.

Consent - asking for your consent

We want to involve you in decisions about your child's care and treatment. If you decide to go ahead, you will be asked to sign a consent form. This states that you agree for your child to have the treatment and you understand what it involves. If you would like more information about our consent process, please speak to a member of staff caring for you.

When will you get the results?

The results of the test need to be analysed, and a full report will be sent within 3 weeks to the doctor who asked for the test. The doctor should arrange with you when and how you will receive the results.

Is there anything you need to do to prepare?

In some cases it may be necessary to reduce antiepileptic medication. This will be discussed with you before admission or when you arrive on Savannah Ward. You should give your child their routine medication as usual before admission.

Please wash your child's hair the night before or on the day of the test and do not use any hair products such as gels, oil, wax or sprays. This will help stick the electrodes to your child's head.

Essential items you will need to bring for your child

- Favourite toys, books and DVDs
- Warm pyjamas which ideally should be front fastened
- Slippers
- Dressing gown
- Comfortable day clothes – ideally tops should be front fastened
- Toilet bag
- Any current medication that your child is taking.

If you have any video footage of your child's events or seizures please bring it with you.

The play specialist can help provide activities to keep your child occupied but it is a good idea to bring a selection of favourite games books and DVDs with you, and school homework.

We can also place your child on the hospital school list and a teacher will visit them and engage in activities with them. Each room contains a flat screen Freeview TV/DVD player for your use.

Sleeping arrangements for parent/guardian

There is a padded window seat which will be converted into a bed for the night. Bedding and pillows will be provided, but if you prefer to bring a sleeping bag that is fine. Please bring toiletries and night clothes for yourself. Showering facilities are available.

Do you need to stay with your child?

Yes. You are the best person to identify if your child is having a seizure, so we need you to stay with your child. However, we do realise that you will need to leave the room to make drinks and use the bathroom.

We understand that you will probably need to leave for short and infrequent breaks but it will be helpful if you can keep these breaks to a minimum.

The nursing or EEG staff will be available to offer support during your stay.

Meals

Your child's meals will be provided but you may bring extra snacks if you wish.

If your child has any special dietary needs please let us know before the day of admission so that arrangements can be made with the ward.

We cannot cater for parents or guardians so please bring food with you, or you can use our facilities. There are microwave facilities on the ward in the parent's kitchen and tea, coffee and cold drinks are provided for your use.

Facilities

There are a number of shops on the St Thomas' site including coffee shops, a restaurant and a newsagent. On the Evelina London site there are facilities for buying drinks and sandwiches.

Telephone

You can use your mobile phone in the rooms but please keep noise to a minimum.

Wi-Fi

Free access to the internet is available for all patients, visitors and carers. To connect, search for the NHS WiFi network on your device.

Contact us

If you have any questions or concerns about please contact the department on **t:** 020 7188 9209, Monday to Friday, 8.30am-5pm.

For more information leaflets on conditions, procedures, treatments and services offered at our hospitals, please visit **w:** www.evelinalondon.nhs.uk/leaflets

Leaflet number: 4448/VER4

Date published: February 2024

Review date: February 2027

© 2024 Guy's and St Thomas' NHS Foundation Trust
A list of sources is available on request