Young Epilepsy

Young Epilepsy Health Services: EEG and Video Telemetry Diagnostics

Welcome to Young Epilepsy Health Services, part of Young Epilepsy which is the only UK charity dedicated to creating **better lives for children and young people with epilepsy** and related conditions.

Young Epilepsy Health Services' offer includes a comprehensive range of diagnostic options for children and young people up to the age of 25. The diagnostic EEG and video telemetry techniques offer routine to long term EEG monitoring, including in-patient and out-patient video telemetry options. Alongside our service level agreements with the NHS, we also provide a service to other non-NHS organisations as well as accepting private referrals. Following appointments, reports are sent directly to the referring consultants within 3 working days.

Unlike other clinical settings, one of the key advantages of our diagnostic suite is its location and special aesthetic design providing a calm, friendly and person-centred environment helping young people and their families to settle with ease. Our unique setting, and friendly team of staff, helps reduce anxieties sometimes associated with more traditional medical centres and thereby increases the likelihood of good data collection.

The following investigations are provided:

- Routine awake EEG
- Routine sleep EEG
- Ambulatory EEG (usually 1 night)
- In-patient video telemetry (1- 4nights)
- Home video telemetry HVT (1-3 nights)

Key stages of diagnostic referrals

1. Referrals are accepted from the young person's GP, paediatrician, or consultant. Referral forms can be downloaded at:

www.youngepilepsy.org.uk/forprofessionals/health-services-at-youngepilepsy

- 2. Prompt clinical triaging by the diagnostic team identifies the clinical urgency in consultation with the referring clinician.
- 3. The families are contacted directly by the diagnostics team to arrange a convenient appointment.

- 4. This is followed up by a confirmatory appointment letter, consent form and detailed information relating to the test procedure.
- 5. The diagnostic test(s) then take place either as an in-patient or out-patient depending on the type of EEG or video telemetry requested.
- 6. The results are compiled into a detailed report and sent directly to the referring consultant usually with 1-3 working days.

New OP-MEG diagnostic offer

As a result of comprehensive partnership working, we are excited to be developing a cutting-edge wearable MEG (Magnetoencephalography) to further enhance our diagnostic offer. Traditional MEG scans have existed for many years however the development of our OP-MEG overcomes the need to stay still whilst retaining the enhanced data required for accurate diagnosis. Greater accessibility for children, particularly those with complex needs, means that clinicians have an improved chance of implementing earlier interventions and best treatment pathways.

What is the difference between a MEG and an

EEG? Whilst these imaging tools both measure brain function, they are very different, and each have a role to play in the diagnosis of epilepsy and choosing the right treatment pathway.

An **electroencephalogram (EEG)** is a recording of brain activity. During an EEG investigation, individual small sensors are attached to the scalp to pick up the electrical signals produced when brain cells send messages to each other. The scalp EEG can be distorted by tissue overlying the brain such as the skull and scalp.

How to make a referral?

Referrals are welcomed from the GP, paediatrician or consultant of the child or young person. Please complete the referral form and email it to:

youngepilepsy.diagnostics@nhs.net

For further information please contact:

Young Epilepsy Health Services

St Piers Lane, Lingfield, Surrey, RH7 6PW Tel: 01342 831203 Email: <u>youngepilepsy.diagnostics@nhs.net</u> <u>www.youngepilepsy.org.uk</u> A magnetoencephalogram (MEG) is similar to an EEG but it records the magnetic field generated by the electrical activity of communicating brain cells. Importantly, the MEG signal is not distorted by any overlying tissue. The MEG signal is acquired using novel sensors which are embedded into a purposebuilt, child-friendly helmet. This new 'wearable' MEG system is a new generation flexible and highly sensitive diagnostic tool providing more accurate localisation of brain activity.

This medical breakthrough will achieve transformative change for the wider health sector when combined with structural magnetic resonance imaging (MRI) by making MEG an accessible brain imaging tool for the accurate diagnosis and evaluation of children and young people with epilepsy.

The clinical evaluation of this exciting new technology is due to start in the autumn of 2021.

We hope to be accepting routine referrals for the MEG by the end of 2022.

Young Epilepsy Health Services include:

- Autism diagnostic services
- Behavioural assessments
- EEG and video telemetry diagnostic services
- Epilepsy nurse support
- Health training for parents, carers and professionals
- Rehabilitation
- VNS clinics

