

Brief Guidelines for the best use of Clinical Neurophysiology (EEGs)

Electroencephalogram (EEG)

The principal indication of EEG is in the investigation of epilepsy and disorders of consciousness.

Since it is rare for brief recordings to capture a clinical attack, **Routine and Partially sleep deprived prolonged EEGs** are usually referred to as interictal recordings, when a liability to seizures maybe demonstrated.

Interictal EEG is used to support a clinical diagnosis of epilepsy and help classify the seizure type and or epilepsy syndrome.

Ambulatory EEG's can be performed over a 24-hour period if the routine awake and sleep EEG's are normal, and if clinical events occur at least 3 times a week.

EEG is also used in the diagnosis missions such as viral or autoimmune encephalitis, coma, developmental and neurodegenerative disorders including dementia, particularly for CJD, post cardio-respiratory arrest cases for diagnostic and prognostication.

Clinical indications for EEG

- **Seizures:** To support the diagnosis of epilepsy, determine seizure type or epilepsy syndrome.
- To assess **the risk of seizure recurrence** after a first unprovoked seizure, for example for driving regulation.
- Any **undiagnosed coma**, stupor or unconsciousness and **acute confusional state** (because of the possibility of non-convulsive status epilepticus and encephalitis). Non-convulsive seizure is EEG diagnosis and not a clinical diagnosis.

Clinical conditions where EEG's are not indicated initially.

- General screening of psychiatric patients.
- Intellectual impairment or early in the course of dementia (patients over 60 years of age).
- Probable syncope (risk of false positive result – see NICE CG 137)

Clinical conditions where EEG's are not indicated.

- To **“exclude” a diagnosis of epilepsy** or brain tumour.
- Headaches and migraines (with or without aura).
- Dizziness and fatigue.
- Attention deficit disorder.
- Aggression or disinhibition.

CONTACTS FOR DISCUSSION:

Dr Khine Khine Lwin 01422 222916 or email: khine.lwin@cht.nhs.uk

Dr. Myat Thura 01422 222003 or email: myat.thura@cht.nhs.uk