GUIDELINE FOR PAEDIATRIC INDICATIONS FOR EEG

Suspected Childhood Absence Epilepsy
Awake EEG. Lack of 3Hz Spike-Wave during adequate hyperventilation makes diagnosis unlikely. Unclear whether repeating test improves pick-up. (Ambulatory EEG might help). Treatment suppresses EEG which is not true in other syndromes.

Suspected Other Idiopathic Epilepsy Syndromes
Need awake and sleep EEG. Sleep study (which is to enhance epileptiform activity, not sedate uncooperative child) can be on same or separate occasion, and sleep-deprived or drug-induced. I favour combined study with drug-induced sleep at first investigation. This has resource implications for paediatric day ward and nursing support.

Suspected Symptomatic Epilepsy As adiopathic, but need to know clinical features and what syndromes are being considered – some have particular features that can be elicited. (Angelmann, Rett, Landau-Kleffner, Lennox-Gastaut, West etc).

Pseudo-seizures, non-epileptic attack disorder
Normal EEG does not exclude epilepsy. Convulsive attack with normal EEG makes epilepsy unlikely, but complex partial seizures with normal scalp EEG are well recognized. If attacks are frequent or can be induced might be worth an awake EEG. Video-telemetry is the EEG investigation of choice – not done here and is in short supply nationally. Ambulatory EEG might help as second best. NB – some patients have both epilepsy and pseudo-seizures.

Typical Febrile Seizure
No need for EEG whilst this remains the diagnosis.

Temper outburst. ? TLE
The pick up rate for epilepsy or other organic states is low. Surly teenagers are not the easiest of customers for us either.

Funny turns ? cause
Odd movements, faints, syncope, vertigo. Pick up rate for epilepsy is low if history and examination do not show clear seizures. There is a danger of false positive study. More important to tackle cardiac possibilities. Consider video, even mobile phone (without EEG) for analysis. If all else fails, awake EEG.

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