**DEFINITIONS**

• Continuous video/EEG is performed at the bedside in ICUs or floor beds. EEG technologists check on the EEG recording quality several times daily, but do not provide continuous observation or interaction with the patient. If the room is wired, the EEG is available for remote review at all times; if the room is not wired, the EEG-er only has access to the video/EEG after the technologist takes the equipment back to the EMU and downloads (then brings equipment back to the patient room). All EEG is reviewed, but we do not recommend relying on review of all 24 hours of video, especially if the "events" are subtle.

• "EMU" (Epilepsy Monitoring Unit) uses similar video/EEG equipment but also includes 24/7 observation of EEG and clinical behaviors with appropriate interaction by EEG technologists. This equipment includes an event button for the patient to press when having a spell.

## cvEEG Indications

Indications for cvEEG hookup include but are not limited to:

• Patients who are not rapidly awakening after a convulsive seizure or status epilepticus (SE).

• Patients transferred from another hospital for refractory SE or to rule out nonconvulsive SE (NCSE).

• Patients being treated with a hypothermia protocol.

• Patients in an ICU setting with ongoing or frequently recurring clinical activity or findings that are suspicious for seizures (i.e., need EEG to determine this)

• Patients in an ICU setting who have altered consciousness without clear explanation, irrespective of diagnosis (includes SAH, TBI, CNS infections, CVA).

• To characterize spells in comatose patients that may represent seizures, including autonomic spells such as sudden hypertension, tachycardia, bradycardia or apnea.

• Floor patients with spells concerning for seizures if EMU bed not available (see table and flow sheet for more details)

## Who can order?

The neurology  neurosurgery, ICU service can order continuous EEG monitoring.

## cvEEG Review

The requesting service will review the initial portion of the cvEEG to determine if the patient is in status epilepticus. This review may be done by an in house attending, resident/fellow or via home access (see note below for patients not on the network). If the reviewing attending, resident/fellow is uncertain about the EEG interpretation, then the on-call EEG fellow/faculty should be contacted to review the initial portion of the cvEEG.

**Note for patients in ICUs that are not networked: the EEG tech will record 30 minutes of cvEEG, pause the study and transfer the recorded data to the server. Once the data is transferred, the study will be resumed. The tech will page the on-call physician once the initial portion of the study is transferred.

Continuous Video/EEG studies will typically be reviewed the following day by the EEG attending. The requesting service will be notified of the results. It is important for the requesting service provide contact information to be notified with the results. This also includes whom to call on weekends with results.

## cvEEG Duration

The duration of cvEEG is at the discretion of the requesting service.

**Deleted:** However, as a general rule, studies with no seizures or periodic discharges should be discontinued automatically after 24 hours in awake patients, 72 hours in comatose patients, and after the re-warming phase in hypothermia patients. Longer cvEEG is possible depending on the clinical situation after discussion between the faculty physician on the primary team and epilepsy faculty. ¶

## Special Comment for Floor Patients with Suspected Seizures

The greatest value of video/EEG in patients with suspected seizures is the correlation between the clinical symptoms and the EEG at the time of these symptoms. This requires simultaneous review of video and EEG. Based on equipment limitations, this evaluation is best done with EMU equipment and not portable EEG machines.

For patients with documented or suspected events or seizures who are not in the ICU, a video EEG study in the epilepsy monitoring unit may be appropriate and can be discussed with the epilepsy attending on service. For patients in whom seizures or attacks are intermittent and require interaction, an EMU admission may be more appropriate than bedside portable cvEEG.