What is Video EEG monitoring (VEM)?

Video EEG monitoring (VEM) is the prolonged, simultaneous recording of a person’s behavior and EEG (electroencephalogram, or the measurement of electrical activity of the brain).

This is done with special equipment that captures the EEG, video and audio onto a computer so that it can be carefully studied and used to help with diagnosing patients with seizures.

Why do I need this test?

Video telemetry may enable the doctors to give you a more accurate diagnosis about the nature of your attacks. It allows them to see the seizure activity in the brain while having visual evidence of what was happening to you at the time.

What happens during my VEM admission?

Your admission

- You will be admitted under the care of the epilepsy specialists at the Alfred.
- Your admission will normally occur over 5 days (Monday to Friday).

Your first day

- On your first day, you will have electrodes attached to your scalp with glue. The equipment is not mobile, so the majority of the week will be spent in your bed. The bedrails must be kept up for your safety.
- A camera will be recording 24 hours a day in order to monitor your events and activities (bedside only).
- You will be given a nurse call bell which is also your event button. Please press this button when you are experiencing an event. This marks the recording so the doctors can look back and see if there was any change to your normal brain activity. We also want you to say out loud what you are feeling during your event. The nurses will press this for you if they observe you having an event.
During the monitoring

- OFTEN we will sleep deprive patients from 6am to 2am
- It is important not to use electrical devices that are plugged in during your admission as this can interfere with the equipment.
- You may be asked to use an exercise bike three times a day for 10 minutes.

Using the bathroom

- A nurse must accompany you to the bathroom and remain with you in the bathroom. You MUST NOT walk around the room without a nurse present. This is for your own safety.
- You will not be able to shower, however you will be given the opportunity to wash using a basin of water and face washer.

At the end of the admission

- A special solvent is used to remove the glue when the VEM is finished. Bits of glue and dried electrode gel may remain in the hair and it may take several hair washes and combings to remove it all. Occasionally patients might develop a skin reaction at the site of electrode placement. Notify your nurses of any discomfort during your admission.

Research

- A neuropsychologist, research coordinator and Epilepsy nurse may ask to complete assessments during your stay. The research team may talk to you about a study looking peoples risk of developing epilepsy and their response to medication based on genetic markers.

What happens with my medication?

Sometimes the doctor might reduce or adjust your antiepileptic medication for your admission. This can help to cause seizures to occur. Some people who have their medications reduced in hospital have stronger or more frequent seizures than usual. An intravenous cannula will be inserted to allow us to administer medication if you have a prolonged seizure.

Please do not change your medication prior to admission unless instructed by your neurologist.
Video EEG Monitoring
Neurology Service

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What should I bring to hospital?
- Any medications you take regularly, in the original packaging
- Copies of medical records and test results
- Copies of previous EEG and MRI results and images
- Comfortable clothing including button up shirts/blouses (you will be attached to leads and won’t be able to put on T-Shirts)
- Toiletries
- A small amount of cash/credit to pay for TV or phone hire
- Activities that you can do in bed!
- You may bring mobile phones and laptop computers, but if these cause interference with the equipment, you will not be permitted to use them.
You are responsible for the security of your own belongings.

May I have visitors?
Yes. We encourage family and friends to spend time with you during your stay. They can help us identify your events while making your stay more pleasant. Please limit visitors to three at a time. Visitors are normally not allowed to stay overnight.

May I smoke cigarettes?
No. Smoking is not permitted at the Alfred. We are unable to allow you off the ward for a cigarette while you are being recorded. Nicotine replacement can be arranged if required.

What happens after my test?
The doctors will discuss what we found during your admission with you on your last day on monitoring. They will provide you with a plan that is specific to you. Appointments for our clinic or tests will be sent out to you. Your regular neurologist or GP will be notified of your admission and any developments upon your discharge.