



สถาบันประสาทวิทยา  
PRASAT NEUROLOGICAL INSTITUTE

# ROLE OF NURSE IN EMU

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# What is epilepsy monitoring unit

The Epilepsy Monitoring Unit [EMU] is a specialized three-bed inpatient unit at PNI\* designed to;

- ▶ Evaluate patients for epilepsy surgery
- ▶ Diagnose epilepsy and rule out non-epileptic seizures
- ▶ Treat frequent seizure by adjusting medication



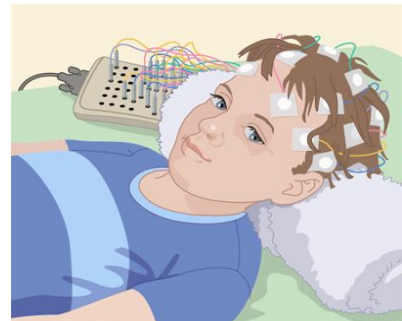
# The Epilepsy Monitoring Unit





# Indication for monitoring

- ▶ Patients who suffer from seizures which are difficult to diagnose and manage are those most likely to be admitted to the EMU
- ▶ Patients who are being considered for seizure surgery will also be admitted to the EMU for monitoring to identify to location in the brain the seizures begin





# Services at Epilepsy Monitoring unit

## **Non- invasive**

- ▶ Routine EEG
- ▶ Multi hour EEG
- ▶ Long term EEG monitoring

## **Invasive**

- ▶ Invasive Intracranial Long term EEG monitoring
- ▶ Electrocorticography (ECoG)
- ▶ Extracranial mapping

# How work done in EMU

- ▶ the EMU, patient 's seizures are evaluated through continuous video and EEG recording for at least 48 hours .
- ▶ 3-5 days
- ▶ Patients are usually admitted on Monday and discharged on Friday
- ▶ This is done to determine type of seizures, site of onset, and frequency of seizures.

## How work done in EMU

- ▶ Service round is held daily by team (physicians, nurses, and technicians) to discuss about AEDs adjusting, patients safety, and technical issues.
- ▶ Upon the end of admission, EEG and clinical events is analyzed by experienced neurologists or epileptologists.



# Who will care of you during the test?

**Registered Nurses**

**EEG Technologist**

**Epileptologist**

**Neuropsychologist**

**Psychiatrist**



# What happens before admitted in EMU

- ▶ Nurse will call to confirmed appointment



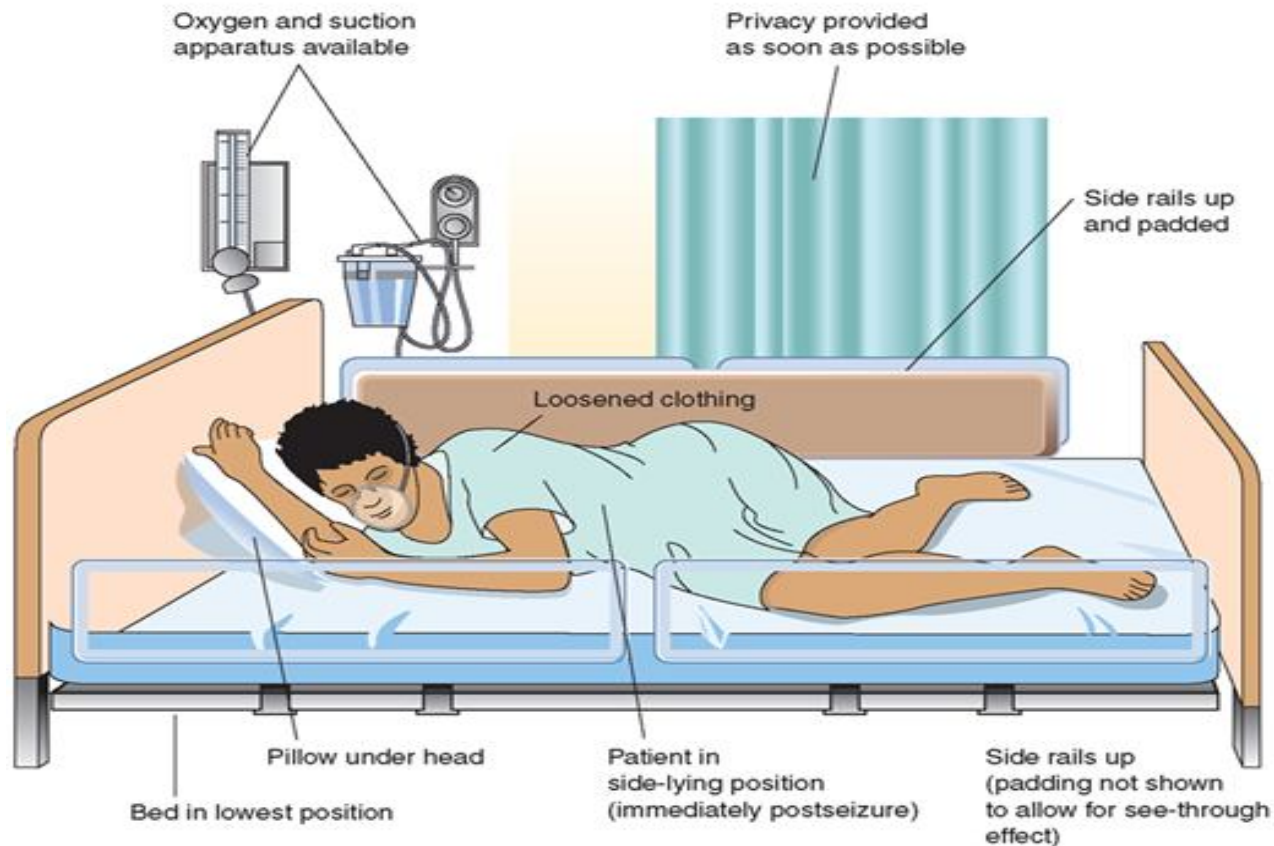
# What happens during stay in EMU

- ▶ EMU team will take care of you as our family member
- ▶ Maintain strict seizure precautions include oxygen ,suction setup ,bedside rails are up and padded at all times
- ▶ Ensure patient safety during stay here



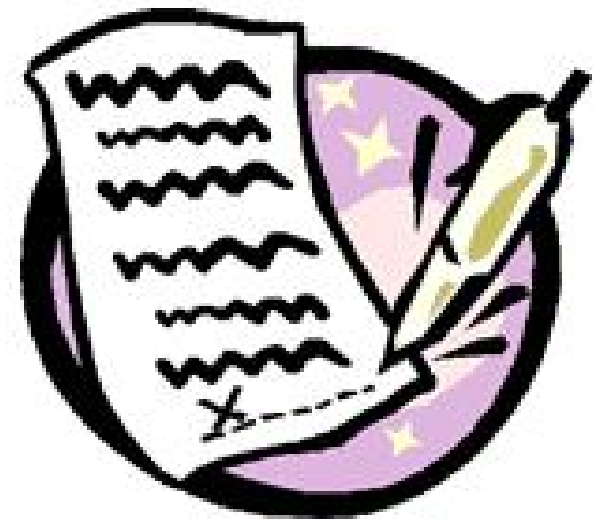


# EMU is set up for seizure precautions



# Admission process

- ▶ Assessment N/S ,V/S
- ▶ Information
- ▶ Sign consent form



# THE RULES AND REGULATIONS INCLUDE

- ▶ Contact a nurse for assistance to the bathroom.
- ▶ No electrical appliance allowed.
- ▶ Do not chew gum while electrodes are on.
- ▶ The padded side rails of the bed must remain up at all times.
- ▶ Take only the medications given to you by the unit nurse.
- ▶ Notify the nurse when you have a seizure.
- ▶ Soft restraints may be used for your safety





# Potentially Dangerous Responses to Seizure



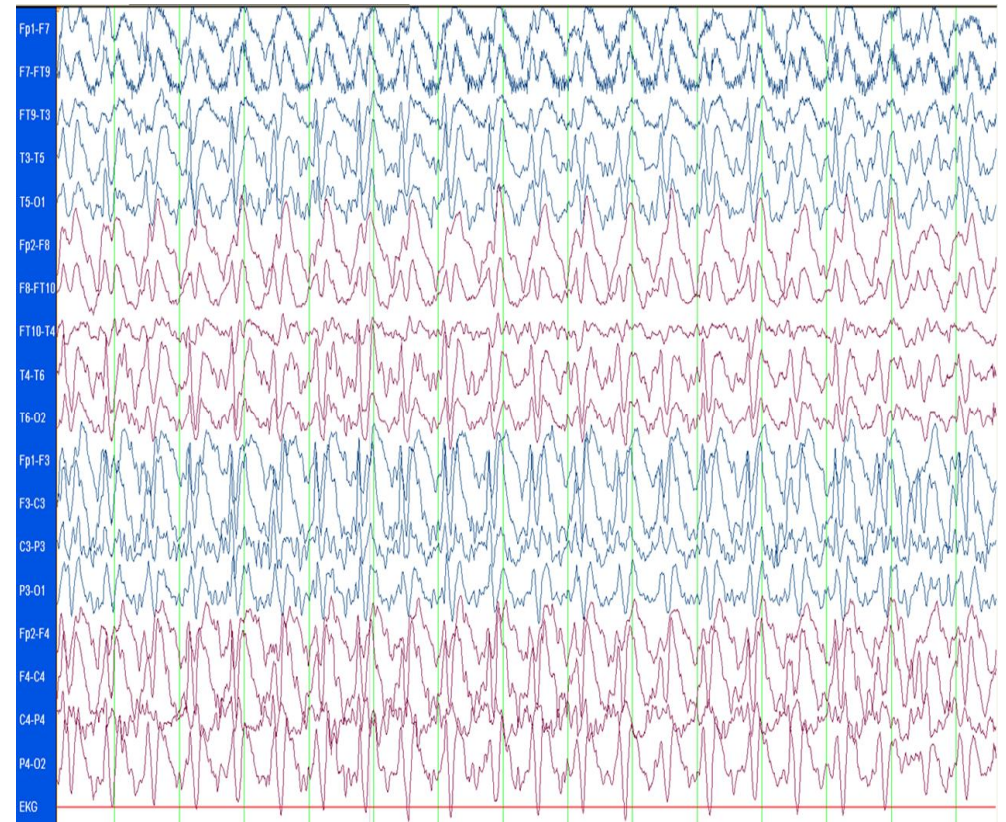
- ▶ Don't restrain person
- ▶ Don't put anything in the person's mouth
- ▶ Don't try to hold down or restrain the person
- ▶ Don't attempt to give oral antiseizure medication
- ▶ Don't keep the person on their back face up

# Seizure history

- ▶ Aura
- ▶ Signs & symptom
- ▶ Frequency
- ▶ Duration of seizure, timing
- ▶ Seizure triggers ; anxiety, stress ,photosensitivity, alcohol use ...
- ▶ Post ictal

# Epilepsy nurse

- ▶ ผ่านการอบรม **Basic EEG**
- ▶ ต้องรู้ **EEG pattern**
- ▶ **Clinical Seizure**





# During seizure

การตรวจ	สิ่งที่ตรวจ
เรียกชื่อผู้ป่วย ดูการตอบสนอง	Consciousness
จำคำ แดง แมว บ้าน ส้ม	Test words for memory
ถามชื่อสิ่งของ	Consciousness Language Naming
ให้ทำตามสั่ง	Comprehension
ใช้คำถามง่ายๆ เช่น ผ้าห่มสีอะไร	Speech

# Patient Seizure assessment

1. จำคำว่า “แดง”
2. ซื่ออะไร
3. ซี้ไปที่ประตู
4. พุดคำว่า “บ้าน”
5. สิ่งนี้เรียกว่าอะไร ใช้ยังไง



# Ictally testing



## ชุดคำสั่ง

- น้บเลข 1-10
- ทำตามคำสั่งบนบัตรคำ

# Seizure management

- ▶ We often try to record 3 to 5 seizure examples.
- ▶ We are interested in recording natural seizures.
- ▶ Seizures is induced gentle tapering of AEDs combined with sleep reduction.

# Seizure management

- ▶ 1. Controlling the seizure as quickly as possible
- ▶ 2. Preventing recurrence
- ▶ 3. Maintaining patient safety,  
injury,fall,complication



# Standing order

- Valium 10mg IV (อัตราเร็ว 5 mg ต่อนาที)เมื่อชักนานกว่า 3 นาที ให้ซ้ำได้ภายหลัง 10 นาที ถ้ายังชักอยู่
- Paracetamol 500 mg Oral เมื่อปวดหรือ มีไข้ทุก 6 ชม.
- Benadryl 25 mg Oral เมื่อคัน ทุก 6 ชม.



# Patient safety



# Documentation of Seizure

Use standardized "Seizure Assessment " note in nurse's note

- ▶ Date/time of seizure ; Start and Stop
- ▶ Aura, if any
- ▶ Description of seizure and postictal phase
- ▶ Duration of seizure



# Postictal phase

- ▶ Drug administration if doctor start antiepileptic drug to control seizure before discharge planning.



# Discharge plan

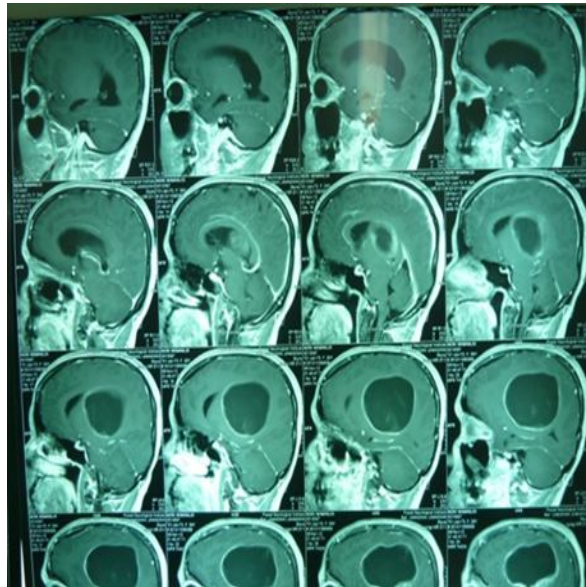
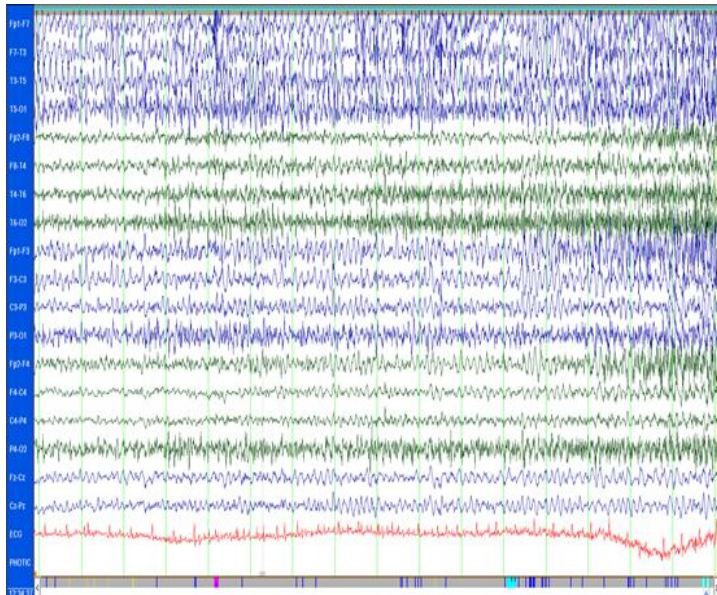
ใช้หลัก D- METHOD Model  
และ Telephone visit after discharge





# Epilepsy conference

- ▶ All data on that patient is gathered together and presented in conference with the multidisciplinary team



## neuropsychotesting

# The end

