Management of First Seizure in Adults

Presentation with first seizure

Evaluate potential cause of seizure. Consider the following non-exhaustive list:

- **CNS:**
  - Infections - meningitis, encephalitis
  - Strokes (bleed, embolism, thrombosis)
  - Traumatic ICH
  - Space occupying lesions
  - Encephalopathies – Uraemic, hepatic, hypertensive
- **Metabolic:** Disorders of glucose, sodium, calcium, tonicity (hyper/hypo), acid base
- **Withdrawal states:** – alcohol, benzodiazepine, barbiturate
- **Toxins:** – TCA, propanolol, theophylline, anticonvulsants, tramadol, organophosphates
- **Illicit drugs:** – cocaine, MDMA, other stimulants
- **Environmental:** – hyperthermia/heatstroke

Tests: BSL; CT brain +/- contrast; ECG (note QT interval); FBE; U&E; LFT; CMP

Anti-epileptic drugs usually not commenced if single seizure and investigations normal.

Disposition

**Admit if:**
- Multiple seizures or status epilepticus
- Prolonged post ictal confusion, or focal neurological deficit
- Investigations reveal underlying condition that requires treatment

**Discharge if:**
- Patient has normal physical examination and investigation results and is observed for a period of time determined by a senior ED staff determined by circumstances.

For Discharge

- EEG ordered (best yield first 48 hours). Use hospital specific forms and fax to
  ............................................
- Make appointment for First Seizure Clinic / Neurologist
  Phone:.............................. Date:......................... Place:.................................
- Give safety advice and [ECI First Seizure Factsheet](#) (For example no driving, no operating heavy machinery, no swimming alone, avoid heights etc.)