What investigations after first seizure?

**ROUTINE**

All patients:
- Blood pressure
- Glucose
- ECG (if indicated)

**DO**

**IF**

- Electrolytes
  - Ca, Mg, Ph
  - Age < 1 year
  - Clinically indicated e.g. gastroenteritis

- EEG
  - 2nd unprovoked seizure
  - Suspected specific epilepsy syndrome e.g.
    - Childhood absence epilepsy, Benign
    - Rolandic epilepsy (BECTS)

- Neuroimaging
  - <1 year (except simple febrile sx)
  - Focal seizure(s)
  - Abnormal neuro exam
  - Focal abnormality on EEG (if done)

**URGENT IMAGING (CT)**

- Persistent reduced LOC
- Acute focal neurological deficit
- Raised intracranial pressure
- Intracranial infection

**ROUTINE IMAGING (MRI)**

- Focal seizures without persistent neurological abnormality
- Abnormal neuro exam
- Cognitive/motor impairment
- Age < 1 yr

Compiled by Dr Andrew Redfern, Tygerberg Children’s Hospital, April 2016