

Valproic Acid (Depakote, Depakene, Stavzor) - 1st Gen AED

- Therapeutic range = 50 to 100mg/L
- Black box warning = hepatotoxicity, pancreatitis, teratogenicity
- A/E = weight gain
- Non-linear PK when doses > 2.5g/day
- Oral Delayed Release $\neq$ Extended Release
- EC to minimize GI effects

Lacosamide (Vimpat) - 3rd Gen AED

- Partially blocks Voltage gated Na^+ channels (work slower)
- Metabolized by CYP450 enzymes (3A4, 2C9, ~~2C19~~ aC19)
- no induction or inhibition
- Also used for diabetic neuropathy
- Schedule V
- A/E = Blurred vision, diplopia, nystagmus, Ataxia, Vertigo

Zonisamide (Zonegran) - 2nd Gen AED

- Voltage gated Na^+ channel blocker (also inhibits T-type Ca^{2+} currents)
- Mostly unmetabolized (some via CYP3A4 & UGT)
↳ little drug-drug interactions
- Also used in refractory migraine prophylaxis, Parkinson's, weight loss
- A/E = $\downarrow$ appetite

Brivaracetam (Briviact) - 3rd Gen AED

- binds synaptic vesicle protein (SV2) with higher affinity than Keppra (2nd Gen)
- metabolized via hydrolysis mainly (some CYP2C19)
- Adjunct therapy only (new onset focal seizures)
- Schedule V
- A/E = suicidal ideations, Psychiatric, bronchospasms & angioedema