

**Student Version -
ANTICONVULSANTS
AKA
Anti-seizure Medications**

DEH 2300
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Valencia Community College
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SEIZURES

- Differentiation of Types
 - Absence
 - Previously known as “petit mal”
 - Tonic-Clonic
 - Previously known as “grand mal”
 - AKA “generalized seizures”
 - What does the term “epilepsy” mean?

A recurrent paroxysmal disorder of brain function characterized by sudden attacks of altered consciousness, motor activity and/or sensory impairment.

TREATMENT for SEIZURES

- Based upon:
 - Type
 - Severity
 - Cause
- Most seizures are idiopathic
 - Other causes:
 - Cerebrovascular disease or CVA
 - Cerebral trauma and/or infection
 - Fever
 - Brain tumor
 - Intoxication
 - Chemical imbalances

TREATMENT for SEIZURES

- Some seizures are secondary and the underlying disorder/disease can be corrected.
 - Examples:
 - Fever
 - Hypoglycemia
 - Electrolyte imbalance

Meds for Absence Seizures

- Zaronin® (ethosuximide)
 - Frequently DOC
- Klonopin® (clonazepam)
- Depakene® (valproic acid)
- Neurontin® (gabapentin)

Meds for Absence Seizures (cont.)

- **SIDE EFFECTS**
 - Sedation
 - Dizziness
 - Irritability
 - Rash
 - Leukopenia
 - GI
 - Anorexia
 - N/V
 - Diarrhea

Meds for Absence Seizures (cont.)

- **CONTRAINDICATIONS** or GIVE WITH CAUTION
 - Hepatic disease
 - Renal disease
 - Pregnancy
 - Lactation
- **Do NOT stop drugs abruptly!**

Meds for Tonic-Clonic Seizures

- **Tegretol®** (carbamazepine)
 - DOC* (drug of choice) for partial, generalized and mixed seizures
- **Dilantin®** (phenytoin)
 - May combine with Depakene® (valproic acid) or phenobarbital

* Controversial – See references below.

<http://www.webmd.com/epilepsy/medications-treat-seizures>

<http://emedicine.medscape.com/article/1184608-treatment#aw2aab6b6b2>

Meds for Tonic-Clonic Seizures (cont.)

- **ADVERSE REACTIONS TO TEGRETOL®**
 - Ataxia
 - Drowsiness
 - Fatigue
 - Psychosis
 - Vertigo
 - Blurred vision
 - Corneal opacities
 - Cardiac, renal, liver & hematological complications
 - Photosensitivity
 - Rash / urticaria

Meds for Tonic-Clonic Seizures (cont.)

- **CONTRAINDICATIONS / PRECAUTIONS to TEGRETOL®**
 - Hypersensitivity
 - Bone marrow depression
 - Pregnancy
 - Lactation
 - Cardiac disease
 - Hepatic disease
 - Prostatic hypertrophy
 - Increased intra-ocular pressure

Meds for Tonic-Clonic Seizures (cont.)

- **INTERACTIONS WITH TEGRETOL®**
 - Grapefruit juice
 - May increase serum levels and the effect of the med
 - Numerous medications

Meds for Tonic-Clonic Seizures (cont.)

- **ADVERSE REACTIONS TO DILANTIN®**
 - Sedation
 - Ataxia
 - Dizziness
 - Headache
 - Blurred vision
 - Nystagmus
 - Diplopia
 - GI distress
 - Megaloblastic anemia
 - Rash and dermatitis
 - Osteomalacia
 - Hyperplasia

Meds for Tonic-Clonic Seizures (cont.)

- **CONTRAINDICATIONS / PRECAUTIONS to DILANTIN®**
 - Kidney disease
 - Liver disease
 - Hematological disease
 - CHF, bradycardia, heart block, hypotension
 - Pregnancy
 - Lactation

STATUS EPILEPTICUS

The benzodiazepines most commonly used to treat status epilepticus are:

- **Ativan®** (lorazepam) - DOC
- **Valium®** (diazepam)
- Versed® (midazolam)
- Klonopin® (clonazepam)

Dilantin® (phenytoin) may be used.
Phenobarb is also an option.