

ORAL/ENTERAL ANTIPILEPTIC MEDICATIONS (ADULTS)

	DOSE FREQUENCY	ENTERAL TUBE ADMINISTRATION	ENTERAL NUTRITION (EN) INTERACTIONS	ADVERSE EFFECTS/COMMENTS
LACOSAMIDE (VIMPAT®) – DOSE: 100-200mg q12h				
Tablets	q12h	Yes	No interaction	<ul style="list-style-type: none"> Dizziness; vertigo; ataxia; PR prolongation (consider baseline EKG) Removed by dialysis – supplement post-HD
Oral solution	q12h	Yes		
LEVETIRACETAM (KEPPRA®) – DOSE: 500-1500mg q12h				
Tablets	q12h	Yes	No interaction	<ul style="list-style-type: none"> Behavioral/psychiatric effects (agitation, aggression); fatigue Removed by dialysis – supplement post-HD
ER tablets	daily	NO – ER formulation		
Oral solution	q12h	Yes		
PHENOBARBITAL – DOSE: 1-3mg/kg/day				
Tablets	q12h – q8h	Yes	No interaction	<ul style="list-style-type: none"> CNS depression; rash (including Stevens-Johnson (SJS) & DRESS) Strong CYP inducer – many drug interactions
Oral elixir	q12h – q8h	Yes		
PHENYTOIN (DILANTIN®) – DOSE: 5-7mg/kg/day divided				
Oral solution	q12h – q8h	Yes	<ul style="list-style-type: none"> Recommended to hold EN for 1-2 hours before/after each dose Poor absorption in jejunum – do not give via J-tube 	<ul style="list-style-type: none"> Cognitive impairment; fever; rash (including Stevens-Johnson (SJS) & DRESS); osteopenia; hepatotoxicity; gingival hyperplasia Strong CYP inducer – many drug interactions
Capsules (IR)	q12h – q8h	Yes – capsules may be opened		
ER Capsules	daily – q12h	NO – ER formulation		
Chewable tablets	q12h – q8h	Yes – crushing OK		
TOPIRAMATE (TOPAMAX®) – DOSE: titrate slowly to 100-200mg q12h				
Tablets (IR)	q12h	Yes	No interaction	<ul style="list-style-type: none"> Metabolic acidosis (↓serum HCO₃); cognitive impairment; paresthesia; weight loss Removed by dialysis – supplement post-HD
XR tablets	daily	NO – ER formulation		
VALPROIC ACID (VPA) (DEPAKOTE®) – DOSE: 30-60mg/kg/day divided (see interval below)				
Oral solution	q12h – q6h	Yes – preferred formulation	No interaction	<ul style="list-style-type: none"> Hyperammonemia; thrombocytopenia; hepatotoxicity; pancreatitis Strong CYP inhibitor – many drug interactions
DR tablets (12-hr)	q12h – q8h	NO – ER formulation		
ER tablets (24-hr)	daily	NO – ER formulation		
DR sprinkle capsules	q12h – q8h	Yes – capsule may be opened, mixed w/ water (do not crush)		

IV ANTIEPILEPTICS – CONTINUOUS INFUSION (cIV)/ ANESTHETIC AGENTS (ADULTS)

	ADMINISTRATION RATE	IV ADVERSE EFFECTS	ADMINISTRATION COMMENTS	TIMING OF LEVELS
LORAZEPAM (ATIVAN®) IV – DOSE: 4 mg (0.1 mg/kg)				
	Max: 2 mg/min	Hypotension, respiratory depression	<ul style="list-style-type: none"> Dilute with equal volume of saline May give additional dose if continued convulsions after 5-10 min 	N/A
LACOSAMIDE (VIMPAT®) IV – DOSE (Load): 200-400 mg				
	Over 15-30 mins	PR prolongation		N/A
LEVETIRACETAM (KEPPRA®) IV – DOSE (Load): 1,000-3,000 mg				
	Over 5-15 mins	Somnolence, dizziness		N/A
PHENOBARBITAL IV – DOSE (Load): 20 mg/kg				
	Max: 50-100 mg/min	Hypotension, sedation, respiratory depression	<ul style="list-style-type: none"> Contains propylene glycol Slow IV rate if significant hypotension occurs 	<ul style="list-style-type: none"> Post-loading dose: 1-2 hours after Troughs: AM labs before next dose
PHENYTOIN IV – DOSE (Load): 20 mg/kg				
Phenytoin (Dilantin®)	Max*: 50 mg/min Use 0.22-0.5 micron in-line filter	<ul style="list-style-type: none"> * Reduce IV rate to 20 mg/min in elderly or co-morbid CV conditions Hypotension, arrhythmias, bradycardia (monitor w/ telemetry and frequent BP checks during loading dose infusion) Extravasation (purple glove syndrome) 	<ul style="list-style-type: none"> Contains propylene glycol Slow IV rate if hypotension/arrhythmias Ensure good IV access; stop infusion immediately if extravasation noted (severe pain, tissue swelling) 	<ul style="list-style-type: none"> Post-loading dose: 1-2 hours after Trough: AM labs before next dose
Fosphenytoin (Cerebyx®)	Max*: 150 mg PE/min	<ul style="list-style-type: none"> * Reduce IV rate to 25-50 mg PE/min in elderly or co-morbid CV conditions Paresthesia, hypotension 	Pro-drug of phenytoin; does not contain propylene glycol; less phlebitis than phenytoin	
VALPROIC ACID (VPA) (DEPAKENE®) IV – DOSE (Load): 20-40 mg/kg				
	Max: 6 mg/kg/min	Somnolence, dizziness		<ul style="list-style-type: none"> Post-loading dose: 1-2 hours after Trough: AM labs before next dose