## ORAL/ENTERAL ANTI-EPILEPTIC MEDICATIONS (ADULTS)

<table>
<thead>
<tr>
<th>Drug</th>
<th>Dose Frequency</th>
<th>EN Tube Administration</th>
<th>EN Nutrition (EN) Interactions</th>
<th>Adverse Effects/Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Lacosamide (VIMPAT®)</strong> – DOSE: 100-200mg q12h</td>
<td>Tablets q12h</td>
<td>Yes</td>
<td>No interaction</td>
<td>Dizziness; vertigo; ataxia; PR prolongation (consider baseline EKG)</td>
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<tr>
<td></td>
<td>Oral solution q12h</td>
<td>Yes</td>
<td></td>
<td>Removed by dialysis – supplement post-HD</td>
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<tr>
<td><strong>Levetiracetam (KEPPRA®)</strong> – DOSE: 500-1500mg q12h</td>
<td>Tablets q12h</td>
<td>Yes</td>
<td>No interaction</td>
<td>Behavioral/psychiatric effects (agitation, aggression); fatigue</td>
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<tr>
<td></td>
<td>ER tablets daily</td>
<td>NO – ER formulation</td>
<td></td>
<td>Removed by dialysis – supplement post-HD</td>
</tr>
<tr>
<td></td>
<td>Oral solution q12h</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Phenobarbital</strong> – DOSE: 1-3mg/kg/day</td>
<td>Tablets q12h – q8h</td>
<td>Yes</td>
<td>No interaction</td>
<td>CNS depression; rash (including Stevens-Johnson (SJS) &amp; DRESS)</td>
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<tr>
<td></td>
<td>Oral elixir q12h – q8h</td>
<td>Yes</td>
<td></td>
<td>Strong CYP inducer – many drug interactions</td>
</tr>
<tr>
<td><strong>Phenytoin (DILANTIN®)</strong> – DOSE: 5-7mg/kg/day divided</td>
<td>Oral solution q12h – q8h</td>
<td>Yes</td>
<td>Recommended to hold EN for 1-2 hours before/after each dose</td>
<td>Cognitive impairment; fever; rash (including Stevens-Johnson (SJS) &amp; DRESS); osteopenia; hepatotoxicity; gingival hyperplasia</td>
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<tr>
<td></td>
<td>Capsules (IR) q12h – q8h</td>
<td>Yes – capsules may be opened</td>
<td>Poor absorption in jejunum – do not give via J-tube</td>
<td>Strong CYP inducer – many drug interactions</td>
</tr>
<tr>
<td></td>
<td>ER Capsules daily – q12h</td>
<td>NO – ER formulation</td>
<td></td>
<td></td>
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<td></td>
<td>Chewable tablets q12h – q8h</td>
<td>Yes – crushing OK</td>
<td></td>
<td></td>
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<tr>
<td><strong>Topiramate (TOPAMAX®)</strong> – DOSE: titrate slowly to 100-200mg q12h</td>
<td>Tablets (IR) q12h</td>
<td>Yes</td>
<td>No interaction</td>
<td>Metabolic acidosis (↓ serum HCO3); cognitive impairment; paresthesia; weight loss</td>
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<tr>
<td></td>
<td>XR tablets daily</td>
<td>NO – ER formulation</td>
<td></td>
<td>Removed by dialysis – supplement post-HD</td>
</tr>
<tr>
<td><strong>Valproic Acid (VPA) (DEPAKOTE®)</strong> – DOSE: 30-60mg/kg/day divided (see interval below)</td>
<td>Oral solution q12h – q6h</td>
<td>Yes – preferred formulation</td>
<td>No interaction</td>
<td>Hyperammonemia; thrombocytopenia; hepatotoxicity; pancreatitis</td>
</tr>
<tr>
<td></td>
<td>DR tablets (12-hr) q12h – q8h</td>
<td>NO – ER formulation</td>
<td></td>
<td>Strong CYP inhibitor – many drug interactions</td>
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<tr>
<td></td>
<td>ER tablets (24-hr) daily</td>
<td>NO – ER formulation</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>DR sprinkle capsules q12h – q8h</td>
<td>Yes – capsule may be opened, mixed w/ water (do not crush)</td>
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<tr>
<td>Drug</td>
<td>IV Dose</td>
<td>Administration Rate</td>
<td>IV Adverse Effects</td>
<td>Administration Comments</td>
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<tr>
<td>Lorazepam (Ativan®) IV</td>
<td>4 mg</td>
<td>Max: 2 mg/min</td>
<td>Hypotension, respiratory depression</td>
<td>Dilute with equal volume of saline; May give additional dose if continued convulsions after 5-10 min</td>
</tr>
<tr>
<td>Lacosamide (VIMPAT®) IV</td>
<td>200-400 mg</td>
<td>Over 15-30 mins</td>
<td>PR prolongation</td>
<td>N/A</td>
</tr>
<tr>
<td>Levetiracetam (Keppra®) IV</td>
<td>1,000-3,000 mg</td>
<td>Over 5-15 mins</td>
<td>Somnolence, dizziness</td>
<td>N/A</td>
</tr>
<tr>
<td>Phenytoin (Dilantin®) IV</td>
<td>20 mg/kg</td>
<td>Max: 50-100 mg/min</td>
<td>Hypotension, sedation, respiratory depression</td>
<td>Contains propylene glycol; Slow IV rate if significant hypotension occurs</td>
</tr>
<tr>
<td>Fosphenytoin (Cerebyx®)</td>
<td></td>
<td>Max*: 50 mg/min</td>
<td>* Reduce IV rate to 20 mg/min in elderly or co-morbid CV conditions</td>
<td>Contains propylene glycol; Slow IV rate if hypotension/arrhythmias; Ensure good IV access; stop infusion immediately if extravasation noted (severe pain, tissue swelling)</td>
</tr>
<tr>
<td>Valproic Acid (VPA) (Depakene®) IV</td>
<td>20-40 mg/kg</td>
<td>Max: 6 mg/kg/min</td>
<td>Somnolence, dizziness</td>
<td>Pro-drug of phenytoin; does not contain propylene glycol; less phlebitis than phenytoin</td>
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</tbody>
</table>