| Drug                     | Cost/25#/<br>month**                                | Dosage Range  | Serum Level<br>Testing  | Special Considerations   | Side Effects   |
|--------------------------|---|---|---|--|--|
| Phenobarbital            | \$10-20   | Dogs: 2.5-5mg/kg<br>Cats: 2-4mg/kg, start at<br>2mg/kg  | Trough in 2 weeks (timing only matters in about 10% of patients)  | -Check CBC/chem. Every<br>6-12 months<br>-Check thyroid panel<br>before starting<br>-therapeutic range: 15-<br>45ug/ml (aim for 20-<br>35ug/ml)  | Common: PU/PD/PP/weight gain/sedation/ataxia (sedation is worse in brain tumor/stroke patients) Rare: Hepatic failure Very rare: bone marrow necrosis, superficial necrolytic dermatitis Cats also get: facial pruritis, distal limb edema       |
| Bromide                  | Variable by compound -ing pharmacy Usually low cost | Dogs: 30-40mg/kg/day as a single agent 20-30mg/kg/day when using phenobarbital -start with half dose if renal insufficiency Cats: DON'T USE | Maintenance dosing: 3 months  After loading: 1. One week 2. One month 3. Three months -Adjust dosage if 30d level is >/=10% lower | -add on or primary -must keep a consistent diet including snacks -liquid is easier for dosing adjustment -NaBr can be used in Addisonian patients -1-3mg/ml (0.8-2.4 if on PB) -don't load if renal disease is present | Common: PU/PD/PP/weight gain/sedation/ataxia/pelvic limb stiffness/vomiting and diarrhea Rare: hyperactivity, pruritis, pancreatitis, aggression Very rare: persistent bronchitis-type cough (idiopathic pneumonitis), axonopathy with LMN signs |
| Zonisamide/<br>Zonegran  | \$12-70   | Dogs: start with 5mg/kg<br>BID<br>-start with 10mg/kg BID<br>if on phenobarbital<br>Cats: 5-10mg/kg Q12-<br>24H                             | Trough levels in one week   | -little information for use in cats but anecdotal reports are promising *might be able to give once daily in cats -add on or primary   | Side effects are uncommon: transient sedation, ataxia, vomiting Rare to very rare: hepatic necrosis, renal tubular acidosis, autoimmune diseases   |
| Levetiracetam/<br>Keppra | \$10-250<br>ER:<br>\$75-90                          | Dogs: 20mg/kg TID -increase 20mg/kg until effective, expensive, side effects are seen Cats: 20mg/kg TID                                     | Consider monitoring to get baseline of effectiveness  5-40ug/ml target  | -add on or primary -may be neuroprotective -no hepatic metabolism -possible honeymoon effect -benign in cats   | Common: salivation, restlessness, vomiting, ataxia (over 400mg/kg/day) -resolves within 24 hours of discontinuation Rare to very rare: aggression or other behavioral change   |
| Topiramate/<br>Topamax   | \$10-140  | Dogs: 5-10mg/kg BID<br>Cats: 12.5-25mg total<br>Q8-12H  | Not usually monitored in humans  2-25ug/ml target?  | -may be a useful add-on<br>-some use as primary<br>-feline lab studies suggest<br>some safety, but wider<br>clinical safety unknown  | Side effects are uncommon: transient sedation, ataxia, nausea  Rare to very rare: urolithiasis, renal failure -most unusual side effects remain unknown due to infrequent use to date  |