

## Step 1: antiepileptic drug + benzodiazepine

**Phenytoin:** loading dose 15-20 mg/kg iv, maintenance doses 150 mg iv twice per day \*

### Plus one of the following benzodiazepines:

- I. Lorazepam: initial dose 4 mg iv, repeated doses up to a maximum of 12 mg iv per day
- II. Midazolam: initial dose 10 mg iv, repeated doses of 5 mg per 5 minutes or continuous administration up to a maximum of 60 mg iv per day

*\* Use serum levels for phenytoin dose adjustment. If phenytoin is contraindicated, use either valproic acid or levetiracetam as drug of first choice. The drug of second choice can then be applied in step 2. See step 2 for recommended doses.*



## Step 2: anesthetic agent + second antiepileptic drug

**Propofol:** maintenance dose maximum 8 mg/kg/hr iv \*\*

### Plus one of the following antiepileptic drugs:

- I. Levetiracetam: loading dose 1500 mg iv, maintenance dose 1000 mg iv twice per day
- II. Valproic acid: loading dose 10-20 mg/kg iv, maintenance dose 7.5 mg/kg iv twice per day \*\*\*

*\*\* This is a higher propofol dose than typically advised (i.e. 5 mg/kg/h), as the duration of treatment is limited. Serum creatine kinase levels and a developing metabolic acidosis should be monitored.*

*\*\*\* If a combination of phenytoin and valproic acid is used, serum levels have to be monitored, because both levels can decrease due to interaction effects.*



## Step 3: second anesthetic agent

**Thiopental:** first six hours 12.5 mg/kg/hr iv, next six hours 5 mg/kg/hr iv. Thereafter, administration rate should be guided by EEG pattern.