Emergency Seizure Management

At presentation:
Place an IV catheter
Check blood glucose
PCV/TS and Electrolytes (with iCa)
Creatinine, Venous blood
gas, & Ammonia if available

Midazolam (or diazepam)
Midazolam 0.5mg/kg IV or IM
(Diazepam 0.5mg/kg IV or 1mg/kg rectally)
Can be repeated 3 times. These have a short half life, so need long-acting anti-seizure drug
If no response, add Phenobarbital and/or Keppra

Monitoring:
1. Temp, heart rate
2. Respiratory rate/pattern
3. Mucus membranes & CRT
4. Blood pressure, +/- ECG
5. Pulse oximetry
6. Hydration
7. Rotate q4h
8. Express bladder/keep clean

Naive Patient

Phenobarbital

On Phenobarbital

Loading dose 16mg/kg over 24h
Usually 4mg/kg q6h x4 doses, but may go faster
Can take 20 minutes to take effect
Do not redose for 20 minutes
Give midazolam during this time if needed

Seizures Continue

Keppra

Loading: 20-60mg/kg IV over 15 minutes

Seizures Continue*

Midazolam CRI
- 0.5-2mg/kg/h
- Dilute in D5W or 0.9% saline

Propofol CRI
- 6mg/kg/h

Ketamine CRI
- 5mg/kg IV loading dose
- 3-6mg/kg/h

Phenobarbital CRI
- 2-4mg/kg/h

Isoflurane
- 1-2%
- Maintain light plane

Seizures Stop

Maintenance phenobarbital:
2mg/kg PO q12h
Check serum levels in 2-3 weeks

Maintenance Keppra:
Keppra 30mg/kg PO TID
Keppra XR 30mg/kg BID (dogs)
Keppra XR 500mg SID (cats)

*After phenobarbital and Keppra loading
*See monitoring above, may require intubation +/- ventilation

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