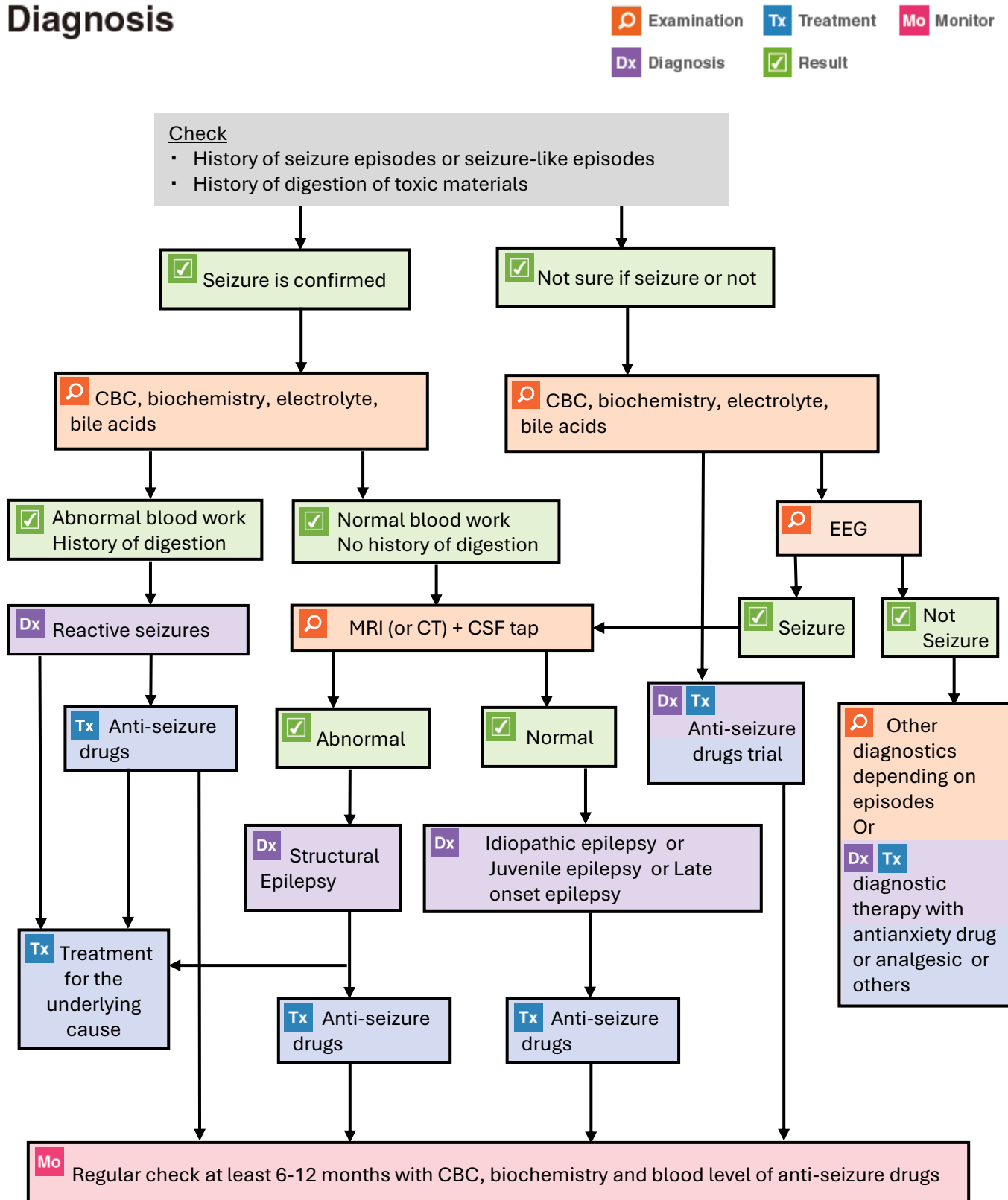


Seizures in dogs and cats

Diagnosis



History and clinical signs

Obtain a description of episodes from owners and evaluate a video if any to confirm questions below.

- Seizure type and pattern?
- Seizure frequency and duration?
- How many episodes has happened?
- When was the first seizures?
- What medication is used?

Testing

If seizure is not confirmed:

- Electroencephalography: EEG
 - Evaluate ictal or interictal paroxysmal discharges
 - If EEG not available, an anti-seizure drug trial can be performed (such as levetiracetam, phenobarbital)
 - MRI and CSF tap is still recommended specifically neurological exam is not normal

- CBC, biochemistry, electrolyte, bile acids:
 - Primarily check RBC, platelet, liver and renal panels, glucose, Na, Ca, ammonia
- MRI (or CT) + CSF tap
 - Evaluate a structural change of the brain
 - Evaluate total nucleated cell count (normal: <5 cells/uL) and protein level (normal: <25-30 mg/dL from cerebellomedullary cistern or <45mg/dL from lumbar cistern)

Dx Diagnosis

- Reactive seizures: toxicity, hyper/hypoglycemia, electrolyte derangement, renal/uremic encephalopathy, hepatic encephalopathy, hypothyroidism, hypoxia etc.
- Structural epilepsy: degenerative, anomalous, neoplastic, inflammatory, infectious, traumatic, vascular
- Idiopathic epilepsy:
 - Tier 1 confidence level (normal blood work and neurological exam between seizures, seizure onset: > 6 months old and < 6 years old)
 - Tier 2 confidence level (normal MRI and CSF tap on top of Tier 1)
 - Tier 3 confidence level (electroencephalography: EEG confirms episodes are seizures)
 - IF seizure onset is < 6 months old → Juvenile epilepsy
 - IF seizure onset is > 6 years old → Late onset epilepsy, or cryptogenic epilepsy

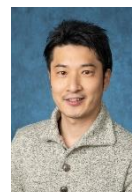
Tx Treatment

- Medications for rescue protocol can be used for patients that tend to have cluster seizures or status epilepticus
 - midazolam, diazepam, clorazepate, clonazepam, levetiracetam etc.
- Initiate an anti-seizure drug as a maintenance medication –
 - phenobarbital, bromide, levetiracetam, zonisamide, imepitoin etc.

Mo Monitor

- Regular check at least 6-12 months with CBC, biochemistry and blood level of antiseizure drugs

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