

*"Pearls"
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Veterinary Medicine*



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AT A GLANCE

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Cardiology

Feline Aortic Thromboembolism (FATE) Updates

Feline Aortic Thromboembolism (FATE), or "saddle thrombus," is the most common thromboembolic disorder in cats, typically arising from left atrial thrombi in cardiomyopathic patients (most often undiagnosed HCM) but may be due to emboli from neoplasia or other conditions. Both pelvic limbs are most commonly involved, but 10-15% have only one pelvic limb or one forelimb affected. Classic "5P" signs (pallor, poikilothermy, pulselessness, paralysis, pain) aid clinical diagnosis, supported by Infrared thermal imaging, Doppler US or POCUS and high lactate and low glucose levels in the affected limbs. A LA:Ao ratio >1.7 is considered diagnostic of cardiogenic FATE. The author describes his protocol for cardiac POCUS and a diagnostic algorithm in the paper.

While historically fatal (90% euthanasia), current care achieves 30-40% survival-to-discharge, with some cats surviving >1 year. Prognosis improves with preserved motor function, unilateral involvement, lower limb lactate levels, rectal temperatures above 96.2 or 98.9 (depending on the study) and prompt antithrombotic therapy (clopidogrel ± rivaroxaban). Although over half of the cats also have CHF, its presence does **not** worsen the prognosis.

Emergency care prioritizes pain control (opioids), cardiac stabilization, and nursing. Thrombolytics such as tissue

plasminogen activator (TPA) may benefit acute cases (<6hrs). Long-term dual antithrombotic therapy reduces recurrence (median survival ~500 days). Use clopidogrel for antiplatelet effects as aspirin is no longer advised. Rivaroxaban is preferred as an anticoagulant, although there are several options, including heparin. Though still grave, FATE is increasingly manageable with multidisciplinary care. Note that of the primary products listed in the paper, only Alteplase, clopidogrel and enoxaparin were available (at least through MWI).

[Lo, ST. et al. J Fel Med & Surg \(2022\): 24\(4\):277-283](#)
[Cap Rep \(2025\).43\(8\):1](#)

Critical Care - Neurology

Treatment of Status Epilepticus and Cluster Seizures

Status epilepticus (SE): A seizure lasting longer than 5 minutes, or two or more seizures without full recovery of consciousness between them. SE can be divided into four stages, each with different pathophysiology and drug responsiveness. Stage 1 is Impending, 5-10 minutes duration; Stage 2 is Established, 10-30 minutes; Stage 3 is Refractory, >30 minutes; Stage 4 is Superrefractory, >24 hours.

Cluster seizures (CS): More than two self-limiting seizures within a 24-hour period. CS can progress to SE and require prompt intervention.

Treatment of Status Epilepticus in Dogs & Cats (if advice differs from dogs)

First-Line Therapy for SE of 5-10 minutes: Midazolam intranasal (IN), IV or Diazepam IV; consider midazolam CRI, IV levetiracetam, and/or IV phenobarbital. Midazolam is considered more potent and safer than diazepam. Response usually occurs within 1 minute of administration of benzodiazepines (BZD). *For cats, IV BZD has the highest recommendation with midazolam preferred; diazepam boluses may be given but use midazolam for CRI.*

- **First BZD Bolus** → If seizures persist, wait ≥2 minutes.
- **Second BZD Bolus** → If seizures continue, wait ≥2