**Exotic Small Mammal Anesthesia**

**Part 2**

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Preparing for general anesthesia

* Importance of proper [physical examination](https://lafeber.com/vet/physical-examination-of-small-exotic-mammals/)
* Have supplies out within arms’ reach before starting
  + Emergency drugs
    - 2 doses per drug
    - Doxapram is not used for CPR anymore
      * Reduces cerebral blood flow
      * Increases cerebral oxygen demand
  + Pediatric or infant sized stethoscope
  + Oral speculum with light source
  + Gram scale
* Perform necessary diagnostics prior to anesthesia
  + [Venipuncture](https://lafeber.com/vet/venipuncture-in-small-mammals/)
    - What blood tests are needed?
    - Microtainer tubes
    - 1 to 3 cc syringe with 27 to 22-gauge needles
    - Important to be familiar with species you are working with and common venipuncture sites
    - Most exotic small mammals are small therefore you must think about blood volume when taking a sample.
  + Urinalysis
  + Radiographs
  + Ultrasound

Catheter placement

* Catheter supplies
  + 26 to 20-gauge [IV catheters](https://lafeber.com/vet/intravenous-catheter-placement-in-small-mammals/)
  + 25 to 20-gauge spinal needles for [IO catheter placement](https://lafeber.com/vet/how-to-guide-intraosseous-catheter-placement-in-small-mammals/)
  + Pre-cut small roll gauze and elastic wrap
  + Pediatric T-port
* Intravenous catheter techniques and sites
* Intraosseous catheter techniques and sites

Intubation techniques in ferrets, guinea pigs, and chinchillas

* [Endotracheal tubes](https://lafeber.com/vet/how-to-guide-endotracheal-intubation-in-the-rabbit/)
  + Cuffed and non-cuffed ETT 2.0mm to 5.0mm
  + Large bore IV catheters adapted for ETT
  + 2% lidocaine to reduce potential laryngospasm
    - Total 2 mg/kg
    - Don’t overdose your patient
  + Guinea pigs and chinchillas
    - Difficult to intubate
    - Palatal ostium
* V-gel supraglottic airway device use in rabbits
* Masks
  + Variety of traditional dog/cat masks
  + Specialty masks made from syringe cases

Pharmacology of common anesthetic drugs

* Common pre-medications
  + Anticholinergics
  + Opioids
  + Benzodiazepines
  + Alpha2-agonists
  + Alfaxalone
* Common induction agents
  + Injectable anesthetics
    - Propofol
    - Ketamine
    - Etomidate
    - Benzodiazepines
  + Say NO to mask/chamber induction whenever possible
    - Isoflurane
    - Sevoflurane
* Maintenance
  + Isoflurane or sevoflurane
  + Dose-dependent vasodilation

Monitoring equipment

* Blood pressure
  + [Doppler and sphygmomanometer vs. oscillometric](https://lafeber.com/vet/blood-pressure/)
  + Non-invasive versus invasive BP monitoring
* [Temperature](https://lafeber.com/vet/monitoring-vital-signs-in-exotic-animal-species/#Temperature)
* [Electrocardiography](https://lafeber.com/vet/electrocardiography/)
* [Pulse oximetry](https://lafeber.com/vet/pulse-oximetry/)
* [Capnography](https://lafeber.com/vet/capnometry/)
* [Heat support](https://lafeber.com/vet/exotic-icu-nursing-care-for-exotic-companion-mammals/#Monitoring_the_critical_small_mammal)

Fluid therapy

* Fluids are selected based on patient needs
* SC: 50-100 ml/kg/day
* IV: 2-10 ml/kg/hour
* IO: 2-5 ml/kg/hour

[Multimodal anesthetic techniques](https://lafeber.com/vet/sedation-and-pain-management-of-exotic-companion-mammals/)

* [Epidural anesthesia/analgesia](https://lafeber.com/vet/epidural-anesthesia-in-small-mammals/)
  + Opioids
  + Local anesthetics
* Constant rate infusions (CRIs)
  + Opioids
  + Ketamine
* [Local blocks](https://lafeber.com/vet/sedation-and-pain-management-of-exotic-companion-mammals/)
  + Line block
  + Testicular block
  + Ring block
  + Splash block

Post-operative analgesia

* Opioids
* Continue fentanyl and/or ketamine CRIs
* Non-steroidal anti-inflammatory drugs