

Exotic Small Mammal Anesthesia

Part 2

Jody Nugent-Deal, RVT, VTS (Anesthesia/Analgesia), VTS (CP-Exotics)

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Preparing for general anesthesia

- Importance of proper [physical examination](#)
- 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](#)
 - 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](#)
 - 25 to 20-gauge spinal needles for [IO catheter placement](#)
 - 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](#)
 - 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](#)
 - Non-invasive versus invasive BP monitoring
- [Temperature](#)
- [Electrocardiography](#)
- [Pulse oximetry](#)
- [Capnography](#)

- [Heat support](#)

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](#)

- [Epidural anesthesia/analgesia](#)
 - Opioids
 - Local anesthetics
- Constant rate infusions (CRIs)
 - Opioids
 - Ketamine
- [Local blocks](#)
 - Line block
 - Testicular block
 - Ring block
 - Splash block

Post-operative analgesia

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