

MANAGING RHINO EMERGENCIES

Veterinarians presented with a recumbent opioid immobilized rhino with traumatic horn removal: **process from initial evaluation, decision-making and treatment**

Step 1

Secure crime scene!

Poor prognosis if rhino has:

- Mandible fracture
- Long bone fracture
- Severe trauma to face, low cut
- Severed gastrocnemius tendon (bilateral)
- Prolonged recumbency > 2 hours after reversal
- Penetrating deep abdomen + thorax wounds

Euthanasia

Step 2

Rapid evaluation of the scene: degree of nasal trauma, depth of cut, blood loss, fractures, tendon severance, recumbent position, any evidence of bullet wounds, estimated duration of recumbency

Reduce stress: blindfold and use ear plugs

Clinical Exam: TPR, check heart and lungs, oxygenation, hydration status, blood loss, severity of wound(s), arrest any bleeding

Get the rhino owner/client to contact the relevant authorities while you are rushing to their property. If you are unsure of the legal procedures contact the local state prosecutor or Environmental Management Inspectors. See the list of contacts

Step 3

Primary goal is to stabilize rhino

Pulse oximetry not reliable, take arterial blood from median artery, inner ear and check **colour**

1. Butorphanol 15-30 mg IV
2. Oxygen insufflation
3. Establish IV line
4. Draw blood (see sampling sheet)
5. Start fluids
6. Vit E injection

O₂ cylinder

10-15 L min⁻¹

IV line

1. 14-16G catheters
2. Multiple lines
 - i. Auricular vein
 - ii. Medial saphenous
 - iii. Cephalic
3. Crystalloid (0.9% saline) at shock doses, if possible add Voluven[®] or Gelofusine[®] at 5-10ml/kg
4. 20-40 liters of fluid as quickly as possible
5. Monitoring must be ongoing!

Step 4

Secondary goal is to:

1. Reduce complications from prolonged recumbency, i.e. pressure or crush injuries
2. Treat hyperthermia
3. Reduce wound contamination
4. Help with initial healing
5. Prepare wound for future treatments

Copious amounts of water

Reposition rhino within 15 minutes once fluids started!

Crush injuries

1. If sternal move rhino 15-20° either side relieving pressure on legs,
2. Do NOT move rhino from one lateral position to the other,
3. If lateral then move on back, massage and move legs, end up sternal
4. Monitoring must be ongoing!

The facial wound

1. Nerve block: Lignocaine[®] (or Bupivaine[®]), 20ml around wound and infra-orbital block
2. Wound: treat dart wound with dry cow udder treatment. Systemic - Flunixin[®] 20mg/kg (Nulflor[®], 10ml max per site)
3. See detailed approach to facial wound(s)

Recovery: sternal, Naltrexone 100mg IV

Step 5

White rhino weight=1800-2000kg

Black rhino weight=800-1200kg