

# Emergency Treatment Protocol

CPR should take place at a designated CPR area equipped with an anesthetic machine and standard crash cart kit. **All staff at this position requires a rabies vaccination. This is a 4 person protocol:**

- Person 1: Recorder
- Person 2: Provides ventilation
- Person 3: Performs chest compressions
- Person 4 (CPR team leader): Administers medication

Ideally, the veterinary supervisor should be in charge of this station and serve as the CPR team leader. However, in the event that he or she is unavailable, any veterinarian available should step in and perform CPR. Persons 1-3 should be comprised of available veterinary assistants.

Apnea is a commonly observed event occurring immediately after TXK administration. It is typically very responsive to doxapram if administered promptly. Cats should be closely monitored after TXK administration. Respiratory arrest occurring later after induction or cardiac arrest is less likely to have a successful outcome.

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## Station Alert

- **In an emergency such as when a cat is not breathing, a loud and clear verbal, “Not breathing” should be called out to alert the clinic supervisor and veterinary assistant.** All four members of the CPR team should convene around at the CPR station.
- **When transporting, do not hold the cat from the scruff of its neck alone.** Always support its back and bottom, too. **Support** the cat’s head without flexing its neck, so that the airway remains straight and open.
- The cat and its medical record should be transported immediately to the designed CPR location at the first sign of breathing problems and time should not be spent assessing the cat in another area.
- The veterinary supervisor should always assure the crash cart is stocked and the anesthesia machine is functional at the CPR station before the start of a clinic.

## Emergency Treatment Instructions

1. **Loudly verbalize, “Not breathing!”** upon the first signs of apnea and rush cat to CPR station.
2. The veterinarian should immediately assess the cat, checking for breathing, mucous membrane color, and heartbeat. The veterinary assistant should begin filling out the CPR Emergency Treatment Record.
3. First, assess if the cat is breathing. Auscultate or palpate for a heartbeat. If a heartbeat is identified, check the mouth for any obstructions to the airway. **Clear mucous or vomitus.**
4. **Apnea**
  1. Once it has been determined that there is no movement of the chest wall but a heartbeat is present, **administer the respiratory stimulant doxapram IV** according to the dosing chart. Doxapram is contraindicated when cardiac arrest is present.
  2. Supplemental oxygen should be administered via mask and bagged once every 6 seconds. Assure positive pressure ventilation is occurring with a tight mask and that the chest wall is moving during ventilation.
  3. Cats do not usually need to be intubated or have their anesthetic reversed with yohimbine for simple apnea, because they usually respond promptly to doxapram.
  4. Once the cat begins breathing on its own and is deemed stable by the veterinarian, it should return to the station from which it originated prior to the arrest. The Emergency Treatment Record should also travel with the cat.
  5. If the cat does not respond to doxapram within 2 minutes or is cyanotic, intubation should be performed.
5. **Cardiac arrest**
  1. If there is **no heartbeat**, the veterinary supervisor should initiate CPR.
  2. Begin **Basic Life Support** according to the Emergency Treatment Record
    1. **Circulation:** Apply external cardiac compressions twice every second (120/minute)

2. **Airway:** Quickly check the airway for foreign materials or obstruction. It should be cleared of mucous or vomitus if necessary. Position the cat in ventral recumbency and intubate. Administer 0.2 cc topical 2% lidocaine on the larynx if needed to stop laryngospasm. If intubation is delayed, supplemental oxygen should be delivered via a mask.
3. **Breathe:** Ventilate the cat every 6 seconds with oxygen (10/minute)
4. **Administer yohimbine** slowly IV to reverse part of the anesthesia (xylazine) using the same volume as the TKX.
5. Perform 2 minutes of uninterrupted compressions/ventilations, then reassess for heartbeat
3. **Begin Advanced Life Support** according to the Emergency Treatment Record if there is no heartbeat after 2 cycles (4 minutes) of Basic Life Support.
  1. Administer epinephrine intravenously or intratracheally
  2. Establish intravenous access
  3. Reassess for heartbeat and effective ventilation after every 2 minutes of uninterrupted compressions and ventilations
  4. Administer epinephrine every 4 minutes
  5. Once a heartbeat is reestablished, the veterinary supervisor will assess the cat and determine the next steps in its care.
  6. The Emergency Treatment Record should be completed and travel with the cat. These cats should not receive additional yohimbine post-operatively.
4. **Compare the Paw Tag and the Medical Record to be sure the ID# matches.**

## Station Closing and Cleanup

When the clinic is concluded, inventory the remaining supplies and repack the crash cart. Return the crash cart station instructions and any remaining items to storage. Clean the area and dispose of all trash.

## Crash Cart Supply List

Medications	Equipment	Supplies	Clerical
Atropine	Laryngoscope	Butterfly catheters	Pens
Yohimbine	Penlight	1 and 3cc syringes	Clipboard
Lidocaine	Headlamp	Insulin syringes	Emergency drug dosing chart
Doxapram	Stethoscope	20g, 22g, 25g needles	Emergency treatment sheets
Mannitol	Ambu bag	20g and 22g catheters	
Furosemide	Endotracheal tubes (sizes 3.0-5.0mm) & guide wire	Catheter adaptors	
Valium	Pulse oximeter	Vet wrap	
Dextrose 50%	Thermometer	1 inch tape	
Depomedrol	Tourniquet	Cotton-tipped applicators	
Dexamethasone	Calculator		
Terbutaline		Gauze squares	
Acepromazine		Tie gauze	
Baytril		Fluids (LRS or Norm-R)	
Antibiotic cream			
Meloxicam			
Euthanasia solution			