

FLSC Standard Operating Procedure Using Euthanex Euthanasia Cage Lids for CO2 Euthanasia with Cardiac Exsanguination

Purpose

The Euthanex lid is a specially designed cage top that is used for the euthanasia of animals that require cardiac exsanguination as specified in the approved research protocol. This lid is used in conjunction with a flow meter to provide for the metered introduction of CO₂ into the cage within the parameters specified in the AVMA Guidelines for Euthanasia: 2013 Edition. **DO NOT** use lids on rodent cages for standard euthanasia. **The use of the lids is ONLY for exsanguination procedures.**

Procedure - Mice

For use with standard mouse VR or Shoebox cages

1. There are 2 flow meters in procedure rooms – one for the portable chamber that has graduations to 25 L and one for use with the lid that has graduations to 12 L. Attach the hose from the 12 L flow meter to the center port on the small Euthanex lid.
2. Remove the bonnet and wire bar lid from the cage if singly housed. In the case of multiple animals housed together, transfer the animals to a clean cage and leave the animal to be exsanguinated in the home cage to reduce anxiety.
3. Place the Euthanex lid over the cage.
4. Have all equipment for the exsanguination prepared and ready for use.
5. Turn the CO₂ on at the wall or at the tank.
6. Turn the flow meter to 2.5 L/min. The animals will become unconscious and have respiratory arrest at 1.5 to 2 minutes.
7. Turn the CO₂ off and remove the mouse and begin the exsanguination immediately.
8. You must perform cervical dislocation or bilateral pneumothorax at the end of the procedure.

Procedure - Rats

For use with standard rat VR or AWR cages

1. There are 2 flow meters in procedure rooms – one for the portable chamber that has graduations to 25 L and one for use with the lid that has graduations to 12 L. Attach the hose from the 12 L flow meter to the center port on the small Euthanex lid.
2. Remove the wire bar lid and feeder from the cage if singly housed. In the case of multiple animals housed together, transfer the animals to a clean cage and leave the animal to be exsanguinated in the home cage to reduce anxiety.
3. Place the Euthanex lid over the cage and insert the stopper into the water grommet.
4. Have all equipment for the exsanguination prepared and ready for use.
5. Turn the CO₂ on at the wall or at the tank.
6. Turn the flow meter to 6.5 L/min. The animals will become unconscious and have respiratory arrest at 4.0 to 4.5 minutes.
7. Turn the CO₂ off and remove the rat and begin the exsanguination immediately.
8. You must perform bilateral pneumothorax at the end of the procedure.

The Euthanex lid tops are wiped with disinfectant and dried after use. The lids are available in all procedure rooms.