New guidelines for CPR in dogs, cats

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Less than 6 percent of dogs and cats that experience cardiopulmonary arrest in the hospital survive to discharge, while the survival rate is about 20 percent for humans that experience in-hospital cardiac arrest.

To improve outcomes in dogs and cats, the American College of Veterinary Emergency and Critical Care and the Veterinary Emergency and Critical Care Society established the Reassessment Campaign on Veterinary Resuscitation initiative. In June, the RECOVER initiative released evidence-based guidelines for cardiopulmonary resuscitation in dogs and cats.
The initiative included a survey of more than 600 practitioners asking how they treated dogs and cats in cardiac arrest.

“What we found was that there was really no consensus on how to do that best,” said initiative co-chair Dr. Manuel Boller of the University of Pennsylvania. “There may have been a cohort, for example, that recommended 60 to 80 compressions per minute and another that thought 120 to 150 compressions per minute was the right thing.”

The new CPR guidelines for dogs and cats are available by visiting www.veccs.org and clicking on “Recover CPR Initiative” to access the free special issue of the Journal of Veterinary Emergency and Critical Care.

Initiative co-chair Dr. Daniel J. Fletcher of Cornell University said, “We identified two overarching goals for our research: first, to devise clinical guidelines establishing how to best treat cardiopulmonary arrest in dogs and cats, and second, to identify important knowledge gaps in veterinary CPR that need to be filled in order to improve the quality of recommendations, and thus, the quality of patient care in the future.”

Drs. Boller and Fletcher recruited more than 100 veterinary specialists from around the world to review more than 1,000 scientific papers related to CPR. The specialists analyzed the papers for rigor and for relevance to dogs and cats, arriving at 101 guidelines for CPR in dogs and cats.

A free special issue of the Journal of Veterinary Emergency and Critical Care online provides an overview of the development of the guidelines, a summary of the scientific papers, and details of the guidelines with algorithms and drug dosage charts.

The recommendations for CPR in dogs and cats include the following:

- Perform 100 to 120 chest compressions per minute of one-third to one-half of the chest width, with the animal lying on its side.
- Ventilate intubated dogs and cats at a rate of 10 breaths per minute. For mouth-to-snout ventilation, maintain a compression-to-ventilation ratio of 30-2.
- Perform CPR in 2-minute cycles, switching the person performing the compressions with each cycle. Administer vasopressors every 3 to 5 minutes during CPR.