



COLEGIUL MEDICILOR VETERINARI

BIROUL EXECUTIV

Splaiul Independentei 105, Sector 5, Cod 050097, BUCURESTI

Telefon/Fax 319.45.04; 319.45.05 www.cmvro.ro

E-mail: office@cmvro.ro

Under

- Law no. 160 of 30 July 1998 on the organization and practice of veterinary profession, republished, with the subsequent amendments and completions,
- Rules of Organization and Functioning of the College of Romanian Veterinarians, article 17(q)

**The National Council of the College of Romanian Veterinarians has
adopted this**

DECISION No. 45 of 26 October 2013

Article 1. Annex 1, and Annex 4 provided by the ANNEX to Decision no.19 of 1 July 2011 endorsing the "Guidelines for animal euthanasia", are replaced by Annex 1/A, and Annex 4/A.

Article 2. The provisions of Annex 1/A, and 4/A, part of the ANNEX to Decision no. 19 of 1 July 2011, enter into force on 1 November 2013.

Article 3. The other provisions of Decision no. 19 of 1 July 2011 remain unchanged.

Article 4. The National Council of the College of Romanian Veterinarians adopted unanimously this resolution, today 26 October 2013.

President

of the College of Romanian Veterinarians

Assoc. Prof. Viorel ANDRONIE, PhD., DVM

Annex 1/A-Agents and methods of euthanasia by species

Agents and methods of euthanasia by species (refer to Annex 4 for unacceptable-banned agents and methods)

Species	Acceptable* (refer to Annex 2 and text for details)	Conditionally acceptable [†] (refer to Annex 3 and text for details)
Amphibians	Barbiturates, inhalant anesthetics (in appropriate species), CO ₂ , CO, tricaine methane sulfonate (TMS, MS 222), benzocaine hydrochloride, double pithing	Penetrating captive bolt, gunshot, stunning and decapitation, decapitation and pithing
Birds	Barbiturates, inhalant anesthetics, CO ₂ , CO, gunshot (free-ranging animals only)	N ₂ , Ar, cervical dislocation, decapitation, thoracic compression (small, free-ranging animals only), maceration (poults, and pipped eggs only)
Cats	Barbiturates, anesthetic overdose, potassium chloride in conjunction with general anesthesia, embutramide+mebenzonium+tetracaine (T61) in conjunction with anesthesia. All administered intravenously.	Inert gases (nitrogen - N ₂ , argon - Ar), carbon dioxide CO ₂ , carbon monoxide CO, inhalant anesthetics overdose
Dogs	Barbiturates, anesthetic overdose, potassium chloride in conjunction with general anesthesia, embutramide+mebenzonium+tetracaine (T61) in conjunction with anesthesia. All administered intravenously.	Inert gases (nitrogen - N ₂ , argon - Ar), carbon dioxide CO ₂ , carbon monoxide CO, inhalant anesthetics overdose
Fish	Barbiturates, inhalant anesthetics, CO ₂ , tricaine methane sulfonate (TMS, MS 222), benzocaine hydrochloride, 2-phenoxyethanol	Stunning and decapitation/pithing
Horses	Barbiturates, potassium chloride in conjunction with general anesthesia, penetrating captive bolt	Chloral hydrate (IV, after sedation), gunshot, electrocution
Marine mammals	Barbiturates, etorphine hydrochloride	Gunshot (cetaceans < 4 meters long)
Mink, fox, and other fur mammals	Barbiturates, inhalant anesthetics, CO ₂ (mink require high concentrations for euthanasia without additional agents), CO, potassium chloride in conjunction with general anesthesia	N ₂ , Ar, electrocution followed by cervical dislocation
Nonhuman primates	Barbiturates	Inhalant anesthetics, CO ₂ , CO, N ₂ , Ar
Rabbits	Barbiturates, inhalant anesthetics, CO ₂ , CO, potassium chloride in conjunction with general anesthesia	N ₂ , Ar, cervical dislocation (< 1 kg), decapitation, penetrating captive bolt
Reptiles	Barbiturates, inhalant anesthetics (in appropriate species), CO ₂ (in appropriate species)	Penetrating captive bolt, gunshot, decapitation and pithing, stunning and decapitation

Species	Acceptable* (refer to Annex 2 and text for details)	Conditionally acceptable† (refer to Annex 3 and text for details)
Rodents and other small mammals	Barbiturates, inhalant anesthetics, CO ₂ , CO, potassium chloride in conjunction with general anesthesia, microwave irradiation	Methoxyflurane, ether, N ₂ , Ar, cervical dislocation (rats < 200 g), decapitation
Ruminants	Barbiturates, potassium chloride in conjunction with general anesthesia, penetrating captive bolt	Chloral hydrate (IV, after sedation), gunshot, electrocution
Swine	Barbiturates, CO ₂ , potassium chloride in conjunction with general anesthesia, penetrating captive bolt	Inhalant anesthetics, CO, chloral hydrate (IV, after sedation), gunshot, electrocution, blow to the head (< 3 weeks of age)
Zoo animals	Barbiturates, inhalant anesthetics, CO ₂ , CO, potassium chloride in conjunction with general anesthesia	N ₂ , Ar, penetrating captive bolt, gunshot
Free-ranging wildlife	Barbiturates IV or IP, inhalant anesthetics, potassium chloride in conjunction with general anesthesia	CO ₂ , CO, N ₂ , Ar, penetrating captive bolt, gunshot, kill traps (scientifically tested)

* Acceptable methods are those that consistently produce a humane death when used as the sole means of euthanasia.

† Conditionally acceptable methods are those that by the nature of the technique or because of greater potential for operator error or safety hazards might not consistently produce humane death or are methods not well documented in the scientific literature.

Annex 4/A-Unacceptable-banned agents and methods of euthanasia

Some unacceptable-banned agents and methods of euthanasia (refer to text for details)

Agent or method	Comments
Air embolism	Air embolism may be accompanied by convulsions, opisthotonos, vocalization; if used, it should be done only in anesthetized animals.
Blow to the head	Unacceptable for most species.
Burning	Chemical or thermal burning of an animal is not an acceptable method of euthanasia.
Chloral hydrate	Unacceptable in dogs, cats, and small mammals
Chloroform, ether	Chloroform is a known hepatotoxin and suspected carcinogen and, therefore it is extremely hazardous to personnel.
Cyanide	Cyanide poses an extreme danger to personnel and the manner of death is aesthetically objectionable.
Decompression	Decompression is unacceptable for euthanasia because of numerous disadvantages. (1) Many chambers are designed to produce decompression at a rate 15–60 times as fast as the recommended optimum for animals, resulting in pain and distress attributable to expanding gases trapped in body cavities. (2) Immature animals are tolerant of hypoxia, and longer periods of decompression are required before respiration ceases. (3) Accidental recompression, with recovery of injured animals, can occur. (4) Bleeding, vomiting, convulsions, urination, and defecation, which are aesthetically unpleasant, may develop in unconscious animals.
Drowning	Drowning is not a means of euthanasia and it is inhumane.
Exsanguination	Because of the anxiety associated with extreme hypovolemia, exsanguination should be done only in sedated, stunned, or anesthetized animals
Formaldehyde, formalin	Direct immersion of an animal into formalin, as a means of euthanasia, is inhumane.
Household products and solvents	Acetone, quaternary compounds (including CCl ₄), laxatives, clove oil, dimethylketone, quaternary ammonium products, antacids, and other commercial and household products or solvents are not acceptable agents for euthanasia.

Agent or method	Comments
Hypothermia	Hypothermia is not an appropriate method of euthanasia.
Neuromuscular blocking agents (nicotine, magnesium sulfate, potassium chloride, and all curariform agents)	When used alone, these drugs all cause respiratory arrest before loss of consciousness, so the animal may perceive pain and distress after it is immobilized.
Rapid freezing	Rapid freezing as a sole means of euthanasia is not considered to be humane. If used, animals should be anesthetized prior to freezing
Smothering	Smothering of poults in bags or containers is not acceptable
Strychnine	Strychnine causes violent convulsions and painful muscle contractions
Stunning	Stunning may render an animal unconscious, but it is not a method of euthanasia (except for neonatal animals with thin craniums). If used, it must be immediately followed by a method that ensures death.
Tricaine methane sulfonate (TMS, MS 222)	Should not be used for euthanasia of animals intended as food.
Electrocution	
Kill Traps	