

ESSENTIAL Veterinary use of ketamine.

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Ketamine is one of the most widely used anaesthetic medicines in veterinary practice world wide, and is also used for the provision of analgesia in certain circumstances. Limitation to its availability would be a major loss to animal welfare.

Advantages of ketamine in veterinary anaesthesia are that it is an excellent analgesic, and that respiration and the cardiovascular system are not depressed until doses that are much higher than those of that needed for anaesthesia, making it very safe in use even by relatively inexperienced personnel. However, the property of ketamine that is most important (and is rare in the field of anaesthesia) is that it is safe and effective when given by the intramuscular (IM) route- intravenous injection can be used but is not necessary.

Ketamine, alone, or more usually together with a reversible sedative, given by the IM route, is the main form of anaesthesia used for domestic cats world wide, and in many countries it is also used in this way in dogs. Where there are programmes to control the population of feral cats and dogs, the work often is performed by people with limited training- and ketamine's safety profile for anaesthesia makes this possible. Most importantly, in countries where rabies is endemic, the ability to administer ketamine by IM injection (including remotely by dart gun if necessary) is a major consideration - a necessity for IV injection puts the veterinarian at high risk.

Ketamine/sedative combinations administered by dart gun are the basis of much wild-life anaesthesia, both in the captive (zoo) situation and for animal management in the wild. It is the drug of choice for members of the cat family (lions, tigers etc), and is useful in many other species (eg wild ruminants). Another major veterinary use of IM ketamine is for anaesthesia of laboratory animals to enable research procedures to be carried out- once again the fact that it does not need intravenous access is an important point. .

For large domestic animals, in developed and developing countries ketamine by the intravenous route is the drug of choice for induction (and sometimes maintenance) of anaesthesia; it is used widely in horses, cattle and other large animals (eg camels). Also it is given by epidural injection for analgesia in suitable cases (large and small animals) - eg following spinal surgery.

To reduce the current level of availability of ketamine would cause major problems of animal welfare- it would reduce the practicality of domestic animal anaesthesia and surgery in developing countries; increase the anaesthetic risk (in particular to horses) to domestic animals in developed countries, make management of wildlife more difficult, and remove the most commonly used anaesthetic combinations used in laboratory animals. Finally its loss would increase the risk to veterinary surgeons of contracting rabies when working in areas where this fatal disease is endemic.

