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.