**Ketamine**

Ketamine has long been known to provide excellent somatic analgesia but rather poor visceral analgesia. Interest in ketamine has increased because of its role in preventing sensitization of central nociceptive pathways. Ketamine is an antagonist at the NMDA receptors in the spinal cord and brain. Inhibition of the NMDA receptors prevents or decreases central sensitization (wind-up) in laboratory animals and people. Ketamine may be incorporated into the anesthetic protocol either as a bolus or a constant-rate infusion to prevent development of exaggerated or chronic pain states.

http://www.merckmanuals.com/vet/management\_and\_nutrition/pain\_assessment\_and\_management/analgesic\_pharmacology.html?qt=ketamine&alt=sh

**KETAMINE**

**UK**

**Ketamine** may be used as a sole anaesthetic in cats and primates. In cats, the eyes remain open during ketamine anaesthesia and a bland eye ointment may be used to protect the cornea. Ketamine may be given intramuscularly or intravenously, although intramuscular injection is painful. Ketamine should be given to horses and donkeys only after deep sedative premedication with xylazine, romifidine, or detomidine. Induction of anaesthesia in horses with ketamine is generally calm, but quiet surroundings and handling are important. There are a few reports of failure of ketamine to induce anaesthesia in horses and this potential problem should be remembered. Ketamine may produce convulsions in dogs when used as the sole anaesthetic. Ketamine has been used to provide intra-operative and post-operative analgesia at low constant rate infusions in dogs. The doses used are subanaesthetic and appear to augment analgesia and comfort in the post-anaesthetic period. Ketamine may be the subject of misuse, and the RCVS advises that the drug is stored in the controlled drugs cabinet

and its use recorded in an informal register. *Guide to Professional Conduct.* London: RCVS, 2004.

**Indications**. General anaesthesia, in combination with Butorphanol, Detomidine, Medetomidine, Romifidine, or Xylazine; analgesia

**Contra-indications**. Sole anaesthetic in horses, donkeys, or dogs; hepatic or renal impairment; latter stages of pregnancy in animals

**Side-effects**. Excessive salivation, muscle twitching and mild tonic convulsions in cats; hypotension; increased cardiac output; high doses may produce dysphagia and/or convulsions

**Warnings**. A small proportion of animals are reported to be unresponsive to ketamine at normal doses; recommendations on storage and record-keeping should be applied, see notes above

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