



Explanatory notes -Unlicensed drugs used in the medical management of CM-Pain and SM-S

Drug	Dose
Analgesics	
NSAIDS	As per data sheet
Paracetamol (Acetaminophen)	10mg/kg PRN up to TID (NOT CATS)
Adjuvant analgesics	
Gabapentin	10-20mg/kg BID / TID
Pregabalin	5-10mg/kg BID / TID.
Topiramate	10mg/kg TID (DOG) 2.5-10mg/kg BID (CAT)
Amantadine	3-5mg/kg PO SID
Memantine	0.3 – 1 mg/kg BID
Amitriptyline	0.25 – 2 mg/kg PO SID / BID
NK-1R antagonists (phantom scratching -unlicensed)	
Maropitant	2mg/kg PO SID – long term use not studied. Currently advised for “bad scratching days” up to 14 days in duration
(Possible) CSF reducing drugs	
Omeprazole	0.5-1.5mg/kg PO SID / BID
Cimetidine	5-7mg/kg PO TID
Acetazolamide	4-8 mg/kg SID
Corticosteroids	
Prednisone / Prednisolone / methylprednisolone	0.5mg/kg PO SID then decrease to lowest possible ideally alternate day dose that controls signs
Cannabinoids	
Cannabidiol (CBD oil / hemp extract)	2mg/kg BID

PRN - pro re nata (as needed), PO – per os (by mouth); SID – once daily, BID – twice daily, TID- three times daily.

CM-Pain - vocalization, head scratching/rubbing, reduced activity, reduced stairs / jumping ability, spinal pain, altered emotional state (behavioural change to more timid, anxious or aggressive), sleep disturbance and touch aversion

SM-S - phantom scratching; gait abnormalities (weakness and postural deficits or reduced ability to know where limb is in space) and scoliosis

Important points

- None of drugs listed above are licensed for veterinary medicine (with exception of NSAIDs and cimetidine).
- Doses are that used by author. Unless otherwise indicated start at the low end of the dose range and make increases based on effect and absence of adverse effects.
- All drugs should be prescribed by a veterinary surgeon who should refer to a formulary for drug adverse effects / drug interactions / titration and tapering details.
- Effect assessed over a 2 to 4-week period except amantadine, memantine and amitriptyline which require at least 4 weeks to assess effectiveness.
- Assess haematology and biochemistry before starting drugs and reassess at a minimum annually for animal receiving long term medication.
- Gabapentin and pregabalin are Schedule 3 controlled drugs under the Misuse of Drugs Regulations 2001, and Class C of the Misuse of Drugs Act 1971.
- The effect of omeprazole and cimetidine on CSF production is unproven, the benefit anecdotal and recently disputed by recent studies (Girod and others 2016).
- Dose of CBD oil is based on the only published canine study (Gamble, Boesch et al. 2018) that assessed CBD oil for pain associated with osteoarthritis. Most commercial preparations do not contain enough compound to be able to achieve this dose easily. The UK Veterinary Medicine Directorate considers that veterinary products containing cannabidiol are veterinary medicines and therefore can only be administered with a veterinary prescription.