

CATS



SURGICAL PROCEDURE	PREOPERATIVE MANAGEMENT	INTRAOPERATIVE MANAGEMENT	POSTOPERATIVE MANAGEMENT*	COMMENTS
CASTRATION (Example 1)	<ul style="list-style-type: none"> • Acepromazine: 0.1-0.2 mg/kg, IM • Butorphanol: 0.2-0.4 mg/kg, IM 	Induction and Maintenance <ul style="list-style-type: none"> • Ketamine: 10-15 mg/kg, IM 	<ul style="list-style-type: none"> • Ketoprofen: 2.0 mg/kg, SC immediately after recovery from anaesthesia 	Mild pain
CASTRATION (Example 2)	<ul style="list-style-type: none"> • Medetomidine: 0.01-0.02 mg/kg, IM • Butorphanol: 0.2-0.4 mg/kg, IM 	Induction and Maintenance <ul style="list-style-type: none"> • Ketamine: 5-10 mg/kg, IM 	<ul style="list-style-type: none"> • Ketoprofen: 2.0 mg/kg, SC immediately after recovery from anaesthesia 	Mild pain
OVARIO-HYSTERECTOMY (Example 1)	<ul style="list-style-type: none"> • Acepromazine: 0.1-0.2 mg/kg, IM • Hydromorphone: 0.05-0.1 mg/kg, IM 	Induction <ul style="list-style-type: none"> • Thiopental: 8-12 mg/kg, IV to effect • Isoflurane: 3% Maintenance <ul style="list-style-type: none"> • Isoflurane: 1.5-2.5% 	<ul style="list-style-type: none"> • Ketoprofen: 2.0 mg/kg, SC immediately after recovery from anaesthesia • Ketoprofen: 1.0 mg/kg, PO once daily for 2-3 days 	Moderate pain Some patients may require additional hydromorphone postoperatively
OVARIO-HYSTERECTOMY (Example 2)	<ul style="list-style-type: none"> • Atropine: 0.05 mg/kg, IM • Medetomidine: 0.01-0.02 mg/kg, IM • Hydromorphone: 0.05-0.1 mg/kg, IM 	Induction <ul style="list-style-type: none"> • Thiopental: 4-6 mg/kg, IV to effect • Isoflurane: 3% Maintenance <ul style="list-style-type: none"> • Isoflurane: 1.0-2.0% 	<ul style="list-style-type: none"> • Ketoprofen: 2.0 mg/kg, SC immediately after recovery from anaesthesia • Ketoprofen: 1.0 mg/kg, PO once daily for 2-3 days 	Moderate pain Some patients may require additional hydromorphone postoperatively
ONYCHECTOMY (Example 1) Consider surgery only if other approaches fail to prevent cat from using claws destructively, or when zoonotic risk exists <i>Onychectomy (Declawing) of the Domestic Feline.</i> www.canadianveterinarians.net	<ul style="list-style-type: none"> • Acepromazine: 0.1-0.2 mg/kg, IM • Hydromorphone: 0.05-0.1 mg/kg, IM 	Induction <ul style="list-style-type: none"> • Propofol: 4-6 mg/kg, IV to effect • Isoflurane: 3% Maintenance <ul style="list-style-type: none"> • Isoflurane: 1.5-2.5% • Digital nerve block 0.5% Bupivacaine: 0.5-1.0 ml (Do not exceed a total dose of 2mg/kg) 	<ul style="list-style-type: none"> • Ketoprofen: 2.0 mg/kg, SC immediately after recovery from anaesthesia • Ketoprofen: 1.0 mg/kg, PO once daily for 2-3 days 	Moderate pain Digital nerve block reduces anaesthetic requirements and improves analgesia postoperatively
ONYCHECTOMY (Example 2) Consider surgery only if other approaches fail to prevent cat from using claws destructively, or when zoonotic risk exists <i>Onychectomy (Declawing) of the Domestic Feline.</i> www.canadianveterinarians.net	<ul style="list-style-type: none"> • Atropine: 0.05 mg/kg, IM • Medetomidine: 0.01-0.02 mg/kg, IM • Hydromorphone: 0.05-0.1 mg/kg, IM 	Induction <ul style="list-style-type: none"> • Propofol: 2-3 mg/kg, IV to effect • Isoflurane: 3% Maintenance <ul style="list-style-type: none"> • Isoflurane: 1.0-2.0% • Digital nerve block 0.5% Bupivacaine: 0.5-1.0 ml (Do not exceed a total dose of 2 mg/kg) 	<ul style="list-style-type: none"> • Ketoprofen: 2.0 mg/kg, SC immediately after recovery from anaesthesia • Ketoprofen: 1.0 mg/kg, PO once daily for 2-3 days 	Moderate pain Digital nerve block reduces anaesthetic requirements and improves analgesia postoperatively.

SOME OF THESE DRUGS ARE NOT APPROVED FOR USE IN CATS IN CANADA

***Another approved NSAID could be substituted for ketoprofen**

Examples of Anaesthetic and Pain Management Protocols for Healthy Cats and Dogs*



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Sites of Action of Anaesthetic and Analgesic Drugs

PERCEPTION

To alter perception:

- Anaesthetics
- Opioids
- α -2 agonists
- Benzodiazepines
- Phenothiazines

TRANSMISSION and MODULATION

To inhibit central sensitization:

- Opioids
- α -2 agonists
- NSAIDs
- NMDA antagonists (ketamine)
- Anticonvulsants

IMPULSE CONDUCTION

To inhibit impulse conduction directly and central sensitization indirectly:

- Local anaesthetics

SIGNAL TRANSDUCTION

To inhibit peripheral sensitization:

- NSAIDs
- Corticosteroids

Diagram based on
*Pain Management for the
Small Animal Practitioner.*
Used with kind permission
of Teton NewMedia™

*The CVMA recognizes that there are acceptable alternative protocols

DOGS



SURGICAL PROCEDURE	PREOPERATIVE MANAGEMENT	INTRAOPERATIVE MANAGEMENT	POSTOPERATIVE MANAGEMENT*	COMMENTS
CASTRATION (Example 1)	<ul style="list-style-type: none"> • Acepromazine: 0.05-0.1 mg/kg, IM • Butorphanol: 0.2-0.4 mg/kg, IM 	<p>Induction</p> <ul style="list-style-type: none"> • Propofol: 4-6 mg/kg, IV to effect • Isoflurane: 3% <p>Maintenance</p> <ul style="list-style-type: none"> • Isoflurane: 1.5-2.5% 	<ul style="list-style-type: none"> • Ketoprofen: 2.0 mg/kg, SC immediately after recovery from anaesthesia 	Mild pain
CASTRATION (Example 2)	<ul style="list-style-type: none"> • Atropine: 0.03-0.05 mg/kg, IM • Medetomidine: 0.005-0.01 mg/kg, IM • Butorphanol: 0.2-0.4 mg/kg, IM 	<p>Induction</p> <ul style="list-style-type: none"> • Propofol: 2-3 mg/kg, IV to effect • Isoflurane: 3% <p>Maintenance:</p> <ul style="list-style-type: none"> • Isoflurane: 1.0-2.0% 	<ul style="list-style-type: none"> • Ketoprofen: 2.0 mg/kg, SC immediately after recovery from anaesthesia 	Mild pain
OVARIO-HYSTERECTOMY (Example 1)	<ul style="list-style-type: none"> • Acepromazine: 0.05-0.1 mg/kg, IM • Hydromorphone: 0.05-0.1 mg/kg, IM 	<p>Induction</p> <ul style="list-style-type: none"> • Thiopental: 8-12 mg/kg, IV to effect • Isoflurane: 3% <p>Maintenance</p> <ul style="list-style-type: none"> • Isoflurane: 1.5-2.5% 	<ul style="list-style-type: none"> • Meloxicam: 0.2 mg/kg, SC immediately after recovery from anaesthesia • Meloxicam: 0.1 mg/kg, PO once daily for 2-3 days 	Moderate pain Some patients may require additional hydromorphone postoperatively
OVARIO-HYSTERECTOMY (Example 2)	<ul style="list-style-type: none"> • Atropine: 0.03-0.05 mg/kg, IM • Medetomidine: 0.005-0.01 mg/kg, IM • Hydromorphone: 0.05-0.1 mg/kg, IM 	<p>Induction</p> <ul style="list-style-type: none"> • Thiopental: 4-6 mg/kg, IV to effect • Isoflurane: 3% <p>Maintenance</p> <ul style="list-style-type: none"> • Isoflurane: 1.0-2.0% 	<ul style="list-style-type: none"> • Meloxicam: 0.2 mg/kg, SC immediately after recovery from anaesthesia • Meloxicam: 0.1 mg/kg, PO once daily for 2-3 days 	Moderate pain Some patients may require additional hydromorphone postoperatively
DENTISTRY WITH AN UPPER CANINE EXTRACTION	<ul style="list-style-type: none"> • Midazolam: 0.1-0.2 mg/kg, IM • Hydromorphone: 0.05-0.1 mg/kg, IM 	<p>Induction</p> <ul style="list-style-type: none"> • Propofol: 4-6 mg/kg, IV to effect • Isoflurane: 3% <p>Maintenance</p> <ul style="list-style-type: none"> • Isoflurane: 1.0-2.0% • Infraorbital nerve block 0.5% Bupivacaine: 0.5-1.0 ml 	<ul style="list-style-type: none"> • Ketoprofen: 2.0 mg/kg, SC immediately after recovery from anaesthesia • Ketoprofen: 1.0 mg/kg, PO once daily for 2-3 days 	Moderate pain Infraorbital nerve block reduces anaesthetic requirements and improves analgesia postoperatively
CRUCIATE REPAIR	<ul style="list-style-type: none"> • Midazolam: 0.1-0.2 mg/kg, IM • Hydromorphone: 0.05-0.1 mg/kg, IM 	<p>Induction</p> <ul style="list-style-type: none"> • Thiopental: 8-12 mg/kg, IV to effect • Isoflurane: 3% <p>Maintenance</p> <ul style="list-style-type: none"> • Isoflurane: 1.0-2.0% • Epidural anaesthesia (lumbosacral) 0.5% Bupivacaine: 1.0 ml/5 kg 2.5% Morphine: 0.2 mg/kg 	<ul style="list-style-type: none"> • Meloxicam: 0.2 mg/kg, SC immediately after recovery from anaesthesia • Meloxicam: 0.1 mg/kg, PO once daily for 4-6 days 	Moderate pain Epidural anaesthesia reduces anaesthetic requirements and improves analgesia postoperatively.

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***Another approved NSAID could be substituted for ketoprofen or meloxicam**