Building optimal analgesic protocols with the 2022 ISFM acute pain management guidelines

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Disclosure

Consultancy services
Boehringer Ingelheim, Dechra, Elanco and Zoetis

Key-opinion leader
Boehringer Ingelheim, Dechra, Elanco, Vetoquinol and Zoetis

Speaker honoraria
Boehringer Ingelheim, Dechra, Elanco and Zoetis
Pain management is not only about giving an analgesic drug: the emotional needs of the cat must be considered, and the patient should always be treated with respect and empathy.

Steagall et al. 2022 - ISFM guidelines
Feline drug metabolism and excretion

• Possible impact on analgesia and drug choice

• Drugs via metabolic conjugation, oxidation or unchanged

Feline comorbidities and analgesia

• Chronic kidney disease
  • Ketamine
  • NSAIDs
  • Gabapentin
Serum concentrations of gabapentin in cats with chronic kidney disease

Principles of acute pain management

- Preventive analgesia
- Multimodal analgesia
- Combination of pharma and non-pharma therapies

Preventive analgesia

- Preventive analgesia refers to all types of perioperative techniques and efforts to decrease postoperative pain.

- Analgesic treatment is administered at any time and for any duration needed for pain relief in the perioperative period.
Multimodal analgesia: pharmacological options

**The four questions in acute pain**

1. Is there a local anesthetic block that I can use?

2. What is the opioid of preference?
   - Need, doses and routes of administration

3. Are there contra-indications for NSAID administration?

4. Is there a need for adjuvant analgesics?
   - Tramadol, gabapentin, ketamine CRI, etc.
Local anaesthetic blocks

- Intraperitoneal
- Incisional
- Intratesticular

CAPSULE REVIEW

Intraperitoneal and incisional analgesia in small animals: simple, cost-effective techniques


DOI: 10.1111/jsap.13084
Opioid analgesics

- Which one? When? What route?
  - Methadone
  - Buprenorphine
  - Butorphanol

- Opioid shortage or unavailability

- The concept of opioid-free and opioid-sparing

NSAIDs

- Inflammation and acute pain

- Contraindications

- Fear of NSAID-induced adverse effects

- Which one?
Adjuvant analgesics

- Dexmedetomidine (premedication)
- Ketamine infusion
- Tramadol (PO or IM/IV)
- Gabapentin (PO)

Choosing the analgesic protocol

<table>
<thead>
<tr>
<th>Table 5</th>
<th>Key concepts (TELLS) used for pain management,* with specific examples</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Type of noxious stimuli</strong></td>
<td>Visceral, neuropathic, somatic, orofacial, oncologic</td>
</tr>
<tr>
<td><strong>Examples</strong></td>
<td>Certain analgesic drugs may be more effective for certain types of pain. For example, analgesic drugs that help treat peripheral or central sensitisation (eg, ketamine or methadone) may be an appropriate choice in cases of neuropathic injury</td>
</tr>
<tr>
<td><strong>Comments</strong></td>
<td>This should affect frequency and need for pain assessment. Analgesic drug may be determined based on duration of action. Hospitalisation and analgesic infusions may be required</td>
</tr>
<tr>
<td><strong>Expected duration of noxious stimuli</strong></td>
<td>Transient stimuli of &lt;2 h (placement of a urinary catheter or endoscopy) vs prolonged and sustained (24–72 h) stimuli, following surgery</td>
</tr>
<tr>
<td><strong>Location of noxious stimuli</strong></td>
<td>Thoracic limb, pelvic limb, orofacial, abdominal, intrathoracic</td>
</tr>
<tr>
<td><strong>Location of patient during treatment</strong></td>
<td>Outpatient or inpatient</td>
</tr>
<tr>
<td><strong>Severity of noxious stimuli</strong></td>
<td>Mild, moderate or severe</td>
</tr>
</tbody>
</table>

*These concepts help determine the dose, frequency, type and route of analgesic drug(s) to be provided

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More than analgesic drugs...

Anxiety and stress during transportation: gabapentin

- Premedication starts at home
- 100 mg/cat PO; 90 minutes before the veterinary visit
Gabapentin – Perioperative use

Antiemetics: maropitant

- NK-1 receptor antagonist blocking substance P
- Patient Comfort
  - Reduced vomiting and discomfort after opioids
  - CKD
- Clinical use
  - Reduced vomiting, improved recovery and appetite
  - 1 mg/kg SC, 1h before opioid administration
  - 8 mg/cat PO, 2.5h or 20h before premedication
Nursing care

- Patient positioning
- Nutrition
- Fluid therapy
- Bladder care
- Management of constipation

Non-pharmacological therapy

- Wound care
- Comfortable bandaging
- Cold therapy
Environment (clinic)

- Cat Friendly Clinic
- ISFM Cat Friendly Clinic accreditation
- AAFP Cat Friendly Practice Program
- Away from dogs
- Comfortable bed
- Somewhere to hide
- Gentle handling and stress reduction

Environment and home meds

- Comfortable and quiet
- Sleeping/resting area
- A place to hide
- Easy access to resources (food, water, litter box)
A BRIGHT FUTURE FOR FELINE PAIN MANAGEMENT

• Feline Health in first place
• Avoiding fear, stress and anxiety
• Feline friendly handling techniques
• Understanding of feline behaviors
• Automation of feline pain assessment
• Novel drugs for feline pain management

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FDA-APPROVED TRANSDERMAL BUPRENORPHINE

FDA Approves First Transdermal Buprenorphine for the Control of Post-Surgical Pain in Cats

Today the U.S. Food and Drug Administration approved Zoetis (buprenorphine transdermal solution), the first transdermal buprenorphine animal drug intended to control pain in cats after surgery.

Buprenorphine is an opioid pain medication that works by acting on pain receptors in the central nervous system. Zoetis is a solution that is applied to the skin at the base of the neck of the cat and is rapidly absorbed into the layers of the skin. It provides pain relief within 1 to 2 hours following administration and continually releases buprenorphine into the body over a period of days. A single application provides pain relief to the cat for four days. Because Zoetis is a long-acting transdermal solution applied in the veterinary hospital, it may eliminate or reduce the need for cat owners to administer additional pain medications.

This approval gives veterinarians an additional option for controlling postoperative pain in cats. The FDA previously approved fentanyl, an injectable buprenorphine, for use in cats. The FDA has also previously approved a nonsteroidal anti-inflammatory drug, Vicopain, as a tablet and injection for use in cats for postoperative pain. Zoetis is the first buprenorphine product the FDA has approved that is applied to the cat topically.
PAIN ASSESSMENT

FINAL REMARKS

- Basics
- Simple and practical
- TLC
Thank you