

Assessment of acute pain in cats using scoring systems

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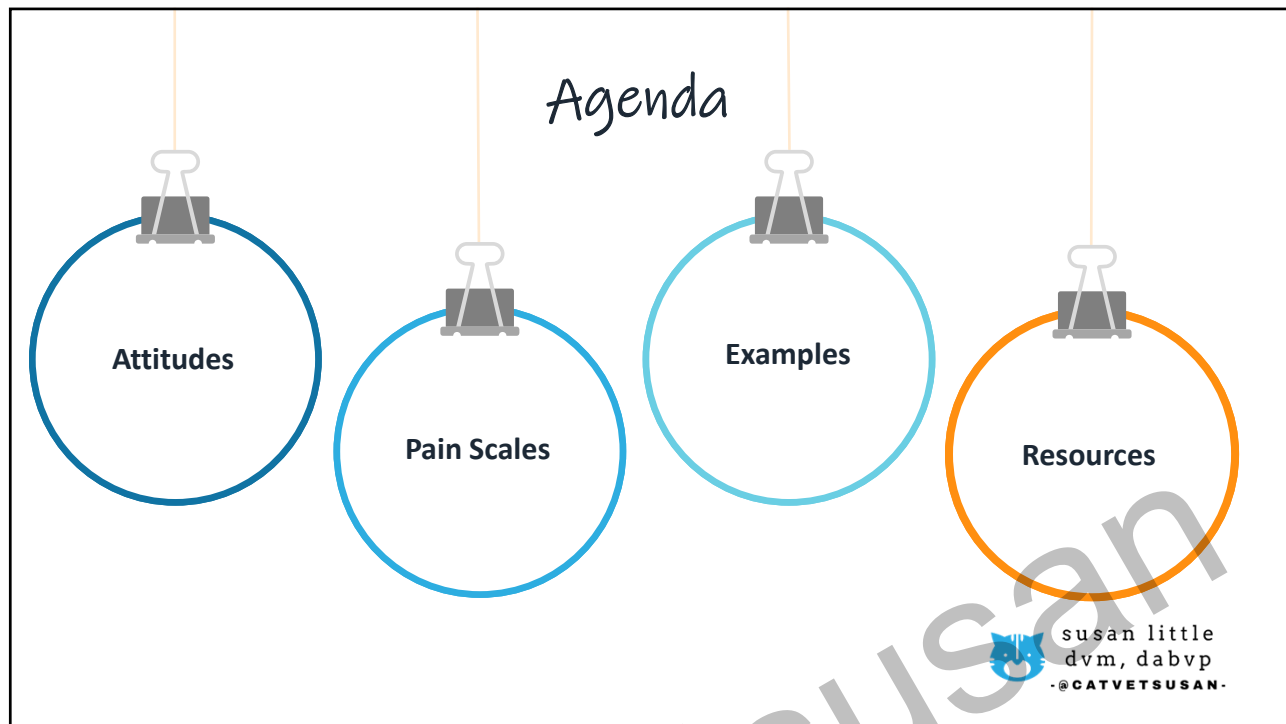
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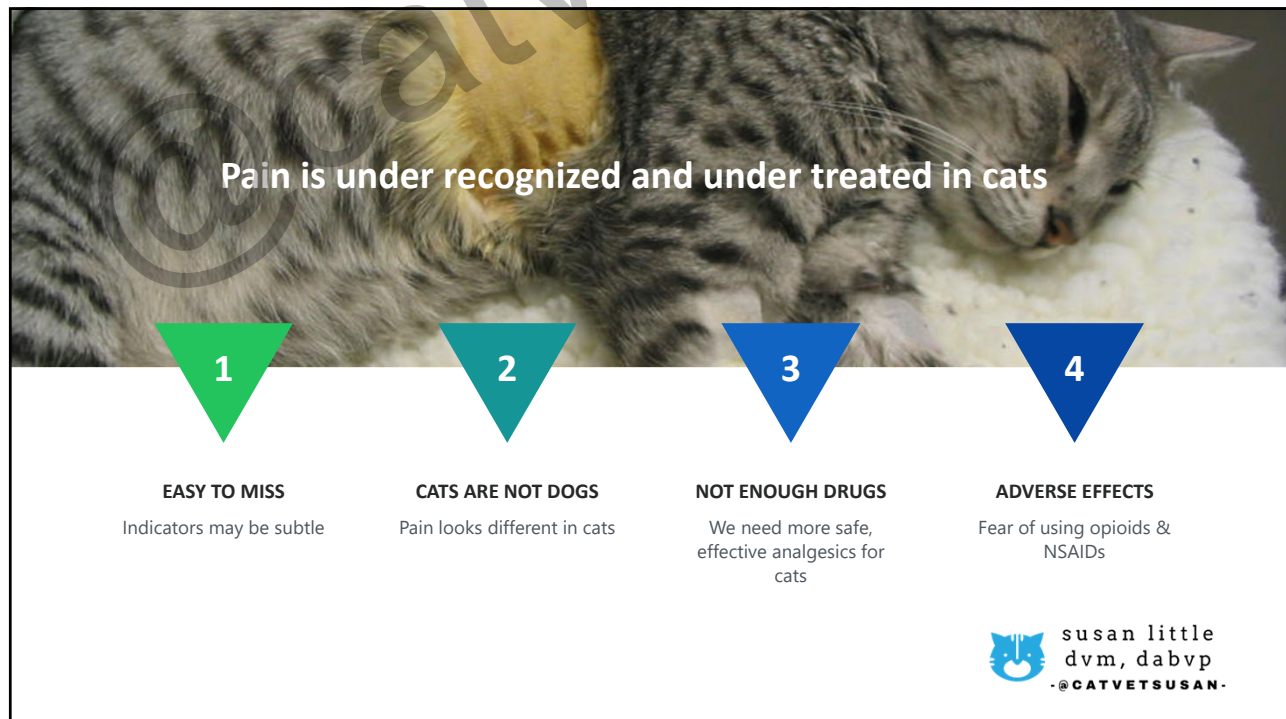
Tim
May 1998 – November 2012

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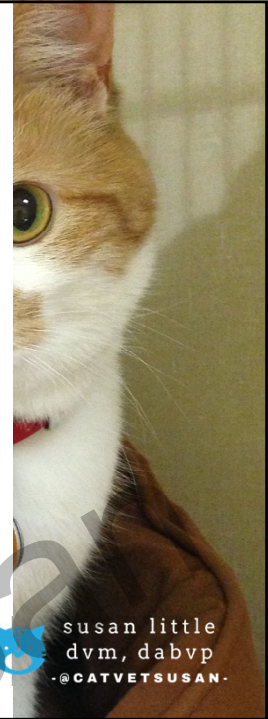


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Attitudes about pain in cats



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Surveys of veterinarians

1

BRAZIL

- Cats are less painful than dogs after common surgeries.

2

NEW ZEALAND

- Analgesics often used while the animal is in the hospital, but not after discharge.

3

UK

- Spay & castration are more painful for dogs than cats.
- Lower rates of analgesics prescribed for cats.
- Some pain helps reduce activity after surgery.

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FRANCE

- Don't involve vet technicians in assessment of pain.
- Misconceptions about analgesics, especially opioids.

Lorena S et al, Vet Anaesth Analg, 2014
Hunt JR et al, Vet Rec, 2013
Coleman DL et al, Vet Rec, 2007
Farmworth et al, N Z Vet, 2014
Hugonnard M et al, Vet Anaesth Analg, 2004



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What do owners think?

- Pain affects quality of life
- Analgesia is important
- All necessary analgesic drugs/techniques should be used
- Cat owners believe analgesics are necessary more often than dog-only owners

Simon BT, et al. Vet Surg. 2018;47(2):277-284.
Steagall PV, et al. J Small Anim Pract. 2017;58(7):380-388.



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Pain assessment is the 4th vital sign

Observational

Posture, attitude, body position, facial expression



Courtesy Dr. Sheilah Robertson

Interactive

Reaction to touch/palpation of wound or painful area



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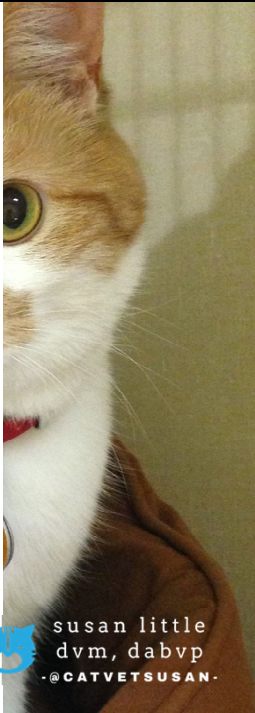


“Before we can treat something, we first must recognize it.

Dr. Sheilah Robertson

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Pain scoring tools

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Pain scales for verbal patients

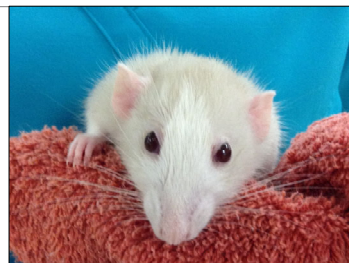
- Numeric
 - Rate pain from 1 to 10
- Visual analog
 - Rate pain from none to the worst you've ever felt

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Pain scales for nonverbal patients

- Orbital tightening
- Nose bulge
- Cheek bulge
- Ear & whisker position



- Crying, irritability, behaviour
 - Facial expression
 - Extremities tone
 - Vital signs

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Acute pain scoring tools with NO validity testing in cats

01

University of Melbourne Pain Scale

02

Colorado Feline Pain Scale

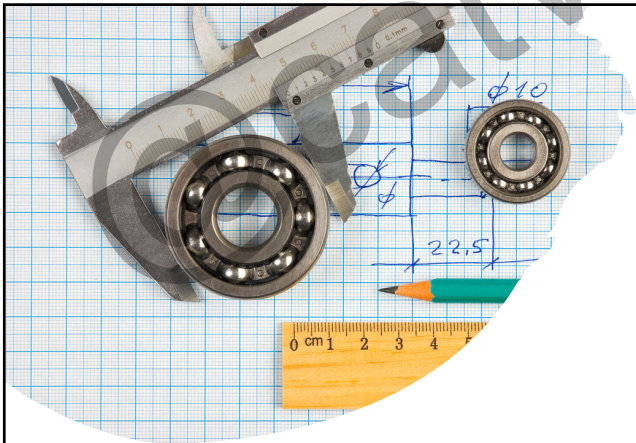
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Visual analog and numerical rating scales



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What is validation? Why does it matter?

- Does it measure what it claims? Or is it measuring something else?
- Are results consistent with different people? Or the same person at different times?
- Does the result help me with my patients?

Review > Am J Med. 2006 Feb;119(2):166.e7-16. doi: 10.1016/j.amjmed.2005.10.036.

Current concepts in validity and reliability for psychometric instruments: theory and application

David A Cook ¹, Thomas J Beckman



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Acute pain scoring tools WITH validity testing in cats

01

Glasgow Composite Measure Pain Scale: Feline

02

UNESP-Botucatu multidimensional composite pain scale

03

Feline Grimace Scale



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Glasgow Feline Composite Measure Pain Scale: CMPS - Feline

Choose the most appropriate expression from each section and total the scores to calculate the pain score for the cat. If more than one expression applies choose the higher score

LOOK AT THE CAT IN ITS CAGE:

Is it?

Question 1

Silent / purring / meowing
Crying/growling / growling

0
1

Question 2

Relaxed
Licking lips
Restless/cowering at back of cage
Tense/crouched
Rigid/hunched

0
1
2
3
4

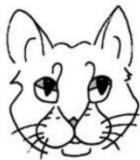
Question 3

Ignoring any wound or painful area
Attention to wound

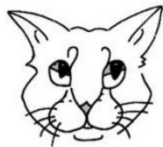
0
1

Question 4

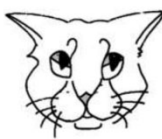
a) Look at the following caricatures. Circle the drawing which best depicts the cat's ear position?



0



1



2

b) Look at the shape of the muzzle in the following caricatures. Circle the drawing which appears most like that of the cat?

Glasgow Composite Measure Pain Scale - Feline

- Behavioural assessment, 7 questions
- Intervene at $\geq 5/20$



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UNESP-Botucatu Multidimensional Composite Pain Scale for assessing postoperative pain in cats

Subscale 1: PAIN EXPRESSION (0 – 12)		
Miscellaneous behaviors	Observe and mark the presence of the behaviors listed below	
	A - The cat is laying down and quiet, but moving its tail	A
	B - The cat contracts and extends its pelvic limbs and/or contracts its abdominal muscles (flank)	B
	C - The cats eyes are partially closed (eyes half closed)	C
	D - The cat licks and/or bites the surgical wound	D
on to palpation of surgical wound	<ul style="list-style-type: none"> All above behaviors are absent Presence of one of the above behaviors Presence of two of the above behaviors Presence of three or all of the above behaviors 	0 1 2 3
	• The cat does not react when the surgical wound is touched or pressed; or no change from pre-surgical response (if basal evaluation was made)	0
	• The cat does not react when the surgical wound is touched, but does react when it is pressed. It may vocalize and/or try to bite	1
	• The cat reacts when the surgical wound is touched and when pressed. It may vocalize and/or try to bite	2

- Reaction to wound palpation
- Behaviour assessments
- Appetite
- Blood pressure

Intervene at $\geq 7/30$

or

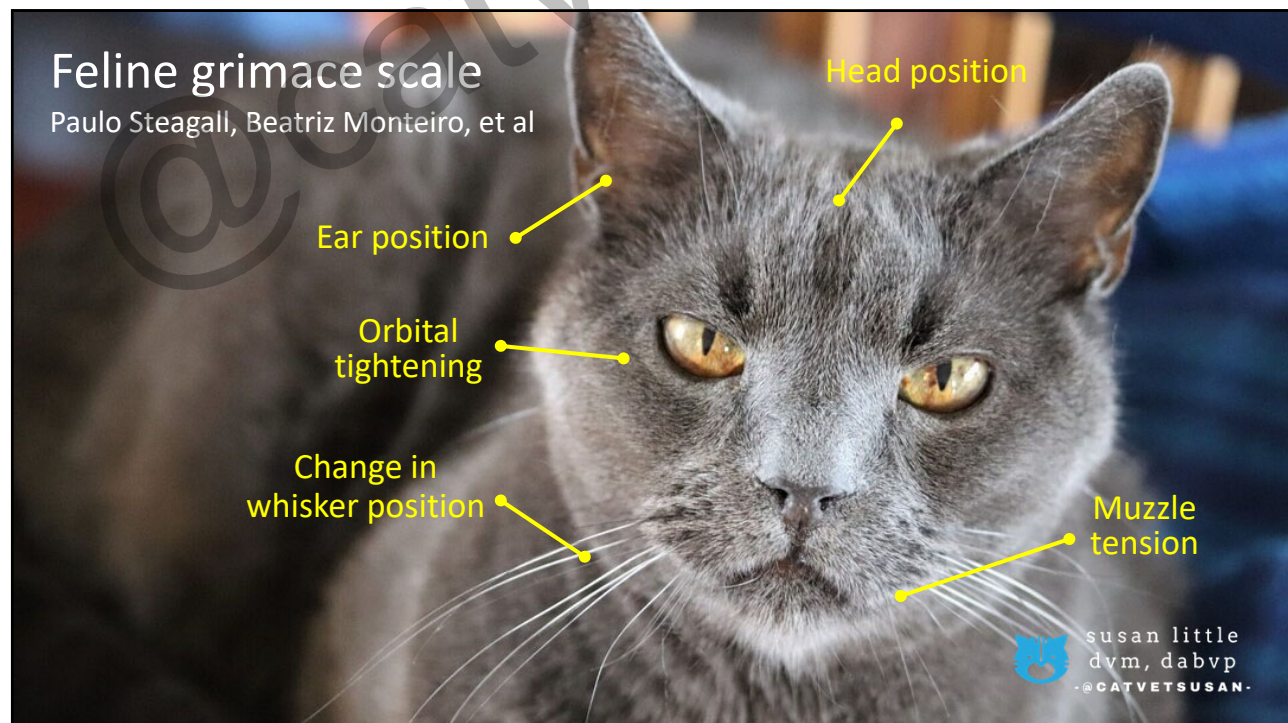
$\geq 6/27$ if blood pressure is not assessed

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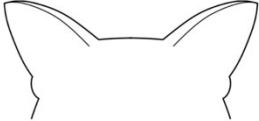

Feline grimace scale

Paulo Steagall, Beatriz Monteiro, et al




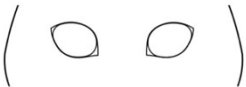




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Ear position		
		
0 = absent	1 = moderately present	2 = markedly present
		
Ears facing forward	Ears slightly pulled apart	Ears rotated outwards

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Orbital tightening		
		
0 = absent	1 = moderately present	2 = markedly present
		
Eyes opened	Partially closed eyes	Squinted eyes

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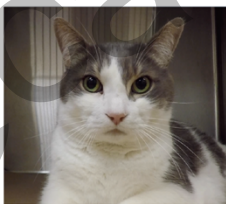
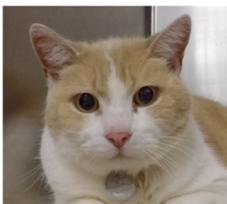

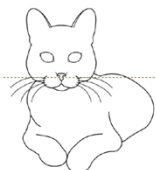
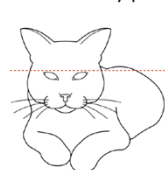
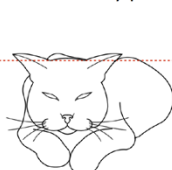
Muzzle tension

		
0 = absent	1 = moderately present	2 = markedly present
		
Relaxed (round shape)	Mild tension	Tense (elliptical shape)

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Head position

		
0 = absent	1 = moderately present	2 = markedly present
		

[Microsoft To Do]

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Whiskers change

		
0 = absent	1 = moderately present	2 = markedly present
		
Loose (relaxed) and curved	Slightly curved or straight (closer together)	Straight and moving forward (rostrally, away from the face)

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Feline grimace scale scoring

Total $\geq 4/10$:

- Probably needs analgesia.
- Consider the patient's physical status & drugs already given.
- If you're uncertain, score again in 15 minutes.


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	0-2
Ear position	2
Orbital tightening	1
Whisker position	2
Head position	1
Muzzle tension	2

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	0-2
Ear position	0
Orbital tightening	1
Whisker position	1
Head position	1
Muzzle tension	1

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Comparison of pain scoring tools

Glasgow

- Validated for any type of acute pain
- Easy to use
- Observation of behaviour
- Response to palpation
- Facial expression
- 7 questions

UNESP-Botucatu

- Validated for spay surgery
- Time-consuming, need training
- Observation of behaviour
- Response to palpation
- Appetite, blood pressure
- 10 questions

Feline Grimace Scale

- Validated for any type of acute pain
- Easy to use
- Facial expression
- 5 questions

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Score &
re-evaluate



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There may be confounding factors...

- Individual cat personality
- Nausea?
- Fear & stress in the hospital
- Effects of some anesthetic drugs
- Effects of some diseases
- Lack of training/experience with scoring tools

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Resources



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FELINE GRIMACE SCALE

EN

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www.felinegrimacescale.com



ASSESSMENT OF ACUTE PAIN IN CATS BASED ON CHANGES IN FACIAL EXPRESSIONS

Improving feline health and welfare

Pain is often difficult to recognize in cats due to their unique behavior. Veterinary health professionals do not always receive education on the subject making pain recognition a daily challenge in feline medicine.

The Feline Grimace Scale is a valid, fast, reliable and easy-to-use tool that can help with pain assessment. Based on the scores of the Feline Grimace Scale, it is possible to know if the administration of analgesics (i.e. pain killers) is required (helping veterinarians with clinical

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www.animalpain.com.br

UNESP-Botucatu tool
Excellent training videos

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www.wsava.org

Global Pain Council

Home > Committees > Global Pain Council

Pain Assessment Tools

- Acute Pain
- Cats
 - Use of CMPS-SF
 - Measuring the Acute Pain in the Cat Using CMPS-SF

Pain Management Guidelines

- View the WSAVA Global Pain Guidelines
- WSAVA Global Pain Survey: Results
- WSAVA Guidelines for Recognition, Assessment and Treatment of Pain
- Guidelines: Long Term use of NSAIDs in Cats

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Pain management protocols

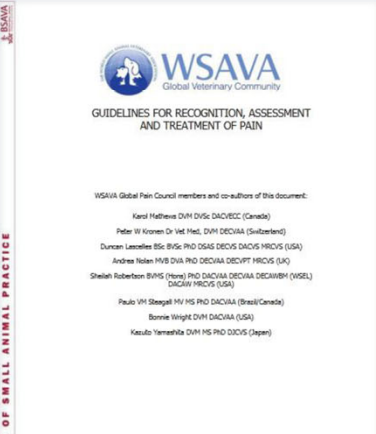
Cesarean patients <ul style="list-style-type: none"> Cesarean patients (EN, ES, PT) 	Degenerative joint disease <ul style="list-style-type: none"> Degenerative joint disease (EN, ES, PT) 	Neuropathic pain <ul style="list-style-type: none"> Neuropathic pain (EN, ES, PT)
Cancer related pain <ul style="list-style-type: none"> Cancer related pain (EN, ES, PT) 	Emergency and critical care <ul style="list-style-type: none"> Emergency and critical care (EN, ES, PT) 	Orthopedic surgery <ul style="list-style-type: none"> Orthopedic surgery (EN, ES, PT)
Castration and ovariectomy in Cats <ul style="list-style-type: none"> Castration and ovariectomy/ovariectomy in Cats (EN, ES, PT) 	Medical pain <ul style="list-style-type: none"> Medical pain (EN, ES) 	Pregnant or lactating patients <ul style="list-style-type: none"> Pregnant or lactating patients (EN, ES, PT)
Castration and ovariectomy in Dogs <ul style="list-style-type: none"> Castration and ovariectomy/ovariectomy in Dogs (EN, ES, PT) 	Neonatal and pediatric patients <ul style="list-style-type: none"> Neonatal and pediatric patients (EN, ES, PT) 	Soft tissue surgery <ul style="list-style-type: none"> Soft tissue surgery (EN, ES, PT)
		Perceived level of pain associated with various conditions <ul style="list-style-type: none"> Perceived level of pain associated with various conditions (EN, ES, PT)

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WSAVA Global Veterinary Community

ABOUT MEMBERS COMMITTEES **GUIDELINES** ACADEMY CONGRESS NEWS ACCOUNT

Guidelines for the Recognition, Assessment and Treatment of Pain



English
Polish
Portuguese
Japanese
French
Vietnamese
Chinese

Endorsement
List of Member Associations that have endorsed the Global Pain Council guidelines.
Endorse the Global Pain Council guidelines.
Global Pain Council Endorsement request

Update coming!

WSAVA Global Pain Council members and consultants of this document:

Karel Mathews DVM DABVP (Canada)
Peter W. Krieger DVM MS DABVP (Switzerland)
Duncan Lumsden BVSc BSc PhD DACVP DACVIM (USA)
Andrew Nelson MVB DVM PhD DACVIA DACVIM (UK)
Sheilah Robertson BVMS (Hons) PhD DACVIA DACVIM (UK)
Paulo VH Steagall MS MS PhD DACVIA (Brazil/Canada)
Bonnie Wright DVM DACVIA (USA)
Kaoru Yamashita DVM MS PhD DACVIM (Japan)

ALL OF SMALL ANIMAL PRACTICE

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www.catvets.com

OPEN ACCESS

Journal of Feline Medicine and Surgery (2015) 17, 251–272

SPECIAL ARTICLE

2015 AAHA/AAFP Pain Management Guidelines for Dogs and Cats




Rationale: The robust advances in pain management for companion animals underlie the decision of the American Animal Hospital Association (AAHA) and American Association of Feline Practitioners (AAFP) to expand on the information provided in the 2007 AAHA/AAFP Pain Management Guidelines. The 2015 Guidelines summarize and offer a discriminating review of much of this new knowledge.

Relevance: Pain management is central to veterinary practice, alleviating pain, improving patient outcomes, and enhancing both quality of life and the veterinarian–client–patient relationship. These Guidelines support veterinarians in incorporating pain management into practice, improving patient care.



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Journal of Feline Medicine & Surgery

journals.sagepub.com/home/jfm



Journal of Feline Medicine and Surgery (2019) 21, 25–34

ACUTE PAIN IN CATS Recent advances in clinical assessment

Paulo V Steagall and Beatriz P Monteiro

CLINICAL REVIEW



Check out the videos in the supplementary material

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Journal of Feline Medicine & Surgery

journals.sagepub.com/home/jfm



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Final thoughts ...

- No cat should have to prove it is in pain before you provide analgesia.
- If the pain score is good but you think you can do better, trust yourself.
- We now have validated acute pain scoring tools – use one!



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