

## **Is Fido in Pain? Unravelling the mystery of pain assessment**

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### **Introduction**

Every day, veterinarians are faced with this fact; our patients are in pain. The identification and treatment of pain in our patients is key to their longevity and quality of life.

#### *Consequence of Untreated Pain*

Studies of pain in humans and animals repeatedly show the significant consequences of unalleviated pain, most notably the increase of mortality in patients suffering from pain. Pain is responsible for a myriad of chemical and neurologic changes which, if untreated, can lead to dire pathophysiologic consequences involving multiple organ systems. The neurohumoral responses to pain and stress trigger a cascade of events, including changes in cortisol, catecholamines, and other hormones. This stress response to injury and subsequent immune system stimulation precipitates the release of cytokines augmenting the systemic inflammatory response syndrome (SIRS). Unchecked, SIRS will lead to multiple organ dysfunction syndrome. The cause or extent of the pain and trauma to the body is not the issue, what will be the ultimate cause of morbidity and mortality is the body's response to the disease. It has been said that stress kills. One could better surmise that unalleviated pain, no matter what the cause, is a prime component of patient death.

#### *Measuring Success in a Clinical Setting*

Veterinarians must consider pain measurement in every patient and strive to quantify pain along with the three other vital signs, temperature, pulse, respiration. With continued pain assessment, one can determine the success of treatment in an unbiased and equivalent fashion. In veterinary medicine, we must continue to collect data, we must continue to collect clinical evidence, and we must exercise care to document responses or non-responses to treatment in the most unprejudiced way possible. To this end, it is important to review reasonable ways to document pain management protocol results to carefully quantify the results of any pain management protocol.

#### *Canine and Feline-Specific Pain Scales*

Lord Kelvin stated, "If you cannot measure it, you cannot improve it". Using a practice-specific pain scale for evaluation of patients before, during, and after treatment is critical for measuring treatment success. Owner-education is key - The International Veterinary Association of Pain Management provides excellent client education handouts to members ([www.ivapm.org](http://www.ivapm.org)). There are many published references available to help you design and implement a protocol in your hospital for pain assessment, including subjective, objective, and semi-objective tools. It is helpful to consider implementing a practice specific pain assessment scale where all veterinarians and nurses are consistent. It may be valuable to consider two distinct pain measurements metrics, one for in-practice use and a second validated tool for client assessment and measurement.

The Glasgow Composite Measure Pain Scales for Canine and more recently, Feline, is a short and simple evaluation, allowing consistency and striving for objectivity (Figures 1 and 2). Recent research was presented from the University of Montreal, showing progress on the creation of a validated Feline Grimace Scale, which has been added to the feline short scale (1).

For owner evaluation, the use of a species-specific validated tool is the most accurate. The Canine Brief Pain Inventory(CBPI) was developed in 2008 by Dr Dottie Brown and is available at <http://www.vet.upenn.edu/research/clinical-trials/vcic/pennchart/cbpi-tool>. The most exciting feline-specific tool for pain assessment was developed by the Comparative Pain Research and Education Centre at North Carolina State University College of Veterinary Medicine. In the spring of 2018, the educational

website: <https://painfreecats.org/> was published and includes the Feline Musculoskeletal Pain Index (FMPI) the first feline-specific validated tool for pain assessment. This website can be shared with clients and staff members and is a wonderful resource for discussion relating to feline pain.

### *Quality of Life Scales*

Some veterinary pain management experts believe that in the case of chronic pain, evaluation of “Quality of Life” and the use of QOL scales, may be more helpful in the long-term assessment of pain in patients. In fact, in hospice situation, one can use the HHHHHMM scale to create a valuable dialogue with owners, where Hurt, Hunger, Hydration, Hygiene, Happiness, Mobility and More good days than bad, can be evaluated for each patient on a scale from 1-10, with a total of over 35 being acceptable quality of life for continued hospice care. The issue with traditional pain assessment metrics is when we are looking at acute versus chronic pain conditions. It is simple to use a metric for acute pain and tell the clinician to “do something”/give pain relief at a certain number, but in the case of chronic pain, it is much more difficult to quantify the change in a way that is meaningful to the patient, owner or clinician. Health-related quality of life assessments have been used in human medicine for over 30 years, and have been valuable in analysis of non-verbal patients. NewMetrica, in the UK, has developed an owner-assessment HRQL scale, which provides valid metrics to clinicians via a web interface, where they can follow owner reporting over time. For canines, it measures energy, happiness, activity and calmness, while for felines, it measures vitality, comfort and emotional well-being ([www.newmetrica.com](http://www.newmetrica.com)).

### *The Problem*

Small animal veterinary practitioners know that individual patients may have very different responses to pain, most of the time the clinical observations can be very subtle. This leads most clinicians to use palpation as the primary tool for pain assessment in cats, which can be confounded by potential aggressive behavioral changes in cats that are in pain and resent palpation (2). The second issue relates to the failure of objective evaluation when using pain scales. Common rhetoric states that pets don't have a placebo effect – however the same cannot be said about pet owners, or even caregivers. In 2012, while collecting data analyzing dogs with osteoarthritis, Michael Conzemius DVM, PhD concluded that a placebo effect in owner evaluations occurred 56.9% of the time, while even more concerning – the placebo effect in veterinary – or caregiver evaluations - occurred between 40-45% of the time (3). This caregiver placebo effect can be confounding to clinicians as we try first, to identify pain, and then, subsequently try to analyze the success or failure of a particular treatment. Each validated pain tool and HRQL assessment needs to be used “as-written”, to reduce response bias that occurs so often with client as well as clinician caregiver reporting. Some common reasons for subconscious bias stem from the fear of impending euthanasia, the excuse for euthanasia, and the social desirability related to a particular response. It is only with a well-rounded combination of assessments can veterinary practitioners expect to find meaningful success in patient comfort and pain relief (4).

1. Evangelista M, Watanabe R, O'Toole E, Pang D, Steagall P (2018). Facial expressions of pain in cats: development of the Feline Grimace Scale. Association of Veterinary Anaesthetists Spring Meeting at St Georges, Grenada March 2018.
2. Kerwin S. Orthopedic examination in the cat: clinical tips for ruling in/out common musculoskeletal disease. *J Feline Med Surg* 2012; 1: 6–12.
3. Conzemius MG, Evans RB (2012) Caregiver placebo effect for dogs with lameness from osteoarthritis. *JAVMA* 241(10):1314-19.
4. Reid J, Scott M, Nolan A. (2017). Pain assessment in companion animals: an update. *In Practice* 2017 39: 446-451

**SHORT FORM OF THE GLASGOW COMPOSITE PAIN SCALE**

Dog's name \_\_\_\_\_

Hospital Number \_\_\_\_\_ Date / / Time

Surgery Yes/No (delete as appropriate)

Procedure or Condition \_\_\_\_\_

*In the sections below please circle the appropriate score in each list and sum these to give the total score.*

**A. Look at dog in Kennel**

*Is the dog?*

(i)		(ii)	
Quiet	0	Ignoring any wound or painful area	0
Crying or whimpering	1	Looking at wound or painful area	1
Groaning	2	Licking wound or painful area	2
Screaming	3	Rubbing wound or painful area	3
		Chewing wound or painful area	4

In the case of spinal, pelvic or multiple limb fractures, or where assistance is required to aid locomotion do not carry out section **B** and proceed to **C**  
Please tick if this is the case  then proceed to C.

**B. Put lead on dog and lead out of the kennel.**    **C. If it has a wound or painful area including abdomen, apply gentle pressure 2 inches round the site.**

*When the dog rises/walks is it?*

(iii)	
Normal	0
Lame	1
Slow or reluctant	2
Stiff	3
It refuses to move	4

*Does it?*

(iv)	
Do nothing	0
Look round	1
Flinch	2
Growl or guard area	3
Snap	4
Cry	5

**D. Overall**

*Is the dog?*

(v)	
Happy and content or happy and bouncy	0
Quiet	1
Indifferent or non-responsive to surroundings	2
Nervous or anxious or fearful	3
Depressed or non-responsive to stimulation	4

*Is the dog?*

(vi)	
Comfortable	0
Unsettled	1
Restless	2
Hunched or tense	3
Rigid	4

Short Form of the Glasgow Composite Pain Scale (SF-GCPS) with assessment record sheet, to be used by dog owners

Date: **If Total Score is greater than 5 (4 when not carrying out section B) give analgesics**

Time:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
A1																								
A2																								
B1																								
C1																								
D1																								
D2																								
Total																								

Notes:

Date: **If Total Score is greater than 5 (4 when not carrying out section B) give analgesics**

Time:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
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Notes:

## Glasgow Composite Measure Pain Scale: CMPS - Feline

### **Guidance for use**

The Glasgow Feline Composite Measure Pain Scale (CMPS-Feline), which can be applied quickly and reliably in a clinical setting, has been designed as a clinical decision making tool for use in cats in acute pain. It includes 28 descriptor options within 7 behavioral categories. Within each category, the descriptors are ranked numerically according to their associated pain severity and the person carrying out the assessment chooses the descriptor within each category which best fits the cat's behavior/condition. It is important to carry out the assessment procedure as described on the questionnaire, following the protocol closely. The pain score is the sum of the rank scores. The maximum score for the 7 categories is 20. The total CMPS-Feline score has been shown to be a useful indicator of analgesic requirement and the recommended analgesic intervention level is 5/20.

**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 | 0 |
| Crying/growling / groaning | 1 |

**Question 2**

- |                                   |   |
|-----------------------------------|---|
| Relaxed                           | 0 |
| Licking lips                      | 1 |
| Restless/cowering at back of cage | 2 |
| Tense/crouched                    | 3 |
| Rigid/hunched                     | 4 |

**Question 3**

- |                                    |   |
|------------------------------------|---|
| Ignoring any wound or painful area | 0 |
| Attention to wound                 | 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?



0



1



2

**APPROACH THE CAGE, CALL THE CAT BY NAME & STROKE ALONG ITS BACK FROM HEAD TO TAIL**

**Question 5**

Does it?		
Respond to stroking		0
Is it?		
Unresponsive		1
Aggressive		2

**IF IT HAS A WOUND OR PAINFUL AREA, APPLY GENTLE PRESSURE 5 CM AROUND THE SITE. IN THE ABSENCE OF ANY PAINFUL AREA APPLY SIMILAR PRESSURE AROUND THE HIND LEG ABOVE THE KNEE**

**Question 6**

Does it?		
Do nothing		0
Swish tail/flatten ears		1
Cry/hiss		2
Growl		3
Bite/lash out		4

**Question 7**

General impression		
Is the cat?		
Happy and content		0
Disinterested/quiet		1
Anxious/fearful		2
Dull		3
Depressed/grumpy		4

**Pain Score ... /20**

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