Particularité de l' évaluation chez un animal hospitalisé

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FIVE SENSES

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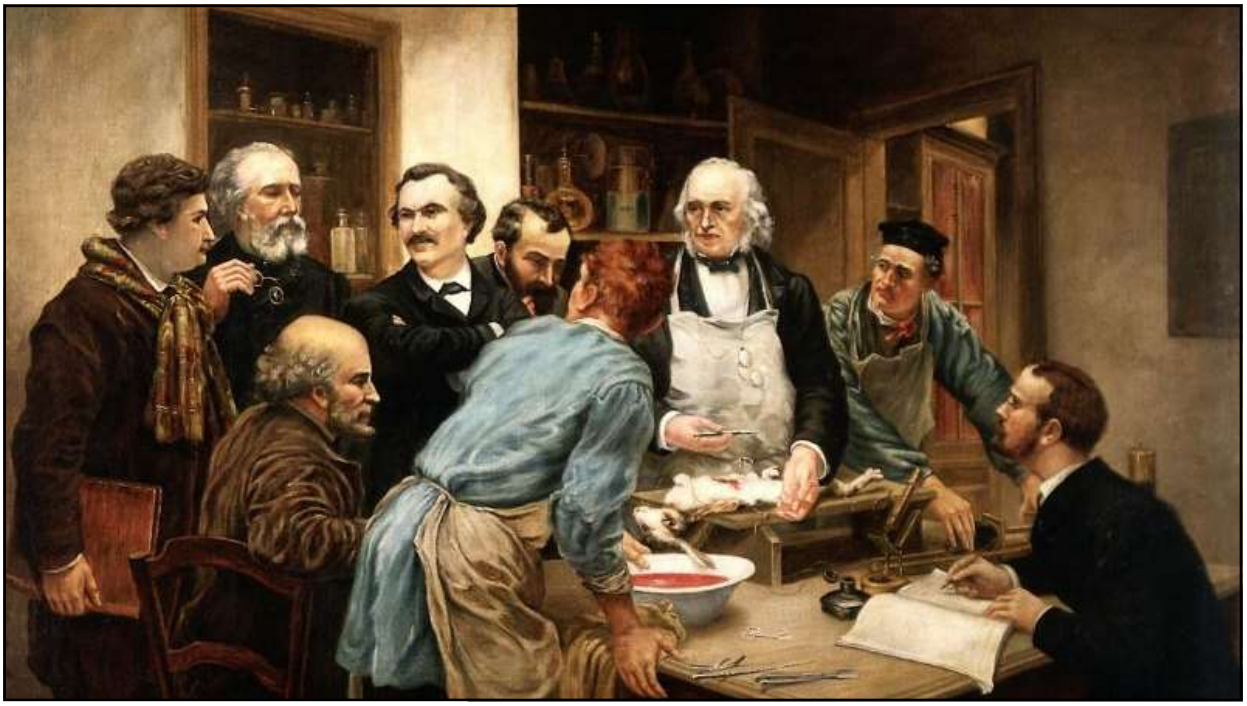

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La douleur

- "An unpleasant sensory and emotional experience associated with, or resembling that associated with, actual or potential tissue damage,"

IASP revised January 2020

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Corollaire

- Pain is always a personal experience that is influenced to varying degrees by biological, psychological, and social factors.
- Pain and nociception are different phenomena. Pain cannot be inferred solely from activity in sensory neurons.
- Through their life experiences, individuals learn the concept of pain.
- A person's report of an experience as pain should be respected.
- Although pain usually serves an adaptive role, it may have adverse effects on function and social and psychological well-being.
- Verbal description is only one of several behaviors to express pain; inability to communicate does not negate the possibility that a human or a nonhuman animal experiences pain.

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"Avoir mal"

(McCaffery, 1968, p. 95)

The standard definition of **pain** is :

"**whatever the experiencing person says** it is,

existing whenever the **experiencing person says** it does"

Ethics: Ethics and Pain Management in Hospitalized Patients

25 oct. 2011

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Reconnaissance de la douleur en med. vétérinaire

Absence de la parole

- Parallélisme avec les enfants
- N'exclu pas la présence de douleur

Le diagnostic et la quantification de la douleur permettent

1. D' identifier la nécessité d'un traitement analgésique
2. D' évaluer l'efficacité de la thérapie
3. De trouver un traitement efficace individualisé

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Species	Scale initials	Scale name	Reference	Outcome measure	Type of pain assessed	Validated/not validated
Species inespecific	SDS	Simple Descriptive Scale		One-dimensional. From no pain to worst imaginable pain	Acute	
	NRS	Numerical Rating Scale		One-dimensional. From 0 to 10 (discontinuous)	Acute	
	VAS	Visual Analogue Scale		One-dimensional. From 0 to 10 (continuous, 10 cm line)	Acute	
Horses		Activity budgets scoring	Price et al. 2003	Physiological and behavioral	Acute (orthopedic)	
		Activity budgets scoring	Pritchett et al. 2003	Physiological and behavioral	Acute (colic)	
	OLPI	Obel Laminitis Scale	Rietmann et al. 2004	Behavioral & disability component, hoof tester score		
	ECPS	Multifactorial numerical rating equine composite pain scale	Ruoppes 2008	Physiological, behaviour	Acute orthopedic, Post-OP GIT	Validated
	CMPS	Composite measure pain scale	Lindegaard et al. 2010	Behaviour	Acute (LPS-induced transient synovitis)	
	PASPAS	Post abdominal surgery pain assessment scale	Graubner et al. 2011	Physiological and behavioral	Acute (post abdominal surgery)	Initially validated
	EAAPS	Equine Acute Abdominal Pain Scale	Sutton et al. 2013		Acute (colic)	Validated
	HGS	Horse Grimace Scale	Dalla Costa et al. 2014 (& 2016)		Post castration, laminitis	Not validated
	EPF	Equine Pain Face	Gleerup et al. 2015	Facial expressions	Clinical pain, experimental	Validated
	EPS	Equine Pain Scale	Gleerup et al. 2015	All previously described behaviours & face expression	Acute, but aims to all types	Not validated
	EQUUS-COMPASS	EQUUS-Composite Pain Assessment	van Loon et al. 2015	Physiological and behavioral	Acute colic	Validated
	EQUUS-FAP	EQUUS Facial Assessment of Pain	van Loon et al. 2015	Includes facial action coding units	Acute colic, head related	
	UNESP-Botucatu	UNESP-Botucatu	Taffarel et al. 2015		Post castration	Not validated
	EquiFACS	Facial action coding system	Wathan et al. 2015	Facial action descriptions		
	FERaq	Facial expressions of ridden horses	Mullard et al. 2017; Dyson et al. 2018	Head position and facial features	Orthopedic	
	EQUUS-FAP Foals	EQUUS Facial Assessment of Pain in Foals	van Loon et al. 2020	Facial expressions	Acute	Not validated
Donkeys	EQUUS-DONKEY-COMPASS	EQUUS-Donkeys-Composite Pain Assessment	van Dierendonck et al. 2020	Behavioral	Acute (colic and orthopedic)	
	EQUUS-DONKEY-FAP	EQUUS-Donkeys-Facial Assessment of Pain	van Dierendonck et al. 2020	Facial expressions	Acute (colic and head-related)	
Dogs	DIVAS	Dynamic and interactive Visual Analogue Scale	Lascelles et al. 1995	One-dimensional	Acute	
	Melbourne	University of Melbourne Pain Scale	Firth and Haldane 1999	Behaviour and Physiologic	Acute	Not validated
	GCPS	Glasgow Composite Pain Scale	Holton et al. 2001	Psychometric	Acute	Validated
	4AVET-Pain Scale	4AVET-Pain Scale	Verwaerde et al. 2001 (not published)	Behavior, locomotion, wound palpation	Acute	Not validated
	CODI	Cincinnati Orthopedic Disability Index	Ginerich et al. 2003		Chronic orthopedic	
	CMPS	Composite measure pain scale	Morton et al. 2005		Acute	
	HRQL instruments	Health related quality of life instruments (Vetmetrica)	Wiseman-Orr et al. 2006	Behavioral	Chronic	Validated
	SF-GCPS	Short Form - Glasgow Composite Pain Scale	Reid et al. 2007	Behavioral, locomotion	Acute	Validated
	CBPI	Canine Brief Pain Inventory	Brown et al. 2009		Chronic	Validated
	HCPI	Helsinki Chronic Pain Index	Hielm-Björkman et al. 2009	Behaviour, vocalization, locomotion	Chronic	Validated (in Finnish)
	LOAD	Liverpool Osteoarthritis in Dogs	Walton et al. 2013		Chronic	Validated
	CSU-CAP	Colorado State University Canine Acute Pain (educational tool)	CSU	Psychological, behavioural	Acute	
	Short Form - HRQL instr.	Short Form - Health related quality of life instruments (Vetmetrica)	Reid et al. 2017		Chronic	Not validated
	COAST	Canine Osteoarthritis Staging Tool	Cachon et al. 2018		Chronic	Validated
	JSSAP	JSSAP Canine Chronic Pain Index	www.dourinkan.com/itsmi.htm		Chronic	Not validated
	CCPS-C/F	Composite oral and maxillofacial pain scale - canine/feline	Della Rocca et al. 2019	Behaviour and clinical signs	Acute & chronic oral and maxillofacial pain	Initially validated
Cats	CSU-FAPS	Colorado State University Feline Acute Pain Scale	Hellyer 2006	Behavioral, physiological	Acute	Initial validation
	CSOM	Client Specific Outcome Measures	Lascelles et al. 2008	Mobility	Osteoarthritis	Validated
	UNESP-Botucatu-MCPS	UNESP-Botucatu-MCPS	Brondani et al. 2011	Physiological, behaviour	Acute	Validated
	FMPI	Feline Musculoskeletal Pain Index	Benito et al. 2013	Activity, QoL	Chronic	Not validated
	CMPS-Feline	Glasgow Composite measure pain scale	Calvo et al. 2014	Psychometric & facial expression	Acute	Validated
	MI-CAT(V)	Montreal instrument for cat arthritis testing (for veterinarians)	Klinck et al. 2017	Behaviour & mobility	Arthritis	Not validated
	MI-CAT(C)	Montreal instrument for cat arthritis testing (for caretakers)	Klinck et al. 2018	Behaviour & mobility	Arthritis	Initially validated
	FGS	Feline Grimace Scale	Evangelista et al. 2019		Acute	Validated
	HRQL instruments	Health related quality of life instruments (Vetmetrica)	Noble et al. 2019		Chronic	Initially validated
	OOPS-C/F	Composite oral and maxillofacial pain scale - canine/feline	Della Rocca et al. 2019	Behaviour and clinical signs	Acute & chronic oral and maxillofacial pain	Initially validated
	SMALGO tool	Small animal algometer	Mathieu et al. 2020	Quantitative sensory testing	Chronic gingivostomatitis	Not validated
	SF-FMPI	Short Form of the Feline Musculoskeletal Pain Index	Enomoto et al. 2021			
Cattle	UNESP-Botucatu	UNESP-Botucatu	de Oliveira et al. 2014	ONE-dimensional: only behaviour	Acute	Validated
	CPS	Cow Pain Scale	Gleerup et al. 2015	Behavioral actions and facial features		Validated
	UNESP-Botucatu	UNESP-Botucatu-Pain assessment on facial expression	Yamada et al. 2021	Facial action units	Acute (male castration)	Not validated
Sheep		Sheep facial expression scale	McLennan et al. 2016	Face expression	Footrot and mastitis	
	LGS	Lamb grimace scale	Guesgen et al. 2016	Face expression	Acute	Not Validated
	SGS	Sheep grimace scale	Häger et al. 2017	Face expression	Post-operative distress and pain	Validated
	UNESP-Botucatu	UNESP-Botucatu	Silva et al. 2020	Behaviour	Acute	Validated
Goats		Pain mitigation Strategies in goat kids (NRS mostly used)	Alvdo et al. 2020	Behavioral time budget	Disbudding	Not validated
Camelids						
Pigs	HRQL	Health related quality of life for farmed pigs	Wiseman-Orr et al. 2011	Behavioral	Quality of life and welfare	Validated
	PGS	Piglet grimace scale	Viscardi et al. 2017	Facial expression	Castration, tail docking, cryptorchidectomy	
	UPAPS	UNESP-Botucatu pig composite acute pain scale	Luna et al. 2020	ONE-dimensional: only behaviour	Acute	Validated
Guinea pig		Behavioral ethogram	Dunbar et al. 2016	Behaviour	Postoperative pain	Not Validated
Ferret		Ferret Grimace Scale	Reijgwart et al. 2016	Facial expression	After biologger implantation	
Rabbits	RGS	Rabbit grimace scale	Leaning et al. 2012	Physiological, behavioural and facial expression		Not validated
	CANCRS	Composite PS for assessment & quantification of pain in rabbits	Banchi et al. 2020	Facial and physiological		Not validated
Rodents	RGS	Rat Grimace Scale	Sotocina et al. 2011			Validated

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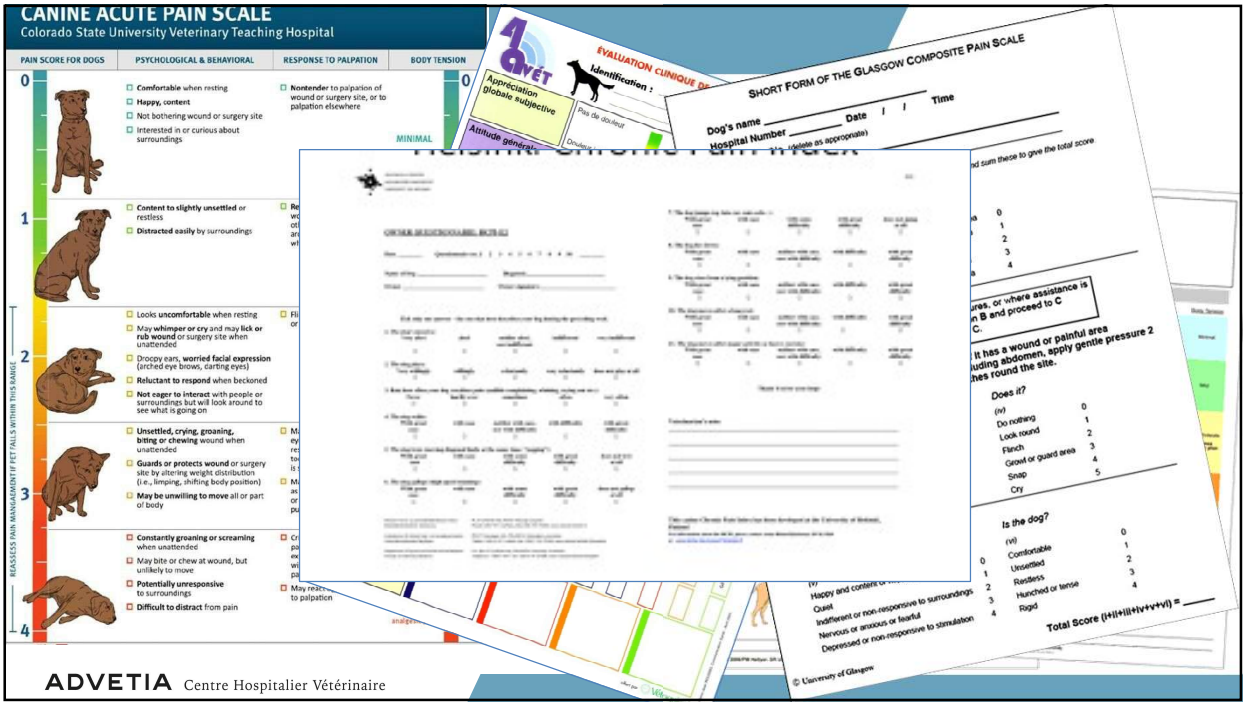
CANINE ACUTE PAIN SCALE
Colorado State University Veterinary Teaching Hospital
PAIN SCORE FOR DOGS
PSYCHOLOGICAL & BEHAVIORAL
RESPONSE TO PALPATION
BODY TENSION
SHORT FORM OF THE GLASGOW COMPOSITE PAIN SCALE
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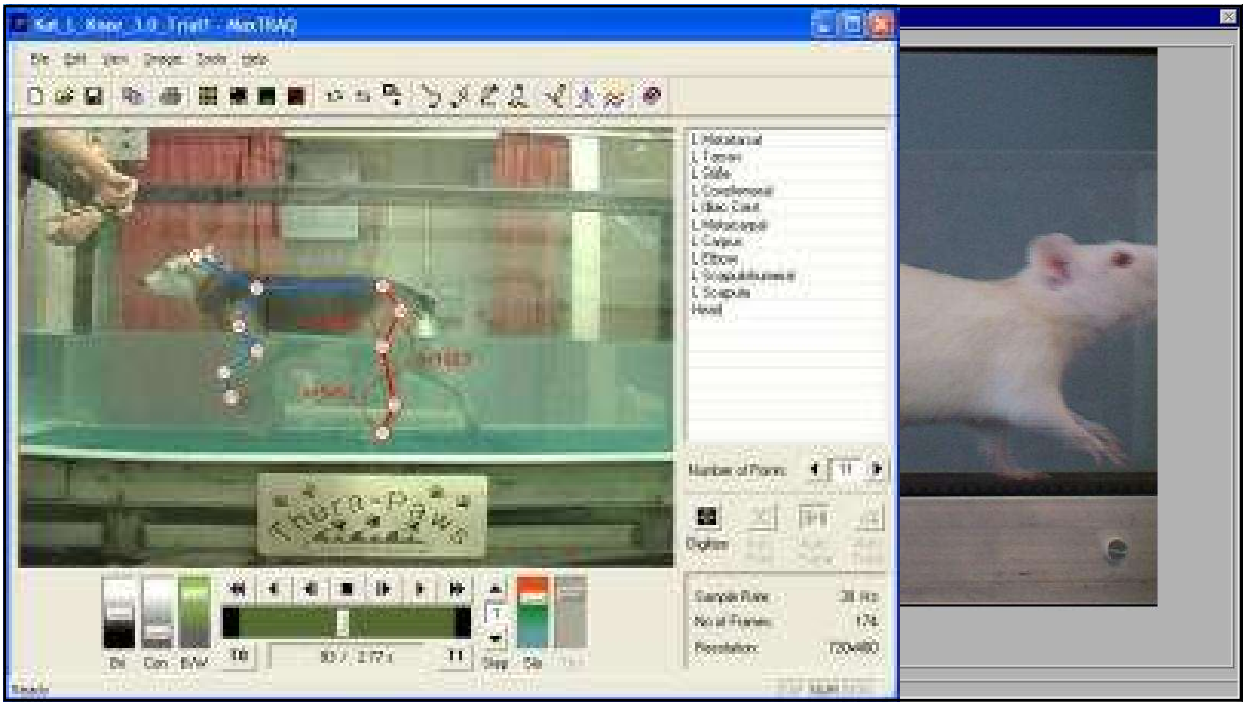

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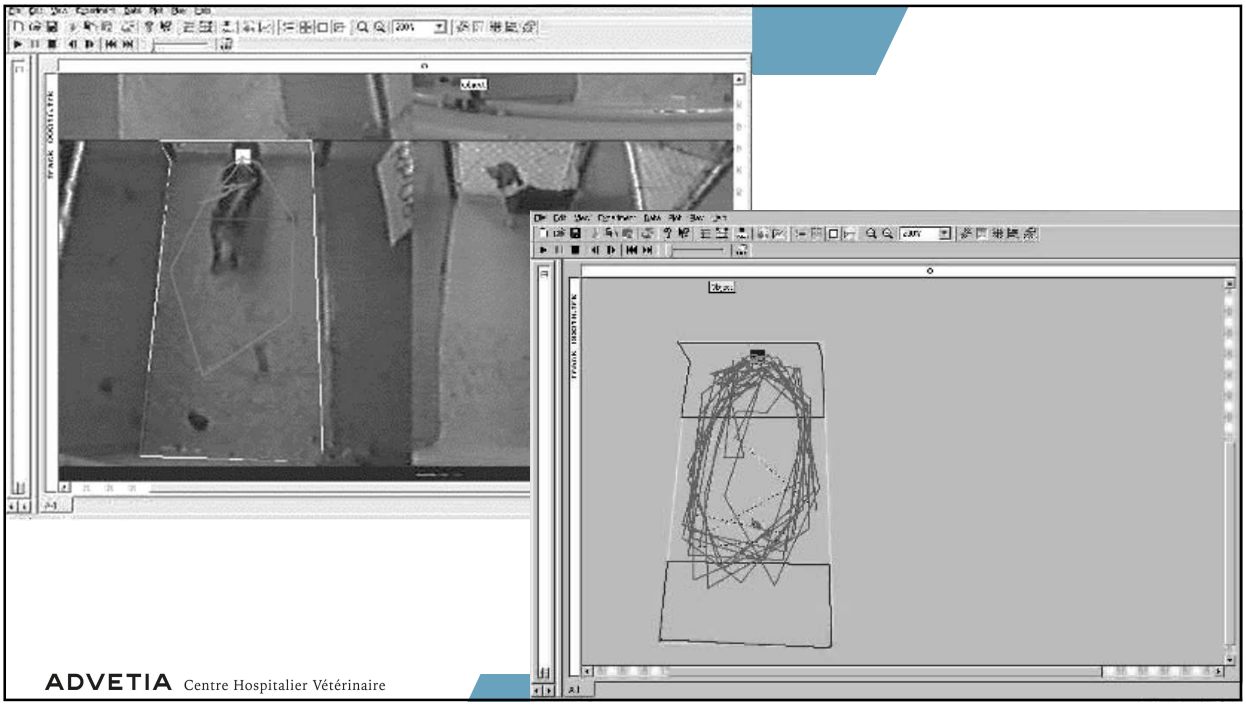

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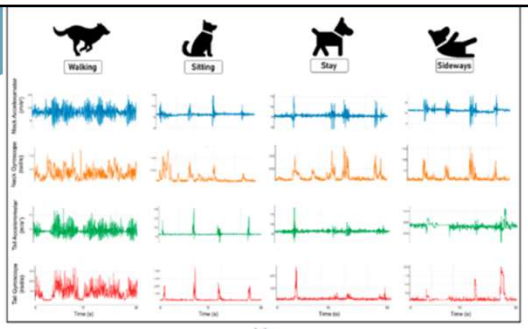

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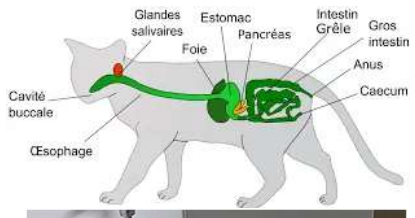
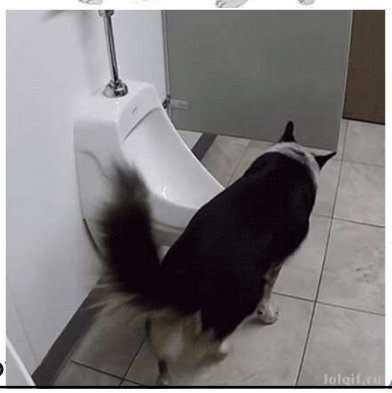
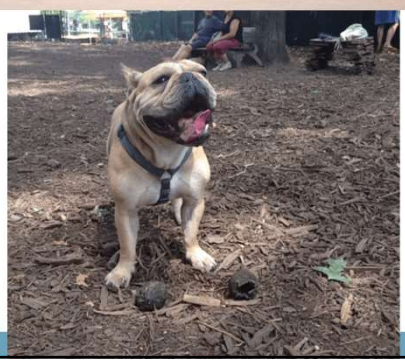
LA fonction







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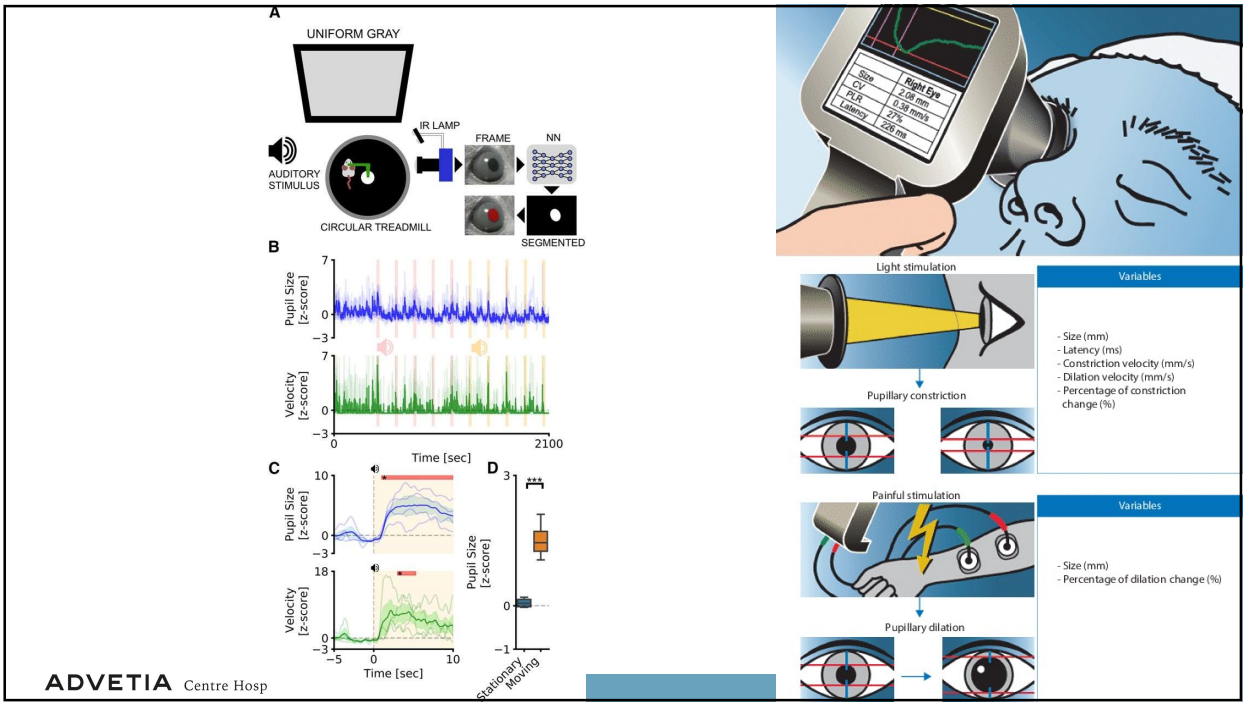
Patient
Measure
0006
16:04
12/03
PPI
2.3
22%
PPI
6/10
SpO2
93
PVC
0
0.4

15


A
UNIFORM GRAY
IR LAMP
FRAME
NN
AUDITORY STIMULUS
CIRCULAR TREADMILL
SEGMENTED
B
Pupil Size [z-score]
Velocity [z-score]
Time [sec]
C
D
Stationary
Moving
ADVETIA Centre Hosp
Right Eye
Size
CV
PLR
Latency
2.08 mm
0.36 mm/s
27%
220 ms
Light stimulation
Pupillary constriction
Variables
- Size (mm)
- Latency (ms)
- Constriction velocity (mm/s)
- Dilation velocity (mm/s)
- Percentage of constriction change (%)
Painful stimulation
Pupillary dilation
Variables
- Size (mm)
- Percentage of dilation change (%)

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Benefits
of ANI technology:
Predictivity hemodynamic reactivity
Jeanne M et al., Clin J Pain. 2014.
Refine opioids titration
Daccache G et al., Anaesthesia Critical Care & Pain Medicine. 2016.
Reduce post-operative pain
Henry D. Upton, et al., Anesthesia & Analgesia. July 2017.
Predict post-extubation pain
Boselli E et al., British Journal of Anaesthesiology. 2014.
Helpful to diagnose the etiology of a hemodynamic event
Logier R, et al., IEEE Proceedings. 2011.
Reduce length of stay in outpatient surgery units
Ramos et al., J Clin Monit Comput. Feb 2020.
ANI
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NC 3Rs
National Centre for the Replacement Refinement & Reduction of Animals in Research
Newcastle University
The Rabbit Grimace Scale
Action units
Not present "0"
Moderately present "1"
Obviously present "2"
Orbital tightening
Check flattening
Nostril shape
Whisker shape and position
Ear shape and position
Score
0
1
2
Attention towards the surroundings
Active and attentive
Not attentive
Head position
Head held high
Lower than withers
Very low
Ear position
Both ears forward or actively moving
Both ears back
Lamb's ears (low ears)
Facial expression
Attentive or neutral look
Tense expression
Response to approach
Look at observer, head up, ears forward or occupied with activity (grooming, ruminating)
Look at observer, ears not forward, leave when approached
May/may not look at observer, head low, ears not forward and may leave slowly
Back position
Straight line
Slightly arched back
Arched back
Lameness
Not lame
Normal and rhythmic strides
Lame
Shorter and non-rhythmic strides
Very lame
No support on one leg or very unequal and short strides

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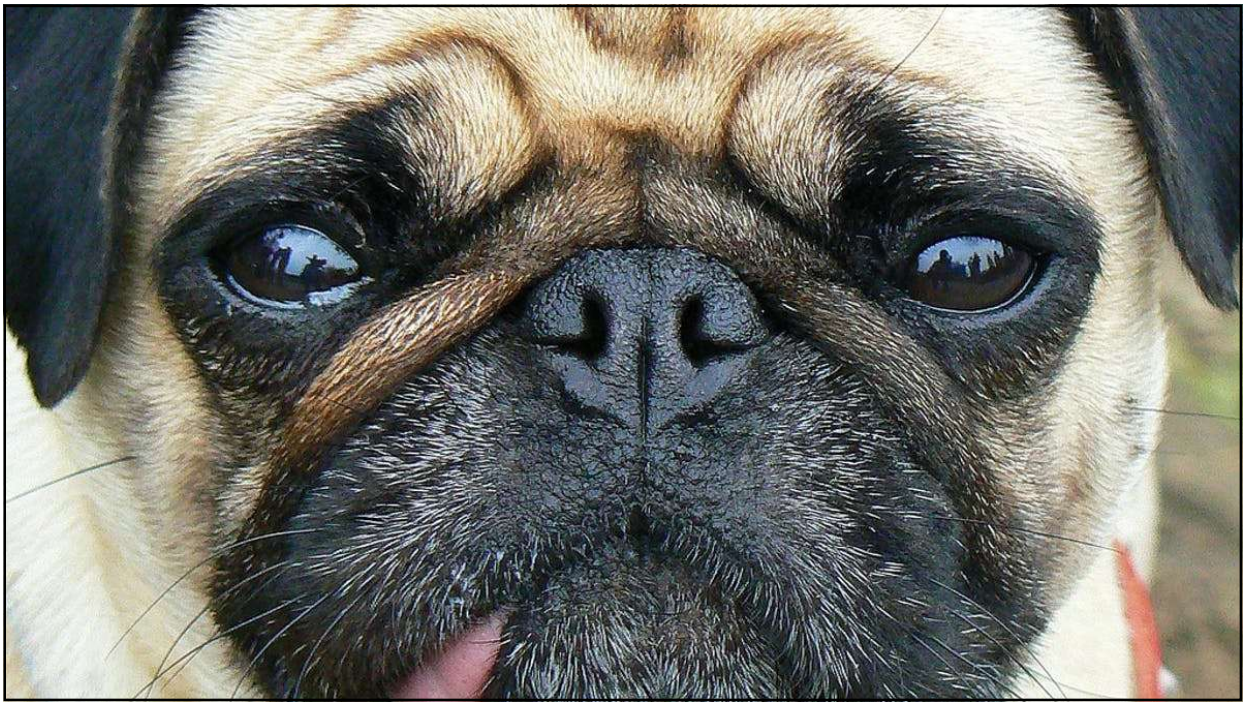

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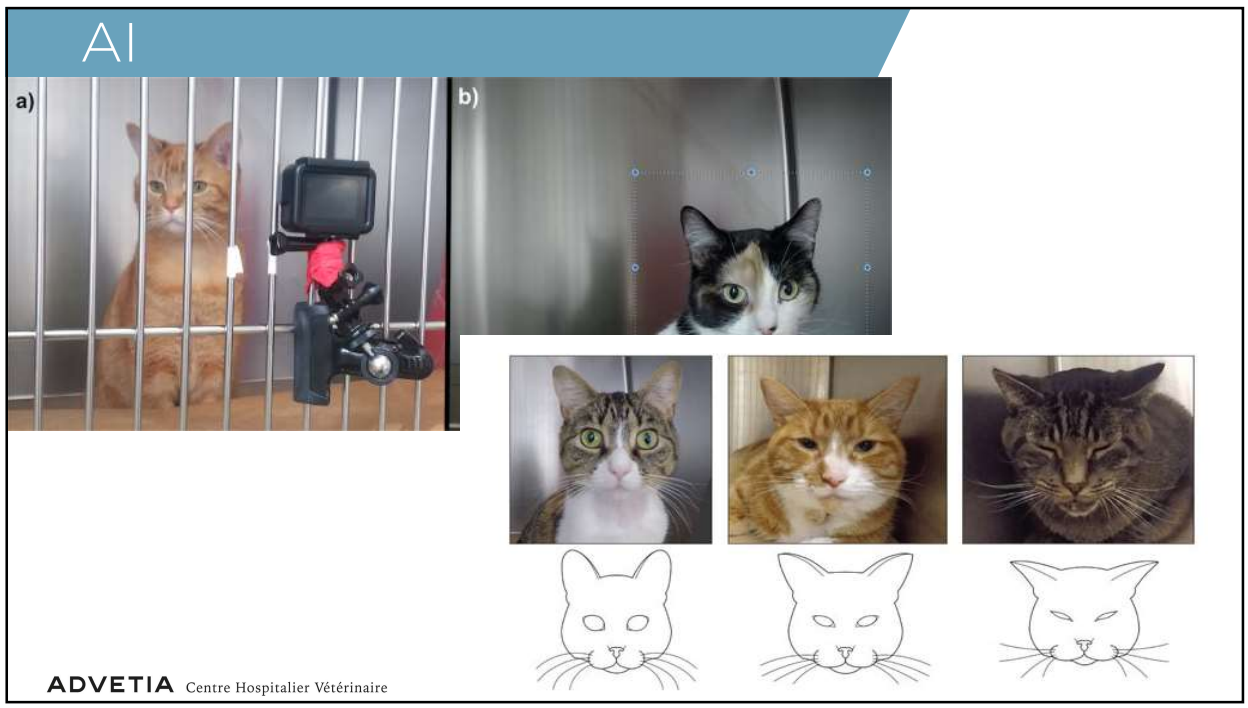

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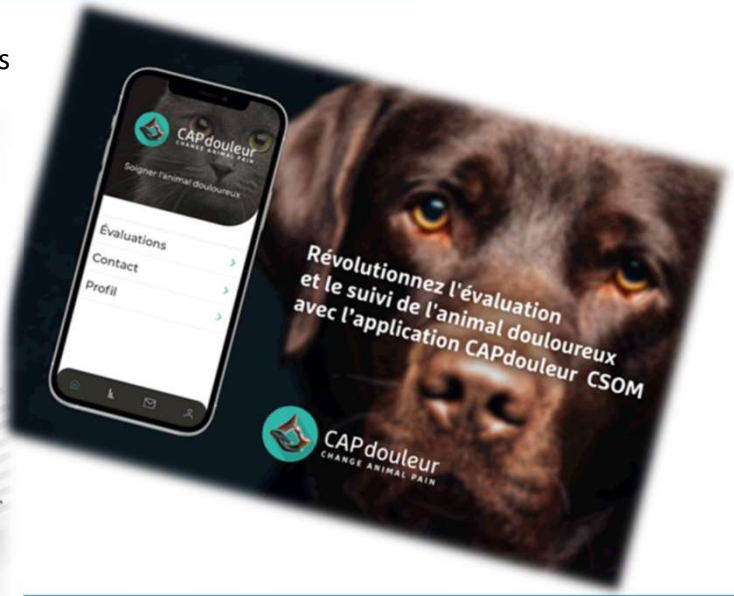
La solution ?

CSOM

Client Specific Outcome Measures



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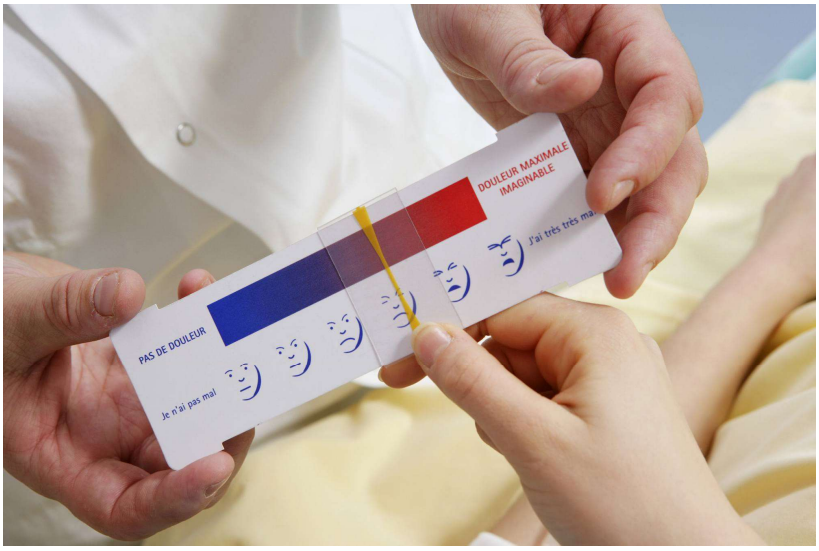
20éme siècle



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VAS *principe*

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VAS *principe*

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VAS *principe*

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Les pièges ....

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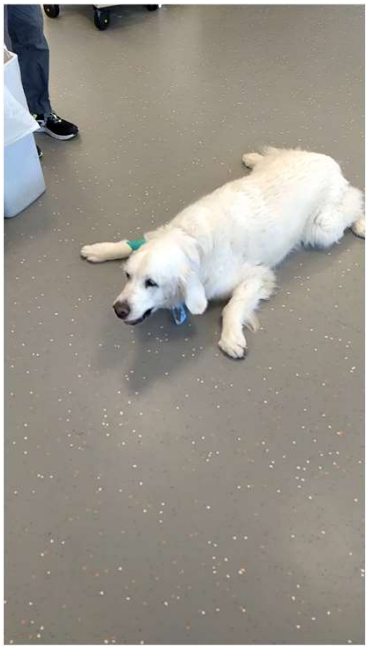

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Brondani JT & Luna SPL
UNESP Botucatu MCPS
Bioethicus
www.animalpain.com.br

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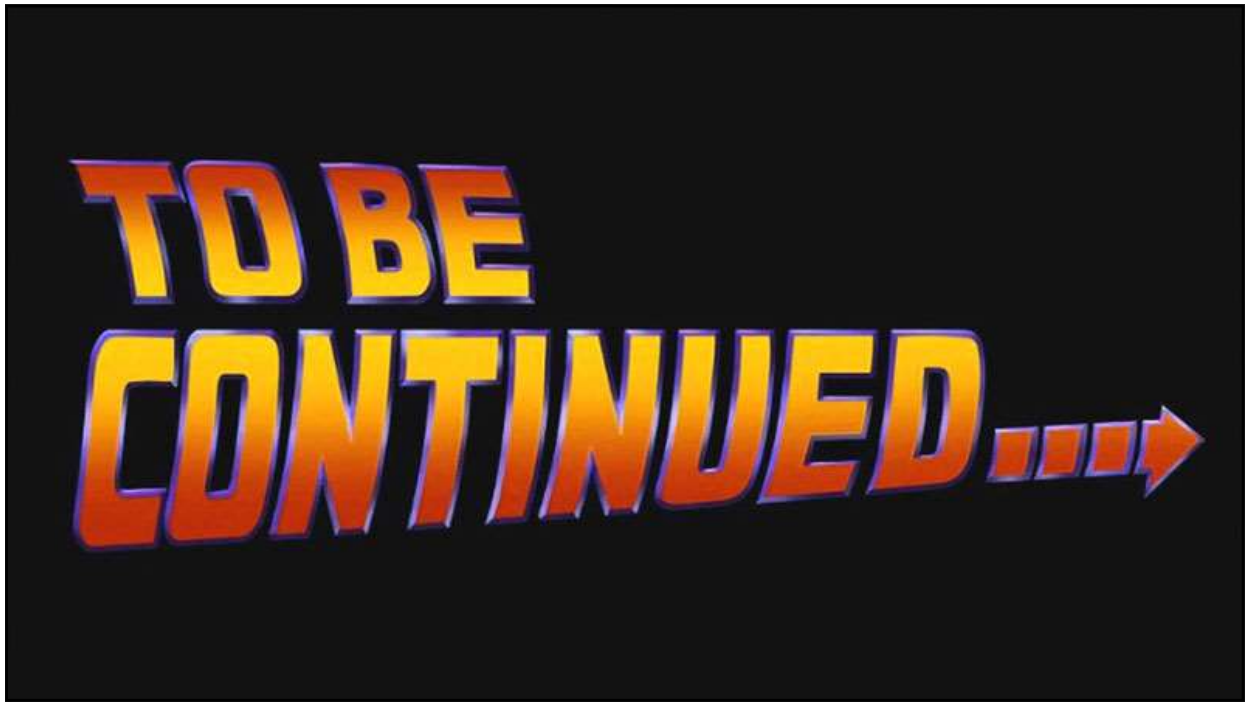

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