

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
	<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
Reaction to palpation of the surgical wound	<ul style="list-style-type: none"> • 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
	<ul style="list-style-type: none"> • 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
	<ul style="list-style-type: none"> • The cat reacts when the surgical wound is touched and when pressed. It may vocalize and/or try to bite 	2
	<ul style="list-style-type: none"> • The cat reacts when the observer approaches the surgical wound. It may vocalize and/or try to bite The cat does not allow palpation of the surgical wound 	3
Reaction to palpation of the abdomen/flank	<ul style="list-style-type: none"> • The cat does not react when the abdomen/flank is touched or pressed; or no change from pre-surgical response (if basal evaluation was made). The abdomen/flank is not tense 	0
	<ul style="list-style-type: none"> • The cat does not react when the abdomen/flank is touched, but does react when it is pressed. The abdomen/flank is tense 	1
	<ul style="list-style-type: none"> • The cat reacts when the abdomen/flank is touched and when pressed. The abdomen/flank is tense 	2
	<ul style="list-style-type: none"> • The cat reacts when the observer approaches the abdomen/flank. It may vocalize and/or try to bite The cat does not allow palpation of the abdomen/flank 	3
Vocalization	<ul style="list-style-type: none"> • The cat is quiet, purring when stimulated, or miaows interacting with the observer, but does not growl, groan, or hiss 	0
	<ul style="list-style-type: none"> • The cat purrs spontaneously (without being stimulated or handled by the observer) 	1
	<ul style="list-style-type: none"> • The cat growls, howls, or hisses when handled by the observer (when its body position is changed by the observer) 	2
	<ul style="list-style-type: none"> • The cat growls, howls, hisses spontaneously (without being stimulated or handled by the observer) 	3

Subscale 2: PSYCHOMOTOR CHANGE (0 – 12)		
Posture	• The cat is in a natural posture with relaxed muscles (it moves normally)	0
	• The cat is in a natural posture but is tense (it moves little or is reluctant to move)	1
	• The cat is sitting or in sternal recumbency with its back arched and head down; or The cat is in dorso-lateral recumbency with its pelvic limbs extended or contracted	2
	• The cat frequently alters its body position in an attempt to find a comfortable posture	3
Comfort	• The cat is comfortable, awake or asleep, and interacts when stimulated (it interacts with the observer and/or is interested in its surroundings)	0
	• The cat is quiet and slightly receptive when stimulated (it interacts little with the observer and/or is not very interested in its surroundings)	1
	• The cat is quiet and “dissociated from the environment” (even when stimulated it does not interact with the observer and/or has no interest in its surroundings) The cat may be facing the back of the cage	2
	• The cat is uncomfortable, restless (frequently changes its body position), and slightly receptive when stimulated or “dissociated from the environment” The cat may be facing the back of the cage	3
Activity	• The cat moves normally (it immediately moves when the cage is opened; outside the cage it moves spontaneously when stimulated or handled)	0
	• The cat moves more than normal (inside the cage it moves continuously from side to side)	1
	• The cat is quieter than normal (it may hesitate to leave the cage and if removed from the cage tends to return, outside the cage it moves a little after stimulation or handling)	2
	• The cat is reluctant to move (it may hesitate to leave the cage and if removed from the cage tends to return, outside the cage it does not move even when stimulated or handled)	3
Attitude	Observe and mark the presence of the mental states listed below	
	A - Satisfied: The cat is alert and interested in its surroundings (explores its surroundings), friendly and interactive with the observer (plays and/or responds to stimuli) *The cat may initially interact with the observer through games to distract it from the pain. Carefully observe to distinguish between distraction and satisfaction games	A
	B - Uninterested: The cat does not interact with the observer (not interested by toys or plays a little; does not respond to calls or strokes from the observer) * In cats which don't like to play, evaluate interaction with the observer by its response to calls and strokes	B
	C - Indifferent: The cat is not interested in its surroundings (it is not curious; it does not explore its surroundings) * The cat can initially be afraid to explore its surroundings. The observer needs to handle the cat and encourage it to move itself (take it out of the cage and/or change its body position)	C
	D - Anxious: The cat is frightened (it tries to hide or escape) or nervous (demonstrating impatience and growling, howling, or hissing when stroked and/or handled)	D
	E - Aggressive: The cat is aggressive (tries to bite or scratch when stroked or handled)	E
	<ul style="list-style-type: none"> • Presence of the mental state A • Presence of one of the mental states B, C, D, or E • Presence of two of the mental states B, C, D, or E • Presence of three or all of the mental states B, C, D, or E 	0 1 2 3

Subscale 3: PHYSIOLOGICAL VARIABLES (0 – 6)

Arterial blood pressure	• 0% to 15% above pre-surgery value	0
	• 16% to 29% above pre-surgery value	1
	• 30% to 45% above pre-surgery value	2
	• > 45% above pre-surgery value	3
Appetite	• The cat is eating normally	0
	• The cat is eating more than normal	1
	• The cat is eating less than normal	2
	• The cat is not interested in food	3

TOTAL SCORE (0 – 30)**Directions for using the scale**

Initially observe the cat's behavior without opening the cage. Observe whether it is resting or active; interested or uninterested in its surroundings; quiet or vocal. Check for the presence of specific behaviors (see "Miscellaneous behaviors" above).

Open the cage and observe whether the cat quickly moves out or hesitates to leave the cage. Approach the cat and evaluate its reaction: friendly, aggressive, frightened, indifferent, or vocal. Touch the cat and interact with it, check whether it is receptive (if it likes to be stroked and/or is interested in playing). If the cat hesitates to leave the cage, encourage it to move through stimuli (call it by name and stroke it) and handling (change its body position and/or take it out of the cage). Observe when outside the cage, if the cat moves spontaneously, in a reserved manner, or is reluctant to move. Offer it palatable food and observe its response.*

Finally, place the cat in lateral or sternal recumbency and measure its arterial blood pressure. Evaluate the cat's reaction when the abdomen/flank is initially touched (slide your fingers over the area) and in the sequence gently pressed (apply direct pressure over the area). Wait for a time, and do the same procedure to assess the cat's reaction to palpation of surgical wound.

*To evaluate appetite during the immediate postoperative period, initially offer a small quantity of palatable food immediately after recovery from anesthesia. At this moment most cats eat normally independent of the presence or absence of pain. Wait a short while, offer food again, and observe the cat's reaction.