







The Rat Grimace Scale

Research has demonstrated that changes in facial expression provide a means of assessing pain in rats.

The specific facial action units shown below have been used to generate the Rat Grimace Scale. These action units increase in intensity in response to post-procedural pain and can be used as part of a clinical assessment.

The action units should only be used in awake animals. Each animal should be observed for a short period of time to avoid scoring brief changes in facial expression that are unrelated to the animal's welfare.

	Not present "0"	Moderately present "1"	Obviously present "2"
<p>Orbital tightening</p> <ul style="list-style-type: none"> ▪ Closing of the eyelid (narrowing of orbital area) ▪ A wrinkle may be visible around the eye 			
<p>Nose/cheek flattening</p> <ul style="list-style-type: none"> ▪ Flattening and elongation of the bridge of the nose ▪ Flattening of the cheeks (potentially sunken look) 			
<p>Ear changes</p> <ul style="list-style-type: none"> ▪ Ears curl inwards and are angled forward to form a 'pointed' shape ▪ Space between the ears increases 			
<p>Whisker change</p> <ul style="list-style-type: none"> ▪ Whiskers stiffen and angle along the face ▪ Whiskers may 'clump' together ▪ Whiskers lose their natural 'downward' curve 	