

Management and control of horse welfare in Equestrian sport via monitoring and examining for lesions caused by equipment and riding aids

FEEVA Position

Horse welfare should not be compromised by use of equipment.

The person responsible (owner/rider/driver/trainer) for the horse is also responsible for correct adjustment, fitting and use of equipment at all times.

All equipment, despite the intention, has the potential to be used inappropriately. It is the responsibility of the person responsible to ensure that the horse comes to no harm through the use of tack or equipment.

Horse industry governing bodies, particularly horse sport organisations, have a definitive responsibility for upholding the welfare of horses in sport, as the horse acts as a silent partner.

- Adequate measures should be in place to govern the horses against any harm and compromised welfare, including proper use of equipment.
- Rules and regulations should always be based on acknowledgement of the horse as a sentient species and according to any available evidence-based learning theories.
- Sufficient enforcement of the rules and proper sanctioning measures should be in place.
- Further training and education is encouraged. Education of officials and development of thorough, updated and evidence-based standard protocols for examination of horses on site at competition should be implemented.

Equipment potentially camouflaging lesions or affecting the horse's natural senses and ability to move in a natural frame should be banned.

FEEVA recommends that:

- Veterinarians and governing bodies are familiar with evidence-based standard protocols for assessment of horse welfare with regards to use of equipment, like for example "The Oral Commissure Assessment Protocol (OCA)"⁸.

- Veterinarians and governing bodies seek to educate people in the equine industry about the importance of proper adjustment, fit and use of equipment.
- Governing bodies implement thorough, evidence-based examinations of horses in sport, pre- and post-competition, to ensure horse welfare is not compromised by the use of equipment.
- Governing bodies implement evaluation of rider/handler use of equipment during training, warm-up and competition, and assessment of horse welfare when being ridden or used otherwise (using validated objective behavioural markers of positive and negative welfare).

Summary

Pre- and post-check of horses used in Equestrian sport should include:

- Examination of the lip commissures (skin and mucosa) and bars on both sides.
- Tightness of the noseband
- Spur marks
- Whip marks

Findings of oral lesions 4-5, nose band <1.5 cm, spur marks 5-6 and/or whip marks 3-4 should lead to disciplinary action and the horse being stopped from competing until lesions have healed. Further text in the background section.

Equipment and aid assessment should also include:

- Observing for conflict behaviour, distress, pain and lameness during warm-up, competition and, when applicable, during training.

Background

Equipment-induced lesions in horses is a welfare issue which the general public are increasingly aware of. Several studies show high prevalence of oral lesions in sports horses caused by the bit and, more importantly, by inadequate training of horses^{1,2,3,4, 5.}

All equipment, despite the intention, has the potential to be used inappropriately and cause harm to a horse. It depends highly on how the equipment is being used, in the context of riding and handling the horse. If equipment is used appropriately it can enable safe and trainable communication between horse and human. Conversely, improper use of equipment can cause discomfort, anxiety, distress and/or pain, and which should be avoided at all times.

It is the responsibility of the rider and trainer to ensure that the rider has adequate technical skills and body control before they can use equipment that potentially harms the horse. For example, spurs have been shown to cause more harm when used at low level competition than high level, and at overall level, if the length is increased³

Failure to recognise pain or discomfort caused by wear, incorrect fitting or improper use of equipment, can occur due to lack of recognition of behavioural signs displayed by the horse⁶. Therefore, it is important to educate people in the equestrian industry in how to recognise positive and negative indicators of horse welfare (i.e. “the horse’s language”).

As well as recognising behavioural signs, it is also important to examine the horse regularly for physical signs of incorrect and/or improper use of equipment. For example, the bit can cause pain by compression, laceration, impeded blood flow and stretching of tissue, but the wear and/or tear of tissue is sometimes only detected if a systematic evaluation to identify these lesions is in place.

Due to poor recognition of behavioural signs and a lack of recognised protocols for physical examination of horses, the magnitude of problems relating to equipment is believed to be underestimated in training and competition^{3,6}.

Whenever tack or equipment is put on a horse it should always be fitted to the individual and be in good condition to avoid injury. Before and after use, the person responsible should examine the horse, checking for marks and lesions caused by equipment, for example the spurs, bit or whip.

When checking a horse’s body for lesions, all signs of wear on the hair, skin and mucosa should be noted according to location and in relation to the equipment used and potentially inappropriate skills of rider/handler. If there is any sign of discomfort, swelling, pain or abrasion relating to a lesion, or if there is a risk of further development of the lesion, further use of the horse should be discouraged until the problem has resolved. If possible, alternative equipment can be used, as long as it does not prevent the lesions from healing or cause further discomfort and/or pain.

A causal relationship between equipment, fitting, rider skills, trainer, discipline and prevalence of lesions recorded on horses has been shown in studies^{3,7}. For example, tightness of the noseband is significantly linked to prevalence of oral lesions caused by the bit³; and particular trainers for a particular group of horse-rider-combinations are also linked to prevalence of oral lesions caused by the bit⁷. This indicates that checking horses for lesions caused by equipment also serves as an indirect welfare marker of how the horse has been trained and handled prior to the check.

To secure welfare for horses in racing and competition, it is relevant for horse sport industry governing bodies to implement systematic checks of the equipment used and the effect it has, or has previously had, on the individual horse.

For consistency and reproducibility, a standard protocol of how to examine the horses and assess the findings should always be in place. As part of application of a standard protocol training of all operators involved on assessment and interpretation of lesions should be mandatory. This will both secure the ability to take appropriate and correct disciplinary actions against the person responsible presenting a horse which is unfit to compete. Equally it will secure fairness of evaluation and make comparative studies of populations possible.

Veterinarians, as professionals, are appropriately educated to assess horses both physically and in terms of welfare. Appropriate evidence-based standards and protocols that enable fair assessment should be promoted. With regards to use of equipment for horses, veterinarians are well placed to try and influence and educate horse owners, riders, handlers, trainers, governing bodies and their officials to implement standards for assessment of horse welfare in the field.

Protocol for assessment of oral lesions caused by the bit

Lesions caused by the bit is a common finding^{*1,2,3,4,5}.

When examining a horse mouth for lesions caused by the bit, at least two main areas should be included on both left and right side:

- The bars: careful examination of the full length of the bar, including lateral and medial edges, evaluate findings such as irregular outlines of the bars and gingival retraction.

- The oral commissures: careful examination of both the external skin and the internal mucosa of the commissures, paying particular attention to the most medial part of the mucosa inside the mouth where most lesions are located^{1,2}.
- Other regions, like cheek, tongue, palate etc, can be added according to individual circumstances.

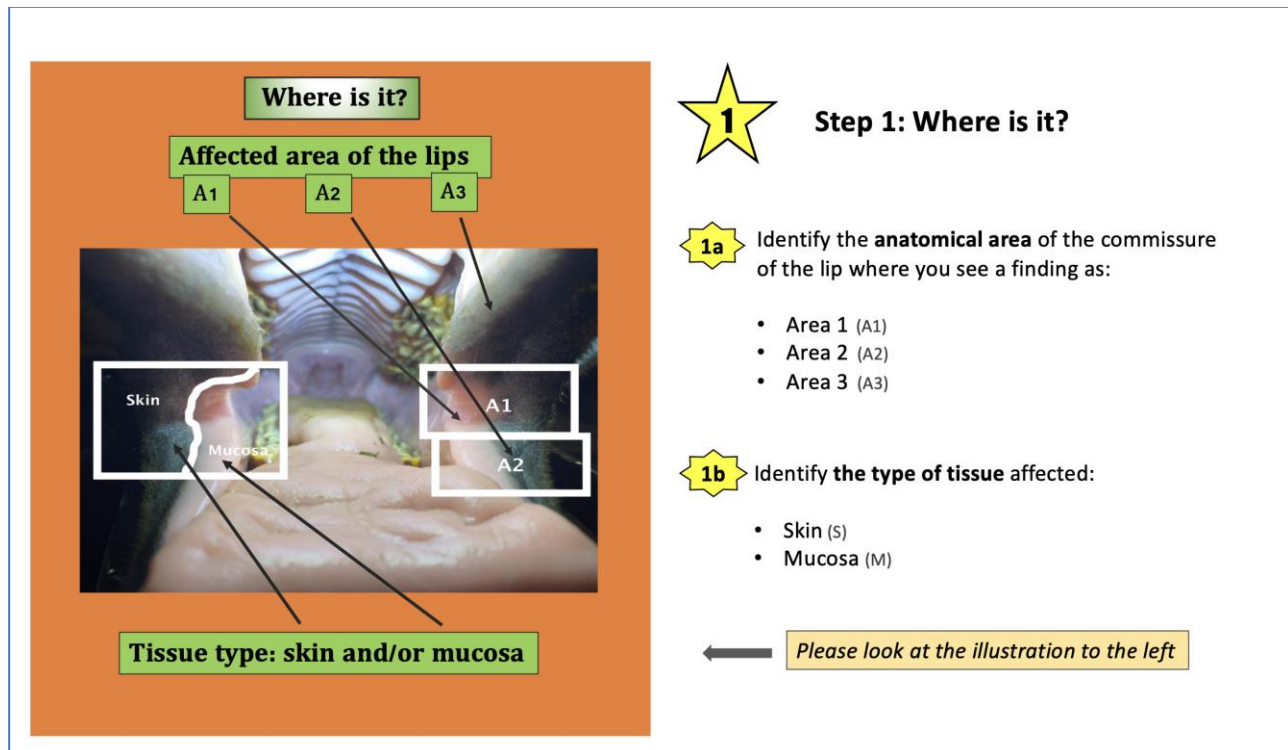


Fig. 1: Identification of anatomical area and type of tissue affected for findings in the oral commissure

Findings related to the bit:

1. Depigmentation
2. Scar
3. Fissure/split (major permanent interruption of the natural lining due to previously healed lesions)
4. Erosion/contusion
5. Ulcer (including bleeding)

1-3 (depigmentation, scar, fissure/split) can be interpreted as historical markers of previous problems (wear from the bit). These findings are not suitable for sanctioning in competition. Be aware that depigmentation should be assessed according to the horse's natural pigmentation. For further details see Uldahl *et al* 2022⁸.

4-5 (Erosion/contusion, ulcer) can be interpreted as acute markers of current problems involving the bit, which would be affecting the welfare of the horse. Be aware that the majority of ulcers caused by the bit do not bleed, as they are caused by pressure over time⁷. This means that only sanctioning when there is blood present in the mouth does not appropriately address nor exclude problems caused by the bit.

When ridden, horses should be assessed for signs of acceptance of the bit. Open mouth, showing teeth, blue tongue, grinding teeth, avoiding or leaning on the bit are all signs of non-acceptance and should be addressed accordingly.

*For photos and details regarding a standardised examination of the oral commissures see Uldahl *et al* 2022⁸: The OCA protocol.

Assessment of noseband tightness

As part of securing horse welfare and reducing the risk of oral lesions caused by the bit³, it is of paramount importance to ensure that the noseband is not placed too tight and is fitted according to the standard for the type of noseband used. The horse needs to be allowed movement of the jaw and full ventilation capacity via the nostrils.

A minimum of 1.5 cm between the nasal bone of the horse and the noseband should be required to allow adequate movement of the temporomandibular joint. However, studies have shown that no noseband does not lower the risk of oral lesions compared to a loosely fitted noseband³. There is as yet no supportive evidence for a ban on the use of nosebands, as long as they are fitted properly and not fastened too tightly.

Protocol for assessment of lesions caused by the spurs

Spurs have potential to cause harm, although the prevalence of spur lesions is lower than lesions caused by the bit³.

When examining a horse for spur lesions, the horse ribcage behind the girth, in the region where the spurs lie, should be inspected visually and by palpation. Also, inspection of the riders' spur should be included. For example, a white tissue can be used to gently rub the area for detection of blood.

Findings related to use of spurs:

1. Adherent hair on the spur of the rider
2. Blood on the spur of the rider
3. Scarring or chronic non-painful swellings from previously healed lesions of the skin

4. Worn coat/hair on the horse in the region where the spurs contacts the horse
5. Swellings, acute and/or painful
6. Abrasion of the skin, with or without blood

1-2 can be interpreted as a marker of risk for the rider to potentially present horses with lesions from use of the spurs but cannot be linked to a particular horse/rider combination in competition³.

3 can be interpreted as a historical marker of previous problems (lesions from use of spurs). These findings are not suitable for sanctioning in competition.

4 can be interpreted as a potential problem, which should be addressed with the rider. Concern for the horse's welfare should be expressed.

5-6 can be interpreted as acute markers of a current problem with use of the spur, that is affecting the welfare of the horse³.

Protocol for assessment of lesions caused by the whip

A whip can be used for various purposes and has the potential to be both an aid, but also a severe coercive measure which can cause harm. Historically, a whip has been described as a riding aid to guide the horse's body in particular directions, for example in dressage. It has also served as a driver for the horse to move faster by inducing pain to the horse.

The use of a whip as a driver, sometimes also called "animator", towards movement (speed), change of direction, stopping of the horse etc, via inducing pain, anxiety or discomfort (whipping at any level of force) should at always be discouraged and banned in training and competition.

When examining a horse for whip lesions, the horse's neck, shoulders, quarters and hindlegs, in the region where the whip is used, should be inspected visually and by palpation. Also, inspection of the rider/handler's whip should be included.

Findings related to use of a whip:

1. Lack of skin sensation due to extensive use previously
2. Scarring
3. Swellings
4. Abrasion of the skin, with or without blood

1-2 (lack of skin sensation, scarring) can be interpreted as a historical marker of previous problems (lesions from use of whip). These findings are not suitable for sanctioning in competition.

3-4 (swellings, abrasion of skin, with or without blood) can be interpreted as acute markers of a current problem with use of the whip.

Protocol for assessing how and when to use equipment which is very likely to harm horses or potentially being coercive measures

For all equipment an ethical and welfare-based assessment should be performed before it is used for horses. On a daily basis this is the responsibility of the person(s) responsible for the horse and in equestrian sport it is a task for governing bodies to ensure the governing of horse welfare is always paramount to all other potential interests.

As stated previously, all types of equipment can potentially be used in a coercive manner. It depends on the rider/handler's use of equipment and the way it affects the horse.

For some equipment the risk of inducing pain, discomfort and anxiety to the horse is significantly higher than others. In some traditional equipment this is even inadvertently part of the use, for example use of tongue tie, lip chain and nose twitch. In general, use of equipment known to significantly compromise welfare and cause pain, discomfort and anxiety is strongly discouraged. Such types of equipment should only be used where the handling of the horse can otherwise be potentially dangerous to itself, other horses or humans. However, it cannot be used as a substitute for proper training of the horse to accept handling, and therefore should only be used in exceptional circumstances.

References

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