

Cost-Benefit Analysis of Pain Relief for Farm Animals

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Abstract

A number of husbandry procedures that damage sensitive tissues cause pain and distress. We must justify causing this pain and distress, but judging the acceptability of using such procedures depends on how compelling the need is to use them, and, on whether every practicable means of minimising the pain is employed. Principles for weighing the harms caused against the benefits accrued in the context of an ethical analysis are outlined. Ethically we are bound to attempt to relieve any significant pain and distress we cause. Additional drivers include economics, related to public opinion. Thus, there may be a tension between the ethical requirement to minimise significant pain and distress and the economic cost of doing so. This tension may be tempered by the need to factor in the future economic costs of *not* applying pain relief. Public sentiment is moving towards expecting pain relief to be applied on farms, but there are practical, economic, regulatory and other impediments to doing so. However, a demonstrably strong commitment to expeditiously resolving these issues would help to forestall criticisms which may arise should public expectations for change accelerate beyond the legitimate capacity of the farming community to meet them.

Introduction

A wide range of husbandry procedures involve significant trauma to sensitive tissues such as visceral organs, muscles, tendons, bones, nerves and blood vessels. Damage to such tissues may cause immediate pain (acute) and long-lasting pain (chronic). We have a better understanding of acute pain and its relief than we have of chronic pain (e.g. Mellor and Stafford, 2000; Stafford and Mellor, 2005a b).

In addition to the more common husbandry procedures – castration, tail docking, disbudding, dehorning, antler removal, breech mulesing, ear tagging and marking (notching), and beak trimming, there are numerous less common procedures. These include, tattooing, implanting of electronic identification devices, branding (freeze and hot), pizzle dropping and jowling (mulesing of the skin around the pizzle and below the ears, respectively), supernumerary teat removal, teeth clipping and grinding, tusk trimming, nose ringing, dubbing, desnooding, declawing, toe removal, pinioning, de-winging and devoicing. All of them involve some form of anatomical modification. The character, intensity, duration and tolerability of the pain they cause will differ in each case as pain takes many forms.

Causing Pain to Farm Animals

We were asked to consider the reasons and justification for causing pain to farm animals. Let us start this section with a few clear statements. It is *never* justified to set out to cause pain to any animal – that is a form of sadism. On the other hand, undertaking particular husbandry or other procedures that cause pain as a side effect *may* be acceptable. Judging the acceptability of using such a procedure depends critically on how compelling the need is to use the procedure, and, importantly, on whether or not every practicable means of minimising the pain is employed. In other words – and let us put this very strongly – no matter how compelling the reason is for using the procedure, if significant pain is known to be caused and those causing it demonstrate that they are indifferent to that pain by making no attempts to mitigate it, this could reasonably be portrayed as a gross callousness.

There is now no doubt that significant pain is caused by many of these procedures. We therefore have a clear ethical obligation to avoid causing it or to minimise the pain we do cause. This AAWS Pain Summit demonstrates a commitment to doing that.

Justification for the procedure – the benefits

The reasons advanced for undertaking painful husbandry procedures include the following:

- They minimise the risk of injury to animals and people, particularly for those animals kept at higher stocking rates or handled frequently (e.g. dehorning),
- They enable animals to be more easily and safely managed (e.g. dehorning, castration),
- They prevent carcass damage such as skin cuts or bruising (e.g. dehorning),
- They enhance carcass quality or composition (e.g. castration),
- They minimise conditions leading to risk of flystrike (e.g. mulesing, tail docking),
- They allow other husbandry practices (e.g. shearing) to be undertaken more quickly and efficiently (e.g. tail docking, castration),
- They prevent damage to the environment (nose ringing)
- They allow restraint (pinioning)
- They aid in identification (e.g. ear marking or notching), or
- They are part of harvesting products (e.g. velvet antler removal).

Minimising the harm (e.g. pain)

Pain is a specific example of harm, but other harms associated with the pain caused also need to be considered. For instance, a painful procedure that interferes with mother-young bonding at birth may also lead to starvation, debilitating infection and/or death of the newborn.

We have developed a series of questions to facilitate a comprehensive assessment of harms and their minimisation. For each procedure the following questions should be asked and answered:

1. Is it necessary to perform the procedure?
 - (a) What are the anticipated benefits of the anatomical modification?
 - (b) Does the modification achieve the desired benefits?
 - (c) Does the modification benefit a significant proportion of the treated animals?
 - (d) How significant are the benefits, i.e. how pressing is the need to make the modification?
 - (e) Can the same benefits be achieved in other (less invasive) ways?

2. What harms are caused by the procedure?
 - (a) Does the procedure cause transient, short-term harm, such as acute pain and distress, when it is carried out?
 - (b) Does the procedure cause longer-lasting harm, such as chronic pain and distress, during recovery from it?
 - (c) Does the procedure itself cause harms that persist beyond recovery from the procedure, such as persistent adverse behavioural or functional changes?
 - (d) What are the magnitudes of such transient, longer-lasting and/or persistent harms – how bad are they?
 - (e) Are there effective ways of reducing any such significant harms?
 - (f) In what proportion of animals do such harms occur to a significant extent?

3. Do the benefits of the procedure outweigh the harms?
 - (a) Do the act and the anatomical modification cause greater harms to the animals (individuals and groups) than they prevent?
 - (b) Are there sufficient indirect benefits (e.g. commercial, educational, recreational, scientific, social) to offset the harms done by the procedure itself and the associated anatomical modification to individuals or groups?

Cost-Benefit Analysis of Pain Relief

Use of the word “cost” in the term “cost-benefit” analysis can, in the practical context, lead to the erroneous impression that the major focus of the analysis is dollars, i.e. that a cost-benefit analysis primarily refers to the profit margin. However, although the economic dimension does have a legitimate place in these considerations because of financial and related social benefits accruing to those directly involved and to their local communities, the analysis in fact has an ethical focus, because it is directed towards assessing the relativities of the harms caused against the benefits derived. For this reason we prefer to use the term “harm-benefit” analysis.

According to utilitarian ethical theory – i.e. the theory that actions may be judged to be ethical if they bring about the *greatest* good to the *greatest* number – we can proceed with ethical credibility only with those actions that minimises the harms and

maximise the benefits to the greatest practicable extent. Harm-benefit analyses clearly have a major role in such assessments.

A harm-benefit analysis of applying pain relief, of course, is only a part of the larger analysis of the harms and benefits of using painful husbandry procedures. It is interesting, however, that with this more restricted analysis some major potential harms and benefits do relate to dollar costs.

Thus, the first potential harm that comes to mind is an increased dollar cost to the farming enterprise, although some analyses suggest that this would be proportionately quite low (e.g. Stafford et al., 2006) and it might be recoverable through greater returns. Increased costs would relate to purchase of the analgesics and equipment to administer them, employing trained experts or training others to gain relevant expertise, the greater time required for stock handlers to complete the task, modification of yards or races, and so on. Another potential harm may be any significant pain and distress caused by inexperienced administration and management of the drugs, although safeguards could be put in place to reduce those risks.

The most obvious benefit relates to the alleviation of the pain and distress that would otherwise be experienced by the animals. Although effective forms of pain relief may not yet be available for some practices (e.g. tail docking sheep), they clearly are for many (e.g. castration, disbudding and dehorning – Mellor and Stafford, 2000; Stafford and Mellor, 2005a b). An additional benefit may be the capacity to gain and/or retain access to premium priced markets serviced by welfare-sensitive food distribution enterprises, like Marks and Spencer, Sainsburys, McDonald's and Wendy's, if in future they extend their policies to require their suppliers to use pain relief when invasive husbandry procedures are carried out.

Role of Community Attitudes in Bringing About Change

Expressed in the above terms, there appears to be a tension between the ethical requirement to minimise any significant pain and distress and the economic cost of doing so, although this is somewhat tempered by the need to factor in the future prospect of the economic costs of *not* applying pain relief. The last of these is likely to be influenced significantly by the evolution of public attitudes both within exporting and importing countries. The more aware members of the public become of the pain and distress caused by husbandry practices, the more likely they are to require its minimisation. Already there is a growing expectation that pain relief will be provided to companion animals and it is logical to expect an extension of this to farm animals, and quite soon (Mellor, 2006). There are clear indications of this. For instance, the Farm Animal Welfare Council (UK) (Anonymous, 1994) and the National Animal Welfare Advisory Committee (NZ) (Anonymous, 2005) have made explicit statements to this effect.

At present there are a number of impediments to such burgeoning expectations being realised easily on farms (Anonymous, 2005; Mellor, 2006). These include tradition, practicality, cost, training, the availability of pain-relieving drugs together with veterinary or other expert supervision of their use; and regulatory restrictions on their availability and control. It may be tempting in some quarters to use these

hindrances as an excuse for inaction. That would be ill advised and could be justly criticised. On the other hand, a *demonstrably* strong commitment to expeditiously resolving these issues would help to forestall criticisms which may arise should public expectations for change accelerate beyond the legitimate capacity of the farming community to meet them. Evidence of such an approach and the progress made towards its openly declared goals lends credibility to statements of intent.

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