



### **Guidance for use of corticosteroids in horses in training.**

The BHA, in conjunction with other racing authorities around the world, have adopted a clear 14 -day exclusion on the use of intra-articular (joint) injections before racing, in other words, the horse may not until the 16th day after the joint has been injected. Whilst not defined as a “withdrawal period”, this would normally be a sufficient time for Triamcinolone (the most commonly used corticosteroid in equine practice) there have been a number of instances of trainers having horses tested post race, with a subsequent positive sample for Triamcinolone, despite records showing that the drug had been administered with a much greater withdrawal period (35 days or more).

Whilst there will always be anomalies with certain individual horses, the NTF would like to offer guidance on the use of corticosteroids and particularly the possible detection and withdrawal times, for trainers to discuss with their own veterinary surgeons, in order to minimise the risks of a horse failing a post race sample.

The choice and dose of corticosteroid used for treating a condition has a major bearing on the post injection detection time, as indeed does the site of the injection and whether it is a single injection or a repetitive therapy. Inclusion of other intra-articular therapies (e.g. Hyaluronan) may also have an influence on the detection time of the corticosteroid.

The majority of intra-articular corticosteroid preparations are “granular” presentations, i.e. they are a suspension of the granular corticosteroid in a liquid they do not dissolve in. These granules will slowly dissolve in the joint fluid, exerting their effect, however there is a possibility that they may become enveloped in other tissue, either within the joint or outside it, depending on the accuracy of the technique and consequently release the active principle over a longer period and hence produce a detectable level of the drug beyond the time expected.

The products available for use in horses in the UK are:

- 1) Methyl prednisolone (Depomedrone)

This is a granular product with a prolonged withdrawal time and would tend to be used for conditions that are treated with a long rehabilitation period to avoid any likelihood of producing a positive sample on race day.

2) Triamcinolone (Adcortyl)

This is a granular product and is the commonest corticosteroid used in equine veterinary practice for intra-articular injection but may also be used in other sites, such as around ligaments (e.g. back, sacro-iliac or suspensory ligaments).

3) Dexamethasone

This is a soluble product with a much shorter withdrawal period but is probably less effective than those above when administered intra-articularly.

4) It may be possible to import other products under special licence from abroad, e.g. Predef 2X (fluoprednisolone) or Betamethasone. Their effectiveness and detection times are less well known and trainers would need to obtain strong advice from their veterinary surgeon before using these products bearing in mind the requirement for 14 clear days between joint injection and racing.

The site of injection is important along with accuracy of the injection technique to ensure that the product is infiltrated into the joint fluid and not into other structures that might lead to slow release and a future positive sample. This is more likely to occur in small volume joints such as the plate bone joints of the hock, or in a complex joint such as the stifle where there are a number of other anatomical structures that could become involved in the injection technique. Similarly sites of injection where the corticosteroid is not actually placed into a compartment, such as a sacro-iliac injection or between the dorsal spinous processes in the back, mean that the granular product may more easily become enveloped in other tissues and slowly leach the active drug into the system, thereby making a positive post race sample more likely.

Dosage would appear to be significant as well. A total maximum dose of 20mg Triamcinolone, even with multiple joints being injected, would appear to be sound advice. Recent research would suggest that much smaller doses of Triamcinolone (5mg or less) are equally as effective as the higher doses with a reduced detection time. If other products are injected with the corticosteroid, simultaneously, then further care should be taken on deciding the appropriate withdrawal time. Similarly a longer withdrawal period should be chosen if the horse is subject to repeated treatments.

Sadly there are no hard and fast rules governing all situations involving cortisone injections, so after due discussion between trainer and veterinary surgeon it would always be best to err on the side of caution.

