

United States Trotting Association
Harness Racing Medication Collaborative

Position Paper

Medication: BETAMETHASONE

Betamethasone is a corticosteroid that acts to prevent release of substances in the body that cause inflammation. It is an approved therapeutic medication in horses administered for the purpose of reducing inflammatory responses from traumatic, oxidative, and allergic sources.

The regulatory concern is that betamethasone could mask injury and therefore place the horse at risk of further injury. Specifically, if betamethasone were administered too close to race time, horsemen and veterinarians would be unable to assess response to treatment before putting the horse at risk by racing.

Data

To establish a plasma testing level that would be uniformly acceptable, HRMC reviewed all research results known to the panel, testing history in Pennsylvania at this threshold, the necessity of covering outliers, and the in-place Canadian action levels. These data included Menendez, et al. (2015), where a 30 mg dose of betamethasone was split between two joints. Using extrapolated pharmacokinetic data from this paper, most horses are predicted to be below the 100 pg/mL threshold at 4-1/2 days post administration.

Recommendation

The permissible plasma threshold should be set at 100pg/mL in plasma for harness horses, with a recommended withdrawal guideline of 6-1/2 days.

Further, for betamethasone acetate and betamethasone sodium phosphate, the permissible threshold level under the industry practice of

injecting joints bilaterally should be set at 100 pg/mL in plasma with a recommended withdrawal guideline of 6-1/2 days.

The veterinary panel was unanimous in this recommendation.

References

Menendez, M.I., M.A. Phelps, and A.L. Bertone. "Pharmacokinetics of intra-articular betamethasone sodium phosphate and betamethasone acetate and endogenous hydrocortisone suppression in exercising horses." *Journal of Veterinary Pharmacology and Therapeutics* doi: 10.1111/jvp. 12229.