

United States Trotting Association Harness Racing Medication Collaborative

Position Paper

Medication: CLENBUTEROL

Clenbuterol is a β_2 -adrenoreceptor agonist widely used therapeutically in horses as a bronchodilator.

Clenbuterol is administered to harness horses post-race to aid in clearance of pulmonary secretions and debris inhaled during the course of the race.

The regulatory concern is that clenbuterol, if administered too close to the time of an upcoming race, might enhance performance by reducing normal respiratory secretions occurring during racing, or by improving respiratory function in some other way.

Data

To identify a plasma testing level that would be uniformly acceptable, HRMC reviewed all U.S. harness racing jurisdictions. Deference was given to Ohio, which uses the threshold level recommended herein, and New York, which has a history of usage at the same threshold level.

Recommendation

The permissible threshold level should be set at 25pg/mL in plasma for harness horses, with a recommended withdrawal guideline of 96 hours. This is based on the paper (Lehner, et al., 2001) cited in the References section below, where 96 hours after oral administration of 0.08 uk/kg ventipulmin, 5 in 10,000 horses are estimated as being at risk of violating a 30 pg/mL threshold. This dosing schedule / regulatory threshold has a long history of successful application in Kentucky, California, Arizona, Minnesota, New Mexico, Ohio, and Washington (Tobin, et al., 2011, p. 36).

The stated threshold and use guideline are appropriate for horses racing approximately weekly.

The veterinary panel was unanimous in this recommendation.

References

- Lehner, A.F., and J.D. Harkins, W. Karpiesiuk, W.E. Woods, N.E. Robinson, L. Dirikolu, M. Fisher, and T. Tobin. "Clenbuterol in the Horse: Confirmation and Quantitation of Serum Clenbuterol by LC-MS-MS after Oral and Intratracheal Administration." *Journal of Analytical Toxicology* 25 (2001): 280-87.
- Tobin, Thomas, K. Brewer, and K.H. Stirling. *World Rules for Equine Drug Testing and Therapeutic Medication*. Nicholasville: Wind Publications, 2011. Print.