

Withdrawal Guidelines are for informational purposes only. They do not constitute a guarantee. The guidance provided was based on administration of a single medication. The combination of any of these medications or addition of other substances may substantially affect withdrawal times.

| Controlled Therapeutic Medication | Threshold | Withdrawal Guideline | Experimental Administration Dosage | Notes Unless otherwise stated, the applicable analyte is free (parent) drug |
|-----------------------------------|---|----------------------|---|--|
| Acepromazine | 10 nanograms per milliliter as 2-(1-hydroxyethyl) promazine sulfoxide (HEPS) in urine | 48 hours | Single <u>intravenous</u> dose of acepromazine at 0.05 milligrams per kilogram | Applicable analyte in urine: acepromazine metabolite HEPS |
| Albuterol | 1 nanogram per milliliter of urine | 72 hours | 720 micrograms total dose <u>intra-nasal</u> only. Based upon dosing up to 4 times per day | Administration of albuterol by any means other than intra-nasally has a high likelihood in resulting in a positive finding. This specifically includes oral administration. Trainers and veterinarians are cautioned against using oral albuterol. Quarter Horse racing: Albuterol is a prohibited substance and is regulated by Laboratory Limit of Detection in any biologic sample. There is no applicable withdrawal guidance. |
| Betamethasone | 10 picograms per milliliter of plasma or serum | 7 days | Intra-articular administration of Betamethasone Sodium Phosphate (3 mg/ml) and Betamethasone Acetate (3 mg/ml) for a total dose of 9 mg total in <u>one articular space</u> | Intramuscular administration of betamethasone acetate will result in plasma or serum concentrations in excess of the Regulatory Threshold for an extended period. Flat and jumps racing: The threshold for betamethasone does <u>not</u> apply. To enforce a prohibition on stacking of corticosteroids, betamethasone is regulated by Laboratory Limit of Detection in blood and/or urine. |

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| Butorphanol | 300 nanograms per milliliter of total butorphanol in urine or 2 nanograms of free butorphanol per milliliter per milliliter of plasma or serum | 48 hours | Single intravenous dose of butorphanol as Torbugesic® (butorphanol tartrate) at 0.1 milligrams per kilogram | Applicable analytes in urine: Total of free and conjugated butorphanol. |
| Cetirizine | 6 nanograms per milliliter of plasma or serum | 48 hours | 0.4 milligram per kilogram twice a day for 5 doses. | Do not administer avermectins within 48 hours of racing if cetirizine is administered |
| Cimetidine | 400 nanograms per milliliter of plasma or serum | 24 hours | 20 milligrams per kilogram orally, twice daily for 7 doses | |
| Clenbuterol | 140 picograms per milliliter of urine or Laboratory Limit of Detection in plasma or serum | 14 days | Clenbuterol as Ventipulmin® syrup (Boehringer-Ingelheim Vetmedica Inc) at 0.8 micrograms per kilogram orally twice a day for a maximum of 30 days | Quarter Horse racing: Clenbuterol is a prohibited substance and is regulated by Laboratory Limit of Detection in any biologic sample. There is no applicable withdrawal guidance. Note: There is variability between racing jurisdictions with respect to the permitted use of clenbuterol. It is advisable to consult the local authority prior to prescribing or administering clenbuterol. |
| Dantrolene | 0.1 nanograms per milliliter of 5-hydroxydantrolene in plasma or serum | 48 hours | 500 milligrams total body dose, administered orally | Applicable analyte in blood: dantrolene metabolite 5-hydroxydantrolene. |

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| Detomidine | 2.0 nanograms per milliliter of carboxydetomidine in urine or 1.0 nanogram per milliliter of detomidine in blood. | 48 hours | Detomidine as Dormosedan, 5 mg total body dose by single <u>intravenous</u> injection | Applicable analyte in urine: detomidine metabolite carboxydetomidine. |
| Dimethyl sulfoxide (DMSO) | 10.0 micrograms per milliliter of plasma or serum | 48 hours | Medical grade DMSO (90%) maximum 60 ml (54,000 mg) applied topically or 70 ml (63,000 mg) in 0.5-1.0 liter LRS administered by intravenous infusion | |
| Furosemide | 100 nanogram per milliliter of plasma or serum AND urine specific gravity < 1.010 | 4 hours | Maximum 500 milligrams total body dose by single intravenous injection | Note: There is variability between racing jurisdictions with respect to the maximum permitted dose of furosemide. Veterinarians administering race day furosemide should be familiar with local requirements. |
| Glycopyrrolate | 3 picograms per milliliter plasma or serum | 48 hours | 1 milligram total body dose by single <u>intravenous</u> injection. | |
| Guaifenesin | 12.0 nanograms per milliliter of plasma or serum | 48 hours | 2 grams total body dose, orally twice daily for 5 doses | |

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|-----------------------------------|--|----------------------|--|--|
| Isoflupredone | 100 picograms per milliliter of plasma or serum | 7 days | 10 milligrams total dose subcutaneous or 20 milligrams total dose in one articular space | Intramuscular administration of isoflupredone will result in plasma or serum concentrations in excess of the Regulatory Threshold for an extended period. Flat and jumps racing: The threshold for isoflupredone does not apply. To enforce a prohibition on stacking of corticosteroids, triamcinolone is regulated by Laboratory Limit of Detection in blood and/or urine. |
| Lidocaine | 20 picograms per milliliter of total 30H-lidocaine in plasma or serum | 72 hours | 200 milligrams of lidocaine as its hydrochloride salt administered subcutaneously | Applicable analytes: total of free (parent) and conjugated metabolites. |
| Mepivacaine | 10.0 nanograms total hydroxymepivacaine per milliliter of urine or above Laboratory Limit of Detection of mepivacaine in plasma or serum | 72 hours | 0.07 milligrams per kilogram single dose applied subcutaneously to distal limb | Applicable analyte in urine: mepivacaine metabolite hydroxymepivacaine. |
| Methocarbamol | 1.0 nanogram per milliliter of plasma or serum | 48 hours | 15 milligrams per kilogram methocarbamol as Robaxin® by single intravenous dose or a single 5 gram oral dose | |

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|-----------------------------------|---|---|--|---|
| Methylprednisolone | 100 picograms per milliliter of plasma or serum | See Experimental Administration Dosage | Total dose of methylprednisolone acetate suspension in <u>one articular space</u> . The recommended withdrawal for methylprednisolone acetate is a minimum of 21 days at a 100 milligram dose | Intramuscular administration of methylprednisolone acetate will result in plasma or serum concentrations that will exceed the Regulatory Threshold for weeks to months. If methylprednisolone is administered by any route, clearance testing is advisable, and in some jurisdictions mandatory. |
| Omeprazole | Omeprazole sulfide 10.0 nanograms per milliliter of plasma or serum | 24 hours | Omeprazole as GastroGuard 2.2 grams orally once daily for 4 doses | Applicable analyte in blood: omeprazole metabolite, omeprazole sulfide. |
| Prednisolone | 1.0 nanogram per milliliter of plasma or serum | 48 hours | 1 milligram per kilogram orally | <u>Flat and jumps racing</u> : The blood threshold for prednisolone does <u>not</u> apply. To enforce a prohibition on stacking of corticosteroids, prednisolone is regulated by Laboratory Limit of Detection in blood <u>and</u> a urine screening limit of 0.01 micrograms per milliliter of free prednisolone. |
| Procaine penicillin | 25.0 nanograms per milliliter of plasma or serum | Treatment must be discontinued prior to entry and no less than 48 hours | 17 milligrams (~17,000 IU) per kilogram by intramuscular administration | Mandatory reporting of treatments and surveillance requirement on race day. Consult the local authority for specific instructions. |
| Ranitidine | 40.0 nanograms per milliliter of plasma or serum | 24 hours | 8 milligrams per kilogram orally, twice daily for 7 doses | |

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| Triamcinolone acetonide | 100 picograms per milliliter of plasma or serum | 7 days | Total dose of 9 milligrams in <u>one articular space</u> | <p>Intramuscular administration of triamcinolone will result in plasma or serum concentrations in excess of the Regulatory Threshold for an extended period.</p> <p><u>Flat and jumps racing:</u> The threshold for triamcinolone acetonide does not apply. To enforce a prohibition on stacking of corticosteroids, triamcinolone is regulated by Laboratory Limit of Detection in blood and/or urine.</p> |
| Xylazine | 200 picograms per milliliter of plasma or serum | 48 hours | 200 milligrams by single <u>intravenous</u> dose | |

Non-Steroidal Anti-Inflammatory Drugs (NSAIDs)

Samples collected may contain one of the NSAIDs below detected at a concentration less than the Regulatory Threshold. To promote compliance with the prohibition on stacking (the detection of more than one NSAID in a sample [blood and/or urine]) secondary withdrawal guidance is provided. For more information on NSAID use refer to the RMTC's Advisory: [NSAID Advisory](#)

| Controlled Therapeutic Medication | Regulatory Threshold | Restricted Administration Time | Dosing Specifications | Secondary Withdrawal Guidance Minimum Recommended Interval from Treatment to Race |
|-----------------------------------|--|--------------------------------|--|--|
| Flunixin | 5.0 nanograms per milliliter of plasma or serum | 48 hours | Single intravenous dose of flunixin as Banamine® (flunixin meglumine) at 1.1 milligram per kilogram | 144 hours (6 days) |
| Ketoprofen | 2.0 nanograms per milliliter of plasma or serum | 48 hours | Single intravenous dose of ketoprofen as Ketofen® at 2.2 milligrams per kilogram | 96 hours (4 days) |
| Phenylbutazone | 0.3 micrograms per milliliter of plasma or serum | 48 hours | Single intravenous dose of phenylbutazone at 4.4 milligrams per kilogram | 168 hours (7 days) |