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 **intravenous** 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 **intra-nasal** 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 **one articular space**	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 not apply. To enforce a prohibition on stacking of corticosteroids, betamethasone is regulated by Laboratory Limit of Detection in blood and/or urine.

Controlled Therapeutic Medication	Threshold	Withdrawal Guideline	Experimental Administration Dosage	Notes Unless otherwise stated, the applicable analyte is free (parent) drug
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	100 picograms 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.

Controlled Therapeutic Medication	Threshold	Withdrawal Guideline	Experimental Administration Dosage	Notes Unless otherwise stated, the applicable analyte is free (parent) drug
Detomidine	2.0 nanograms per milliliter of carboxydetomidine in urine or 1.0 nanogram per milliter of detomidine in blood.	48 hours	Detomidine as Dormosedan, 5 mg total body dose by single **intravenous** 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 **intravenous** injection.	
Guaifenesin	12.0 nanograms per milliliter of plasma or serum	48 hours	2 grams total body dose, orally twice daily for 5 doses	

Controlled Therapeutic Medication	Threshold	Withdrawal Guideline	Experimental Administration Dosage	Notes Unless otherwise stated, the applicable analyte is free (parent) drug
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	

Controlled Therapeutic Medication	Threshold	Withdrawal Guideline	Experimental Administration Dosage	Notes Unless otherwise stated, the applicable analyte is free (parent) drug
Methylprednisolone	100 picograms per milliliter of plasma or serum	See Experimental Administration Dosage	Total dose of methylprednisolone acetate suspension in **one articular space**. 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	**Flat and jumps racing:** The blood threshold for prednisolone does not apply. To enforce a prohibition on stacking of corticosteroids, prednisolone is regulated by Laboratory Limit of Detection in blood and 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	

Controlled Therapeutic Medication	Threshold	Withdrawal Guideline	Experimental Administration Dosage	Notes Unless otherwise stated, the applicable analyte is free (parent) drug
Triamcinolone acetonide	100 picograms per milliliter of plasma or serum	7 days	Total dose of 9 milligrams in **one articular space**	Intramuscular administration of triamcinolone will result in plasma or serum concentrations in excess of the Regulatory Threshold for an extended period. **Flat and jumps racing:** 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.
Xylazine	200 picograms per milliliter of plasma or serum	48 hours	200 milligrams by single **intravenous** 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 4.0 milligrams per kilogram	168 hours (7 days)