

WITHDRAWAL TIME RECOMMENDATIONS ARIZONA RACE TRACKS 2018-19 MEET

IMPORTANT WARNING:

The information on drug withdrawal times does not constitute and is not a warranty, guarantee, assurance, undertaking, or anything similar that use of any of the therapeutic medications at the dosage and withdrawal time listed will not result in a positive post-race test. The Arizona Department of Gaming, Division of Racing (ADG-Racing) is not responsible for results differing in any way from the results stated herein.

Use of guidelines provided in this document does not relieve or lessen any trainer's responsibility for assuring that, during a horse race, a horse is either free from any drug listed or below the appropriate threshold and for complying with Arizona Statutes and Administrative Code.

Owners, trainers or any other person responsible for the care of a race horse are strongly advised to consult their own veterinarian for guidance and advice in the use of all drugs. The guidelines in this document may not be consistent with regulations and laboratory methods in place in other jurisdictions.

ADG-Racing reserves the right to alter thresholds and withdrawal guidance as more scientific data becomes available.

NOTE:

There are no changes from the 2017-18 withdrawal time recommendations. There is one change to the dose and route of administration of DMSO (Dimethyl Sulfoxide) for 2018-19. A list of abbreviations used can be found at the end of the document. **Changes have been highlighted in this document wherever possible.**

DRUG LISTING:

1. Acepromazine

Threshold—10 ng/ml in urine (metabolite)

Dose and/or route: 0.05 mg/kg as a single IV injection

Recommended withdrawal time: 48 hours

Number of Positive Tests 2017-18—1

Note: Caution should be taken when acepromazine is administered orally for an extended period of time. The drug and metabolites can be detected in the urine after repeated oral administration for as long as 30 days. If a horse requires repeated administration in order to better manage the animal, it is recommended that a sample be obtained and analyzed at the laboratory prior to entry in order to avoid inadvertent positive tests.

RCI Class 3; Penalty Class B.

2. Albuterol

Threshold—1 ng/ml in urine

Dose and/or route: 720 micrograms total dose, intranasal only

Recommended withdrawal time: 72 hours

Number of Positive Tests 2017-18—0

Note: Recent studies have shown that albuterol administered orally to horses is ineffective as a bronchodilator. Administration via this route is not recommended as it serves no therapeutic purpose and carries a substantial risk of exceeding the threshold.

RCI Class 3; Penalty Class B.

3. Betamethasone

Threshold—10 pg/ml in serum/plasma

Dose and/or route: IA administration of 9 mg total in one articular space as Sodium Phosphate or Acetate

Recommended withdrawal time: 7 days

Number of Positive Tests 2017-18—1

Note: IM administrations are discouraged due to lengthy detection period of weeks or even months.

RCI Class 4; Penalty Class C.

4. Boldenone

Threshold—100 pg/ml in serum/plasma; 15 ng/ml in urine of males other than geldings

Dose and/or route: 500 mg IM (single dose)

Recommended withdrawal time: 60 days

Number of Positive Tests 2017-18—0

Note: Boldenone has a very long detection period following a single dose. If a horse has been diagnosed with a condition that a veterinarian believes would benefit from the use of this drug it is recommended that the Department veterinarian be notified in order to place the horse on the Vet's list. It is recommended that only Equipoise® be used as compounded and generic formulations often have significant variability in absorption.

RCI Class 3; Penalty Class B.

5. Butorphanol

Threshold—2 ng/ml in serum/plasma; 300ng/ml in urine

Dose and/or route: 0.1 mg/kg (tartrate) IV as a single dose

Recommended withdrawal time: 48 hours

Number of Positive Tests 2017-18—0

Note: Single IV dose of butorphanol as Torbugesic® at 0.1mg/kg.

RCI Class 3; Penalty Class B.

6. Cetirizine

Threshold—6 ng/ml in serum/plasma

Dose and/or route: 0.4 mg/kg PO BID for 5 doses

Recommended withdrawal time: 48 hours

Number of Positive Tests 2017-18—0

Note: Do not administer avermectin drugs including ivermectin within 48 hours of a race if the horse has been administered cetirizine as it carries an increased risk of a cetirizine threshold violation.

RCI Class 4; Penalty Class C.

7. Cimetidine

Threshold—400 ng/ml in serum/plasma

Dose and/or route: 20mg/kg PO BID for 7 doses

Recommended withdrawal time: 24 hours

Number of Positive Tests 2017-18—0

RCI Class 5; Penalty Class D.

8. Clenbuterol

Threshold—Level of detection in serum/plasma; 140 pg/ml in urine

Dose and/or route: 0.8 mcg/kg PO BID maximum 30 days

Recommended withdrawal time: 14 days

Number of Positive Tests 2017-18—3

Note: For Quarter Horses, the threshold is level of detection in any permitted biological sample. Clenbuterol is a prohibited substance in Quarter Horses and other breeds racing with Quarter Horses. It is recommended that only Ventipulmin® be administered to horses in training. Other sources of clenbuterol are likely to have significant variations in mcg/ml strength and the withdrawal recommendation for these products cannot be reliably estimated. Doses higher than 1.6 mcg/kg are not recommended and it should be noted that high doses of clenbuterol carry significant toxicity risks to the horse.

RCI Class 3; Penalty Class B.

9. Dantrolene

Threshold—100 pg/ml in serum/plasma

Dose and/or route: 500 mg total dose PO

Recommended withdrawal time: 48 hours

Number of Positive Tests 2017-18—0

Note: Oral administration of 500 mg of dantrolene as paste (compounding pharmacy) or capsule formulation (Proctor and Gamble)

RCI Class 4; Penalty Class C.

10. Detomidine

Threshold—1ng/ml plasma; 2ng/ml urine

Dose and/or route: single IV dose of Domosedan® of 5 mg

Recommended withdrawal time: 48 hours

Number of Positive Tests 2017-18—0

RCI Class 3; Penalty Class B

11. Dexamethasone

Threshold—5 pg/ml in serum/plasma

Dose and/or route: IM and IV administration of dexamethasone sodium phosphate, or oral administration of dexamethasone. At 0.05 mg/kg regardless of route.

Recommended withdrawal time: 72 hours

Number of Positive Tests 2017-18—5

Note: Be exceptionally careful when administering dexamethasone orally as powder form in packets. The recommended withdrawal for oral administrations is a minimum of 72 hours but you may wish to consider adding time depending on the length of administration.

RCI Class 4; Penalty Class C.

12. Diclofenac

Threshold—5 ng/ml in serum/plasma

Dose and/or route: 180 mg topically BID X 5 days (5" ribbon of Surpass® to one site)

Recommended withdrawal time: 48 hours

Number of Positive Tests 2017-18—0

RCI Class 4; Penalty Class C.

13. DMSO (Dimethyl Sulfoxide)

Threshold—10 mcg/ml in serum/plasma

Dose and/or route: Up to two ounces topically only

Recommended withdrawal time: 48 hours

Number of Positive Tests 2017-18—0

Note: The stewards will be notified of any horse entering the paddock smelling of DMSO and it will be considered grounds for selection of the horse for post-race testing. Evidence of administration of DMSO by the oral or intravenous routes on race day will be considered an aggravating factor in the consideration of the penalty for a positive test.

RCI Class 4; Penalty Class C.

14. Firocoxib

Threshold—20 ng/ml in serum/plasma

Dose and/or route: 0.1 mg/kg PO SID X 4 days

Recommended withdrawal time: 14 days

Number of Positive Tests 2017-18—0

Note: Withdrawal time studies have not been done for the injectable formulation. If Firocoxib injectable is used, a blood test prior to entry is recommended.

RCI Class 4; Penalty Class C.

15. Flunixin

Threshold—20 ng/ml in serum/plasma

Dose and/or route: 1.1 mg/kg IV (single dose)

Recommended withdrawal time: 24 hours

Number of Positive Tests 2017-18—5

Note: Flunixin administered IM, SQ or orally may result in positive tests due to slower absorption in the horse. Oral administration of paste formulations is not recommended. ADG-Racing rules do not allow “stacking” of NSAIDS.

RCI Class 4; Penalty Class C.

16. Furosemide

Threshold—100 ng/ml in serum or plasma

Dose and/or route: 150-500 mg IV (single dose)

Recommended withdrawal time: 4 hours

Number of Positive Tests 2017-18—2

Note: Splitting the dose between IV and IM or “topping off” within the four hour time limit will result in overages of the threshold. These practices should be discontinued.

REMINDER: Best Practices for Test Barn Operations published by the Racing Medication and Testing Consortium and National Thoroughbred Racing Association states that post-race blood should be drawn from the opposite side of Lasix (Furosemide) administration. Post-race blood samples are drawn from the **LEFT** side. Lasix should be injected on the **RIGHT** side. If this isn't possible, the lower left jugular vein may be used and this administration should be noted on the Lasix card. This prevents the risk of confounding test results.

17. Glycopyrrolate

Threshold—3 pg/ml in serum or plasma

Dose and/or route: 1 mg IV (single dose)

Recommended withdrawal time: 48 hours

Number of Positive Tests 2017-18—0

RCI Class 3; Penalty Class B

18. Guaifenesin

Threshold—12 ng/ml in serum or plasma

Dose and/or route: 2 g PO BID for 5 doses

Recommended withdrawal time: 48 hours

Number of Positive Tests 2017-18—0

RCI Class 4; Penalty Class C.

19. Isoflupredone

Threshold—100 pg/ml in serum or plasma

Dose and/or route: 10 mg total dose SQ, or 20 mg total dose in one articular space

Recommended withdrawal time: 7 days

Number of Positive Tests 2017-18—0

RCI Class 4; Penalty Class C.

20. Ketoprofen

Threshold—10 ng/ml in serum or plasma

Dose and/or route: 2.2 mg/kg IV (single dose)

Recommended withdrawal time: 24 hours

Number of Positive Tests 2017-18—0

Note: ADG-Racing rules do not allow “stacking” of NSAIDS.

RCI Class 4; Penalty Class C.

21. Lidocaine

Threshold—20 pg/ml in serum or plasma

Dose and/or route: 200 mg (total dose) SQ

Recommended withdrawal time: 72 hours

Number of Positive Tests 2017-18—0

RCI Class 2; Penalty Class B.

22. Mepivacaine

Threshold— level of detection in serum or plasma, 10 ng/ml in urine

Dose and/or route: 0.07 mg/kg SQ (single injection, distal limb)

Recommended withdrawal time: 72 hours

Number of Positive Tests 2017-18—0

RCI Class 2; Penalty Class B.

23. Methocarbamol

Threshold—1 ng/ml in serum or plasma

Dose and/or route: 15 mg/kg IV as Robaxin® (single dose) or 5 grams orally

Recommended withdrawal time: 48 hours

Number of Positive Tests 2017-18—0

Note: Caution is urged when methocarbamol and phenylbutazone are administered together. It appears that phenylbutazone slows the elimination of methocarbamol from the blood and may result in unintentionally exceeding the methocarbamol threshold. There is no specific guidance but a suggestion of adding a minimum of 48 hours, to the recommended withdrawal time for methocarbamol when administering concurrently with phenylbutazone. Additionally, be cautious when administering methocarbamol by the oral route. Based on a small study performed by the Racing Medication and Testing Consortium, a withdrawal time of at least 72 hours is recommended when methocarbamol is administered orally especially in repeated doses.

RCI Class 4; Penalty Class C.

24. Methylprednisolone

Threshold—100 pg/ml in serum or plasma

Dose and/or route: 100 mg IA (total dose) (single joint)

Recommended withdrawal time: 21 days

Number of Positive Tests 2017-18—0

Note: At the 100 mg experimental dose, the safe time for administration to meet the 100 pg/ml threshold was 21 days. A 7-day withdrawal guideline anticipates that protocols vary and a smaller dose may be utilized which may allow plasma concentrations to fall below the threshold more quickly. Anecdotal information suggests that the elimination period may be longer when joint spaces in rear limbs are injected. Much longer withdrawal times (up to 30 days) should be considered when multiple joints are injected. Intramuscular administration may result in serum threshold overages for weeks or even months.

RCI Class 4; Penalty Class C.

25. Nandrolone

Threshold—100 pg/ml in serum or plasma (fillies, mares, geldings); 500 pg/ml (intact males); 1 ng/ml in urine (all)

Dose and/or route: 200 mg IM (single dose)

Recommended withdrawal time: 60 days

Number of Positive Tests 2017-18—0

Note: If a horse has been diagnosed with a condition that a veterinarian believes would benefit from the use of this drug it is recommended that the Department veterinarian be notified in order to place the horse on the Vet's list.

RCI Class 3; Penalty Class B

26. Omeprazole

Threshold—10 ng/ml in serum or plasma

Dose and/or route: 2.2 gm PO SID for 4 doses

Recommended withdrawal time: 24 hours

Number of Positive Tests 2017-18—0

Note: It is recommended that only Gastroguard® be used as it was the medication used in the research to establish thresholds, and the compounded and generic formulations often have significant variability in absorption.

RCI Class 5; Penalty Class D

27. Phenylbutazone

Threshold—5 mcg/ml in serum or plasma

Dose and/or route: 2 grams IV (single dose)

Recommended withdrawal time: 24 hours

Number of Positive Tests 2017-18—8

Note: ADG-Racing rules do not allow “stacking” of NSAIDs. If phenylbutazone is being administered orally during training it recommended that final dose be administered no closer than 72 hours prior to the race.

RCI Class 4; Penalty Class C.

28. Prednisolone

Threshold—1 ng/ml in serum or plasma

Dose and/or route: 1 mg/kg PO

Recommended withdrawal time: 48 hours

Number of Positive Tests 2017-18—0

RCI Class 4; Penalty Class C.

29. Procaine Penicillin G

Threshold—25 ng/ml in urine (procaine)

Dose and/or route: 22,000 IU/kg IM BID X 5 days

Recommended withdrawal time: 15 days

Number of Positive Tests 2017-18—0

Note: Administration must be reported to the ADG-Racing veterinarian.

RCI Class 3; Penalty Class B.

30. Ranitidine

Threshold—40 ng/ml in serum or plasma

Dose and/or route: 8mg/kg PO BID for 7 doses

Recommended withdrawal time: 24 hours

Number of Positive Tests 2017-18—4

RCI Class 5; Penalty Class D

31. Stanozolol

Threshold—100 pg/ml in serum or plasma; 1 ng/ml in urine

Dose and/or route: 0.55 mg/kg IM (single dose)

Recommended withdrawal time: 30 days

Number of Positive Tests 2017-18—0

Note: If a horse has been diagnosed with a condition that a veterinarian believes would benefit from the use of this drug it is recommended that the Department veterinarian be notified in order to place the horse on the Vet's list.

RCI Class 3; Penalty Class B.

32. Testosterone

Threshold—100 pg/ml in serum or plasma (fillies, mares, geldings); 2 ng/ml in serum or plasma (intact males); 20 ng/ml in urine (geldings); 55 ng/ml in urine (fillies and mares)

Dose and/or route: 75 mg IM (single dose)

Recommended withdrawal time: 30 days

Number of Positive Tests 2017-18—0

Note: If a horse has been diagnosed with a condition that a veterinarian believes would benefit from the use of this drug it is recommended that the Department veterinarian be notified in order to place the horse on the Vet's list.

RCI Class 3; Penalty Class B.

33. Triamcinolone acetonide

Threshold—100 pg/ml in serum or plasma

Dose and/or route: Total dose of 9 mg in one articular space

Recommended withdrawal time: 7 days

Number of Positive Tests 2017-18—4

Note: For the IV administration of a dose of 0.04 mg/kg, a withdrawal time of 48 hours can be used. IM administrations are discouraged due to lengthy detection period. Anecdotal information suggests that the elimination period may be longer when joint spaces in rear limbs are injected.

RCI Class 4; Penalty Class C.

34. Xylazine

Threshold—200 pg/ml in serum or plasma

Dose and/or route: 200mg Single IV injection

Recommended withdrawal time: 48 hours

Number of Positive Tests 2017-18—0

RCI Class 3; Penalty Class B.

ABBREVIATIONS

BID: Twice a day

SID: Once a day

IA: Intra-articular

IM: Intramuscular

IV: Intravenous

PO: By mouth

SQ: Subcutaneous