**Douglas A. Ducey**Governor

Daniel H. Bergin Director

Rudy J. Casillas
Racing Division Director

1110 W. Washington St, Suite 450 Phoenix, Arizona 85007 Tel 602.771.4263 Fax 602.255.3883 www.azgaming.gov

# WITHDRAWAL TIME RECOMMENDATIONS TURF PARADISE 2016-17 MEET

## **IMPORTANT WARNING:**

The information on drug withdrawal times does not constitute and is not a warranty, guarantee, assurance, undertaking or anything similar that the results of the use of any of the drugs in the manner set out will be as stated. The Arizona Department of Gaming, Division of 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 free from any drug listed or below the appropriate threshold and for complying with provisions of the Arizona Rules of Racing and Statutes.

Owners, trainers or any other person in charge or having care of a race horse are strongly advised to consult their own veterinarian for advice and guidance 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.

The Division reserves the right to alter thresholds and withdrawal guidance as more scientific data becomes available.

## NOTE:

There are a several changes from the 2015-16 withdrawal time recommendations and several new thresholds for 2016-17. 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 2015-16—0** 

**Note:** Caution should be taken when acepromazine is administered <u>orally</u> 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 <u>prior to entry</u> in order to avoid inadvertent positive tests. RCI Class3; Penalty Class B

## 2. Albuterol

Threshold—1 ng/ml in urine

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

**Recommended withdrawal time:** 72 hours **Number of Positive Tests 2015-16—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 Class3; 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 2015-16—2** 

**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 2015-16—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 Class3; 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 2015-16—0** 

**Note:** Single IV dose of butorphanol as Torbugesic® at 0.1mg/kg. Class3; 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 2015-16—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. 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 2015-16— 0

Note: 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 2015-16—6** 

**Note:** 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 guessed. 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 Class3; 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 hoursNumber of Positive Tests 2015-16—0

**Note:** Oral administration of 500mg 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 5mg

Recommended withdrawal time: 48 hrs
Number of Positive Tests 2015-16—0

Note: RCI Class3; 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 2015-16—5** 

**Note:** Be exceptionally careful when administering dexamethasone or ally 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 2015-16—0** 

Note: RCI Class 4; Penalty Class C.

## 13. DMSO

Threshold—10 mcg/ml in serum/plasma
Dose and/or route: Oral or IV administration
Recommended withdrawal time: 48 hours
Number of Positive Tests 2015-16—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 raceday 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 2015-16—0** 

**Note:** The withdrawal recommendation will be updated with guidance on the IV formulation when more data becomes available. RCI Class 4; Penalty Class C.

# 15. Flunixin

Threshold—50 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 2015-16—1** 

**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. The Department does not allow "stacking" of NSAIDS on raceday. 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 2015-16—1

**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. <u>Please see</u> also the memo issued by ADOR regarding the proper site for IV administration.

# 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 2015-16—0

Note: RCI Class3; Penalty Class B

## 18. Guaifenesin

Threshold—12 ng/ml in serum or plasma Dose and/or route: 2 g BID for 5 doses Recommended withdrawal time: 48 hours Number of Positive Tests 2015-16—0

Note: 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 2015-16—0** 

Note: 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 2015-16—0

**Note:** The Department does not allow "stacking" of NSAIDS on raceday. 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 2015-16—0

**Note:** RCI Class 2; Penalty Class B.

# 22. Mepivacaine

Threshold— level of detection in serum serum or plasma, 10 pg/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 2015-16—0** 

**Note:** 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 2015-16—1** 

**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 methocarmbamol 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 RMTC, 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 2015-16—1

**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 2015-16—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 2015-16—0

**Note:** It is recommended that only Gastrogard® 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 2015-16—2

**Note:** The Department does not allow "stacking" of NSAIDS on raceday. 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 2015-16—0** 

**Note:** 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 2015-16—0** 

**Note:** Administration must be reported to Commission. 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 2015-16—0

Note: 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 2014-15—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 2015-16—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 2015-16—1** 

**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. <u>Anecdotal information suggests that the elimination period may be longer when joint spaces in rear limbs are injected. RCI Class 4; Penalty Class C.</u>

# 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 2015-16— 0

Note: RCI Class 3; Penalty Class B.