

Additional information for trainers - Arsenic threshold to be introduced into the Greyhounds Australasia Rules

Warning to trainers – Arsenic usage in greyhounds

On 1 July 2016, Greyhounds Australasia will introduce a urinary threshold for arsenic of 800 ng/mL within GAR 83 (11) as follows:

“Arsenic at or below a mass concentration of 800 nanograms per millilitre in a sample of urine taken from a greyhound will not breach the provisions of sub rule (1A) or (2) of this rule.”

Trainers are advised to be extremely cautious using products that contain arsenic close to racing as this may inadvertently lead to a rise in urinary arsenic levels. Compliance with GAR 83A Raceday Treatment will minimise the risk of inadvertently exceeding the threshold, however a greater withholding period will be required for some substances, particularly injectable products.

Arsenic is a naturally occurring trace element that is normally present in greyhounds at very low levels as a result of normal dietary intake.

An excessive amount of arsenic has an effect on the cardiovascular system (GAR 1) and therefore is a prohibited substance when present in a sample at concentrations above that which would naturally occur through routine nutritional sources.

This threshold has been determined following a national population survey that measured urinary arsenic levels in 2849 greyhounds sampled on race day. It has been set at a level to allow for normal amounts of arsenic supplementation through routine nutritional sources.

However, trainers are advised that the **administration, particularly by injection and on multiple occasions or at larger ‘off-label’ doses, of certain registered supplements close to racing may result in a level of arsenic in a subsequent sample that exceeds this threshold.** Trainers are therefore advised to avoid the use of these supplements close to racing.

While there is generally no medical indication for arsenic supplementation in a healthy greyhound fed a balanced diet, where veterinary advice indicates these supplements are required, they should be given following the labeled advice of the manufacturer and ensure an adequate withholding period is followed prior to racing.

Examples of registered injectable supplements that contain arsenic include: NV Ferrocyll Injection (Sodium Cacodylate 6.4 mg/mL), NV Jurocyll (Sodium Arsanilate 50 mg/mL), TROY Invigorate As Injection (Sodium Arsanilate 50 mg/mL) and Jurox ARCYL Solution For Injection (Sodium Arsanilate 50 mg/mL).

For a current list of APVMA registered products that contain arsenic visit:
<https://portal.apvma.gov.au/pubcris>

Nutritional supplements

Trainers are advised some sea weed based nutritional supplements have been tested by controlling bodies and found to have high concentrations of arsenic and should not be fed close to racing. It is ultimately the responsibility of participants to carefully consider the use of any and all food and additives to make sure that all greyhounds are presented for racing free of any prohibited substance.

Administration study results:

This information is made available to participants, in order to assist them to comply with the rules. The detection times are not withdrawal times and should not be construed as such. There are many relevant factors in relation to any substance that could give rise to unpredictable and prolonged excretion times including:

- An animal's general health status, its physiology, metabolism, hydration status, fitness level, training regime, nutritional and dietary supplementation and concurrent medical treatment.
- Dose rate (i.e. the amount given per kg) – a higher dose will take longer to remove from the body system and could be detrimental to the dog's health. Combining similar supplements may also increase the dose rate as each may contain arsenic.
- Treatment duration and frequency (i.e. how long a supplement is given for and how often) – a cumulative effect could occur where supplements are given for extended periods, particularly when this is against the directions of the manufacturer ('off-label').
- Route of administration (i.e. orally or by injection) – injection of arsenic supplements will lead to much greater levels of arsenic and therefore requires greater withholding periods prior to racing than orally administered arsenic. Oral administration of products will still lead to a breach of the arsenic threshold and require an adequate withholding period.
- Pharmaceutical preparation (i.e. how much arsenic it contains) – different arsenical compounds contain different amount of arsenic. The preparations may also have different properties that result in e.g. different rates of absorption.

Careful consideration of the above factors and adequate veterinary advice is important prior to administering arsenic containing substances, particularly by injection. More conservative withdrawal times may need to be implemented.

The following admin studies were performed on 6 greyhounds:

Jurocyl Injection

Jurocyl Injection (CEVA) is a commercially available product registered for use in horses for a dry coat or inappetence. The arsenical compound is sodium arsanilate (50 mg/mL). This is equivalent to around 15.7 mg/mL of arsenic.

Dose administered intramuscularly: 1mL administered intramuscularly. This is equivalent to a dose rate of approximately 0.5 mg/kg of arsenic for a 30 kg greyhound.

Results: Arsenic levels detected above the 800 ng/mL threshold for up to 48 hours after dosing (maximum over 50,000 ng/mL), but did not return to resting levels for 72 hours. A cumulative effect may occur with this product. A minimum withholding period of 72 hours is suggested following injection.

Dose administered orally: 1mL administered orally. This is equivalent to a dose rate of approximately 0.5 mg/kg of arsenic for a 30 kg greyhound.

Results: Arsenic levels detected above the 800 ng/mL threshold for up to 48 hours after dosing (maximum 20,000 ng/mL), and returned to resting levels at this time. A cumulative effect may occur with this product. It is not recommended this product be administered orally, but if similar amounts of arsenic are administered orally, a minimum withholding period of 48 hours is suggested.

For further information please contact your state controlling body.

N.B. Reliance on this communication will not be a defence in the event of a breach of the rules. All participants in races do so subject to, and take full responsibility for their compliance with, the rules which contain, amongst other things, provisions relating to prohibited substances, the disqualification of greyhounds that have been found to have received them and the punishment of those who administer them.