1. NAME OF THE VETERINARY MEDICINAL PRODUCT

YPOZANE 1.875 mg tablets for dogs
YPOZANE 3.75 mg tablets for dogs
YPOZANE 7.5 mg tablets for dogs
YPOZANE 15 mg tablets for dogs

2. QUALITATIVE AND QUANTITATIVE COMPOSITION

Active substance:

Each tablet contains 1.875 mg, 3.75 mg, 7.5 mg or 15 mg osaterone acetate.

Excipients:

Qualitative composition of excipients and other constituents
Lactose monohydrate
Pregelatinised starch
Carmellose calcium
Maize starch
Talc
Magnesium stearate

Round, white, biconvex tablet of 5.5 mm, 7 mm, 9 mm or 12 mm diameter.

3. CLINICAL INFORMATION

3.1 Target species

Dogs (male).

3.2 Indications for use for each target species

Treatment of benign prostatic hypertrophy (BPH) in male dogs.

3.3 Contraindications

None.

3.4 Special warnings

In dogs with BPH associated with prostatitis, the product can be administered concurrently with antimicrobials.

3.5 Special precautions for use

Special precautions for safe use in the target species:

A transient reduction of plasma cortisol concentration may occur; this may continue for several weeks after administration. Appropriate monitoring should be implemented in dogs under stress (e.g. post-operative) or those with hypoadrenocorticism. The response to an ACTH stimulation test may also be suppressed for several weeks after administration of osaterone.

Use with caution in dogs with a history of liver disease, as safety of use of the product in these dogs has not been thoroughly investigated, and as treatment of some dogs with liver disease has resulted in reversible elevation of ALT and ALP in clinical trials.

Special precautions to be taken by the person administering the veterinary medicinal product to animals:

Wash hands after administration.

In case of accidental ingestion, seek medical advice immediately and show the package leaflet or the label to the physician.

A single oral dose of 40 mg osaterone acetate in human males was followed by a sporadic decrease in FSH, LH and testosterone, reversible after 16 days. There was no clinical effect.

In female laboratory animals, osaterone acetate caused serious adverse effects on reproductive functions. Therefore, women of child-bearing age should avoid contact with, or wear disposable gloves, when administering the product.

Special precautions for the protection of the environment:

Not applicable.

3.6 Adverse events

Dogs (male):

Very common (>1 animal / 10 animals treated):	Increased appetite[1] Hypocortisolaemia[1]
Common (1 to 10 animals / 100 animals treated):	Behavioural disorders (e.g., hyperactivity, decreased activity or more social behaviour)[1]
Uncommon (1 to 10 animals / 1,000 animals treated):	Vomiting and/or diarrhoea[1] Polydipsia[1], lethargy[1] Polyuria[1] Mammary hyperplasia
Very rare (<1 animal / 10,000 animals treated, including isolated reports):	Decreased appetite[1] Galactorrhoea[2] Changes in hair coat (e.g., hair loss or hair modification)[1]

[1] Transient.
[2] Associated with mammary hyperplasia.

In clinical trials, treatment with the veterinary medicinal product was not discontinued and all dogs recovered without any specific therapy.

Reporting adverse events is important. It allows continuous safety monitoring of a veterinary medicinal product. Reports should be sent, preferably via a veterinarian, to either the marketing authorisation holder or its local representative or the national competent authority via the national reporting system. See the package leaflet for respective contact details.

3.7 Use during pregnancy, lactation or lay

Not applicable.

3.8 Interaction with other medicinal products and other forms of interaction

None known.

3.9 Administration routes and dosage

For oral use.

Administer 0.25 – 0.5 mg osaterone acetate per kilogram bodyweight, once a day, for 7 days as follows:

Dog's weight	Strength of tablet to be administered	Number of tablets per day	Treatment duration
3 to 7.5 kg*	1.875 mg tablet	1 tablet	7 days
7.5 to 15 kg	3.75 mg tablet		
15 to 30 kg	7.5 mg tablet		
30 to 60 kg	15 mg tablet		

*No data are available for dogs less than 3 kg bodyweight

Tablets can be given either directly into the mouth or with food. The maximum dose should not be exceeded.

The onset of clinical response to treatment is usually seen within 2 weeks. The clinical response persists for at least 5 months after treatment.

Re-evaluation by the veterinarian should take place 5 months after treatment or earlier if clinical signs recur. A decision to retreat at this or at a later time point should be based on veterinary examination taking into account the risk benefit profile of the product. If clinical response to treatment is considerably shorter than expected, a re-evaluation of the diagnosis is necessary.

3.10 Symptoms of overdose (and where applicable, emergency procedures and antidotes)

An overdose study (up to 1.25 mg/kg bodyweight for 10 days, repeated one month later) did not show undesirable effects except for a decrease of cortisol plasma concentration.

3.11 Special restrictions for use and special conditions for use, including restrictions on the use of antimicrobial and antiparasitic veterinary medicinal products in order to limit the risk of development of resistance

Not applicable.

3.12 Withdrawal periods

Not applicable.

4. PHARMACOLOGICAL INFORMATION

4.1 ATCvet code: QG04C X

4.2 Pharmacodynamics

Benign prostatic hypertrophy (BPH) is a natural consequence of ageing. Over 80% of male dogs above 5 years of age are affected. BPH is a development and enlargement of the prostate due to the male hormone testosterone. This might lead to multiple non-specific clinical signs such as abdominal pain, difficulties in defaecation and urination, blood in urine and locomotive disorders.

Osaterone is a steroid anti-androgen, which inhibits the effects of an excess production of male hormone (testosterone).

Osaterone acetate is a steroid chemically related to progesterone, and as such it has potent progestagen and potent anti-androgen activity. Also, the major metabolite of osaterone acetate (15β-hydroxylated - osaterone acetate) has anti-androgenic activity. Osaterone acetate inhibits the effects of an excess of male hormone (testosterone) through various mechanisms. It competitively prevents the binding of androgens to their prostatic receptors and blocks the transport of testosterone into the prostate.

No adverse effects on semen quality have been observed.

4.3 Pharmacokinetics

After oral administration with food in dogs, osaterone acetate is rapidly absorbed (T_{max} about 2 hours) and undergoes a first-pass effect mainly in the liver. After a dose of 0.25 mg/kg/day, the mean maximum concentration (C_{max}) in plasma is about 60 µg/l.

Osaterone acetate is converted to its main, 15β-hydroxylated metabolite, which is also pharmacologically active. Osaterone acetate and its metabolite are bound to plasma proteins (around 90% and 80% respectively), mainly to albumin. This binding is reversible and not affected by other substances known to specifically bind to albumin.

Osaterone is eliminated within 14 days, mainly in faeces via biliary excretion (60%) and to a lesser extent (25%) in urine. Elimination is slow with a mean half-life (T½) of about 80 hours. After repeated administration of osaterone acetate at 0.25 mg/kg/day for 7 days, the factor of accumulation is about 3-4 without change in the rates of absorption or elimination. Fifteen days after the last administration, the mean plasma concentration is about 6.5 µg/l.

5. PHARMACEUTICAL PARTICULARS

5.1 Major incompatibilities

Not applicable.

5.2 Shelf life

Shelf-life of the veterinary medicinal product as packaged for sale: 3 years.

5.3 Special precautions for storage

This veterinary medicinal product does not require any special storage conditions.

5.4 Nature and composition of immediate packaging

Carton box containing one aluminium/aluminium blister with 7 tablets.

5.5 Special precautions for the disposal of unused veterinary medicinal products or waste materials derived from the use of such products

Medicines should not be disposed of via wastewater or household waste.

Use take-back schemes for the disposal of any unused veterinary medicinal product or waste materials derived thereof in accordance with local requirements and with any national collection systems applicable to the veterinary medicinal product concerned.

6. NAME OF THE MARKETING AUTHORISATION HOLDER

VIRBAC

7. MARKETING AUTHORISATION NUMBER(S)

EU/2/06/068/001
EU/2/06/068/002
EU/2/06/068/003
EU/2/06/068/004

8. DATE OF FIRST AUTHORISATION

Date of first authorisation: 11/01/2007

9. DATE OF THE LAST REVISION OF THE SUMMARY OF THE PRODUCT CHARACTERISTICS

{MM/YYYY}

10. CLASSIFICATION OF VETERINARY MEDICINAL PRODUCTS

Veterinary medicinal product subject to prescription.

Detailed information on this veterinary medicinal product is available in the Union Product Database *(https://medicines.health.europa.eu/veterinary)*.