

**ANNEX I**  
**SUMMARY OF PRODUCT CHARACTERISTICS**

## 1. NAME OF THE VETERINARY MEDICINAL PRODUCT

Caniphedrin 20 mg tablets for dogs

(AT, BE, BG, CY, CZ, DK, EL, ES, FI, HR, HU, IT, NL, NO, PL, PT, SE, SI, SK, RO, UK(NI))

Caniphedrin 20 tablets for dogs

(FR)

## 2. QUALITATIVE AND QUANTITATIVE COMPOSITION

Each tablet contains:

### Active substance:

Ephedrine hydrochloride 20 mg  
(equivalent to 16.4 mg Ephedrine)

### Excipients:

| Qualitative composition of excipients and other constituents |
|--|
| Gelatin  |
| Potato starch  |
| Lactose monohydrate  |
| Talc   |
| Cellulose, microcrystalline                                  |
| Glycerol 85 %  |

White tablets with two crossed score lines. The tablets can be divided into 2 or 4 equal parts.

## 3. CLINICAL INFORMATION

### 3.1 Target species

Dogs

### 3.2 Indications for use for each target species

Treatment of urinary incontinence caused by urethral sphincter mechanism incompetence in ovariohysterectomised female dogs.

### 3.3 Contraindications

Do not use in dogs with cardiovascular disease (i.e. cardiomyopathy, tachycardic arrhythmia, hypertension), hyperthyroidism, diabetes mellitus, impaired renal function or glaucoma.

Do not use concurrently with halogenated narcotics such as halothane or methoxyflurane (see section 3.8).

Do not use in cases of hypersensitivity to the active substance or to any of the excipients.

### 3.4 Special warnings

It is not appropriate to use the veterinary medicinal product for the behavioural cause of inappropriate urination.

In bitches less than 1 year old the possibility of anatomical disorders contributing to incontinence should be considered prior to treatment.

It is important to identify any underlying disease causing Polyuria/Polydipsia (PU/PD) which may be falsely diagnosed as urinary incontinence.

### 3.5 Special precautions for use

#### Special precautions for safe use in the target species:

The dog's cardiovascular functionality should be carefully assessed before the start of the treatment with the veterinary medicinal product and it should be periodically monitored during the treatment.

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

People with known hypersensitivity to ephedrine should avoid contact with the veterinary medicinal product.

Ephedrine hydrochloride could be toxic if ingested and ingestion may be fatal, especially to children. Adverse effects may include insomnia and nervousness, dizziness, headache, increased blood pressure, increased sweating and nausea.

To avoid accidental ingestion, particularly by a child, the veterinary medicinal product must be administered out of the sight of children. Unused tablet parts should be returned to the open blister space and inserted back into the carton and kept in a safe place out of the sight and reach of children. In case of accidental ingestion, most importantly by children, seek medical advice immediately and show the package leaflet or the label to the physician.

It is strongly recommended that pregnant women should wear impermeable gloves when handling the tablets.

Wash hands thoroughly after administration of the veterinary medicinal product.

#### Special precautions for the protection of the environment:

Not applicable.

### 3.6 Adverse events

Dogs:

|  |   |
|--|---|
| Rare<br>(1 to 10 animals / 10 000 animals treated):                      | Rapid pulse rate <sup>1</sup> , Ventricular arrhythmia <sup>1</sup> ;<br>Excitation <sup>1</sup> .  |
| Undetermined frequency<br>(cannot be estimated from the available data): | Tachycardia <sup>2</sup> , Atrial fibrillation <sup>2</sup> , Increased heart rate <sup>2</sup> ,<br>Peripheral vasoconstriction <sup>2</sup> ;<br>Not sleeping <sup>2</sup> , Anxiety <sup>2</sup> ;<br>Muscle tremor <sup>2</sup> , Mydriasis <sup>2</sup> ;<br>Pulmonary disorder (bronchodilatation and decrease of mucus release in the respiratory mucosal membranes) <sup>2</sup> ;<br>Digestive tract hypomotility <sup>2</sup> . |

<sup>1</sup>These symptoms disappear following dose reduction or termination of treatment.

<sup>2</sup>Due to the pharmacological properties of ephedrine these effects can occur at the recommended therapeutic dose.

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**

The potency of ephedrine and the risk of adverse reactions may be increased when administered together with methylxanthines and sympathomimetics.

Ephedrine may enhance glucocorticoid metabolism.

Concomitant use with MAO-inhibitors may cause hypertension.

Ephedrine may increase the risk for theophylline toxicity.

There is a risk of cardiac arrhythmia when combined with cardiac glycosides (e.g. digoxin), quinine, tricyclic antidepressants and halogenated narcotics (see section 3.3).

Substances leading to an increase in pH of the urine are able to prolong the excretion of ephedrine, which may lead to an increased risk of adverse reactions. Substances leading to a decrease in pH of the urine are able to accelerate the excretion of ephedrine, which may lead to decreased efficacy.

Vascular constrictions can occur after concomitant treatment with ergot alkaloids and oxytocin.

Sympatholytics may decrease the efficacy of ephedrine.

### **3.9 Administration routes and dosage**

Oral use.

The tablets can be divided into 2 or 4 equal parts to ensure accurate dosing.

The recommended starting dose is 2 mg ephedrine hydrochloride (corresponding to 1.64 mg of ephedrine) per kg bodyweight (BW), equivalent to 1 tablet per 10 kg BW, per day during the first 10 days of treatment. The daily dose may be divided. Once the desired effect has been achieved, the dose can be reduced to one half or less. Based on the observed effect and taking into account the occurrence of adverse effects, the individual dose should be adjusted to find the lowest effective dose. The lowest effective dose should be maintained for long-term treatment. In case of a relapse, the dose should be increased to 2 mg ephedrine hydrochloride per kg BW again. Once the effective dose has been established, dogs should still be monitored at regular intervals.

This tablet strength is not appropriate for dogs weighing less than 2.5 kg (recommended starting dose of 2 mg/kg).

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

At high overdoses, the following adverse events can occur: tachycardia, tachyarrhythmia, vomiting, increased transpiration, hyperventilation, muscle weakness, tremor with hyperexcitation and restlessness, anxiety and insomnia.

The following symptomatic treatment may be initiated:

- gastric lavage, if necessary
- in case of severe hyperexcitation, administration of sedatives such as diazepam or neuroleptics
- in case of tachyarrhythmia, administration of Beta-Blockers
- accelerated excretion by acidification of the urine and enhanced diuresis

### **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**

*(to be completed in accordance with national requirements)*

### **3.12 Withdrawal periods**

Not applicable.

## **4. PHARMACOLOGICAL INFORMATION**

### **4.1 ATCvet code: QG04BX90**

### **4.2 Pharmacodynamics**

Ephedrine directly stimulates alpha- and beta-adrenergic receptors, present in all organ systems. It also stimulates the release of catecholamines from sympathetic neurons. Since Ephedrine passes the blood-brain barrier, it also induces effects that are mediated through the central nervous system. Ephedrine specifically causes a contraction of the internal urethral sphincter muscles and a relaxation of the bladder muscles through a sympathicomimetic action on the adrenergic receptors.

### **4.3 Pharmacokinetics**

After oral administration it is rapidly and practically completely absorbed, whereby peak plasma levels are achieved after one hour. Ephedrine is rapidly distributed in all tissues and can also gradually penetrate the CNS. Ephedrine is not degraded via the endogenous catecholamine pathways, which explains the prolonged duration of activity compared to adrenaline. N-demethylation generates norephedrine as the major metabolite, a potent metabolite that is formed very rapidly in dogs and appears to contribute significantly to the effect of ephedrine. Elimination takes place via the kidneys and is nearly completed after 24 hours. The half-life is 3 to 6 hours.

## **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**

Keep the blisters in the outer carton in order to protect from light. Do not refrigerate or freeze. Unused divided tablets should be returned to the blister and used in the subsequent dose.

### **5.4 Nature and composition of immediate packaging**

Heat-sealed blister pack, consisting of aluminium foil and a PVC foil with 10 tablets per blister.

#### Package size:

Cardboard box containing 10 blisters of 10 tablets each.

### **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**

VetViva Richter GmbH

**7. MARKETING AUTHORISATION NUMBER(S)**

**8. DATE OF FIRST AUTHORISATION**

Date of first authorisation: {DD month YYYY}

**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 \(https://medicines.health.europa.eu/veterinary\)](https://medicines.health.europa.eu/veterinary).

**ANNEX III**  
**LABELLING AND PACKAGE LEAFLET**

## **A. LABELLING**



**PARTICULARS TO APPEAR ON THE OUTER PACKAGE**

Cardboard box

**1. NAME OF THE VETERINARY MEDICINAL PRODUCT**

Caniphedrin 20 mg tablets  
(AT, BE, BG, CY, CZ, DK, EL, ES, FI, HR, HU, IT, NL, NO, PL, PT, SE, SI, SK, RO, UK(NI))

Caniphedrin 20 tablets  
(FR)

Ephedrine hydrochloride

**2. STATEMENT OF ACTIVE SUBSTANCES**

Each tablet contains:  
Ephedrine hydrochloride 20 mg  
(equivalent to 16.4 mg Ephedrine)

**3. PACKAGE SIZE**

100 tablets

**4. TARGET SPECIES**

Dogs

**5. INDICATIONS**

**6. ROUTES OF ADMINISTRATION**

Oral use

**7. WITHDRAWAL PERIODS**

**8. EXPIRY DATE**

Exp. {mm/yyyy}

**9. SPECIAL STORAGE PRECAUTIONS**

Keep the blisters in the outer carton in order to protect from light. Do not refrigerate or freeze.  
Unused divided tablets should be returned to the blister and used in the subsequent dose.

**10. THE WORDS “READ THE PACKAGE LEAFLET BEFORE USE”**

Accidental ingestion is dangerous. Pregnant women should wear impermeable gloves when handling the tablets.  
Read the package leaflet before use.

**11. THE WORDS “FOR ANIMAL TREATMENT ONLY”**

For animal treatment only.

**12. THE WORDS “KEEP OUT OF THE SIGHT AND REACH OF CHILDREN”**

Keep out of the sight and reach of children.

**13. NAME OF THE MARKETING AUTHORISATION HOLDER**

VetViva Richter (logo)

**14. MARKETING AUTHORISATION NUMBERS**

**15. BATCH NUMBER**

Lot {number}

**MINIMUM PARTICULARS TO APPEAR ON SMALL IMMEDIATE PACKAGING UNITS**

**Blister with 10 tablets**

**1. NAME OF THE VETERINARY MEDICINAL PRODUCT**

Caniphedrin



**2. QUANTITATIVE PARTICULARS OF THE ACTIVE SUBSTANCES**

Ephedrine hydrochloride 20 mg

**3. BATCH NUMBER**

Lot {number}

**4. EXPIRY DATE**

Exp. {mm/yyyy}

VetViva Richter (logo)

**B. PACKAGE LEAFLET**

## PACKAGE LEAFLET

### **1. Name of the veterinary medicinal product**

Caniphedrin 20 mg tablets for dogs  
(AT, BE, BG, CY, CZ, DK, EL, ES, FI, HR, HU, IT, NL, NO, PL, PT, SE, SI, SK, RO, UK(NI))

Caniphedrin 20 tablets for dogs  
(FR)

### **2. Composition**

Each tablet contains:

**Active substance:**

Ephedrine hydrochloride                      20 mg  
(equivalent to 16.4 mg Ephedrine)

White tablets with two crossed score lines. The tablets can be divided into 2 or 4 equal parts.

### **3. Target species**

Dogs

### **4. Indications for use**

Treatment of urinary incontinence caused by urethral sphincter mechanism incompetence in ovariectomised female dogs.

### **5. Contraindications**

Do not use in dogs with cardiovascular disease (i.e. cardiomyopathy, tachycardic arrhythmia, hypertension), hyperthyroidism, diabetes mellitus, impaired renal function or glaucoma.

Do not use concurrently with halogenated narcotics such as halothane or methoxyflurane (see section 6).

Do not use in cases of hypersensitivity to the active substance or to any of the excipients.

### **6. Special warnings**

Special warnings:

It is not appropriate to use the veterinary medicinal product for the behavioural cause of inappropriate urination.

In bitches less than 1 year old the possibility of anatomical disorders contributing to incontinence should be considered prior to treatment.

It is important to identify any underlying disease causing Polyuria/Polydipsia (PU/PD) which may be falsely diagnosed as urinary incontinence.

Special precautions for safe use in the target species:

The dog's cardiovascular functionality should be carefully assessed before the start of the treatment with the veterinary medicinal product and it should be periodically monitored during the treatment.

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

People with known hypersensitivity to ephedrine should avoid contact with the veterinary medicinal product.

Ephedrine hydrochloride could be toxic if ingested and ingestion may be fatal, especially to children. Adverse effects may include insomnia and nervousness, dizziness, headache, increased blood pressure, increased sweating and nausea.

To avoid accidental ingestion, particularly by a child, the veterinary medicinal product must be administered out of the sight of children. Unused tablet parts should be returned to the open blister space and inserted back into the carton and kept in a safe place out of the sight and reach of children. In case of accidental ingestion, most importantly by children, seek medical advice immediately and show the package leaflet or the label to the physician.

It is strongly recommended that pregnant women should wear impermeable gloves when handling the tablets.

Wash hands thoroughly after administration of the veterinary medicinal product.

Pregnancy and lactation:

Not applicable.

Interaction with other medicinal products and other forms of interaction:

The potency of ephedrine and the risk of adverse reactions may be increased when administered together with methylxanthines and sympathomimetics.

Ephedrine may enhance glucocorticoid metabolism.

Concomitant use with MAO-inhibitors may cause hypertension.

Ephedrine may increase the risk for theophylline toxicity.

There is a risk of cardiac arrhythmias when combined with cardiac glycosides (e.g. digoxin), quinine, tricyclic antidepressants and halogenated narcotics (see section 5).

Substances leading to an increase in pH of the urine are able to prolong the excretion of ephedrine, which may lead to an increased risk of adverse reactions. Substances leading to a decrease in pH of the urine are able to accelerate the excretion of ephedrine, which may lead to decreased efficacy.

Vascular constrictions can occur after concomitant treatment with ergot alkaloids and oxytocin.

Sympatholytics may decrease the efficacy of ephedrine.

Overdose:

At high overdoses, the following adverse events can occur: tachycardia, tachyarrhythmia, vomiting, increased transpiration, hyperventilation, muscle weakness, tremor with hyperexcitation and restlessness, anxiety and insomnia.

The following symptomatic treatment may be initiated:

- gastric lavage, if necessary
- in case of severe hyperexcitation, administration of sedatives such as diazepam or neuroleptics
- in case of tachyarrhythmia, administration of Beta-Blockers
- accelerated excretion by acidification of the urine and enhanced diuresis

<Special restrictions for use and special conditions for use:>

## **7. Adverse events**

### **Dogs:**

Rare (1 to 10 animals / 10 000 animals treated):

Rapid pulse rate<sup>1</sup>, Ventricular arrhythmia<sup>1</sup>; Excitation<sup>1</sup>.

Undetermined frequency (cannot be estimated from the available data):

Tachycardia<sup>2</sup>, Atrial fibrillation<sup>2</sup>, Increased heart rate<sup>2</sup>, Peripheral vasoconstriction<sup>2</sup>; Not sleeping<sup>2</sup>, Anxiety<sup>2</sup>; Muscle tremor<sup>2</sup>, Mydriasis<sup>2</sup>; Pulmonary disorder (bronchodilatation and decrease of mucus release in the respiratory mucosal membranes)<sup>2</sup>; Digestive tract hypomotility<sup>2</sup>.

<sup>1</sup>These symptoms disappear following dose reduction or termination of treatment.

<sup>2</sup>Due to the pharmacological properties of ephedrine these effects can occur at the recommended therapeutic dose.

Reporting adverse events is important. It allows continuous safety monitoring of a product. If you notice any side effects, even those not already listed in this package leaflet, or you think that the medicine has not worked, please contact, in the first instance, your veterinarian. You can also report any adverse events to the marketing authorisation holder or its local representative using the contact details at the end of this leaflet, or via your national reporting system: {national system details}

## **8. Dosage for each species, routes and method of administration**

Oral use.

The tablets can be divided into 2 or 4 equal parts to ensure accurate dosing.

The recommended starting dose is 2 mg ephedrine hydrochloride (corresponding to 1.64 mg of ephedrine) per kg bodyweight (BW), equivalent to 1 tablet per 10 kg BW, per day during the first 10 days of treatment. The daily dose may be divided. Once the desired effect has been achieved, the dose can be reduced to one half or less. Based on the observed effect and taking into account the occurrence of adverse effects, the individual dose should be adjusted to find the lowest effective dose. The lowest effective dose should be maintained for long-term treatment. In case of a relapse, the dose should be increased to 2 mg ephedrine hydrochloride per kg BW again. Once the effective dose has been established, dogs should still be monitored at regular intervals.

This tablet strength is not appropriate for dogs weighing less than 2.5 kg (recommended starting dose of 2 mg/kg).

## **9. Advice on correct administration**

Tablets can be divided into 2 or 4 equal parts to ensure accurate dosing.

## **10. Withdrawal periods**

Not applicable.

## **11. Special storage precautions**

Keep out of the sight and reach of children.

Keep the blisters in the outer carton in order to protect from light. Do not refrigerate or freeze.

Unused divided tablets should be returned to the blister and used in the subsequent dose.

Do not use this veterinary medicinal product after the expiry date which is stated on the blister and carton after "Exp.". The expiry date refers to the last day of that month.

## **12. Special precautions for disposal**

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 applicable national collection systems. These measures should help to protect the environment.

Ask your veterinary surgeon or pharmacist how to dispose of medicines no longer required.

**13. Classification of veterinary medicinal products**

Veterinary medicinal product subject to prescription.

**14. Marketing authorisation numbers and pack sizes**

Package size:

Cardboard box containing 10 blisters of 10 tablets each.

**15. Date on which the package leaflet was last revised**

{MM/YYYY}

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

**16. Contact details**

Marketing authorisation holder and manufacturer responsible for batch release <and contact details to report suspected adverse events>:

VetViva Richter GmbH, Durisolstrasse 14, 4600 Wels, Austria

<Local representatives <and contact details to report suspected adverse events>:

<For any information about this veterinary medicinal product, please contact the local representative of the marketing authorisation holder.>

**<17. Other information>**

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