



Monitoring of cardiac function and morphology is recommended in animals treated with pimobendan.

See also section 4.6.

The tablets are flavoured. In order to avoid any accidental ingestion, store tablets out of reach of animals.

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

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

Wash hands after use.

Advice to doctors: accidental ingestion, especially by a child may lead to the occurrence of tachycardia, orthostatic hypotension, flushing of the face and headaches.

This product may cause cardiovascular effects in the event of accidental ingestion.

#### **4.6 Adverse reactions (frequency and seriousness)**

A slight positively chronotropic effect (rise in heart rate) and vomiting can occur in rare cases. However, these effects are dose-dependent and can be avoided by reducing the dose.

Transient diarrhoea, anorexia or lethargy have been observed in rare cases.

An increase in mitral valve regurgitation has rarely been observed during chronic pimobendan treatment in dogs with mitral valve disease.

signs of effects on primary haemostasis (petechiae on mucous membranes, subcutaneous haemorrhages) may be observed during treatment in very rare cases, although a relationship with pimobendan has not been clearly established,. These signs disappear when the treatment is withdrawn.

The frequency of adverse reactions is defined using the following convention:

- very common (more than 1 in 10 animals treated-displaying adverse reactions)
- common (more than 1 but less than 10 animals in 100 animals treated)
- uncommon (more than 1 but less than 10 animals in 1,000 animals treated)
- rare (more than 1 but less than 10 animals in 10,000 animals treated)
- very rare (less than 1 animal in 10,000 animals treated, including isolated reports).

#### **4.7 Use during pregnancy, lactation or lay.**

Laboratory studies in rats and rabbits have not produced any evidence of a teratogenic or foetotoxic effect. However, these studies have shown evidence of maternotoxic and embryotoxic effects at high doses, and have also shown that pimobendan is excreted

into milk. The safety of the veterinary medicinal product has not been assessed in pregnant or nursing bitches. Use only according to the benefit/risk assessment by the responsible veterinarian.

#### **4.8 Interaction with other medicinal products and other forms of interaction**

In pharmacological studies no interaction between the cardiac glycoside ouabain and pimobendan was detected. The pimobendan-induced increase in contractility of the heart is attenuated in the presence of the calcium antagonist verapamil and diltiazem and the  $\beta$ -antagonist propranolol.

#### **4.9 Amounts to be administered and administration route**

Do not exceed the recommended dosage.

Determine the body weight accurately before treatment to ensure correct dosage.

The tablets should be administered orally at a dose range of 0.2 mg to 0.6 mg pimobendan/kg body weight per day. The preferable daily dose is 0.5 mg pimobendan/kg body weight. The dose should be divided into two administrations (0.25 mg/kg body weight each), one half of the dose in the morning and the other half approximately 12 hours later. Each dose should be given approximately one hour before feeding.

The product may be combined with a diuretic treatment such as furosemide.

To break a double scored tablet into quarters, place the tablet on an even surface with the scored side up and apply pressure on the middle with your thumb.



#### **4.10 Overdose (symptoms, emergency procedures, antidotes), if necessary**

An overdose may cause vomiting, a positive chronotropic effect, apathy, ataxia, heart murmurs or hypotension. In this situation, the dosage should be reduced and appropriate symptomatic treatment should be initiated.

In prolonged exposure (6 months) of healthy beagle dogs at 3 and 5 times the recommended dose, mitral valve thickening and left ventricular hypertrophy were observed in some dogs. These changes are of pharmacodynamic origin.

#### **4.11 Withdrawal period(s)**

Not applicable.

### **5. PHARMACOLOGICAL PROPERTIES**

Pharmacotherapeutic group: Cardiac stimulants *excl. cardiac glycosides*, phosphodiesterase inhibitors.

ATCvet code: QC01CE90

## 5.1 Pharmacodynamic properties

Pimobendan, a benzimidazole-pyridazinone derivative, is a non-sympathomimetic, non-glycoside inotropic substance with potent vasodilatative properties.

Pimobendan exerts its stimulatory myocardial effect by a dual mode of action: it increases calcium sensitivity of cardiac myofilaments and inhibits phosphodiesterase (type III). It also exhibits a vasodilatory action through inhibition of phosphodiesterase III activity.

When used in cases of symptomatic valvular insufficiency in conjunction with furosemide the product has been shown to improve the quality of life and extend life expectancy in treated dogs.

When used in a limited number of cases of symptomatic dilated cardiomyopathy in conjunction with furosemide, enalapril and digoxin, the veterinary medicinal product has been shown to improve the quality of life and to extend life expectancy in treated dogs.

## 5.2 Pharmacokinetic particulars

### Absorption

Following oral administration of this veterinary medicinal product the absolute bio-availability of the active principle is 60-63%. Since this bio-availability is considerably reduced when pimobendan is administered with food or shortly thereafter, it is recommended to treat animals approximately 1 hour before feeding.

### Distribution

The volume of distribution is 2.6 l/kg, indicating that pimobendan is distributed readily into the tissues. The mean plasma protein binding is 93%.

### Metabolism

The compound is oxidatively demethylated to its major active metabolite (UD-CG 212). Further metabolic pathways are phase II conjugates of UD-CG-212, in essence glucuronides and sulphates.

### Elimination

The plasma elimination half-life of pimobendan is  $1.1 \pm 0.7$  hours.

The main active metabolite is eliminated with a plasma elimination half-life of  $1.5 \pm 0.2$  hours. Almost the entire dose is eliminated via the faeces.

## 6. PHARMACEUTICAL PARTICULARS

### 6.1 List of excipients

Cellulose, microcrystalline (E460)

Croscarmellose sodium

Magnesium stearate

Natural meat flavour

## **6.2 Major Incompatibilities**

Not applicable.

## **6.3 Shelf life**

Shelf life of the veterinary medicinal product as packaged for sale: 30 months.  
Shelf life of divided tablets after first opening the blister: 3 days.

## **6.4. Special precautions for storage**

Do not store above 30°C.  
Return any divided tablet to the opened blister and use within 3 days.

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

Aluminium-PVC/PE/PVDC blister:  
10 tablets per blister: 2, 5, 10 or 25 blisters per carton.

Aluminium – Aluminium blister:  
5 tablets per blister: 4, 10, 20 or 50 blisters per carton.

Not all pack sizes may be marketed.

## **6.6 Special precautions for the disposal of unused veterinary medicinal product or waste materials derived from the use of such products**

Any unused veterinary medicinal product or waste materials derived from such veterinary medicinal products should be disposed of in accordance with local requirements.

## **7. MARKETING AUTHORISATION HOLDER**

Eurovet Animal Health BV  
Handelsweg 25  
5531 AE Bladel  
The Netherlands

## **8. MARKETING AUTHORISATION NUMBER**

Vm 16849/4044

## **9. DATE OF FIRST AUTHORISATION**

14 June 2012

## **10. DATE OF REVISION OF THE TEXT**

July 2018

Revised: July 2018  
AN: 01668/2017

Approved: 17 July 2018

A handwritten signature in black ink, appearing to read 'J. Berg'.