

ANNEX I
SUMMARY OF PRODUCT CHARACTERISTICS

1. NAME OF THE VETERINARY MEDICINAL PRODUCT

Doxybactin 400 mg tablets for dogs (AT, BE, CY, CZ, DE, EL, ES, FR, HR, HU, IE, IT, LU, NL, PL, PT, RO, SI, SK, UK(NI))

Doxybactin vet 400 mg tablets for dogs (DK, FI, IS, NO, SE, EE, LT, LV)

2. QUALITATIVE AND QUANTITATIVE COMPOSITION

Each tablet contains:

Active substances:

Doxycycline (as doxycycline hyclate) 400 mg

Excipients:

Qualitative composition of excipients and other constituents
Sodium starch glycolate (type A)
Silica, colloidal anhydrous
Cellulose, microcrystalline
Yeast (dried)
Chicken flavour
Magnesium stearate

Yellow with brown spots, round and convex flavoured tablet with a cross-shaped break line on one side. 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 the following conditions caused by bacteria sensitive to doxycycline:

Rhinitis caused by *Bordetella bronchiseptica* and *Pasteurella* spp.;

Bronchopneumonia caused by *Bordetella* spp. and *Pasteurella* spp.;

Interstitial nephritis caused by *Leptospira* spp.

3.3 Contraindications

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

3.4 Special warnings

None.

3.5 Special precautions for use

Special precautions for safe use in the target species:

The veterinary medicinal product should be administered with caution to animals with dysphagia or diseases accompanied with vomiting, since administration of doxycycline hyclate tablets has been associated with oesophageal erosion.

In order to reduce the likelihood of oesophageal irritation as well as other gastrointestinal side effects, the veterinary medicinal product should be administered together with food.

Special care should be taken when administering the veterinary medicinal product to animals with liver disease, since increases in hepatic enzymes have been documented in some animals after doxycycline treatment.

The veterinary medicinal product should be administered with caution to young animals, since tetracyclines as a class may cause permanent discolouration of the teeth, when administered during tooth development. However, human literature indicates that doxycycline is less likely than other tetracyclines to cause these abnormalities, due to its reduced ability to chelate calcium.

Use of the veterinary medicinal product should be based on identification and susceptibility testing of the target pathogens. If this is not possible, therapy should be based on epidemiological information and knowledge of susceptibility of the target pathogens at local / regional level. Use of the veterinary medicinal product should be in accordance with official, national and regional antimicrobial policies. Use of the veterinary medicinal product deviating from the instructions given in the SPC may increase the prevalence of bacteria resistant to doxycycline and may decrease the effectiveness of treatment with other tetracyclines, due to the potential for cross-resistance.

As tablets are flavoured store tablets out of reach of the animals in order to avoid accidental ingestion.

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

Tetracyclines may cause hypersensitivity (allergy) reactions.

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

If you develop symptoms following exposure such as skin rash, seek medical advice immediately and show the package leaflet to the physician.

Doxycycline may cause gastrointestinal disturbances after accidental ingestion, especially by children. To avoid accidental ingestion, particularly by a child, unused tablet parts should be returned to the open blister space and inserted back into the carton. In case of accidental ingestion, particularly by children, seek medical advice immediately and show the package leaflet or the label to the physician. Wash hands after use.

Special precautions for the protection of the environment:

Not applicable.

3.6 Adverse events

Dogs:

Very rare (<1 animal / 10 000 animals treated, including isolated reports):	Gastrointestinal disorder (e.g. Vomiting, Diarrhoea, Oesophagitis), Dental discolouration ^a Hypersensitivity reaction Photosensitivity ^b , Photodermatitis ^b Developmental bone and joint disorders ^c
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^a In very young animals. By the formation of a tetracycline-calcium phosphate complex.

^b After exposure to intense daylight.

^c Retardation of skeletal growth of young animals (reversible upon discontinuation of therapy) is known to occur with use of other tetracyclines and might occur following administration of doxycycline.

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

The safety of the veterinary medicinal product has not been established during pregnancy and lactation.

Pregnancy and lactation:

Tetracyclines as a class can retard foetal skeletal development (fully reversible) and cause discolouration of the deciduous teeth. However, evidence from human literature suggests that doxycycline is less likely to cause these abnormalities than other tetracyclines. Use only according to the benefit/risk assessment by the responsible veterinarian.

3.8 Interaction with other medicinal products and other forms of interaction

Do not administer concurrently with bactericidal antibiotics such as penicillins and cephalosporins. Oral absorbents and substances containing multivalent cations such as antacids and iron salts should not be used from 3 hours before to 3 hours after the administration of doxycycline. The half-life of doxycycline is reduced by concurrent administration of antiepileptic drugs such as phenobarbital and phenytoin.

3.9 Administration routes and dosage

Oral use.

The recommended dose for dogs is 10 mg doxycycline per kg bodyweight per day. The majority of routine cases are expected to respond after between 5 and 7 days of therapy. Therapy should continue for 2 to 3 days beyond the clinical cure for acute infections. In chronic or refractory cases, a longer course of therapy, up to 14 days, may be required. In dogs with interstitial nephritis due to leptospirosis, treatment for 14 days is recommended. To ensure a correct dosage body weight should be determined as accurately as possible. Tablets should be administered together with the food (see section 3.5).

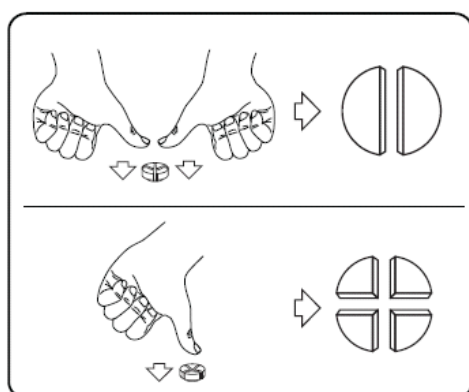
The following table is intended as a guide to dispensing the veterinary medicinal product at the standard dose rate of 10 mg per kg bodyweight per day.

Body weight	Dose mg	Doxybactin 50 mg		Doxybactin 200 mg		Doxybactin 400 mg
0.75 kg – 1.25 kg	12.5			-		-
>1.25 kg – 2.5 kg	25			-		-
>2.5 kg – 3.75 kg	37.5			-		-
>3.75 kg – 5 kg	50			-		-
>5 kg – 6.25 kg	62.5	 		-		-
>6.25 kg – 7.5 kg	75	 		-		-
>7.5 kg – 10 kg	100	 		-		-
>10 kg – 12.5 kg	125	  		-		-
>12.5 kg – 15 kg	150	  				-
>15 kg – 20 kg	200	-				-
>20 kg – 25 kg	250		AND			-
>25 kg – 30 kg	300	-		 		-

>30 kg – 35 kg	350	-				-
>35 kg – 40 kg	400	-		-		
>40 kg – 45 kg	450		AND			
>45 kg – 50 kg	500	-			AND	
>50 kg – 60 kg	600	-			AND	
>60 kg – 70 kg	700	-		 	AND	
>70 kg – 80 kg	800	-		-		 

 = ¼ Tablet
  = ½ Tablet
  = ¾ Tablet
  = 1 Tablet

Tablets can be divided into 2 or 4 equal parts to ensure accurate dosing. Place the tablet on a flat surface, with its scored side facing up and the convex (rounded) side facing the surface.



2 equal parts: press down with your thumbs on both sides of the tablet.

4 equal parts: press down with your thumb in the middle of the tablet.

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

In cases of overdose no symptoms are to be expected other than those mentioned in section 3.6.

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

3.12 Withdrawal periods

Not applicable.

4. PHARMACOLOGICAL INFORMATION

4.1 ATCvet code : QJ01AA02

4.2 Pharmacodynamics

Doxycycline is a broad-spectrum tetracycline-class antibiotic active against a large number of gram positive and gram negative bacteria including both aerobic and anaerobic species.

Doxycycline inhibits bacterial protein synthesis by binding to the 30-S ribosomal subunits. This interferes with binding of aminoacyl-tRNA to the acceptor site on the mRNA ribosome complex and prevents coupling of amino acids to the elongating peptide chains; doxycycline has a predominantly bacteriostatic activity.

The penetration of doxycycline into the bacterial cell takes place by both active transport and passive diffusion.

The main mechanisms of acquired resistance to tetracycline class antibiotics include active efflux and ribosomal protection. A third mechanism is enzymatic degradation. The genes mediating resistance may be carried on plasmids or transposons, as for example, tet(M), tet(O), and tet(B) that can be found in both gram-positive and gram-negative organisms including clinical isolates.

Cross-resistance to other tetracyclines is common but depends on the mechanism conferring resistance. Due to the greater liposolubility and greater ability to pass through cell membranes (in comparison to tetracycline), doxycycline retains a certain degree of efficacy against microorganisms with acquired resistance to tetracyclines via efflux pumps. However, resistance mediated by ribosomal protection proteins confer cross-resistance to doxycycline.

4.3 Pharmacokinetics

After oral administration doxycycline is mainly absorbed from the duodenum and jejunum. Following oral administration, the bioavailability is > 50%.

Doxycycline is widely distributed throughout the body and can accumulate intracellularly for example in leukocytes. It is deposited in active bone tissue and teeth. Doxycycline is primarily eliminated through faeces by direct intestinal excretion and to a lesser extent by glomerular excretion and biliary secretion.

5. PHARMACEUTICAL PARTICULARS

5.1 Major incompatibilities

Not applicable.

5.2 Shelf life

Shelf life of the veterinary medicinal product as packaged for sale: 30 months.

Shelf life of divided tablets: 3 days.

5.3 Special precautions for storage

Store below 30°C.

5.4 Nature and composition of immediate packaging

Aluminium - PVC/PE/PVDC blister

Cardboard box of 1, 2, 3 or 10 blisters of 10 tablets.

Cardboard box containing 10 separate cardboard boxes, each containing 1 blister of 10 tablets.

Not all pack sizes may be marketed.

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

7. MARKETING AUTHORISATION NUMBER(S)

8. DATE OF FIRST AUTHORISATION

Date of first authorisation: <{DD/MM/YYYY}> <{DD month YYYY}>.

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

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 II
LABELLING AND PACKAGE LEAFLET

A. LABELLING

PARTICULARS TO APPEAR ON THE OUTER PACKAGE

Cardboard box
Multipack

1. NAME OF THE VETERINARY MEDICINAL PRODUCT

Doxybactin 400 mg tablets

2. STATEMENT OF ACTIVE SUBSTANCES

Each tablet contains:

Doxycycline (as doxycycline hyclate) 400 mg

3. PACKAGE SIZE

10 tablets

20 tablets

30 tablets

100 tablets

10 x 10 tablets

4. TARGET SPECIES

Dogs.

5. INDICATIONS**6. ROUTES OF ADMINISTRATION**

Oral use.

7. WITHDRAWAL PERIODS**8. EXPIRY DATE**

Exp. {mm/yyyy}

Shelf life of divided tablets: 3 days.

9. SPECIAL STORAGE PRECAUTIONS

Store below 30°C.

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

Read the package leaflet before use.

11. THE WORDS “FOR ANIMAL TREATMENT ONLY”
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For animal treatment only.

12. THE WORDS “KEEP OUT OF THE SIGHT AND REACH OF CHILDREN”
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Keep out of the sight and reach of children.

13. NAME OF THE MARKETING AUTHORISATION HOLDER

14. MARKETING AUTHORISATION NUMBERS
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15. BATCH NUMBER

Lot {number}

MINIMUM PARTICULARS TO APPEAR ON SMALL IMMEDIATE PACKAGING UNITS

Aluminium-PVC/PE/PVDC blisters

1. NAME OF THE VETERINARY MEDICINAL PRODUCT

Doxybactin



2. QUANTITATIVE PARTICULARS OF THE ACTIVE SUBSTANCES

Doxycycline (as doxycycline hyclate) 400 mg

3. BATCH NUMBER

Lot {number}

4. EXPIRY DATE

Exp. {mm/yyyy}

Shelf life of divided tablets: 3 days.

B. PACKAGE LEAFLET

PACKAGE LEAFLET

1. Name of the veterinary medicinal product

Doxybactin 400 mg tablets for dogs

2. Composition

Each tablet contains:

Active substances:

400 mg doxycycline as doxycycline hyclate

Yellow with brown spots, round and convex flavoured tablet with a cross-shaped break line on one side. The tablets can be divided into 2 or 4 equal parts.

3. Target species

Dogs.



4. Indications for use

Treatment of the following conditions caused by bacteria sensitive to doxycycline:

Rhinitis (inflammation of the nasal mucosa) caused by *Bordetella bronchiseptica* and *Pasteurella* spp.;

Bronchopneumonia (lobular inflammation of the lungs) caused by *Bordetella* spp. and *Pasteurella* spp.;

Interstitial nephritis (inflammation of part of the kidney tissue) caused by *Leptospira* spp.

5. Contraindications

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

6. Special warnings

Special precautions for safe use in the target species:

The veterinary medicinal product should be administered with caution to animals with dysphagia (difficulty swallowing) or diseases accompanied with vomiting, since administration of doxycycline hyclate tablets has been associated with oesophageal erosion (injuries to the gullet). In order to reduce the likelihood of oesophageal irritation as well as other gastrointestinal side effects, the veterinary medicinal product should be administered together with food.

Special care should be taken when administering the veterinary medicinal product to animals with liver disease, since increases in hepatic enzymes have been documented in some animals after doxycycline treatment.

The veterinary medicinal product should be administered with caution to young animals, since tetracyclines as a class may cause permanent discolouration of the teeth, when administered during

tooth development. However, human literature indicates that doxycycline is less likely than other tetracyclines to cause these abnormalities, due to its reduced ability to bind calcium.

Use of the veterinary medicinal product should be based on identification and susceptibility testing of the target pathogens. If this is not possible, therapy should be based on epidemiological information and knowledge of susceptibility of the target pathogens at local / regional level. Use of the veterinary medicinal product should be in accordance with official, national and regional antimicrobial policies. Use of the veterinary medicinal product deviating from the instructions given in the leaflet may increase the prevalence of bacteria resistant to doxycycline and may decrease the effectiveness of treatment with other tetracyclines, due to the potential for cross-resistance.

As tablets are flavoured store tablets out of reach of the animals in order to avoid accidental ingestion.

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

Tetracyclines may cause hypersensitivity (allergy) reactions.

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

If you develop symptoms following exposure such as skin rash, seek medical advice immediately and show the package leaflet to the physician.

Doxycycline may cause gastrointestinal disturbances after accidental ingestion, especially by children. To avoid accidental ingestion, particularly by a child, unused tablet parts should be returned to the open blister space and inserted back into the carton. In case of accidental ingestion, particularly by children, seek medical advice immediately and show the package leaflet or the label to the physician.

Wash hands after use.

Pregnancy and lactation:

The safety of the veterinary medicinal product has not been established during pregnancy and lactation. Tetracyclines as a class can retard foetal skeletal development (fully reversible) and cause discolouration of the deciduous teeth. However, evidence from human literature suggests that doxycycline is less likely to cause these abnormalities than other tetracyclines. Use only according to the benefit-risk assessment by the responsible veterinarian.

Interaction with other medicinal products and other forms of interaction:

Do not administer concurrently with bactericidal antibiotics such as penicillins and cephalosporins. Oral absorbents and substances containing multivalent cations such as antacids and iron salts should not be used from 3 hours before to 3 hours after the administration of doxycycline. The half-life of doxycycline is reduced by concurrent administration of antiepileptic drugs such as phenobarbital and phenytoin.

Overdose:

In cases of overdose no symptoms are to be expected other than those mentioned in the section on adverse events.

7. Adverse events

Dogs:

Very rare (<1 animal / 10 000 animals treated, including isolated reports):	Gastrointestinal disorder (e.g. Vomiting, Diarrhoea, Oesophagitis (inflammation of the oesophagus)), Dental discolouration ^a Hypersensitivity reaction Photosensitivity ^b , Photodermatitis ^b Developmental bone and joint disorders ^c
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^a In very young animals. By the formation of a tetracycline-calcium phosphate complex.

^b An abnormal skin reaction after exposure to intense daylight.

^c Retardation of skeletal growth of young animals (reversible upon discontinuation of therapy) is known to occur with use of other tetracyclines and might occur following administration of doxycycline.

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:.

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

Oral use.

The recommended dose for dogs is 10 mg doxycycline per kg bodyweight per day. The majority of routine cases are expected to respond after between 5 and 7 days of therapy. Therapy should continue for 2 to 3 days beyond the clinical cure for acute infections. In chronic or refractory cases, a longer course of therapy, up to 14 days, may be required. In dogs with interstitial nephritis due to leptospirosis, treatment for 14 days is recommended. To ensure a correct dosage body weight should be determined as accurately as possible.

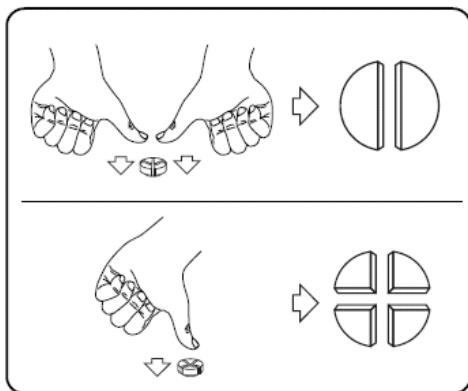
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>1.25 kg – 2.5 kg	25			-		-
>2.5 kg – 3.75 kg	37.5			-		-
>3.75 kg – 5 kg	50			-		-
>5 kg – 6.25 kg	62.5	 		-		-
>6.25 kg – 7.5 kg	75	 		-		-
>7.5 kg – 10 kg	100	 		-		-
>10 kg – 12.5 kg	125	  		-		-
>12.5 kg – 15 kg	150	  				-
>15 kg – 20 kg	200	-				-
>20 kg – 25 kg	250		AND			-
>25 kg – 30 kg	300	-		 		-
>30 kg – 35 kg	350	-		 		-
>35 kg – 40 kg	400	-		-		
>40 kg – 45 kg	450		AND			
>45 kg – 50 kg	500	-			AND	
>50 kg – 60 kg	600	-			AND	
>60 kg – 70 kg	700	-		 	AND	
>70 kg – 80 kg	800	-		-		 

 = ¼ Tablet
  = ½ Tablet
  = ¾ Tablet
  = 1 Tablet

9. Advice on correct administration

Tablets should be administered together with the food (see section Special warnings). Tablets can be divided into 2 or 4 equal parts to ensure accurate dosing. Place the tablet on a flat surface, with its scored side facing up and the convex (rounded) side facing the surface.



2 equal parts: press down with your thumbs on both sides of the tablet.

4 equal parts: press down with your thumb in the middle of the tablet.

10. Withdrawal periods

Not applicable.

11. Special storage precautions

Keep out of the sight and reach of children.

Store below 30°C.

Do not use this veterinary medicinal product after the expiry date which is stated on the package after Exp.

The expiry date refers to the last day of that month.

Shelf life of divided tablets: 3 days.

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

Pack sizes:

Cardboard box of 1, 2, 3 or 10 blisters of 10 tablets.

Cardboard box containing 10 separate cardboard boxes, each containing 1 blister of 10 tablets.

Not all pack sizes may be marketed.

15. Date on which the package leaflet was last revised

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:

Manufacturer responsible for batch release:

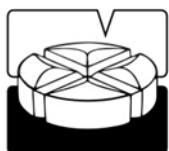
Lelypharma B.V.
Zuiveringsweg 42
8243 PZ Lelystad
The Netherlands

Genera d.d.
Svetonedeljska cesta 2
Kalinovica
10436 Rakov Potok
Croatia

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



Divisible tablet