SUMMARY OF PRODUCT CHARACTERISTICS

1. NAME OF THE VETERINARY MEDICINAL PRODUCT

Convenia Veterinary

2. QUALITATIVE AND QUANTITATIVE COMPOSITION

Active substance:

Each ml contains 80 mg cefovecin (as sodium salt) after reconstitution.

Excipients:

Sodium citrate dihydrate
Methylparaben
Propylparaben
Citric acid monohydrate
Sodium hydroxide
Hydrochloric acid

The diluent contains:
Benzyl alcohol
Water for injection

The powder is off-white to yellow and the diluent (solvent) is a clear, colourless liquid.

3. CLINICAL INFORMATION

3.1 Target species

Dogs and Cats.

3.2 Indications for use for each target species

For use only for the following infections which require prolonged treatment. The antimicrobial activity of Convenia Veterinary following a single injection lasts for up to 14 days.

Dogs:
For the treatment of skin and soft tissue infections including pyoderma wounds and abscesses associated with *Staphylococcus intermedius,* Beta-haemolytic Streptococci, *Escherichia coli* and/or *Pasteurella multocida*.

For the treatment of urinary tract infections associated with *Escherichia coli* and/or *Proteus* spp.

As adjunctive treatment to mechanical or surgical periodontal therapy of severe infections of the gingival and periodontal tissues associated with *Porphyromonas* spp. and *Prevotella* spp.

Cats:
For the treatment of skin and soft tissue abscesses and wounds associated with *Pasteurella multocida*, *Fusobacterium* spp., *Bacteroides* spp., *Prevotella oralis,* Beta-haemolytic Streptococci and/or *Staphylococcus intermedius*.

For the treatment of urinary tract infections associated with *Escherichia coli*.

3.3 Contraindications

Do not use in cases of hypersensitivity to cephalosporin or penicillin antibiotics or to any of the excipients.
Do not use in small herbivores (including guinea pigs and rabbits).
Do not use in dogs and cats less than 8 weeks old.

3.4. Special warnings

Cross-resistance has been shown between cefovecin and other cephalosporins and other beta-lactam antibiotics. Use of Convenia Veterinary should be carefully considered when susceptibility testing has shown resistance to cephalosporins or beta-lactams because its effectiveness may be reduced.

3.5. Special precautions for use

Special precautions for safe use in the target species:
Use of the product should be based on identification and susceptibility testing of the target pathogen(s). 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 product should be in accordance with official, national and regional antimicrobial policies.

An antibiotic with a lower risk of antimicrobial resistance selection (lower AMEG category) should be used for first line treatment where susceptibility testing suggests the likely efficacy of this approach.

The product selects for resistant strains such as bacteria carrying extended-spectrum beta-lactamases (ESBL) and may constitute a risk to human health if these strains disseminate to humans.

The fundamental requirement of the treatment of periodontal disease is mechanical and/or surgical intervention by the veterinarian.

The safety of Convenia veterinary has not been assessed in animals suffering from severe renal dysfunction.

Pyoderma is often secondary to an underlying disease. It is, therefore, advisable to determine the underlying cause and to treat the animal accordingly.

Caution should be exercised in patients that have previously shown hypersensitivity reactions to cefovecin, other cephalosporins, penicillins, or other medicinal products. If an allergic reaction occurs, no further administrations of cefovecin should be administered and appropriate therapy for beta-lactam hypersensitivity should be instituted. Serious acute hypersensitivity reactions may require treatment with epinephrine and other emergency measures, including oxygen, intravenous fluids, intravenous antihistamine, corticosteroids, and airway management, as clinically indicated. Veterinarians should be aware that reappearance of the allergic symptoms may occur when symptomatic therapy is discontinued.

Occasionally, cephalosporins have been associated with myelotoxicity, thereby creating a toxic neutropenia. Other haematological reactions seen with cephalosporins include neutropenia, anemia, hypoprothrombinemia, thrombocytopenia, prolonged prothrombin time (PT) and partial thromboplastin time (PTT), platelet dysfunction.

Special precautions to be taken by the person administering the veterinary medicinal product to animals:
Penicillins and cephalosporins may cause hypersensitivity (allergy) following injection, inhalation, ingestion or skin contact. Hypersensitivity to penicillins may lead to cross sensitivity to cephalosporins and vice versa. Allergic reactions to these substances may occasionally be serious.

Do not handle this product if you know you are sensitised or if you have been advised not to work with such preparations.

Handle this product with care to avoid exposure, taking all recommended precautions.

If you develop symptoms following exposure, such as a skin rash, you should seek medical advice and show the doctor this warning. Swelling of the face, lips or eyes or difficulty in breathing are more serious symptoms and require urgent medical attention.

If you know you are allergic to penicillins or cephalosporins, avoid contact with contaminated litter. In the event of contact, wash skin with soap and water.

Special precautions for the protection of the environment:
Not applicable.

3.6. Adverse events

Dogs and cats:

Very rare (<1 animal / 10,000 animals treated, including isolated reports):	Injection site reaction, Digestive tract disorder (e.g. diarrhoea, emesis, anorexia), Hypersensitivity reaction (e.g. anaphylaxis, circulatory shock, dyspnoea)[1], Neurological signs (e.g. ataxia, convulsion, seizure)

[1]Appropriate treatment should be administered without delay.

Reporting suspected adverse reactions after authorization of the medicinal product is important. It allows continued monitoring of the benefit/risk balance of the veterinary medicinal product. Any suspected adverse events should be reported to the Ministry of Health according to the National Regulation by using an online form http://sideeffects.health.gov.il/

3.7. Use during pregnancy, lactation or lay

The safety of Convenia veterinary has not been established during pregnancy and lactation.

Fertility:
Treated animals should not be used for breeding for 12 weeks after the last administration.

3.8. Interaction with other medicinal products and other forms of interaction

Concurrent use of other substances that have a high degree of protein binding (e.g., furosemide, ketoconazole or non-steroidal anti-inflammatory drugs (NSAIDs)) may compete with cefovecin binding and thus may cause adverse events.

3.9. Administration routes and dosage

Subcutaneous use.

Skin and soft tissue infections in dogs:
A single subcutaneous injection of 8 mg cefovecin/kg body weight (1 ml of Convenia veterinary per 10 kg body weight). If required, treatment may be repeated at 14-day intervals up to a further three times. In accordance with good veterinary practice, treatment of pyoderma should be extended beyond complete resolution of clinical signs.

Severe infections of the gingival and periodontal tissues in dogs:
A single subcutaneous injection of 8 mg cefovecin/kg body weight (1 ml of Convenia veterinary per 10 kg body weight).

Skin and soft tissue abscesses and wounds in cats:
A single subcutaneous injection of 8 mg cefovecin/kg body weight (1 ml of Convenia veterinary per 10 kg body weight). If required, an additional dose may be administered 14 days after the first injection.

Urinary tract infections in dogs and cats:
A single subcutaneous injection of 8 mg cefovecin/kg body weight (1 ml of Convenia veterinary per 10 kg body weight).

To reconstitute, withdraw the required volume of the supplied solvent from its vial (for 23 ml vial containing 978.65 mg of lyophilised powder reconstitute using 10 ml of solvent) and add to the vial containing the lyophilised powder. Shake the vial until the powder is seen to have fully dissolved.

The reconstituted solution is clear and practically free from particles. It is light yellow to reddish brown in colour. As with other cephalosporins, the colour of the reconstituted solution may darken. However, if stored as recommended, potency is not affected.

Dosing table

Animal Weight (Dogs and Cats)	Volume to be Administered
2.5 kg	0.25 ml
5 kg	0.5 ml
10 kg	1 ml
20 kg	2 ml
40 kg	4 ml
60 kg	6 ml

To ensure a correct dosage, body weight should be determined as accurately as possible.

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

Repeated dosing (eight administrations) in 14-day intervals at five times the recommended dose was tolerated well in young dogs. Slight and transient injection site swellings were observed after the first and second administration. A single administration of 22.5 times the recommended dose caused transient oedema and discomfort at the injection site.

Repeated dosing (eight administrations) in 14-day intervals at five times the recommended dose was tolerated well in young cats. A single administration of 22.5 times the recommended dose caused transient oedema and discomfort at the injection site.

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: QJ01DD91

4.2 Pharmacodynamics

Cefovecin is a third-generation cephalosporin with a broad spectrum of activity against Gram-positive and Gram-negative bacteria. It differs from other cephalosporins in that it is highly protein bound and has a long duration of activity. As with all cephalosporins, the action of cefovecin results from the inhibition of bacterial cell wall synthesis; cefovecin has bactericidal activity.

Cefovecin exhibits *in vitro* activity against *Staphylococcus pseudintermedius* and *Pasteurella multocida* which are associated with canine and feline skin and soft tissue infections (SSTI). Anaerobic bacteria such as *Bacteroides* spp. and *Fusobacterium* spp. collected from feline abscesses were shown to be susceptible. *Porphyromonas gingivalis* and *Prevotella intermedia* collected from canine periodontal disease were also shown to be susceptible. In addition, cefovecin exhibits *in-vitro* activity against *Escherichia coli* which is associated with canine and feline urinary tract infections (UTI).
In vitro activity against these pathogens as well as against other skin and urinary tract pathogens collected during a European (Belgium, Czech Republic, Hungary, The Netherlands, Poland, Spain, Switzerland, Sweden, France, Germany, Italy and United Kingdom) MIC survey (2017-2018).

Bacterial Pathogen	Origin	No. of Isolates	cefovecin MIC (mcg/ml)		2024 cefovecin CLSI clinical breakpoints (mcg/ml)		
			MIC_{50}	MIC_{90}	Susceptible	Intermediate	Resistant
Staphylococcus intermedius group (SSTI)	Dog	440	0.12	16	≤0.5	1	≥2
	Cat	24	0.12	>32	NA	NA	NA
B-haemolytic Streptococci (SSTI)	Dog	121	≤0.015	0.03	≤0.12	0.25	≥0.5
	Cat	18	≤0.015	≤0.015	NA	NA	NA
Escherichia coli (UTI)	Dog	333	1	2	≤2	4	≥8
	Cat	183	1	2	≤2	4	≥8
Escherichia coli (SSTI)	Dog	112	0.5	2	NA	NA	NA
Pasteurella spp. (SSTI)	Dog	26	≤0.015	0.12	NA	NA	NA
	Cat	69	0.03	0.03	≤0.12	0.25	0.5
Proteus spp. (UTI)	Dog	101	0.25	0.5	≤2	4	≥8
Bacteroides spp.	Cat	23	0.5	16	NA	NA	NA

NA: not available

Resistance to cephalosporins results from enzymatic inactivation (β -lactamase production), from reduced permeability by porin mutations or change in efflux, or by selection of low-affinity penicillin-binding proteins. Resistance may be chromosomal or plasmid-encoded and may be transferred if associated with transposons or plasmids (see also section 3.4).

When applying the CLSI clinical breakpoints, the observed resistance levels for canine *E. coli* and *Proteus mirabilis* UTI isolates were 4.5 and 0.0% respectively. The observed resistance levels for canine β-haemolytic streptococci and the *S. intermedius* group SSTI isolates were 0.0 and 15.2% respectively. The observed resistance levels for feline *E. coli* UTI isolates and for feline *Pasteurella multocida* SSTI isolates were 6.0% and 0.0% respectively.

Pseudomonas spp. and *Enterococcus* spp. isolates are inherently resistant to cefovecin.

4.3 Pharmacokinetics

Cefovecin has unique pharmacokinetic properties with extremely long elimination half-lives in both dogs and cats.

In dogs, when cefovecin was administered as a single subcutaneous dose of 8 mg/kg body weight, absorption was rapid and extensive; peak plasma concentration at 6 hours was 120 mcg/ml and bioavailability approximately 99 %. Peak

concentrations in tissue cage fluid of 31.9 mcg/ml were measured 2 days after administration. Fourteen days after administration, the mean cefovecin concentration in plasma was 5.6 mcg/ml. Plasma protein binding is high (96.0 % to 98.7 %) and the volume of distribution is low (0.1 l/kg). Elimination half-life is long – approximately 5.5 days. Cefovecin is primarily eliminated unchanged via the kidneys. At fourteen days after administration, urine concentrations were 2.9 mcg/ml.

In cats, when cefovecin was administered as a single subcutaneous dose of 8 mg/kg body weight, absorption was rapid and extensive; peak plasma concentration at 2 hours was 141 mcg/ml and bioavailability approximately 99 %. Fourteen days after administration the mean cefovecin concentration in plasma was 18 mcg/ml. Plasma protein binding is high (more than 99 %) and the volume of distribution is low (0.09 l/kg). Elimination half-life is long – approximately 6.9 days. Cefovecin is primarily eliminated unchanged via the kidneys. At ten and fourteen days after administration, urine concentrations were 1.3 mcg/ml and 0.7 mcg/ml, respectively. Following repeated administrations at the recommended dose, elevated concentrations of cefovecin were observed in plasma.

5. PHARMACEUTICAL PARTICULARS

5.1. Major incompatibilities

In the absence of compatibility studies, this veterinary medicinal product must not be mixed with other veterinary medicinal products.

5.2. Shelf life

The expiry date of the product is indicated on the packaging materials. The expiry date refers to the last day of that month.

Shelf life after reconstitution according to directions: 28 days.

5.3. Special precautions for storage

Before reconstitution:
Store in a refrigerator (2^0C – 8^0C).
Do not freeze.
Store in the original package in order to protect from light.

After reconstitution:
Store in a refrigerator (2^0C – 8^0C).
Do not freeze.
Store in the original package in order to protect from light.

5.4. Nature and composition of immediate packaging

Powder:
Type I glass vial containing 978.65 mg powder for solution for injection with butyl rubber stopper sealed with an aluminium flip-off seal.

Solvent:
Type I glass vial containing 10.8 ml solvent with chlorobutyl rubber stopper sealed with an aluminium flip-off seal.

Pack size: 1 vial of powder and 1 vial of solvent.

5.5. 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 from such veterinary medicinal products should be disposed of as a toxic waste. Do not dispose of in the sewage system.

6. NAME OF THE MARKETING AUTHORISATION HOLDER

Zoetis Israel Holding B.V., 5 Atir Yeda Street, Kfar Saba, Israel

7. MARKETING AUTHORISATION NUMBER

144-77-92447-01

8. MANUFACTURER

Haupt Pharma Latina S.R.L, Italy, S.S. 156 KM, 04010 Borgo San Michele, Latina, Italy

Revised in December 2024 according to MOHs guidelines