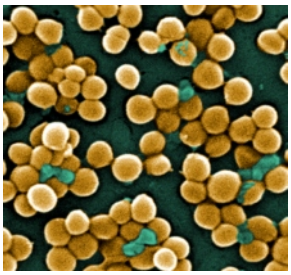
Cefpodoxime Proxetil

BRAND NAME: SIMPLICEF, VANTIN

AVAILABLE IN
100 mg, 200 mg TABLETS,
and ORAL SUSPENSION

BACKGROUND



Staphylococcus ***bacteria: the main target of cefpodoxime.***

Thanks to work by Alexander Fleming (1881-1955), Howard Florey (1898-1968) and Ernst Chain (1906-1979), penicillin was first produced on a large scale for human use in 1943. At this time, the development of a pill that could reliably kill bacteria was remarkable and many lives were saved during World War II because this medication was available.

But quickly, it became obvious that this new "wonder drug" could bear improvement. For example:

- **Penicillin is not well absorbed from the intestinal tract meaning that at least 70% of an oral dose is wasted.|**
- **Penicillin is also a short-acting medication, with half of the amount circulating being removed from the body every half hour.**
- **Not all bacteria have the type of cell wall which is susceptible to destruction by penicillin. (Bacteria are classified as Gram negative or Gram positive, depending on the cell wall characteristics. Penicillin is able to punch holes through the Gram positive cell wall but is not very effective against the Gram negative cell wall.)**
- ***Staphylococci*** **(an important group of bacteria) have developed an enzyme to break the penicillin molecule apart, rendering it useless against them.**

The Cephalosporin class of antibiotics was developed to improve upon the accomplishments of the Penicillin class. The first group of cephalosporins to be developed was the so-called "First Generation Cephalosporins" which are effective against most Gram positive infections, some Gram negative infections and are able to withstand the anti-penicillin enzymes produced by *Staphylococci*. This was a wonderful thing but there was demand for more activity against Gram negative infections so a second and finally a third generation of cephalosporins emerged, each generation with greater ability to prevail against Gram negative bacteria. Cefpodoxime is a third generation cephalosporin and one of the few that can be administered orally. It was released for veterinary use in the earlier part of 2005.

HOW THIS MEDICATION IS USED

The beauty of cefpodoxime is twofold: it is available for oral use AND it is given only once a day. Its recommended dosing schedule is flexible with lower doses recommended for tissues where the drug is readily concentrated (such as in urine for treatment of a bladder infection, or abscesses/wounds) and higher ones for tissues where the drug is not as well concentrated (such as ear infections). Because of its ability to treat more complicated infections, it is often selected for jobs where other antibiotics are expected to fail. Since its release as a veterinary product it has gained popularity especially in veterinary dermatology where Staphylococcal infections are common and treatment durations of several weeks are routine.

Cefpodoxime can be given on a full or empty stomach with no change in efficacy.

— over —

SIDE EFFECTS

Approximately 2% of dogs taking this medication experience vomiting, 1% experience diarrhea, and 1% experience reduced appetite.

INTERACTIONS WITH OTHER DRUGS

Drugs that decrease stomach acidity (any antacids) may decrease absorption and thus efficacy of cefpodoxime.

CONCERNS AND CAUTIONS

- Cefpodoxime has been tested for safe use in puppies as young as 18 days of age. Safety studies for pregnancy and lactation have not been conducted.
- Some urine dipsticks for glucose will falsely turn positive in patients taking Cefpodoxime. The nitroprusside test for urinary ketones may also falsely turn positive with cefpodoxime use.
- Cefpodoxime may be a problem for animals with seizure disorders. If another antibiotic will suffice, it may be best to choose something other than cefpodoxime for such patients.

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Additional drug and general pet care information can be found on our world wide web site:
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