

# Open®

Phenoxymethylpenicillin

## Description

Phenoxymethylpenicillin (**Open®**) is an effective acid stable penicillin, which has been widely used as an orally active agent.

## Mode of action

Phenoxymethylpenicillin (**Open®**) kills bacteria by interfering synthesis of the bacterial cell wall. Peptidoglycan is a heteropolymetric structure that provides cell wall with mechanical stability. Phenoxymethylpenicillin inhibits the transpeptidase enzyme that performs this step. As a result, the bacterial cell wall is weakened, the cell swells and is ruptured.

## Pharmacokinetics

Phenoxymethylpenicillin is rapidly but incompletely absorbed from the intestine. Peak serum concentration occurs within 45 minutes. When taken in a fasting state, blood level of phenoxymethylpenicillin is at least twice as high as that seen with an equal quantity of oral penicillin G. The urinary excretion over 10 h is 37-43% of the dose. Over 24 h, almost all of the absorbed drug is recovered in the urine.

## Composition

**Open® 250 mg Tablet:** Each tablet contains Phenoxymethylpenicillin Potassium BP 277.2 mg equivalent to Phenoxymethylpenicillin 250 mg.

**Open® 500 mg Tablet:** Each tablet contains Phenoxymethylpenicillin Potassium BP 554.40 mg equivalent to Phenoxymethylpenicillin 500 mg.

**Open® Powder for Solution:** Each 5 ml contains Phenoxymethylpenicillin Potassium BP 138.6 mg equivalent to Phenoxymethylpenicillin 125 mg.

## Indications

Mild to moderate upper respiratory tract infections like pharyngitis, tonsillitis and otitis media; streptococcal infections, primary and secondary chemoprophylaxis of rheumatic fever, etc.

## Dosage & administration

**Tablet:** Usual adult dose is 250 to 500 mg every 6 hours, half an hour before meal or 2 hours after meal is given.

**Solution:** Infants, 1/2 teaspoonful (62.5 mg); Children under 5 years, 1 teaspoonful (125 mg); Children 6 to 12 years, 2 teaspoonfuls (250 mg); all the aforesaid dosage to be given 6 hourly. Children over 12 years, 250-500 mg every 6 hrs. For prophylaxis of rheumatic fever, 500 mg daily for at least 5 years after last attack, is recommended. Alternatively the same dose should be continued until the patient reaches at least 20 years of age.

## Contraindications

Phenoxymethylpenicillin is contraindicated in case of penicillin hypersensitivity.

## Side effects

Side effects are rare; when large doses are given for a long period, it can cause gastrointestinal symptoms such as abdominal discomfort, nausea and vomiting.

## Use in pregnancy & lactation

There is no contraindication to the use of phenoxymethylpenicillin in pregnancy. This class of drug has been used extensively to treat infections in pregnancy and there are no known adverse fetal consequences. Phenoxymethylpenicillin excreted into breast milk, may lead to allergic reactions in the infant.

## Precautions

Before administering any member of penicillins, the history of hypersensitivity should be borne in mind.

## Drug interactions

Aspirin and sulfamethoxypyridazine inhibit the serum binding of phenoxymethylpenicillin. Aminoglycosides may be inactivated by penicillin, but this is unlikely to be a problem. The excretion of phenoxymethylpenicillin is retarded by probenecid.

## Over dosage

Phenoxymethylpenicillin exhibits very low toxicity when taken in overdose. Gastrointestinal symptoms including nausea and vomiting may occasionally occur. Gastric lavage and symptomatic treatment is rarely needed.

## Storage

Store in a cool and dry place, protected from light.

## Packaging

**Open® 250 mg Tablet:** Each carton contains 10X10 tablets in strip pack.

**Open® 500 mg Tablet:** Each carton contains 10X10 tablets in strip pack.

**Open® Powder for Solution:** Each carton contains a bottle having dry powder to reconstitute 50 ml solution.



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