SUMMARY OF PRODUCT CHARACTERISTICS

1 NAME OF THE MEDICINAL PRODUCT

Phenoxymethylpenicillin 250 mg Tablets

2 QUALITATIVE AND QUANTITATIVE COMPOSITION

Each tablet contains:

Phenoxymethylpenicillin potassium equivalent to phenoxymethylpenicillin 250 mg

For a full list of excipients, see section 6.1.

3 PHARMACEUTICAL FORM

Shiny white, flat tablets with k logo on one side and break line on the other.

4 CLINICAL PARTICULARS

4.1 Therapeutic indications

Phenoxymethylpenicillin potassium is an orally active penicillin indicated for treatment or prophylaxis of mild to moderately severe infections caused by penicillin sensitive organisms, i.e. those micro-organisms whose susceptibility to penicillin is within the range of serum levels attained with the dosage form.

Phenoxymethylpenicillin should not be used for serious infections because absorption can be unpredictable and plasma concentrations variable.

Lower respiratory tract: pneumonia, bronchitis,

Upper respiratory tract: bacterial pharyngitis, otitis media

Others: skin and soft tissues infections, scarlatina, erysipelas, Vincent's gingivitis, prophylaxis of rheumatic fever/or chorea and pneumococcal infection prophylaxis in asplenia or patients with sickle cell disease.

Consideration should be given to official guidance on the appropriate use of antibacterial agents.

4.2 Posology and method of administration

Posology:

The dose will depend upon the severity, type and site of infection. In general the treatment must be continued 2-3 days after improvement of the symptoms.

To avoid late complications (rheumatic fever), infections with β-haemolytic streptococci should be treated for 10 days. The treatment of acute otitis media with penicillin V should be limited to 5 days. However, 5-10 days treatment may be recommended in patients with potential for complications.

For children

1-5 years of age: 125 mg every 6 hours

6-12 years of age: 250 mg every 6 hours or as prescribed

For adults (including elderly)

Standard dosage: 250-500 mg every 6 hours or as directed by a medical practitioner.

Prevention of recurrence of rheumatic fever/chorea:*:* 250mg twice daily

Prevention of pneumococcal infection in asplenia or sickle cell disease:

Adult and children over 12 years: 500mg every 12 hours

Child under 5 years: 125mg every 12 hours

Child 6-12 years: 250mg every 12 hours

Children with difficulty in swallowing or in children younger than 5 years of age, tablets are not usually administered. The more appropriate formulation for this age group should be used.

Elderly

The dosage should be reduced if renal function is markedly impaired.

Special dosage: The elimination of phenoxymethylpenicillin potassium is reduced in case of renal insufficiency. The dose interval should be adjusted to every 8 hours to 12 hours according to the severity of renal impairment. Dosage adjustment may be

necessary in patients with impaired liver function when they also have renal failure. In this situation the liver may be a major excretion route.

The recommended dose should be swallowed whole with water, about half an hour before meals or 2 hours after food, as ingestion of Phenoxymethylpenicillin with meals slightly reduces the absorption of the drug.

Method of administration

For oral administration only.

4.3 Contraindications

Phenoxymethylpenicillin potassium should not be given to patients with a history of penicillin hypersensitivity. Penicillin or any of the excipients contained in the product and should be used with caution in patients with known histories of allergy.

Attention should be paid to possible cross-sensitivity with other beta-lactam antibiotics e.g. cephalosporins. Severe acute infections should not be treated with phenoxymethylpenicillin.

4.4 Special warnings and precautions for use

Penicillin should be used with caution in individuals with histories of significant allergies and/or asthma. Oral penicillin should not be used as adjunctive prophylaxis for genito - urinary instrumentation or surgery, lower intestinal tract surgery, sigmoidoscopy and childbirth.

Patients with a past history of rheumatic fever receiving continuous prophylaxis may harbour penicillin-resistant organisms. In these patients, the use of another prophylactic agent should be considered.

Severe empyema, bacteraemia, pericarditis, meningitis and arthritis should not be treated with penicillin during the acute phase.

All degrees of hypersensitivity, including fatal anaphylaxis, have been observed with oral penicillin. Cross sensitivity may occur with cephalosporins and other beta lactam antibiotics. These reactions are more likely to occur in individuals with a history of sensitivity to penicillins, cephalosporins and other allergens. Enquiry should be made for such a history before therapy with a penicillin begins. If an allergic reaction

occurs, the drug should be discontinued and the patient treated with the usual agents (eg Adrenaline and other pressor amines, antihistamines and corticosteroids).

Oral therapy should not be relied upon in patients with severe illness, or with nausea, vomiting, gastric dilation, cardiospasm or intestinal hypermotility. Occasionally, patients do not absorb therapeutic amounts of orally administered penicillin.

Administer with caution in the presence of markedly impaired renal function due to the increased risk of encephalopathy. As a safe dosage may be lower than usually recommended.

Phenoxymethylpenicillin may be used for prophylaxis against streptococcal infections following rheumatic fever and against pneumococcal infections following splenectomy or in sickle cell disease.

Streptococcal infections should be treated for a minimum of 10 days, and post therapy cultures should be performed to confirm the eradication of the organisms.

Prolonged use of antibiotics may promote the overgrowth of non-susceptible organisms, including fungi. If super-infection occurs, appropriate measures should be taken.

Caution should be used when treating patients with a history of antibiotic-associated colitis.

Phenoxymethylpenicillin contain lactose. Patients with rare hereditary problems of galactose intolerance, the Lapp lactase deficiency or gluclose-galactose malabsorpation should not take this medicine.

4.5 Interaction with other medicinal products and other forms of interaction

Probenecid delays the elimination of penicillin through the kidneys and thus prolongs its action.

Penicillins may interfere with anticoagulant control.

Phenoxymethylpenicillin reduces the excretion of the cytotoxic drug, methotrexate.

Avoid concomitant administration with bacteriostatic antibiotics such as tetracycline, erythromycin, chloramphenicol and sulphonamides because it can diminish the effect of phenoxymethylpenicillin potassium.

In case of simultaneous administration of phenoxymethylpenicillin and oral contraceptives, the hormonal contraception can lose its efficacy. Patients should be advised to use additional forms of contraceptive precautions while taking phenoxymethylpenicillin.

Neomycin is reported to reduce the absorption of Phenoxymethylpenicillin

The simultaneous administration of guar gum diminishes the absorption of penicillins.

Sulfinpyrazone: Excretion of penicillins reduced by sulfinpyrazone.

Typhoid vaccine (oral): Penicillins may inactivate oral typhoid vaccine.

4.6 Fertility, pregnancy and lactation

Pregnancy

Animal studies with phenoxymethylpenicillin potassium have shown no teratogenic effects.

Phenoxymethylpenicillin potassium has been in extensive clinical use and suitability in human pregnancy has been well documented in clinical studies. However, as with other drugs, caution should be exercised when prescribing to pregnant patients.

Breast-feeding

Breast feeding is not contraindicated with phenoxymethylpenicillin potassium. Trace quantities of phenoxymethylpenicillin potassium can be detected in breast milk.

While adverse effects are apparently rare, two potential problems exist for nursing infant:

- modification of bowel flora
- direct effects on the infant such as allergy/sensitisation

Caution should therefore be exercised when prescribing for the nursing mother

4.7 Effects on ability to drive and use machines

None known.

4.8 Undesirable effects

System Organ Class	Frequency	Adverse Event
Immune system disorders	Not known	include urticaria, fever, arthralgia (joint pains), rashes, angioedema, anaphylaxis, serum sickness like reactions, haemolytic anaemia and interstitial nephritis. prostration, chills, laryngeal oedema, anaphylaxis.
Hepatobiliary disorders	Very Rare	Cholestatic jaundice, hepatitis
Gastro-intestinal tract	Not known	Nausea and/or vomiting, Severe and persistent diarrhoeas, epigastric distress, black hairy tongue
Blood and lymphatic system disorders	Not known	Neutropenia, leucopenia, eosinophilia, thrombocytopenia, haemolytic anaemia, coagulation disorders, neuropathy, and nephropathy (usually associated with high doses of parenteral penicillin)
Skin and subcutaneous tissue disorders	Not known	Maculopapular rash, exfoliative dermatitis, angioedema and urticaria (rashes)
Nervous system disorders	Not known	Central nervous system toxicity, including convulsions, has been reported, especially following high doses or in severe renal impairment.

		Paraesthesia has been reported with prolonged use.
General disorders and administration site conditions	Not known	fever

Hypersensitivity

Although reactions have been reported much less frequently after oral than after parenteral therapy, it should be remembered that all degrees of hypersensitivity, including fatal anaphylaxis, have been observed with oral penicillin.

Pseudomembranous colitis requires immediate attention and treatment with an appropriate antibiotherapy (i.e. vancomycin).

Reporting of suspected adverse reactions

Reporting suspected adverse reactions after authorisation of the medicinal product is important. It allows continued monitoring of the benefit/risk balance of the medicinal product. Healthcare professionals are asked to report any suspected adverse reactions via the yellow card scheme at www.mhra.gov.uk/yellowcard.

4.9 Overdose

Cases of intended or accidental overdosage should be brought under medical supervision for symptomatic treatment. It is advisable to monitor blood levels in patients with renal malfunction.

Symptoms: A large oral overdose of penicillin may cause nausea, vomiting, stomach pain, diarrhoea, and rarely, major motor seizures. If other symptoms are present, consider the possibility of an allergic reaction. Hyperkalaemia may result from over dosage, particularly in patients with renal insufficiency.

Management: No specific antidote is known. Symptomatic and supportive therapy is recommended. Activated charcoal with a cathartic, such as sorbitol may hasten drug elimination. Penicillin may be removed by haemodialysis.

5 PHARMACOLOGICAL PROPERTIES

5.1 Pharmacodynamic properties

Pharmacotherapeutic group: Beta lactamase sensitive penicillins

ATC Code: J01CE02

Mechanism of action:

Phenoxymethylpenicillin potassium is a beta lactam antibiotic with bactericidal action against Gram-positive bacteria and Gram-negative cocci.

Its antimicrobial action is similar to that of benzyl penicillin.

Phenoxymethylpenicillin potassium is usually active against the following organisms:

Gram-positive aerobes and anaerobes including

Bacillus anthracis

Clostridium perfringens

Clostridium tetani

Corynebacterium diphtheriae

Erysipelothrix rhusiopathiae

Listeria monocytogenes

Peptostreptococcus spp.

Streptococcus agalactiae (Group *B)*

Streptococcus pneumoniae

Streptococcus pyogenes (Group *A)*

Gram-negative including

Neisseria meningitidis

Neisseria gonorrhoeae

Phenoxymethylpenicillin potassium is inactivated by penicillinase and other beta lactamases.

Phenoxymethylpenicillin binds to penicillin-binding proteins located on the inner membrane of the bacterial cell wall. Phenoxymethylpenicillin binds to and inactivates these proteins resulting in weakening of the bacterial cell wall and lysis.

5.2 Pharmacokinetic properties

Absorption

Phenoxymethylpenicillin is stable under acidic conditions so it can be administered by oral route.

Phenoxymethylpenicillin is rapidly, but incompletely absorbed after oral administration and the absorption level is around 60%. The simultaneous administration of food slightly decreases the peak plasma concentration of phenoxymethylpenicillin, but does not appear to affect the extent of absorption. Peak plasma concentrations are reached in about 45 minutes. The peak plasma concentration increases approximately in proportion with increased doses.

Distribution:

Phenoxymethylpenicillin passes into the tissues (volume of distribution about 0.2 lkg^{-1} of body weight.

The plasma protein binding is about 80%.

Biotransformation:

Phenoxymethylpenicillin is partially metabolised to inactive penicilloic acid by hydrolysis of the lactam ring. This metabolism occurs in the liver.

Elimination

About 40% of the dose is eliminated in the urine either as under unchanged or as penicilloic acid in the first 10 hours after oral administration. The plasma half-life of phenoxymethylpenicillin is about 45 minutes. It is however extended in case of renal insufficiency.

5.3 Preclinical safety data

There are no pre-clinical data of relevance to the prescriber which are additional to that already included in other sections of this SPC

6 PHARMACEUTICAL PARTICULARS

6.1 List of excipients

The excipients in the tablet are: lactose, maize starch, magnesium stearate and pregelatinised starch.

6.2 Incompatibilities

None known.

6.3 Shelf life

The shelf life of the product is 36 months.

6.4 Special precautions for storage

For containers: Do not store above 25oC. Keep the container tightly closed

For Blister packs: Do not store above 25oC. Store in the original container.

6.5 Nature and contents of container

Polypropylene container with pilfer proof polyethylene closure containing 28 or 100 or 500 or 1000 tablets.

PVC/Aluminium blister packs of 28, 100, 112, 250, 252, 500, 504, 1000 and 1008 tablets.

Not all pack sizes may be marketed.

6.6 Special precautions for disposal

The tablets should be swallowed with water.

7 MARKETING AUTHORISATION HOLDER

Flamingo Pharma UK Ltd.
1st floor, Kirkland House,
11-15 Peterborough Road,
Harrow, Middlesex,
HA12AX, United Kingdom.

8 MARKETING AUTHORISATION NUMBER(S)

PL 43461/0073

9 DATE OF FIRST AUTHORISATION/RENEWAL OF THE AUTHORISATION

02/11/2010

10 DATE OF REVISION OF THE TEXT

18/01/2021