PHENOXYMETHYLPENICILLIN 250MG FILM-COATED TABLETS

PL 25298/0106

UKPAR

TABLE OF CONTENTS

Lay Summary Page 2
Scientific discussion Page 3
Steps taken for assessment Page 11
Summary of Product Characteristics Page 12
Product Information Leaflet Page 17
Labelling Page 21
PHENOXYMETHYLPENICILLIN 250MG FILM-COATED TABLETS

PL 25298/0106

LAY SUMMARY

On 30th April 2012 the MHRA granted Marketing Authorisation (licence) for the medicinal product Phenoxymethylpenicillin 250mg Film-coated Tablets. This is a Prescription-only medicine (POM).

Phenoxymethylpenicillin is an antibiotic (antibacterial medicine) for treating infections. It belongs to a group of antibiotics called “Penicillins”. Phenoxymethylpenicillin works by killing the bacteria that can cause infections. It can also be used to prevent infections.

Your doctor has prescribed Phenoxymethylpenicillin Tablets because it can treat a range of bacterial infections of the ear, throat, lungs, skin and soft tissues. It may also be used to prevent infections such as rheumatic fever and for the prevention of infection in patients without a spleen or in patients with sickle cell disease.

No new or unexpected safety concerns arose from this application and it was, therefore, judged that the benefits of taking Phenoxymethylpenicillin 250mg Film-coated Tablets outweigh the risks; hence a Marketing Authorisation has been granted.
PHENOXYMETHYLPENICILLIN 250MG FILM-COATED TABLETS

PL 25298/0106

SCIENTIFIC DISCUSSION

TABLE OF CONTENTS

Introduction Page 4
Pharmaceutical assessment Page 5
Non-clinical assessment Page 8
Clinical assessment Page 9
Overall conclusions and risk benefit assessment Page 10
INTRODUCTION

MHRA granted a Marketing Authorisation for the medicinal product Phenoxymethylpenicillin 250mg Film-coated Tablets (PL 25298/0106) to Brown & Burk UK Ltd on the 30th April 2012. This is a Prescription-only medicine used for the treatment or prophylaxis of mild to moderately severe infections caused by penicillin sensitive organisms, i.e. those microorganisms whose susceptibility to phenoxymethylpenicillin is within the range of serum levels attained.

Phenoxymethylpenicillin is indicated in the treatment of the following Infections:

Streptococcal infections:
- Pharyngitis
- Scarlet fever
- Skin and soft tissue infections (e.g. erysipelas)

Pneumococcal infections:
- Pneumonia
- Otitis media
- Vincent's gingivitis and pharyngitis

Phenoxymethylpenicillin is also indicated for:
- Prophylaxis of rheumatic fever and/or chorea and prophylaxis of pneumococcal infection (e.g. in asplenia and in patients with sickle cell disease).

Phenoxymethylpenicillin exerts a bactericidal action against penicillin-susceptible bacteria by inhibition of biosynthesis of cell wall mucopeptides.

This application was submitted as a simple abridged application according to Article 10c of Directive 2001/83/EC, cross-referring to Phenoxymethylpenicillin 250mg Film-coated Tablets (PL 20117/0121), held by Morningside Healthcare Ltd, which was granted a Marketing Authorisation on 1st February 2011.

No new data were submitted nor were they necessary for this simple application, as the data are identical to those of the previously granted cross-reference product.

A pharmacovigilance system has been provided with this application and is satisfactory.

Suitable justifications for non-submission of the Environmental Risk Assessment (ERA) and Risk Management Plan have been provided for this product.
PHARMACEUTICAL ASSESSMENT

LICENCE NO: PL 25298/0106
PROPRIETARY NAME: Phenoxymethylpenicillin 250mg Film-coated Tablets
COMPANY NAME: Brown & Burk UK Ltd
E.C. ARTICLE: Article 10c of Directive 2001/83/EC
LEGAL STATUS: POM

1 INTRODUCTION
This is a simple, informed consent application for Phenoxymethylpenicillin 250mg Film-coated Tablets, submitted under Article 10c of Directive 2001/83/EC. The application cross-refers to Phenoxymethylpenicillin 250mg Film-coated Tablets (PL 20117/0121), held by, approved on 1st February 2011 to the Marketing Authorisation holder Morningside Healthcare Ltd. The current application is considered valid.

2 MARKETING AUTHORISATION APPLICATION (MAA)
2.1 Name(s)
The proposed name of the product is Phenoxymethylpenicillin 250mg Film-coated Tablets. The product has been named in line with current requirements.

2.2 Strength, pharmaceutical form, route of administration, container and pack sizes
The product contains the active ingredient phenoxymethylpenicillin potassium.

The tablets are packed in polyvinylchloride (PVC)/aluminium blisters. The pack sizes are 14, 28, 42, 56, 70, 140 tablets.

Specifications and Certificates of Analysis for all packaging components used have been provided and are satisfactory. The packaging and pack sizes are the same as those for the reference product.

The proposed shelf life is 2 years with a storage condition of ‘Do not store above 25°C’.

The shelf-life and the storage condition are identical to those for the reference product and are satisfactory.

2.3 Legal status
This product is a Prescription-only medicine (POM).

2.4 Marketing authorisation holder/Contact Persons/Company
The proposed Marketing Authorisation holder is Brown & Burk UK Ltd, 5, Marryat Close, Hounslow west, Middlesex TW4 5DQ, UK

The Qualified Person (QP) responsible for pharmacovigilance is stated and a Curriculum Vitae (CV) is included.
2.5 Manufacturers
The proposed manufacturing sites are consistent with those registered for the reference product and evidence of Good Manufacturing Practice (GMP) compliance has been provided.

2.6 Qualitative and quantitative composition
The proposed composition is consistent with the details registered for the reference product.

2.7 Manufacturing process
The proposed manufacturing process is consistent with the details registered for the reference product and the maximum batch size is stated.

2.8 Finished product/shelf-life specifications
The proposed finished product and shelf-life specification are in line with the details registered for the reference product.

2.9 Drug substance specification
The proposed drug substance specification conforms to the current European Pharmacopoeia monograph for phenoxymethylpenicillin potassium, and is in-line with that for the reference product.

European Directorate for the Quality of Medicines (EDQM) Certificates of Suitability for the manufacturer of phenoxymethylpenicillin potassium has been provided. The active substance manufacturer is in line with those for the reference product.

2.10 TSE Compliance
No materials of human or animal origin have been used in the manufacture of this product. This is consistent with the reference product.

2.11 Bioequivalence
No bioequivalence data are required to support this informed consent application, as the proposed product is manufactured to the same formula utilising the same process as the reference product Phenoxymethylpenicillin 250mg Film-coated Tablets (PL 20117/0121).

3 EXPERT REPORT
The applicant has included detailed expert reports in the application. Signed declarations and copies of the experts’ CVs are enclosed for the quality, non-clinical and clinical experts. All are considered to have sufficient experience for their responsibilities.

4. PRODUCT NAME & APPEARANCE
See 2.1 for details of the proposed product names. The appearance of the product is identical to that of the reference product.

5. SUMMARY OF PRODUCT CHARACTERISTICS (SmPC)
The proposed SmPC is consistent with the details registered for the reference product.
6. **PATIENT INFORMATION LEAFLET (PIL)/LABELLING**
User testing of the package leaflet has been accepted, based on a bridging report provided by the applicant making reference to the user-testing of the PIL for Phenoxybenzylpenicillin 250mg Film-coated Tablets (PL 20117/0121). A critical analysis demonstrated that the key messages for safe and effective use for all leaflets were similar. The justification of the rationale for bridging is accepted.

The proposed artwork complies with the relevant statutory requirements. In line with current legislation, the applicant has also included the name of the product in Braille on the outer packaging and sufficient space for a standard UK pharmacy dispensing label.

7. **CONCLUSIONS**
The data submitted with the application are acceptable. The grant of a Marketing Authorisation is recommended.
NON-CLINICAL ASSESSMENT

No new non-clinical data have been supplied with this application and none are required for applications of this type.
CLINICAL ASSESSMENT

No new clinical data have been supplied with this application and none are required for applications of this type.
OVERALL CONCLUSION AND RISK BENEFIT ASSESSMENT

QUALITY
The data for this application are consistent with those previously assessed for the reference product and, as such, have been judged to be satisfactory.

NON-CLINICAL
No new non-clinical data were submitted and none are required for applications of this type.

EFFICACY
This application is identical to the previously granted application for Phenoxy methylpenicillin 250mg Film-coated Tablets (PL 20117/0121), granted to Morningside Healthcare Ltd on 1st February 2011.

Pharmaceutical, non-clinical and clinical expert statements have been provided, together with CVs showing that the experts are appropriately qualified. The experts confirm that the product is identical in composition, manufacture and pharmaceutical characteristics to the respective reference product and that there are no toxicological or clinical issues.

No new or unexpected safety concerns arise from this application.

The SmPC, PIL and labelling are satisfactory and consistent with those for the reference product.

RISK BENEFIT ASSESSMENT
The quality of the product is acceptable and no new non-clinical or clinical safety concerns have been identified. The applicant’s product is identical to the reference product. Extensive clinical experience with phenoxy methylpenicillin potassium is considered to have demonstrated the therapeutic values of the compounds. The risk benefit is, therefore, considered to be positive.
PHENOXYMETHYL PENICILLIN 250MG FILM-COATED TABLETS

PL 25298/0106

STEPs TAKEn FOR ASSESSMENT

<p>| | |</p>
<table>
<thead>
<tr>
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<tbody>
<tr>
<td>1</td>
<td>The MHRA received the marketing authorisation application on 23rd November 2011</td>
</tr>
<tr>
<td>2</td>
<td>Following standard checks and communication with the applicant the MHRA considered the application is valid on 27th February 2012</td>
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<tr>
<td>3</td>
<td>Following assessment of the application the MHRA requested further information on 5th March 2012</td>
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<tr>
<td>4</td>
<td>The applicant responded to the MHRA’s request, providing further information on 15th March 2012</td>
</tr>
<tr>
<td>5</td>
<td>The application was determined on 30th April 2012</td>
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SUMMARY OF PRODUCT CHARACTERISTICS

1 NAME OF THE MEDICINAL PRODUCT
Phenoxympenillicin, 250mg, Film-coated Tablets

2 QUALITATIVE AND QUANTITATIVE COMPOSITION
Each tablet contains phenoxympenillicin 250 mg (as phenoxympenillicin potassium).

For a full list of excipients, see section 6.1

3 PHARMACEUTICAL FORM
Film-coated tablet
White, circular, biconvex film coated tablets with break line on one side and ‘I 04’ on the other.
The tablet can be divided into equal halves.

4 CLINICAL PARTICULARS
4.1 Therapeutic indications
Phenoxympenillicin is indicated in the treatment or prophylaxis of mild to moderately severe infections caused by penicillin sensitive organisms, i.e. those microorganisms whose susceptibility to phenoxympenillicin is within the range of serum levels attained.
Phenoxympenillicin is indicated in the treatment of the following Infections (See Section 5.1): Streptococcal infections:
Pharyngitis
Scarlet fever
Skin and soft tissue infections (e.g. erysipelas)

Pneumococcal infections:
Pneumonia
Otitis media

Vincent's gingivitis and pharyngitis
Phenoxympenillicin is also indicated for (see Section 5.1):
Prophylaxis of rheumatic fever and/or chorea Prophylaxis of pneumococcal infection (e.g. in asplenia and in 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
Phenoxympenillicin 250 mg is approximately equivalent to 400,000 units.
Each tablet should be swallowed whole with water, at least 30 minutes before food, as ingestion of phenoxympenillicin with meals slightly reduces the absorption of the drug.
The usual dosage recommendations are as follows:
Adults: 250-500 mg every six hours.
Children 1-5 years: 125 mg every six hours
6-12 years: 250 mg every six hours

Prophylactic Use
Prophylaxis of rheumatic fever/ chorea: 250 mg twice daily on a continuing basis
Prophylaxis of pneumococcal infection (e.g. in asplenia and in sickle cell disease):
Adults and children over 12 years: 500mg every 12 hours.
Children 6-12 years: 250mg every 12 hours.
Children below 5 years: 125mg every 12 hours.
In children younger than 5 years of age tablets are not usually administered. The more appropriate formulation for this age group should be used. Sometimes older children may have difficulties swallowing tablets.

**Elderly:** The dosage is as for adults. The dosage should be reduced if renal function is markedly impaired.

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

**Hepatic 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.

### 4.3 Contraindications

A history of a previous hypersensitivity reaction to any penicillin is a contraindication.

### 4.4 Special warnings and precautions for use

Phenoxymethylpenicillin should be given with caution to patients with a history of allergy, especially to other drugs. Phenoxymethylpenicillin should also be given cautiously to cephalosporin-sensitive patients, as there is some evidence of partial cross-allergenicity between the cephalosporins and penicillins. Patients have had severe reactions (including anaphylaxis) to both drugs. If the patient experiences an allergic reaction phenoxymethylpenicillin should be discontinued and treatment with the appropriate agents initiated.

Particular caution should be exercised in prescribing phenoxymethylpenicillin to patients with an allergic diathesis or with bronchial asthma

Oral Penicillins are not indicated in patients with a gastrointestinal disease that causes persistent diarrhoea or vomiting, because absorption may be reduced.

In patients undergoing long-term phenoxymethylpenicillin treatment the complete and differential blood count, as well as the liver and kidney function, should be monitored. During long-term treatment attention should also be paid to the potential overgrowth of resistant organisms including Pseudomonas or Candida.

Sustained severe diarrhoea should prompt suspicion of pseudomembranous colitis. As this condition may be life-threatening phenoxymethylpenicillin should be withdrawn immediately and treatment guided by bacteriologic studies. Each tablet contains 28 mg of potassium, which may be harmful to people on low potassium diets and may cause stomach upset, diarrhoea and hyperkalaemia. High doses should be used with caution in patients receiving potassium-containing drugs or potassium sparing-diuretics.

In renal impairment the safe dosage may be lower than usually recommended.

### 4.5 Interaction with other medicinal products and other forms of interaction

As penicillins like phenoxymethylpenicillin are only active against proliferating microorganisms, phenoxymethylpenicillin should not be combined with bacteriostatic antibiotics. Concomitant use of uricosuric drugs (e.g. probenecid) reduces the excretion of phenoxymethylpenicillin resulting in increased plasma levels.

Combined use of phenoxymethylpenicillin and oral anticoagulants (e.g. warfarin) may prolong prothrombin time.

Phenoxymethylpenicillin may reduce the excretion of methotrexate causing an increased risk of toxicity.

Like other antibiotics, phenoxymethylpenicillin may reduce the effectiveness of oral contraceptives.

During treatment with phenoxymethylpenicillin non-enzymatic urinary glucose tests may be false-positive.

Neomycin reduces the absorption of phenoxymethylpenicillin.

Guar gum may slow the speed of absorption of Phenoxymethylpenicillin.

Concurrent use of phenoxymethylpenicillin with potassium sparing diuretics (e.g. Amiloride and Spironolactone) may cause hyperkalaemia, which can be life-threatening.
4.6 Pregnancy and lactation
Safe use of phenoxymethylpenicillin during pregnancy has not been definitely established. There are no adequate or controlled studies using phenoxymethylpenicillin in pregnant women and the drug should be used during pregnancy only when clearly needed. Because phenoxymethylpenicillin is distributed into milk, the drug should be used with caution in nursing women.

4.7 Effects on ability to drive and use machines
There are no effects on ability to drive or to operate machinery.

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

<table>
<thead>
<tr>
<th>I nfections &amp; infestations</th>
<th>Not known</th>
<th>Candida, Vulvo-vaginitis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blood and lymphatic system disorders</td>
<td>Not known</td>
<td>Eosinophilia, Haemolytic anaemia Leukopenia, Thrombocytopenia, Agranulocytosis</td>
</tr>
<tr>
<td>Immune system disorders</td>
<td>Not known</td>
<td>Erythema multiforme, Anaphylactic shock (which could be fatal with collapse)</td>
</tr>
<tr>
<td>Vascular disorders</td>
<td>Not known</td>
<td>Anaphylactoid shock</td>
</tr>
<tr>
<td>Gastrointestinal disorders</td>
<td>Not known</td>
<td>Nausea, Vomiting, Diarrhoea, Stomatitis, Glossitis</td>
</tr>
<tr>
<td>Skin and subcutaneous tissue disorders</td>
<td>Not known</td>
<td>Urticaria, Angioneurotic oedema, Exfoliative dermatitis</td>
</tr>
<tr>
<td>Musculoskeletal and connective tissue disorders</td>
<td>Not known</td>
<td>Joint pains</td>
</tr>
<tr>
<td>General disorders and administration site conditions</td>
<td>Not known</td>
<td>Fever</td>
</tr>
</tbody>
</table>

4.9 Overdose
A large overdose may cause nausea, vomiting and diarrhoea. Rarely major motor seizures may occur. There is no known antidote. Symptomatic and supportive therapy is recommended. Phenoxymethylpenicillin may be removed by haemodialysis.

5 PHARMACOLOGICAL PROPERTIES
5.1 Pharmacodynamic properties
General properties
ATC classification Pharmacotherapeutic Group: Beta lactamase sensitive penicillins ATC Code: J01C E02.
Mode of action
Phenoxymethylpenicillin exerts a bactericidal action against penicillin-susceptible bacteria by inhibition of biosynthesis of cell wall mucopolymers.
PK/PD relationship
Efficacy correlates with the time that plasma levels exceed the MIC of the pathogen under treatment.
Resistance
Resistance to phenoxymethylpenicillin is usually mediated by one or both of:
- Bacterial production of β-lactamases: This family of enzymes can inactivate phenoxymethylpenicillin by hydrolyzing the β-lactam ring
- The occurrence of modified penicillin-binding proteins resulting in impaired binding of phenoxymethylpenicillin.

EUCAST recommendations for susceptibility testing:
- *Staphylococcus* spp: Isolates positive for β-lactamase are resistant to phenoxymethylpenicillin. Isolates negative for β-lactamase and susceptible to methicillin can be reported susceptible to phenoxymethylpenicillin.
- *Streptococcus* groups A, B, C and G: The β-lactam susceptibility of β-haemolytic *Streptococcus* groups A, B, C and G is inferred from the penicillin susceptibility.
- *Streptococcus pneumoniae*: Isolates fully susceptible to benzylpenicillin (MIC ≤ 0.064 mg/ml, susceptible by Oxacillin disk screen, Screen for β- lactam resistance with the Oxacillin 1µg disk – isolates categorized as susceptible can be reported as susceptible to phenoxymethylpenicillin irrespective of the clinical condition. Isolates categorized as Oxacillin resistant can be reported to phenoxymethylpenicillin in meningitis) can be reported susceptible to phenoxymethylpenicillin, otherwise reported as phenoxymethylpenicillin resistant without further testing.

The prevalence of acquired resistance may vary geographically and with time for selected species and local information on resistance is desirable, particularly when treating severe infections. As necessary, expert advice should be sought when the local prevalence of resistance is such that the utility of the agent is at least some types of infections is questionable.

<table>
<thead>
<tr>
<th>Commonly susceptible species</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aerobic Gram-positive micro-organisms</td>
</tr>
<tr>
<td><em>Streptococcus</em> A,B,C,G</td>
</tr>
<tr>
<td>Species for which acquired resistance may be a problem</td>
</tr>
<tr>
<td><em>Staphylococcus aureus</em></td>
</tr>
<tr>
<td><em>Streptococcus pneumoniae</em></td>
</tr>
</tbody>
</table>

5.2 Pharmacokinetic properties

**Absorption**
Following administration by mouth absorption is usually quick, complete and rapid from the gastrointestinal tract. Peak serum concentrations of 3-6 ~g per ml have been seen following dosage of 250 mg to 500 mg by mouth. The effect of food on absorption is slight and variable. Impaired absorption is seen in patients with coeliac disease.

**Distribution**
Eighty per cent is reported to be protein bound. Phenoxymethylpenicillin is widely distributed round the body tissues and fluids and more readily penetrates inflamed tissues. It also diffuses across the placenta into foetal circulation and small amounts appear in the milk of nursing mothers.

**Biotransformation**
Some metabolism occurs in the liver and several metabolites have been found, including penicilloic acid.

**Elimination**
Excretion is by tubular secretion into urine. Small excretion occurs in bile. The plasma half-life of phenoxymethylpenicillin is about 30 minutes which may increase to four hours in renal failure.

5.3 Preclinical safety data

No data of clinical relevance
6  PHARMACEUTICAL PARTICULARS
6.1  List of excipients
Calcium Hydrogen Phosphate Dihydrate
Maize Starch
Cellulose, Microcrystalline E460
Magnesium Stearate E572
Basic Butylated Methacrylate
Macrogol 6000
Sodium Laurilsulfate E487
Stearic Acid E570
Titanium Dioxide E171

6.2  Incompatibilities
Not applicable

6.3  Shelf life
2 years

6.4  Special precautions for storage
Do not store above 25º C.

6.5  Nature and contents of container
Al /PVC blister. Pack sizes of 14, 28, 42, 56, 70, 140 tablets are available
Not all pack sizes may be marketed.

6.6  Special precautions for disposal
No special requirements

7  MARKETING AUTHORISATION HOLDER
Brown & Burk UK Ltd
5, Marryat Close, Hounslow west,
Middlesex TW4 5DQ, UK

8  MARKETING AUTHORISATION NUMBER(S)
PL 25298/0106

9  DATE OF FIRST AUTHORISATION/RENEWAL OF THE AUTHORISATION
30/04/2012

10 DATE OF REVISION OF THE TEXT
30/04/2012
UKPAR Phenoxymethylpenicillin 250mg Film-coated Tablets

PATIENT INFORMATION LEAFLET

Read all of this leaflet carefully before you start taking this medicine.
- Keep this leaflet. You may need to read it again.
- If you have any further questions, ask your doctor or pharmacist.
- This medicine has been prescribed for you. Do not pass it on to others. It may harm them, even if their symptoms are the same as yours.
- If any of the side effects gets serious, or if you notice any side effects not listed in this leaflet, please tell your doctor or pharmacist.

In this leaflet:
1. What Phenoxymethylpenicillin Tablets are and what they are used for
2. Before you take Phenoxymethylpenicillin Tablets
3. How to take Phenoxymethylpenicillin Tablets
4. Possible side effects
5. How to store Phenoxymethylpenicillin Tablets
6. Further information

1. WHAT PHENOXYMETHYL PENICILLIN TABLETS ARE AND WHAT THEY ARE USED FOR

Phenoxymethylpenicillin is an antibiotic (bactericidal medicine) for treating infections. It belongs to a group of antibiotics called "Penicillins". Phenoxymethylpenicillin works by killing the bacteria that can cause illnesses. Phenoxymethylpenicillin can also be used to prevent infections.

Your doctor has prescribed Phenoxymethylpenicillin Tablets because it can treat a range of bacterial infections of the ear, throat, lungs, skin and soft tissues. It may also be used to prevent infections such as rheumatic fever and prevention of infection in patients without a spleen or patients with sickle cell disease.

2. BEFORE YOU TAKE PHENOXYMETHYL PENICILLIN TABLETS

Do not take Phenoxymethylpenicillin Tablets:
- If you are allergic (hypersensitive) to phenoxymethylpenicillin or any of the other ingredients of Phenoxymethylpenicillin Tablets.
- If you know that you are allergic to penicillin.

Take special care with Phenoxymethylpenicillin Tablets:
- If you know that you are allergic to cephalosporins, or any other antibiotic or any of the ingredients in your medicine.
- If you suffer from kidney problems.
- If you suffer from liver problems.
- If you suffer from any blood disorders.
- If you are pregnant, trying for a baby or breast-feeding.
- If you suffer from bronchial asthma or suffer from a tendency to develop allergic conditions.
- If you suffer with persistent diarrhoea or vomiting caused by stomach or intestinal problems.

Any of the above applies to you, let your doctor know.

You should also note that if you test your urine for glucose using a non-enzymatic test phenoxymethylpenicillin tablets may give a false positive result. Please ask your pharmacist for advice on this.

Long term treatment should be monitored as overgrowth of resistant organisms including Pseudomonas or Candida may occur.

Taking other medicines
Phenoxymethylpenicillin Tablets may occasionally interfere with other medicines, so it is important that you take care about all the medicines you are taking. In particular tell your doctor if you are taking any of the following:
- any other antibiotics such as erythromycin, neomycin, or tetracyclines
- medicines used to treat gout, e.g. probenecid
- medicines used to treat cancer, psoriasis, rheumatoid arthritis, e.g. methotrexate
- the contraceptive pill (you may need to use extra birth control methods e.g. condoms.)
- medicines used to prevent clotting of the blood e.g. warfarin
- medicines used to treat diabetes e.g. glibenclamide
- medicines used to treat high blood pressure, water retention or heart conditions e.g. amiodarone or spironolactone

Please tell your doctor or pharmacist if you are taking or have recently taken any other medicines, including medicines obtained without a prescription.

Taking Phenoxymethylpenicillin Tablets with food and drink
Phenoxymethylpenicillin Tablets are best absorbed when taken on an empty stomach.

Pregnancy and breast-feeding
The effects of phenoxymethylpenicillin in pregnancy have not been adequately studied. If you are pregnant or planning to become pregnant, inform your doctor immediately. Phenoxymethylpenicillin Tablets should be used during pregnancy only if your doctor determines that the potential benefits outweigh the potential risks to the unborn baby. Since phenoxymethylpenicillin appears in breast milk, you should consult with your doctor if you plan to breast-feed your baby. If this medication is essential to your health, your doctor may advise you to discontinue breast-feeding until your treatment is finished.

Ask your doctor or pharmacist for advice before taking any medicine.

Driving and using machines
Phenoxymethylpenicillin Tablets have not been shown to have any effect on ability to drive and use machines.

Important information about some of the ingredients of Phenoxymethylpenicillin Tablets
Each Phenoxymethylpenicillin 250mg tablet contains 28mg of potassium. This potassium content may be harmful to people on low potassium diets.

17
3. HOW TO TAKE PHENOXYMETHYLPenicillin TABLETS

Always take Phenoxythymethylpenicillin Tablets exactly as your doctor has told you. You should check with your doctor or pharmacist if you are not sure.

Adults and Children (Over 12)

It is best to take the dose at evenly spaced times, around the clock and at least 30 minutes before food.

Adults

The usual dose is 250 milligrams to 500 milligrams (one to two tablets) every 6 hours. This may vary depending on the type of infection you have. If you have poor kidney function the dose may be lowered.

To prevent recurring rheumatic fever

The usual dosage is 250 milligrams (one tablet) daily on a continuing basis.

To prevent pneumococcal infection (e.g. in asplenia and sickle cell disease)

The usual dosage is 500 mg (two tablets) every 12 hours.

Children (under 12)

For children aged between 6 and 12 years of age, the usual dosage is 250 milligrams (one tablet) every 6 hours.

For infants and children under the age of 6 an oral solution containing phenoxymethylpenicillin is recommended.

To prevent pneumococcal infection (e.g. in asplenia and sickle cell disease)

The usual dosage is 250 mg (one tablet) every 12 hours.

Patients with kidney and liver problems

- If you have kidney problems the dose might be changed by your doctor.
- Dosage might be changed by your doctor if you have liver problems along with kidney problem.

If you take more Phenoxythymethylpenicillin Tablets than you should

Never take more than the recommended dose each day. If you or someone else swallows several of these tablets all together, contact your doctor, pharmacist or hospital emergency department immediately. Always take any tablet left over with you and also the box, as this will allow easier identification of the tablets.

Symptoms of overdose may include: Diarrhoea, nausea, vomiting and stomach pain.

If you forget to take Phenoxythymethylpenicillin Tablets

If you miss a dose, just carry on with the next one as normal. Do not take a double dose to make up for a forgotten dose.

If you stop taking Phenoxythymethylpenicillin Tablets

Continue taking Phenoxythymethylpenicillin Tablets for the full time of treatment, even if you begin to feel better after a few days. Failure to take a full course of therapy may prevent complete elimination of the infection.

If you have any further questions on the use of this product ask your doctor or pharmacist.

4. POSSIBLE SIDE EFFECTS

Like all medicines, Phenoxythymethylpenicillin Tablets can cause side effects, although not everybody gets them. If you experience any of the following, stop taking the tablets and tell your doctor IMMEDIATELY:

- an allergic reaction - symptoms such as shortness of breath, skin rash or itching, skin eruptions, swelling of your lips, face or tongue, chills or fever or painful joints

The following side effects have been reported in patients treated with Phenoxythymethylpenicillin Tablets. However, frequency estimates for these effects are not available:

- Diarrhoea
- Should the diarrhoea be persistent and severe, stop taking your tablets and tell your doctor immediately.
- Vomiting or nausea, a feeling of sickness.
- Inflammation of the lung or mouth.
- Redness of the skin, often itchy, similar to the rash of measles.
- Thrush or inflammation of the vaginal area.
- Changes in white blood cell count, reduction in red blood cell count, reduction in blood platelets, which increases risk of bleeding or bruising.
- Fever
- Painful joints

If any of the side effects gets serious, or if you notice any side effects not listed in this leaflet tell your doctor or pharmacist.

5. HOW TO STORE PHENOXYMETHYLPenicillin

Keep out of the sight and reach of children. Do not store above 25°C.

Do not use Phenoxythymethylpenicillin Film-coated Tablets after the expiry date which is stated on the individual blister and on the carton.

Do not use Phenoxythymethylpenicillin film-coated tablets if you notice visible signs of deterioration such as colour change of the tablet from white to off-white or yellowish or if patches appear on the tablet.

Medicines should not be disposed of via waste water or household waste. Ask your pharmacist how to dispose of medicines no longer required. These measures will help to protect the environment.

6. FURTHER INFORMATION

What Phenoxythymethylpenicillin contains

The active substance is Phenoxythymethylpenicillin 250 mg (as Phenoxythymethylpenicillin Potassium).

Other ingredients are:

- Calcium Hydrogen Phosphate Dihydrate
- Maize Starch
- Microcrystalline Cellulose (E460)
- Magnesium Stearate (E572)
- Film Coat
- Basic Butylated Methacrylate
- Macrogol 6000
- Sodium Lauryl sulphate (E487)
- Stearic acid (E470)
- Titanium Dioxide (E171)

What Phenoxythymethylpenicillin looks like and contents of the pack

Phenoxythymethylpenicillin Tablets: White, circular, biconvex film coated tablets with breakline on one side and 'P4' on the other.

Blister packs (aluminium PVC) of 14 tablets. Packs containing 14, 28, 42, 56, 70, 140 tablets are available.

Not all pack sizes may be marketed.

Marketing Authorisation Holder

Brown & Burk UK Ltd

5, Marnet Close, Hounslow West, Middlesex TW4 5DS, UK

Site responsible for batch release

Morningdale Pharmaceuticals Ltd

2 Pavilion Way, Loughborough, LE11 5GW, UK

This leaflet was last approved in 03/2012
Phenoxymethylpenicillin 250mg Film-coated Tablets

Take as directed by your doctor.

Read the package leaflet before use.

Keep out of the sight and reach of children.

Do not take above 250mg.

PL 25298/0106

Marketing Authorization Holder: Brown & Burk (UK) Ltd,
3 Menard Close, Moorhouse Reed, Mildenhall, IP6 5GG, United Kingdom

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