PHENOBARBITAL 30MG AND 60MG TABLETS

PL 30464/0031-2

UKPAR

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LAY SUMMARY

On 12th May 2011, the MHRA granted Marketing Authorisations (licences) for the medicinal products Phenobarbital 30mg and 60mg Tablets. These medicines are only available on prescription from your doctor.

Phenobarbital belongs to a group of medicines known as barbiturates. Phenobarbital is used to treat epilepsy.

In an epileptic fit excessive electrical activity builds up in the brain. Phenobarbital works by neutralising this excessive electrical activity.

No new or unexpected safety concerns arose from these applications and it was, therefore, judged that the benefits of taking Phenobarbital 30mg and 60mg Tablets outweigh the risks; hence Marketing Authorisations have been granted.
PHENOBARBITAL 30MG AND 60MG TABLETS

PL 30464/0031-2

SCIENTIFIC DISCUSSION

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INTRODUCTION

MHRA granted marketing authorisations for medicinal products Phenobarbital 30mg and 60mg Tablets (PL 30464/0031-2) to Athlone Pharmaceuticals Limited on the 12th May 2011. These are prescription only medicines (POM) indicated for the management of all forms of epilepsy except absence seizures.

These applications were submitted as abridged applications according to Article 10.c of Directive 2001/83/EC, cross-referring to Phenobarbital 30mg and 60mg tablets (PL 00790/0024-5), held by Clonmel Healthcare Ltd, which were granted marketing authorisations on 10th July 1981.

No new data were submitted nor were they necessary for these simple applications, as the data are identical to those of the previously granted cross-reference products. As the cross-reference products were granted prior to the introduction of current legislation, a public assessment report is not available for them.

A pharmacovigilance system has been provided with these applications and is satisfactory. A suitable justification for non-submission of the Risk Management Plan has been provided.

No environmental risk assessment (ERA) has been undertaken, as this is not considered necessary. These products are essentially similar and the therapeutic indications and posology of the finished products are the same as the already licensed cross-reference products. The applicant’s justification for absence of ERA is satisfactory.
PHARMACEUTICAL ASSESSMENT

LICENCE NO: PL 30464/0031-2  
PROPRIETARY NAME: Phenobarbital 30mg and 60mg Tablets  
COMPANY NAME: Athlone Pharmaceuticals Limited  
E.C. ARTICLE: Article 10c of Directive 2001/83/EC  
LEGAL STATUS: POM

1  INTRODUCTION
These are informed consent applications for Phenobarbital 30mg and 60mg Tablets, submitted under Article 10c of Directive 2001/83/EC. The applications cross-refer to Phenobarbital 30mg and 60mg tablets, PL 00790/0024-5, approved on 10th July 1981 to the marketing authorisation holder Clonmel Healthcare Ltd. The current applications are considered valid.

2  MARKETING AUTHORISATION APPLICATION (MAA)
2.1 Name(s)
The proposed names of the products are Phenobarbital 30mg and 60mg Tablets. The products have 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 phenobarbital.

The tablets are packed in polypropylene tubes with low-density polyethylene caps. The pack sizes are 28 and 1000 tablets. The packaging and pack sizes are the same as those for the reference products.

The proposed shelf life is 3 years with storage conditions of ‘Do not store above 25°C’, ‘Store in the original container’ and ‘Keep the container tightly closed’. These are satisfactory.

The shelf-life and storage conditions are identical to those for the reference products and are satisfactory.

2.3 Legal status
These products are prescription only medicines (POM).

2.4 Marketing authorisation holder/Contact Persons/Company
The proposed Marketing Authorisation holder is Athlone Pharmaceuticals Limited, Ballymurray, Co. Roscommon, Ireland.

2.5 Manufacturers
The proposed manufacturing sites are consistent with those registered for the cross referenced products 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 cross reference products.
2.7 Manufacturing process
The proposed manufacturing process is consistent with the details registered for the cross referenced products and the maximum batch size is stated.

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

2.9 Drug substance specification
The proposed drug substance specifications conform to the current European Pharmacopoeia monograph for phenobarbital, and are in-line with those for the cross referenced products.

2.10 TSE Compliance
The excipients used that contain material of animal origin are lactose monohydrate and magnesium stearate. A certificate of suitability for the excipient magnesium stearate is as per the reference product has been provided. A signed TSE / BSE risk free declaration has been provided by the manufacturer of lactose monohydrate and is acceptable and is as per the reference product.

2.11 Bioequivalence
No bioequivalence data are required to support these informed consent applications, as the proposed products are manufactured to the same formula utilising the same process as the cross reference products Phenobarbital 30mg and 60mg tablets, PL 00790/0024-5.

3 EXPERT REPORTS
The applicant has included satisfactory expert reports for the applications. 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 those of the cross reference products.

5. SUMMARY OF PRODUCT CHARACTERISTICS (SmPC)
The proposed SmPCs are consistent with the details registered for the cross reference products.

6. PATIENT INFORMATION LEAFLET (PIL)/LABELLING
The applicant has provided a bridging report for user testing, bridging to Ranbaxy’s approved PIL for Gabapentin 600mg Tablets for the therapeutic specific textual content and to the applicant’s own approved Mirtazapine 30mg Tablets for layout and house style. This is acceptable.

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 has included sufficient space for a standard UK pharmacy dispensing label.

7. **CONCLUSIONS**

The data submitted with the applications are acceptable. The grant of marketing authorisations is recommended.
NON-CLINICAL ASSESSMENT

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

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

QUALITY
The data for these applications are consistent with those previously assessed for the cross reference products 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
These applications are identical to the previously granted applications for Phenobarbital 30mg and 60mg tablets, PL 00790/0024-5, granted to Clonmel Healthcare Ltd on 10th July 1981.

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

No new or unexpected safety concerns arise from these applications.

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

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 products are identical to the cross reference products. Extensive clinical experience with phenobarbital is considered to have demonstrated the therapeutic values of the compounds. The risk benefit is, therefore, considered to be positive.
### STEPS TAKEN FOR ASSESSMENT

<table>
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<tr>
<td>1</td>
<td>The MHRA received the marketing authorisation applications on 2nd August 2007</td>
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<tr>
<td>2</td>
<td>Following standard checks and communication with the applicant the MHRA considered the applications are valid on 4th September 2007</td>
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<td>Following assessment of the applications the MHRA requested further information on 4th September 2007, 25th July 2008, 15th June 2009 and 18th October 2010</td>
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<td>The applicant responded to the MHRA’s request, providing further information on 29th April 2008, 20th January 2009, 30th March 2010 and 21st December 2010</td>
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<tr>
<td>5</td>
<td>The applications were determined on 12th May 2011</td>
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SUMMARY OF PRODUCT CHARACTERISTICS

1 NAME OF THE MEDICINAL PRODUCT
Phenobarbital 30mg Tablets

2 QUALITATIVE AND QUANTITATIVE COMPOSITION
Each tablet contains 30mg phenobarbital Ph. Eur.
Excipient: Lactose monohydrate 18.8mg
For full list of excipients, see section 6.1

3 PHARMACEUTICAL FORM
Tablets for oral use
Appearance: White, circular, biconvex tablets

4 CLINICAL PARTICULARS
4.1 Therapeutic indications
Phenobarbital tablets are indicated for the management of all forms of epilepsy except absence seizures.

4.2 Posology and method of administration
Adults and the elderly:
60 - 180mg daily at night
Caution must be exercised in the treatment of elderly patients with careful monitoring of their condition.
Children: 5 - 8mg per kg bodyweight daily
Administration: Oral; the tablets should be swallowed with water.

4.3 Contraindications
1. Known hypersensitivity to barbiturates.
2. Hypersensitivity to any of the ingredients in this medicine.
3. Acute intermittent porphyria.
4. Severe respiratory depression.
5. Severe impairment of renal and hepatic function.

4.4 Special warnings and precautions for use
Suicidal ideation and behaviour have been reported in patients treated with anti-epileptic agents in several indications. A meta-analysis of randomised placebo controlled trials of anti-epileptic drugs has also shown a small increased risk of suicidal ideation and behaviour. The mechanism of this risk is not known and the available data do not exclude the possibility of an increased risk for Phenobarbital.
Therefore patients should be monitored for signs of suicidal ideation and behaviours and appropriate treatment should be considered. Patients (and caregivers of patients) should be advised to seek medical advice should signs of suicidal ideation or behaviour emerge.
Phenobarbital should be used with caution in the young, elderly, debilitated or senile patients and those with renal impairment, existing liver disease or respiratory depression (should be avoided if severe), pregnancy and breast-feeding and porphyria.
Prolonged use may result in the dependence of the alcohol-barbiturate type and particular care should be taken in treating patients with a history of drug abuse or alcoholism.
Avoid sudden withdrawal to prevent rebound seizures.
This product contains lactose. Patients with rare hereditary problems of galactose intolerance, the Lapp lactase deficiency or glucose-galactose malabsorption should not take this medicine.
4.5 Interaction with other medicinal products and other forms of interaction
Phenobarbital may induce liver microsomal enzymes and the rate of metabolism of certain
drugs can be increased and serum concentrations of the following drugs may be reduced:
coumarin anticoagulants, phenytoin, carbamazepine, clonazepam, an active metabolite of
oxcarbazepine, tiagabine, doxycycline, metronidazole, haloperidol, lopinavir, montelukast,
toremifene, ethosuximide, gestrinone, tibolone, tropisetron, lamotrigine, phenylbutazone,
 systemic corticosteroids including oral contraceptives (which may lead to contraceptive
 failure), griseofulvin, mianserin, rifampicin, phenothiazines, tricyclic antidepressants,
chloramphenicol, ciclosporin, calcium channel antagonists (especially felodipine, verapamil,
isradipine and probably nicardipine, nimodipine and nifedipine – may require an increase in
dosage, and other dihydropyridines, and diltiazem which may require an increase in dosage),
theophylline, anti-virals (e.g. indinavir and saquinavir), anti-arrhythmics (e.g. disopyramide
and quinidine), digitoxin and high doses of folic acid.
Vitamin D requirements may be increased.
Antagonism of the anticonvulsant effect of phenobarbital (convulsive threshold lowered) can
occur when taken with antipsychotic and antidepressant drugs.
The plasma concentration of phenobarbital may possibly be reduced by folic acid and folinic
acid.
Increased sedative effects may occur with phenytoin and sodium valproate. Concomitant
administration of phenobarbital and other anti-epileptics may increase the toxicity of
phenobarbital without a corresponding increase in the anti-epileptic effect.
Concurrent administration with alcohol may lead to an additive CNS depressant effect.
Phenobarbital has been shown to accelerate the metabolism of levothyroxine and liothyrone.
Prescribers should be alert for changes in thyroid status if barbiturates are added or withdrawn
from patients being treated for hypothyroidism.
The effect of phenobarbital can be reduced by concomitant use of the herbal remedy St John’s
wort (Hypericum perforatum).

4.6 Pregnancy and lactation
The use of phenobarbital in pregnancy, especially the first and third trimesters should be
avoided unless it is considered to be essential. Phenobarbital can cross the placental barrier
and there is an increased risk of teratogenicity. Neonatal bleeding may occur and prophylactic
treatment with vitamin K1 for the mother before delivery (as well as for the neonate) is
recommended.
Patients taking phenobarbital should be adequately supplemented with folic acid before
conception and during pregnancy to counteract the risk of neural tube defects.
Phenobarbital is excreted into breast milk and there is a small risk of neonatal sedation.
Breast-feeding is therefore not advisable.

4.7 Effects on ability to drive and use machines
Phenobarbital may impair the mental and/or physical abilities required for the performance of
potentially hazardous tasks such as driving or operating machinery. If patients are affected
they should not drive or operate machinery.

4.8 Undesirable effects
Memory and cognitive impairment in the elderly, hyperactivity and behavioural disturbance in
children. Drowsiness, lethargy, mental depression. Ataxia, nystagmus and respiratory
depression. Megaloblastic anaemia (due to folate deficiency). Hepatitis, cholestasis and
osteomalacia have been associated with barbiturate administration.
Hypersensitivity reactions occur in a small proportion of patients; skin reactions are reported
in 1 to 3% of patients receiving phenobarbital, and are most commonly maculopapular,
morbilliform or scarlatiniform rashes. Severe reactions such as exfoliative dermatitis,
erythema multiforme and toxic epidermal necrosis are extremely rare.

4.9 Overdose
Drowsiness, coma, respiratory depression, hypotension and hypothermia. The duration and
depth of cerebral depression varies with the dose and tolerance of the patient. Supportive
measures alone may be sufficient if symptoms are mild. If within four hours of ingestion,
gastric aspiration or lavage may be of benefit in adults. The prime objective of treatment is to
maintain vital functions while the majority of the drug is metabolised by hepatic enzymes.
Given normal renal function, forced alkaline diuresis (maintaining the urinary pH at approximately 8 by intravenous infusion) may enhance the excretion of the drug from the kidneys. Charcoal haemoperfusion is the treatment of choice for the majority of patients with very severe barbiturate poisoning who fail to improve, or who deteriorate despite good supportive care.

5 PHARMACOLOGICAL PROPERTIES

5.1 Pharmacodynamic properties
Pharmacodynamic group: antiepileptics, barbiturates and derivatives
ATC Code: N03 AA02
The barbiturates reversibly depress the activity of all excitable tissues. The CNS is extremely sensitive and when barbiturates are given in sedative or hypnotic doses there is little effect on skeletal, cardiac or smooth muscle. The ability of phenobarbital to exert maximum anticonvulsant action at doses below those required for hypnosis, determine its clinical use as an anti-epileptic. It limits the spread of seizure and elevates the seizure threshold. Although a precise relationship between the therapeutic results and concentration in blood plasma does not exist, plasma concentrations of 10 to 25µg/ml are usually recommended for the control of epilepsy; 150µg/ml is the minimum for prophylaxis against febrile convulsions.

5.2 Pharmacokinetic properties
Oral absorption of phenobarbital is complete but somewhat slow, peak concentrations in plasma occur several hours after a single dose. It is 40 to 60% bound to plasma proteins and bound to a similar extent in tissues including the brain. By the oral route the rate determining step in absorption from the empty stomach is dissolution and dispersal of the drug in the gastrointestinal tract. Absorption takes place mainly from the intestine. The volume of distribution is approximately 0.5 litres per kilogram. The plasma half-life of phenobarbital is about 100 hours in adults, somewhat longer in neonates while it is shorter and more variable in children. The pKa of phenobarbital is 7.3 and up to 25% of a dose is eliminated by pH dependent renal excretion of the unchanged drug. The amount excreted increases with increased alkalinity of the urine. The remainder is inactivated by hepatic microsomal enzymes. Although the drug competes with other weak acids for binding to plasma albumin the only clinically important displacement is that of thyroxine. The absorption of dicumarol and griseofulvin are decreased by phenobarbital.

5.3 Preclinical safety data
Preclinical information has not been included because of safety profile of Phenobarbital has been established after many years of clinical use. Please refer to section 4.

6 PHARMACEUTICAL PARTICULARS

6.1 List of excipients
Maize starch
Lactose monohydrate
Sodium lauril sulphate
Sodium starch glycolate
Magnesium stearate
Stearic acid

6.2 Incompatibilities
Not applicable

6.3 Shelf life
3 years

6.4 Special precautions for storage
Do not store above 25ºC
Keep the container tightly closed
Store in the original container
6.5  **Nature and contents of container**
Polypropylene tubes with low-density polyethylene caps
Pack sizes: 28 and 1,000 tablets
Not all pack sizes may be marketed

6.6  **Special precautions for disposal**
No special requirements

7  **MARKETING AUTHORISATION HOLDER**
Athlone Pharmaceuticals Limited
Ballymurray
Co. Roscommon
Ireland

8  **MARKETING AUTHORISATION NUMBER**
PL 30464/0031

9  **DATE OF FIRST AUTHORISATION/RENEWAL OF THE AUTHORISATION**
12/05/2011

10  **DATE OF PARTIAL REVISION OF THE TEXT**
12/05/2011
NAME OF THE MEDICINAL PRODUCT
Phenobarbital 60mg Tablets

QUALITATIVE AND QUANTITATIVE COMPOSITION
Each tablet contains 60mg phenobarbital Ph.Eur.
Also contains excipients lactose monohydrate 22.0mg and sunset yellow (E110) 0.05mg
For a full list of excipients, see section 6.1

PHARMACEUTICAL FORM
Tablets for oral use
Appearance: Pale orange, circular, biconvex tablet

CLINICAL PARTICULARS
4.1 Therapeutic indications
Phenobarbital tablets are indicated for the management of all forms of epilepsy except absence seizures

4.2 Posology and method of administration
Adults and the elderly: 60 - 180mg daily at night
Caution must be exercised in the treatment of elderly patients with careful monitoring of their condition.
Children: 5 - 8mg per kg bodyweight daily
Administration: Oral; the tablets should be swallowed with water

4.3 Contraindications
1. Known hypersensitivity to barbiturates.
2. Hypersensitivity to any of the ingredients in this medicine.
3. Acute intermittent porphyria.
4. Severe respiratory depression.
5. Severe impairment of renal and hepatic function.

4.4 Special warnings and precautions for use
Suicidal ideation and behaviour have been reported in patients treated with anti-epileptic agents in several indications. A meta-analysis of randomised placebo controlled trials of anti-epileptic drugs has also shown a small increased risk of suicidal ideation and behaviour. The mechanism of this risk is not known and the available data do not exclude the possibility of an increased risk for Phenobarbital. Therefore patients should be monitored for signs of suicidal ideation and behaviours and appropriate treatment should be considered. Patients (and caregivers of patients) should be advised to seek medical advice should signs of suicidal ideation or behaviour emerge. Phenobarbital should be used with caution in the young, elderly, debilitated or senile patients and those with renal impairment, existing liver disease or respiratory depression (should be avoided if severe), pregnancy and breast-feeding and porphyria. Prolonged use may result in the dependence of the alcohol-barbiturate type and particular care should be taken in treating patients with a history of drug abuse or alcoholism. Avoid sudden withdrawal to prevent rebound seizures.
This product contains lactose. Patients with rare hereditary problems of galactose intolerance, the Lapp lactase deficiency or glucose-galactose malabsorption should not take this medicine.

4.5 Interaction with other medicinal products and other forms of interaction
Phenobarbital may induce liver microsomal enzymes and the rate of metabolism of certain drugs can be increased and serum concentrations of the following drugs may be reduced: coumarin anticoagulants, phenytoin, carbamazepine, clonazepam, an active metabolite of oxcarbazepine, tiagabine, doxycycline, metronidazole, haloperidol, lopinavir, montelukast, toremifene, ethosuximide, gestrinone, tibolone, tropisetron, lamotrigine, phenylbutazone, systemic corticosteroids including oral contraceptives (which may lead to contraceptive failure), griseofulvin, mianserin, rifampicin, phenothiazines, tricyclic antidepressants, chloramphenicol, ciclosporin, calcium channel antagonists (especially felodipine, verapamil, isradipine and probably nicardipine, nimodipine and nifedipine – may require an increase in
dosage, and other dihydropyridines, and diltiazem which may require an increase in dosage),
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and there is an increased risk of teratogenicity. Neonatal bleeding may occur and prophylactic
treatment with vitamin K1 for the mother before delivery (as well as for the neonate) is
recommended.
Patients taking phenobarbital should be adequately supplemented with folic acid before
conception and during pregnancy to counteract the risk of neural tube defects.
Phenobarbital is excreted into breast milk and there is a small risk of neonatal sedation.
Breast-feeding is therefore not advisable.

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erthaema multiforme and toxic epidermal necrolysis are extremely rare.

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Drowsiness, coma, respiratory depression, hypotension and hypothermia. The duration and
depth of cerebral depression varies with the dose and tolerance of the patient. Supportive
measures alone may be sufficient if symptoms are mild. If within four hours of ingestion,
gastric aspiration or lavage may be of benefit in adults. The prime objective of treatment is to
maintain vital functions while the majority of the drug is metabolised by hepatic enzymes.
Given normal renal function, forced alkaline diuresis (maintaining the urinary pH at
approximately 8 by intravenous infusion) may enhance the excretion of the drug from the
kidneys. Charcoal haemoperfusion is the treatment of choice for the majority of patients with
very severe barbiturate poisoning who fail to improve, or who deteriorate despite good
supportive care.
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5.1 Pharmacodynamic properties

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ATC Code: N03 AA02

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5.2 Pharmacokinetic properties

Oral absorption of phenobarbital is complete but somewhat slow, peak concentrations in plasma occur several hours after a single dose. It is 40 to 60% bound to plasma proteins and bound to a similar extent in tissues including the brain. By the oral route the rate determining step in absorption from the empty stomach is dissolution and dispersal of the drug in the gastrointestinal tract. Absorption takes place mainly from the intestine. The volume of distribution is approximately 0.5 litres per kilogram. The plasma half-life of phenobarbital is about 100 hours in adults, somewhat longer in neonates while it is shorter and more variable in children. The pKa of phenobarbital is 7.3 and up to 25% of a dose is eliminated by pH dependent renal excretion of the unchanged drug. The amount excreted increases with increased alkalinity of the urine. The remainder is inactivated by hepatic microsomal enzymes. Although the drug competes with other weak acids for binding to plasma albumin the only clinically important displacement is that of thyroxine. The absorption of dicumarol and griseofulvin are decreased by phenobarbital.

5.3 Preclinical safety data

Preclinical information has not been included because of safety profile of Phenobarbital has been established after many years of clinical use. Please refer to section 4.

6 PHARMACEUTICAL PARTICULARS

6.1 List of excipients

Maize starch
Lactose monohydrate
Sodium lauril sulphate
Sodium starch glycolate
Magnesium stearate
Stearic acid

6.2 Incompatibilities

Not applicable

6.3 Shelf life

3 years

6.4 Special precautions for storage

Do not store above 25°C
Keep the container tightly closed
Store in the original container

6.5 Nature and contents of container

Polypropylene tubes with low-density polyethylene caps
Pack sizes: 28 and 1,000 tablets
Not all pack sizes may be marketed

6.6 Special precautions for disposal

No special requirements
MARKETING AUTHORISATION HOLDER
Athlone Pharmaceuticals Limited
Ballymurray
Co. Roscommon
Ireland

MARKETING AUTHORISATION NUMBER
PL 30464/0032

DATE OF FIRST AUTHORISATION/RENEWAL OF THE AUTHORISATION
12/05/2011

DATE OF PARTIAL REVISION OF THE TEXT
12/05/2011
UKPAR Phenobarbital 30 and 60mg Tablets

PATIENT INFORMATION LEAFLET

PATIENT INFORMATION LEAFLET

PHENOBARBITAL 30 mg AND 60 mg TABLETS

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 further questions, please ask your doctor or your 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 side effects get serious, or if you notice any side effect not listed in this leaflet,
please tell your doctor or pharmacist.

1. WHAT PHENOBARBITAL IS AND WHAT IT IS USED FOR

Phenobarbital belongs to a group of medicines known as barbiturates.
Phenobarbital is used to treat epilepsy.
In an epileptic fit excessive electrical activity builds up in the brain. Phenobarbital works by neutralising
this excessive electrical activity.

2. BEFORE YOU TAKE PHENOBARBITAL

Do NOT take Phenobarbital if you:
• are allergic (hypersensitive) to phenobarbital, other barbiturates or any of the other ingredients in
  this medicine
• suffer from a rare condition called porphyria
• have long-term kidney or liver problems
• have difficulty breathing
Take special care with Phenobarbital
A small number of people being treated with anti-epileptics such as Phenobarbital have had thoughts
of harming or killing themselves. If at any time you have these thoughts, contact your doctor
immediately.
Tell your doctor of any medical problems you may have, or have previously had, especially if:
• the person taking these tablets is elderly, young, debilitated or suffering from senile dementia
• you have a history of drug abuse or alcoholism
• you are anemic

Taking other medicines
Please tell your doctor or pharmacist if you are taking, or have recently taken any other medicines,
including medicines obtained without a prescription. It is especially important for your doctor to know
if you are already being treated with any of the following medicines:
• Antibiotics, medicines used to treat skin infections (e.g. penicillin)
• Medicines to treat mental illness (e.g. diazepam, haloperidol)
• Medicines to treat infections (antibiotics):
  • Chloramphenicol, used to treat eye and ear infections
  • Enrofloxacin, used to treat infections caused by a wide range of bacteria
  • Griseofulvin, used to treat fungal infections of the skin
• Metronidazole, used to treat infections of the urinary, genital and digestive system
• Rifampicin, a drug used to treat tuberculosis
• Systemic steroids, including oral contraceptives
• Cefuroxime, used in organ and tissue transplants
• Other medicines used to treat epilepsy (e.g. phenytoin, lamotrigine, carbamazepine, sodium
  valproate, oxcarbazepine, lamotrigine and ethosuximide)
• Phenothiazines, used to treat a painful condition of the spine
• Phenothiazines, used to treat psychiatric disorders
• Medicines used to treat depression (e.g. mianserin)
• Medicines used to treat heart failure (e.g. methadone, furosemide, verapamil, nimodipine, isradipine,
  nicardipine, diltiazem and clomipramine)
• Medicines used to help your breathing (e.g. theophylline, montelukast)
• Lactulose and lactose-free, used to treat disorders of the bowel and to neutralise
• The herbal remedy St John’s Wort (Hypericum perforatum) should not be taken at the same time as
  this medicine. If you already take St John’s Wort, consult your doctor before stopping the St John’s
  Wort treatment.
• Antimalarial medicines used in the treatment of HIV (e.g. indinavir, saquinavir and indinavir)
• Medicines used to treat heart problems (e.g. dexamethasone, perindopril and captopril)
• High doses of folic acid
• Toxorine, used to treat breast cancer
• Gastrothone, used for the treatment of endometriosis
• Tinidazole, used for hormone replacement therapy in post-menopausal women
• Tramadol, used to treat nausea and vomiting following chemotherapy
• Vitamin D (requirements may be increased)

Using Phenobarbital with food and drink
Do not drink alcohol while taking this medicine without first talking to your doctor.

Pregnancy and breast feeding
If you are pregnant or planning to become pregnant you should speak to your doctor before taking
Phenobarbital. If you become pregnant while taking Phenobarbital your doctor will decide if you should
continue taking this medicine or whether another would be more suitable during pregnancy.
Do not stop taking phenobarbital until you have seen your doctor, as it is important to control fits.
If taken during pregnancy (particularly in the first 3 months and the last 3 months), Phenobarbital may
cause birth defects. It may also cause problems with bleeding in your baby when it is born. Your
doctor may decide that it is very important that you continue taking Phenobarbital. Your doctor
will explain the risks to you.

As with all medicines, adequate supplements of folic acid should be taken before conception and during
pregnancy.
As Phenobarbital is released into breast milk, this may make your baby sleepy and therefore, breastfeeding is not advisable.

Driving and using machinery
Phenobarbital may make you feel drowsy. Do not drive or operate machinery if you feel drowsy when you start to take this medicine.

Important information about some of the ingredients of Phenobarbital
Phenobarbital contains lactose monohydrate. If you have been told by your doctor that you have an intolerance to some sugars, contact your doctor before taking this medicinal product.

Phenobarbital 30mg Tablets contain the colour sunset yellow (E110). This may cause allergic-type reactions including asthma. Allergy is more common in those people who are allergic to aspirin.

3. HOW TO TAKE PHENOBARBITAL
Swallow the tablets with a drink of water.
Always take Phenobarbital exactly as your doctor has told you. You should check with your doctor or pharmacist if you are not sure.

Adults
The usual dose is 50mg-150mg daily, taken at night.

Children
If this medicine is prescribed for a child make sure that the tablets are taken as stated on the pharmacist's label. The usual dose is 3-5mg per kg of bodyweight per day.

If you take more Phenobarbital than you should:
The symptoms of an overdose may include drowsiness, difficulty breathing, low blood pressure, low body temperature (hypothermia) and coma.

If you or anyone else has swallowed a lot of the tablets all together contact your nearest hospital casualty department or doctor immediately.

If you forget to take Phenobarbital:
If you forget to take a dose, take it as soon as you remember, then go on as before. Do not take a double dose to make up for a forgotten dose.

If you stop taking Phenobarbital:
Do not stop taking Phenobarbital unless your doctor tells you to. If you stop taking Phenobarbital suddenly or before your doctor tells you to, there is an increased risk of seizures. Always speak to your doctor or pharmacist.

4. POSSIBLE SIDE EFFECTS
Like all medicines Phenobarbital can cause side effects, although not everybody gets them.

If you experience any of the following contact your doctor IMMEDIATELY:
* Allergic reactions such as skin rashes and more severe reactions such as lumps skin rashes, skin inflammation or flaking of the skin
* A yellowing of your skin or the whites of your eyes

The following side effects are usually mild and may disappear with continued treatment. If they are severe or last longer than a few days you should tell your doctor as soon as possible.
* Drowsiness
* Memory disturbances, difficulty in concentrating in the elderly
* Lack of energy
* Depression
* Unsteady walking/ loss of co-ordination

Other side effects that may occur are:
* Changes in behaviour (e.g. hyperactivity in children)
* Difficulty breathing
* Anaemia
* Visual disturbances
* Osteomalacia - an abnormal softening of bone

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

5. HOW TO STORE PHENOBARBITAL
Do not use Phenobarbital after the expiry date stated on the pack. The expiry date refers to the last day of that month.

KEEP OUT OF THE REACH AND SIGHT OF CHILDREN.
Do not store above 25°C. Keep the container tightly closed. Store in the original container.

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

6. FURTHER INFORMATION
What Phenobarbital contains
The active substance is phenobarbital.
The other ingredients are maize starch, lactose monohydrate, sodium laurilsulphate, sodium starch glycolate, magnesium stearate and sodium acid.
The 30mg tablets contain the colour sunset yellow E110.

What Phenobarbital looks like and the contents of the pack
Phenobarbital 30mg Tablets are white, circular tablets. Each tablet contains 30mg of phenobarbital, the active ingredient.

Phenobarbital 60mg Tablets are pale, orange, circular tablets. Each tablet contains 60mg of phenobarbital, the active ingredient.

The tablets are available in packs of 28 and 1,000 tablets. Not all pack sizes may be marketed.

Marketing Authorisation Holder:
Astellas Pharmaceuticals Limited, Ballymunroe, Co. Roxcommon, Ireland.

Distributor:
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This leaflet was last revised in December 2010.
UKPAR Phenobarbital 30 and 60mg Tablets

Each tablet contains 60mg phenobarbital. Contains lactose monohydrate and sunset yellow (E110). See leaflet for further information. For oral use. Use as directed by your doctor.

KEEP OUT OF THE REACH AND SIGHT OF CHILDREN.

Do not store above 25°C. Keep the container tightly closed. Store in the original container.

Read the enclosed leaflet before taking this medicine.


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