

Product Name: ELMOX 500 (AMOXICILLIN CAPSULES BP)

Dosage Form: Capsules for Oral administration

Summary of product characteristics



SUMMARY OF PRODUCT CHARACTERISTICS

1. NAME OF THE FINISHED PHARMACEUTICAL PRODUCT

ELMOX 500 (AMOXICILLIN CAPSULES BP)

1.1 Strength

500 mg

1.2 Description and Pharmaceutical form

Description: White crystalline powder filled in Brown/Yellow coloured "0" size printed Hard Gelatin Capsules.

Pharmaceutical form: Hard gelatin capsules for oral administration.

2. QUALITATIVE AND QUANTITATIVE COMPOSITION

2.1 Qualitative declaration

Each capsule contains:

Amoxicillin Trihydrate BP

Equivalent to Anhydrous Amoxicillin.....500 mg

Shells contain Approved colours

2.2 Quantitative delaration

S.No.	Ingredients	Spec No.	Label claim	Overages	Quantity/ unit (mg)	Quantity /Batch (kg)	Function
1.	Amoxicillin Trihydrate	BP	500 mg	--	570.82	288.269	Active ingredient
2	Magnesium Stearate	BP	--	--	19.19	9.690	Lubricant
Average weight					590 mg		

*Indicates material absent in final product

2.3 Salts and hydrates

Form of the API is in trihydrate form ,but assay of finished product is calculated on anhydrous basis only.

2.4 Esters and pro drugs

Not applicable

2.5 Oral powders for solution or suspension

Not applicable

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2.6 Parenterals excluding powders for reconstitution

Not applicable as it is not parenteral preparation.

2.7 Powders for reconstitution prior to parenteral administration

Not applicable as it is not parenteral preparation.

2.8 Concentrates

Amoxicillin capsules BP 500mg should be used as whole and it should not be diluted.

2.9 Transdermal patches

Not applicable

2.10 Multidose solid or semi-solid products

This section is not applicable as Amoxicillin capsules BP 500mg should be used in single dose.

2.11 Biological medicinal products

2.11.1 Expression of strength

Not applicable

2.11.2 The biological origin of the active substance

Not applicable

2.11.3 Special provisions for normal immunoglobulins

Not applicable

2.11.4 Herbal pharmaceutical products

Not applicable

3. PHARMACEUTICAL FORM

Capsules for oral administration

4. CLINICAL PARTICULARS

4.1 Therapeutic indications

Amoxicillin is indicated for the treatment of the following infections in adults and children.

- Acute bacterial sinusitis
- Acute streptococcal tonsillitis and pharyngitis
- Acute exacerbations of chronic bronchitis
- Community acquired pneumonia
- Acute otitis media

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- Acute cystitis
- Acute pyelonephritis
- Asymptomatic Bacteriuria in pregnancy
- Typhoid and paratyphoid fevers
- Dental abscess with spreading cellulitis
- Prosthetic joint infections
- Helicobacter pylori eradication
- Lyme disease

Amoxicillin is also indicated for the prophylaxis of endocarditis. Consideration should be given to official guidance on the appropriate use of antibacterial agents.

4.2 PSOLOGY AND METHOD OF ADMINISTRATION:

The dose of Amoxicillin that is selected to treat an individual infection should take into account:

- The expected pathogens and their likely susceptibility to antibacterial agents.
- The severity and the site of infection
- The age, weight and renal function of the patient; as shown below

The duration of therapy should be determined by the type of infection and the response of the patient, and should generally be as short as possible. Some infections require longer periods of treatment (see section 4.4 regarding prolonged therapy).

Adults and children ≥ 40 kg

Indication*	Dose*
Acute bacterial sinusitis	250mg to 500mg every 8 hours or 750mg to 1g every 12 hours For severe infections 750mg to 1g every 8 hours Acute cystitis may be treated with 3g twice daily for one day
Asymptomatic bacteriuria in pregnancy	
Acute pyelonephritis	
Dental abscess with spreading cellulitis	
Acute cystitis	
Acute otitis media	500mg every 8 hours, 750mg to 1g every 12 hours
Acute streptococcal tonsillitis and pharyngitis	For severe infections 750mg to 1g every 8 hours for 10 days
Acute exacerbations of chronic bronchitis	
Community acquired pneumonia	500mg to 1g every 8 hours
Typhoid and paratyphoid fever	500mg to 2g every 8 hours
Prosthetic joint infections	500mg to 1g every 8 hours
Prophylaxis of endocarditis	2g orally, single dose 30 to 60 minutes before procedure
Helicobacter pylori eradication	750mg to 1g twice daily in combination with a proton pump inhibitor (e.g. omeprazole, lansoprazole) and

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	another antibiotic (e.g. clarithromycin, metronidazole) for 7 days
Lyme disease	Early stage: 500mg to 1g every 8 hours up to a maximum of 4 g/day in divided doses for 14 days (10 to 21 days) Late stage (systemic involvement): 500mg to 2g every 8 hours up to a maximum of 6 g/day in divided doses for 10 to 30 days
*Consideration should be given to the official treatment guidelines for each indication	

Children <40 kg

Children may be treated with Amoxicillin capsules, dispersible tablets, suspensions or sachets. Amoxicillin Paediatric Suspension is recommended for children under six months of age. Children weighing 40kg or more should be prescribed the adult dosage.

Recommended doses:

Indication⁺	Dose⁺
Acute bacterial sinusitis	20 to 90 mg/kg/day in divided doses*
Acute otitis media	
Community acquired pneumonia	
Acute cystitis	
Acute pyelonephritis	
Dental abscess with spreading cellulitis	
Acute streptococcal tonsillitis and pharyngitis	40 to 90 mg/kg/day in divided doses*
Typhoid and paratyphoid fever	100 mg/kg/day in three divided doses
Prophylaxis of endocarditis	50 mg/kg orally, single dose 30 to 60 minutes before procedure
Lyme disease	Early stage: 25 to 50 mg/kg/day in three divided doses for 10 to 21 days Late stage (systemic involvement): 100 mg/kg/day in three divided doses for 10 to 30 days
+ Consideration should be given to the official treatment guidelines for each indication.	
*Twice daily dosing regimens should only be considered when the dose is in the upper range.	

Elderly

No dose adjustment is considered necessary.

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Renal impairment

GFR (ml/min)	Adults and children \geq 40kg	Children < 40 kg [#]
greater than 30	No adjustment necessary	No adjustment necessary
10 to 30	Maximum 500mg twice daily	15 mg/kg given twice daily (maximum 500mg twice daily)
less than 10	Maximum 500 mg/day	15 mg/kg given as a single dose (maximum 500 mg)

[#] In the majority of cases, parenteral therapy is preferred

In patients receiving haemodialysis

Amoxicillin may be removed from the circulation by haemodialysis

	Haemodialysis
Adults and children over 40kg	500mg every 24h Prior to haemodialysis one additional dose of 500mg should be administered. In order to restore circulating blood levels, another dose of 500mg should be administered after haemodialysis
Children under 40kg	15 mg/kg/day given as a single daily dose (maximum 500mg). Prior to haemodialysis one additional dose of 15 mg/kg should be administered. In order to restore circulating blood levels, another dose of 15 mg/kg should be administered after haemodialysis

In patients receiving peritoneal dialysis

Amoxicillin maximum 500mg/day

Hepatic impairment

Dose with caution and monitor hepatic function at regular intervals.

4.3 Method of administration

Amoxicillin is for oral use.

Absorption of amoxicillin is impaired by food.

Therapy can be started parenterally according to the dosing recommendations of the intravenous formulation and continued with an oral preparation.

Swallow with water without opening capsule.

4.4 Contraindications

Hypersensitivity to the active substance, to any of the penicillins.

History of a severe immediate hypersensitivity reaction (e.g. anaphylaxis) to another beta-lactam agent (e.g. a cephalosporin, carbapenem or monobactam).

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4.5 Special warnings and precautions for use

Hypersensitivity reactions

Before initiating therapy with amoxicillin, careful enquiry should be made concerning previous hypersensitivity reactions to penicillin and cephalosporins or other beta-lactam agents.

Serious and occasionally fatal hypersensitivity reactions (including anaphylactoid and severe cutaneous adverse reactions) have been reported in patients on penicillin therapy. These reactions are more likely to occur in individuals with a history of penicillin hypersensitivity and in atopic individuals. If an allergic reaction occurs, amoxicillin therapy must be discontinued and appropriate alternative therapy instituted.

Non-susceptible microorganisms

Amoxicillin is not suitable for the treatment of some types of infection unless the pathogen is already documented and known to be susceptible or there is a very high likelihood that the pathogen would be suitable for treatment with amoxicillin (see section 5.1). This particularly applies when considering the treatment of patients with urinary tract infections and severe infections of the ear, nose and throat.

Convulsions

Convulsions may occur in patients with impaired renal function or in those receiving high doses or in patients with predisposing factors (e.g. history of seizures, treated epilepsy or meningeal disorders).

Renal impairment

In patients with renal impairment, the dose should be adjusted according to the degree of impairment.

Skin reactions

The occurrence at the treatment initiation of a feverish generalised erythema associated with pustula may be a symptom of acute generalised exanthemous pustulosis (AGEP). This reaction requires amoxicillin discontinuation and contra-indicates any subsequent administration.

Amoxicillin should be avoided if infectious mononucleosis is suspected since the occurrence of a morbilliform rash has been associated with this condition following the use of amoxicillin.

Patients with lymphatic leukaemia and possibly with HIV infection are particularly prone to developing erythematous rashes with amoxicillin. Amoxicillin should be discontinued if a skin rash occurs.

Jarisch-Herxheimer reaction

The Jarisch-Herxheimer reaction has been seen following amoxicillin treatment of Lyme disease. It results directly from the bactericidal activity of amoxicillin on the causative bacteria of Lyme disease, the spirochaete *Borrelia burgdorferi*. Patients should be reassured that this is a common and usually self-limiting consequence of antibiotic treatment of Lyme disease.

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Overgrowth of non-susceptible microorganisms

Prolonged use of an anti-infective may result in the overgrowth of non-susceptible organisms (superinfection).

Antibiotic-associated colitis has been reported with nearly all antibacterial agents and may range in severity from mild to life threatening. Therefore, it is important to consider this diagnosis in patients who present with diarrhoea during, or subsequent to, the administration of any antibiotics. Should antibiotic-associated colitis occur, amoxicillin should immediately be discontinued, a physician consulted and an appropriate therapy initiated. Anti-peristaltic medicinal products are contra-indicated in this situation.

Prolonged therapy

Periodic assessment of organ system functions; including renal, hepatic and haematopoietic function is advisable during prolonged therapy. Elevated liver enzymes and changes in blood counts have been reported.

Crystalluria

In patients with reduced urine output, crystalluria has been observed very rarely, predominantly with parenteral therapy. During the administration of high doses of amoxicillin, it is advisable to maintain adequate fluid intake and urinary output in order to reduce the possibility of amoxicillin crystalluria. In patients with bladder catheters, a regular check of patency should be maintained.

Anticoagulants

Prolongation of prothrombin time has been reported rarely in patients receiving amoxicillin. Appropriate monitoring should be undertaken when anticoagulants are prescribed concomitantly. Adjustments in the dose of oral anticoagulants may be necessary to maintain the desired level of anticoagulation.

Interference with diagnostic tests

Elevated serum and urinary levels of amoxicillin are likely to affect certain laboratory tests. Due to high urinary concentrations of amoxicillin, false positive readings are common with chemical methods.

It is recommended that when testing for the presence of glucose in urine during amoxicillin treatment, enzymatic glucose oxidase methods should be used.

The presence of amoxicillin may distort assay results for oestriol in pregnant women.

4.6 Paediatric population

Hepatic events have been reported predominantly in males and elderly patients and may be associated with prolonged treatment. These events have been very rarely reported in children. In all populations, signs and symptoms usually occur during or shortly after treatment but in some cases may not become apparent until several weeks after treatment has ceased. These are usually reversible. Hepatic events may be severe and, in extremely rare circumstances, deaths have been reported. These have almost always occurred in patients with serious underlying disease or taking concomitant medications known to have the potential for hepatic effects.

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4.7 Interaction with other medicinal products and other forms of interaction

Oral anticoagulants

Oral anticoagulants and penicillin antibiotics have been widely used in practice without reports of interaction. However, in the literature there are rare cases of increased international normalised ratio in patients maintained on acenocoumarol or warfarin and prescribed a course of amoxicillin. If co-administration is necessary, the prothrombin time or international normalised ratio should be carefully monitored with the addition or withdrawal of amoxicillin.

Probenecid

Concomitant use of probenecid is not recommended. Probenecid decreases the renal tubular secretion of amoxicillin. Concurrent use with amoxicillin may result in increased and prolonged blood levels of amoxicillin

Allopurinol

Concurrent administration of allopurinol during treatment with amoxicillin can increase the likelihood of allergic skin reactions.

Tetracyclines

Tetracyclines and other bacteriostatic drugs may interfere with the bactericidal effects of amoxicillin.

Methotrexate

Penicillins may reduce the excretion of methotrexate causing potential increase in toxicity.

4.8 Additional information on specific populations

Not applicable

4.9 Paediatric population

Hepatic events have been reported predominantly in males and elderly patients and may be associated with prolonged treatment. These events have been very rarely reported in children. In all populations, signs and symptoms usually occur during or shortly after treatment but in some cases may not become apparent until several weeks after treatment has ceased. These are usually reversible. Hepatic events may be severe and, in extremely rare circumstances, deaths have been reported. These have almost always occurred in patients with serious underlying disease or taking concomitant medications known to have the potential for hepatic effects.

4.10 Fertility, pregnancy and lactation

4.10.1 General principles

Animal studies do not indicate direct or indirect harmful effects with respect to reproductive toxicity. Limited data on the use of amoxicillin during pregnancy in humans do not indicate an increased risk of congenital malformations. Amoxicillin may be used in pregnancy when the potential benefits outweigh the potential risks associated with treatment.

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4.10.2 Women of childbearing potential / Contraception in males and females

There are no data on the effects of amoxicillin on Women of childbearing potential / Contraception in males and females

4.10.3 Pregnancy

Animal studies do not indicate direct or indirect harmful effects with respect to reproductive toxicity. Limited data on the use of amoxicillin during pregnancy in humans do not indicate an increased risk of congenital malformations. Amoxicillin may be used in pregnancy when the potential benefits outweigh the potential risks associated with treatment.

4.10.4 Breast feeding

Amoxicillin is excreted into breast milk in small quantities with the possible risk of sensitisation. Consequently, diarrhoea and fungus infection of the mucous membranes are possible in the breast-fed infant, so that breast-feeding might have to be discontinued. Amoxicillin should only be used during breast-feeding after benefit/risk assessment by the physician in charge.

4.10.5 Fertility

There are no data on the effects of amoxicillin on fertility in humans. Reproductive studies in animals have shown no effects on fertility.

4.11 Effects on ability to drive and use machines

No studies on the effects on the ability to drive and use machines have been performed. However, undesirable effects may occur (e.g. allergic reactions, dizziness, convulsions), which may influence the ability to drive and use machines.

4.12 Undesirable effects

The following convention has been utilised for the classification of undesirable effects:

Very common ($\geq 1/10$),

Common ($\geq 1/100$ to $< 1/10$),

Uncommon ($\geq 1/1000$ to $< 1/100$),

Rare ($\geq 1/10,000$ to $< 1/1000$),

Very rare ($< 1/10,000$),

Not known (cannot be estimated from the available data)

The majority of side effects listed below are not unique to amoxicillin and may occur when using other penicillins.

The most commonly reported adverse drug reactions (ADRs) are diarrhoea, nausea and skin rash.

Unless otherwise stated, the frequency of adverse events has been derived from more than 30 years of post-marketing reports.

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Infections and infestations

Very Rare: Muco-cutaneous candidiasis

Blood and lymphatic system disorders

Very rare: Reversible leucopenia (including severe neutropenia or agranulocytosis), reversible thrombocytopenia and haemolytic anaemia.
Prolonged prothrombin and bleeding times (see section 4.4 - Special Warnings and Precautions for Use)

Immune system disorders

Very rare: As with other antibiotics, severe allergic reactions, including angioneurotic oedema, anaphylaxis, serum sickness and hypersensitivity vasculitis

Not known: Jarisch-Herxheimer reaction

If any hypersensitivity reaction occurs the treatment should be discontinued (See also Skin and subcutaneous tissue disorders).

Nervous system disorders

Very rare: Hyperkinesia, dizziness and convulsions. Convulsions may occur in patients with impaired renal function or in those receiving high doses.

Gastrointestinal disorders

Clinical Trial Data

*Common: Diarrhoea and nausea.

*Uncommon: Vomiting.

Post-marketing Data

Very rare: Antibiotic associated colitis.
Black hairy tongue

Hepato-biliary disorders

Very rare: Hepatitis and cholestatic jaundice. A moderate rise in AST and/or ALT.

The significance of a rise in AST and/or ALT is unclear.

Skin and subcutaneous tissue disorders

Clinical Trial Data

*Common: Skin rash

*Uncommon: Urticaria and pruritus

Post-marketing Data

Very rare: Skin reactions such as erythema multiforme, Stevens-Johnson syndrome, toxic epidermal necrolysis, bullous and exfoliative dermatitis, acute generalised exanthematous pustulosis (AGEP) and drug reaction with eosinophilia and systemic symptoms (DRESS).

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(See also Immune system disorders).

Renal and urinary tract disorders

Very rare: Interstitial nephritis.

Very rare: Crystalluria.

*The incidence of these AEs was derived from clinical studies involving a total of approximately 6,000 adult and paediatric patients taking amoxicillin.

4.13 Overdose

Symptoms and signs of overdose

Problems of overdosage with amoxicillin are unlikely to occur. Gastrointestinal symptoms (such as nausea, vomiting and diarrhoea) and disturbances of the fluid and electrolyte balances may be evident. Amoxicillin crystalluria, in some cases leading to renal failure, has been observed. Convulsions may occur in patients with impaired renal function or in those receiving high doses.

Treatment of intoxication

Gastrointestinal symptoms may be treated symptomatically, with attention to the water/electrolyte balance.

Amoxicillin can be removed from the circulation by haemodialysis.

5. PHARMACOLOGICAL PROPERTIES

5.1 Pharmacodynamic properties

Pharmacotherapeutic group: penicillins with extended spectrum; ATC code: J01CA04

Mechanism of action

Amoxicillin is a semisynthetic penicillin (beta-lactam antibiotic) that inhibits one or more enzymes (often referred to as penicillin-binding proteins, PBPs) in the biosynthetic pathway of bactericidal peptidoglycan, which is an integral structural component of the bacterial cell wall. Inhibition of peptidoglycan synthesis leads to weakening of the cell wall, which is usually followed by cell lysis and death.

Amoxicillin is susceptible to degradation by beta-lactamases produced by resistant bacteria and therefore the spectrum of activity of amoxicillin alone does not include organisms which produce these enzymes.

Pharmacokinetic/ pharmacodynamic relationship

The time above the minimum inhibitory concentration ($T > MIC$) is considered to be the major determinant of efficacy for amoxicillin.

Mechanisms of resistance

The main mechanisms of resistance to amoxicillin are:

- Inactivation by bacterial beta-lactamases
- Alteration of PBPs, which reduce the affinity of the antibacterial agent for the target.

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Impermeability of bacteria or efflux pump mechanisms may cause or contribute to bacterial resistance, particularly in Gram-negative bacteria.

Breakpoints

MIC breakpoints for amoxicillin are those of the European Committee on Antimicrobial Susceptibility Testing (EUCASAT) version 5.0.

Organism	MIC breakpoint (mg/L)	
	Susceptible \leq	Resistant $>$
Enterobacteriaceae	8 ¹	8
<i>Staphylococcus</i> spp.	Note ²	Note ²
<i>Enterococcus</i> spp. ³	4	8
Streptococcus groups A, B, C and G	Note ⁴	Note ⁴
<i>Streptococcus pneumoniae</i>	Note ⁵	Note ⁵
Viridans group streptococci	0.5	2
<i>Haemophilus influenza</i>	2 ⁶	2 ⁶
<i>Moraxella catarrhalis</i>	Note ⁷	Note ⁷
<i>Neisseria meningitidis</i>	0.125	1
Gram positive anaerobes except <i>Clostridium difficile</i> ⁸	4	8
Gram negative anaerobes ⁸	0.5	2
<i>Helicobacter pylori</i>	0.125 ⁹	0.125 ⁹
<i>Pasteurella multocida</i>	1	1
Non-species related breakpoints ¹⁰	2	8

¹Wild type enterobacteriaceae are categorised as susceptible to aminopenicillins. Some countries prefer to categorise wild type isolates of *E. coli* and *P. mirabilis* as intermediate. When this is the case, use the MIC breakpoint $S \leq 0.5$ mg/L

²Most staphylococci are penicillinase producers, which are resistant to amoxicillin. Methicillin resistant isolates are, with few exceptions, resistant to all beta-lactam agents.

³Susceptibility to amoxicillin can be inferred from ampicillin

⁴The susceptibility of streptococcus groups A, B, C and G to penicillins is inferred from the benzylpenicillin susceptibility

⁵Breakpoints relate only to non-meningitis isolates. For isolates categorised as intermediate to ampicillin avoid oral treatment with amoxicillin. Susceptibility inferred from the MIC of ampicillin

⁶Breakpoints are based on intravenous administration. Beta-lactamase positive isolates should be reported resistant

⁷Beta lactamase producers should be reported resistant

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⁸Susceptibility to amoxicillin can be inferred from benzylpenicillin.

⁹The breakpoints are based on epidemiological cut-off values (ECOFFs), which distinguish wild-type isolates from those with reduced susceptibility.

¹⁰The non-species related breakpoints are based on doses of at least 0.5g x 3 or 4 doses daily (1.5 to 2 g/day).

The prevalence of 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 in at least some types of infections is questionable.

***In vitro* susceptibility of micro-organisms to Amoxicillin**

Commonly Susceptible Species

Gram-positive aerobes:

Enterococcus faecalis

Beta-hemolytic streptococci (Groups A, B, C and G)

Listeria monocytogenes

Species for which acquired resistance may be a problem

Gram-negative aerobes:

Escherichia coli

Haemophilus influenza

Helicobacter pylori

Proteus mirabilis

Salmonella typhi

Salmonella paratyphi

Pasteurella multocida

Gram-positive aerobes:

Coagulase negative staphylococcus

Staphylococcus aureus[‡]

Streptococcus pneumoniae

Viridans group streptococcus

Gram-positive aerobes:

Clostridium spp.

Gram-negative aerobes:

Fusobacterium spp.

Other:

Borrelia burgdorferi

Inherently resistant organisms[†]

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Gram-positive aerobes:

Enterococcus faecium[†]

Gram-negative aerobes:

Acinetobacter spp.

Enterobacter spp.

Klebsiella spp.

Pseudomonas spp.

Gram-negative anaerobes:

Bacteroids spp. (many strains of *Bacteroides fragilis* are resistant)

Others:

Chlamydia spp.

Mycoplasma spp.

Legionella spp.

[†] Natural intermediate susceptibility in the absence of acquired mechanism of resistance.

[‡] Almost all *S.aureus* are resistant to amoxicillin due to production of penicillinase. In addition, all methicillin-resistant strains are resistant to amoxicillin.

5.2 Pharmacokinetic properties

Absorption

Amoxicillin fully dissociates in aqueous solution at physiological pH. Amoxicillin is stable in the acid gastric secretion and is rapidly absorbed from the gastrointestinal tract after oral administration. Following oral administration, amoxicillin is approximately 70% bioavailable. The time to peak plasma concentration (T_{max}) is approximately one hour.

The pharmacokinetic results for a study, in which an amoxicillin dose of 250 mg three times daily was administered in the fasting state to groups of healthy volunteers are presented below.

C_{max} ($\mu\text{g/ml}$)	T_{max}^* (h)	$AUC_{(0-24h)}$ ($\mu\text{g.h/ml}$)	$T_{1/2}$ (h)
3.3 ± 1.12	1.5 (1.0-2.0)	26.7 ± 4.56	1.36 ± 0.56

*Median (range)

In the range 250 to 3000 the bioavailability is linear in proportion to dose (measured as C_{max} and AUC). The absorption is not influenced by simultaneous food intake.

Haemodialysis can be used for elimination of amoxicillin.

Distribution

About 18% of total plasma amoxicillin is bound to protein and the apparent volume of distribution is around 0.3 to 0.41/kg. Following intravenous administration, amoxicillin has been found in gall bladder, abdominal tissue, skin, fat, muscle tissue, synovial and peritoneal fluids, bile and pus. Amoxicillin does not adequately distribute into the cerebrospinal fluid.

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From animal studies there is no evidence for significant tissue retention of drug-derived material.

Amoxicillin, like most penicillins, can be detected in breast milk (see section 4.6)

Amoxicillin has been shown to cross the placental barrier (see section 4.6).

Biotransformation

Amoxicillin is partly excreted in the urine as the inactive penicilloic acid in quantities equivalent to up to 10 to 25% of the initial dose.

Elimination

The major route of elimination for amoxicillin is via the kidney.

Amoxicillin has a mean elimination half-life of approximately one hour and a mean total clearance of approximately 25 l/hour in healthy subjects. Approximately 60 to 70% of an orally administered dose is excreted unchanged in the urine during the first 6 hours after administration of a single 250mg or 500mg dose of amoxicillin. Various studies have found the urinary excretion to be 50-85% for amoxicillin over a 24 hour period.

Concomitant use of probenecid delays amoxicillin excretion.

Age

The elimination half-life of amoxicillin is similar for children aged around 3 months to 2 years and older children and adults. For very young children (including preterm newborns) in the first week of life the interval of administration should not exceed twice daily administration due to immaturity of the renal pathway of elimination. In preterm infants with gestational age 26-33 weeks, the total body clearance after intravenous dosing of amoxicillin, day 3 of life, ranged between 0.75 – 2 ml/min, very similar to the inulin clearance (GFR) in this population. Following oral administration, the absorption pattern and the bioavailability of amoxicillin in small children may be different to that of adults. Because elderly patients are more likely to have decreased renal function, care should be taken in dose selection, and it may be useful to monitor renal function.

Gender

Following oral administration of amoxicillin to healthy males and female subjects, gender has no significant impact on the pharmacokinetics of amoxicillin.

Renal impairment

The total serum clearance of amoxicillin decreases proportionately with decreasing renal function.

Hepatic impairment

Hepatically impaired patients should be dosed with caution and hepatic function monitored at regular intervals.

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 the SPC.

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6. PHARMACEUTICAL PARTICULARS

6.1 List of excipients

Magnesium Stearate

6.2 Incompatibilities

Not applicable

6.3 Shelf life

3 years

6.4 Special precautions for storage

Store below 30⁰C, in a dry place.

Keep out of reach of children.

6.5 Nature and contents of container

ALU-PVC blister pack

6.6 Special precautions for disposal and other handling

Not applicable.

7. MARKETING AUTHORISATION HOLDER AND MANUFACTURING SITE ADDRESSES

Marketing Authorization holder:

Sun Enterprises Ltd.

B.P.933,

Kigali-Rwanda

East Africa.

Name & address of manufacturing site

YELURI FORMULATIONS PVT LTD

Address: Sy No. 296/7/6, I.D.A. Bollaram,

Sangareddy District - 502 325,

Telangana, India.

8. MARKETING AUTHORISATION NUMBER

Rwanda FDA-HMP-MA-0921

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9. DATE OF FIRST REGISTRATION/RENEWAL OF THE REGISTRATION

Date of registration: 21/02/2024

Renewal of registration: 20/02/2029

10. DATE OF REVISION OF THE TEXT

11. DOSIMETRY (IF APPLICABLE)

Not applicable

12. INSTRUCTIONS FOR PREPARATION OF RADIOPHARMACEUTICALS (IF APPLICABLE)

Not applicable