AUSTRALIAN PRODUCT INFORMATION – NOUMED AMOXICILLIN ORAL SUSPENSION

(AMOXICILLIN TRIHYDRATE)

1. NAME OF THE MEDICINE

Amoxicillin trihydrate

2. QUALITATIVE AND QUANTITATIVE COMPOSITION

Noumed Amoxicillin 125 mg/5mL and 250 mg/5mL suspension contains amoxicillin 125 mg and 250 mg, as amoxicillin trihydrate, per 5 mL (1 measuring spoonful).

Excipients with known effects:

The 125 mg/5mL suspension contains 2.25 g of sorbitol per maximum daily dose.

The 250 mg/5mL suspension contains 1.8 g of sorbitol per maximum daily dose.

Also contains saccharin.

For the full list of excipients, see *section 6.1 List of excipients*.

3. PHARMACEUTICAL FORM

Powder for oral suspension

Noumed Amoxicillin 125 mg/5mL Granules for Oral Suspension

When reconstituted, the white to off-white powder forms an orange suspension with characteristic flavour; 100 mL. AUST R 324499.

Noumed Amoxicillin 250 mg/5mL Granules for Oral Suspension

When reconstituted, the white to off-white powder forms an orange suspension with characteristic flavour; 100 mL. AUST R 324500.

4. CLINICAL PARTICULARS

4.1 THERAPEUTIC INDICATIONS

It is indicated for the treatment of the following infections due to susceptible strains of sensitive organisms.

Note: Therapy should be guided by bacteriological studies, including sensitivity tests, and by clinical response. However, in emergency cases where the causative organism has not been identified, therapy with amoxicillin may be useful. Clinical judgment will decide whether combination with another antibiotic would provide a sufficiently broad spectrum of activity pending sensitivity test results.

Skin and Skin Structure:

Staphylococcus, non-penicillinase producing; Streptococcus; *E. coli* (see *section 5.1 Pharmacodynamic properties - Microbiology*).

Respiratory (Acute and Chronic):

H. influenzae; Streptococcus; *Strep. pneumoniae*; Staphylococcus, non-penicillinase producing; *E. coli* (see *section 5.1 Pharmacodynamic properties - Microbiology*).

Genitourinary Tract (Complicated and Uncomplicated, Acute and Chronic):

E. coli (see *section 5.1 Pharmacodynamic properties - Microbiology*), *P. mirabilis* and *S. faecalis*.

Gonorrhoea:

N. gonorrhoeae (non-penicillinase producing).

Prophylaxis of Endocarditis:

Amoxicillin may be used for the prophylaxis of bacterial endocarditis in individuals at particular risk, such as those with a prosthetic heart valve or those who have previously had endocarditis.

4.2 DOSE AND METHOD OF ADMINISTRATION

Normal Renal Function
Upper Respiratory Tract Infections; Genitourinary Tract Infections; Skin and Soft Tissue Infections

Adults: 250 mg every 8 hours.

Children (under 20 kg): 20 mg/kg/day in equally divided doses every 8 hours.

In severe infections or those caused by less susceptible organisms, 500 mg every 8 hours for adults and 40 mg/kg/day in equally divided doses every 8 hours for children may be needed.

Lower Respiratory Tract Infections

Adults: 500 mg every 8 hours.

Children (under 20 kg): 40 mg/kg/day in equally divided doses every 8 hours.

Urethritis, Gonococcal

Adults: 3 g as a single dose.

Cases of gonorrhoea with a suspected lesion of syphilis should have darkfield examinations before receiving amoxicillin and monthly serological tests for a minimum of 4 months.

Acute Uncomplicated Lower Urinary Tract Infections in Non-Pregnant Adult Females

Adults: 3 g as a single dose.

Prophylaxis of Endocarditis
See Table 4 – last pageUse in neonates

Experience in neonates is too limited to make any recommendations regarding dosage or the appropriateness of the oral route.

Use in children

The children's dosage is intended for individuals whose weight will not cause dosage to be calculated greater than that recommended for adults. Children weighing more than 20 kg should be dosed according to the adult recommendations.

Impaired renal function

In renal impairment the excretion of the antibiotic will be delayed, and depending on the degree of impairment, it may be necessary to reduce the total daily dosage.

In patients receiving peritoneal dialysis, the maximum recommended dose is 500 mg/day. Amoxicillin may be removed from the circulation by haemodialysis.

Chronic urinary tract infections

It should be recognised that in the treatment of chronic urinary tract infections, frequent bacteriological and clinical appraisals are necessary. Smaller doses than those recommended above should not be used. In stubborn infections, therapy may be required for several weeks. It may be necessary to continue clinical and/or bacteriological follow-up for several months after cessation of therapy.

Duration of treatment

Treatment should be continued for a minimum of 48 to 72 hours beyond the time that the patient becomes asymptomatic or evidence of bacterial eradication has been obtained. It is recommended that there be at least

10 days treatment for any infection caused by haemolytic Streptococci, to prevent the occurrence of acute rheumatic fever or glomerulonephritis.

4.3 CONTRAINDICATIONS

Amoxicillin is a penicillin and should not be given to patients with a history of hypersensitivity to β-lactam antibiotics (e.g. penicillins, cephalosporins).

4.4 SPECIAL WARNINGS AND PRECAUTIONS FOR USE

Hypersensitivity reactions

Serious, and occasionally fatal, hypersensitivity reactions (anaphylaxis) have been reported in patients receiving β-lactam antibiotics. Although anaphylaxis is more frequent following parenteral therapy, it has occurred in patients on oral therapy. Before commencing therapy with any penicillin, careful enquiry should be made concerning previous hypersensitivity reactions to penicillins, cephalosporins or other allergens. If an allergic reaction occurs, appropriate therapy should be instituted and amoxicillin therapy discontinued.

Serious anaphylactic reactions require immediate emergency treatment with adrenaline. Oxygen, intravenous steroids and airway management, including intubation, should also be administered as indicated.

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. This particularly applies when considering the treatment of patients with urinary tract infections and severe infections of the ear, nose and throat.

Amoxicillin, an aminopenicillin, is not the treatment of choice in patients presenting with sore throat or pharyngitis because of the possibility that the underlying cause is infectious mononucleosis, in the presence of which there is a high incidence of rash if amoxicillin is used.

Overgrowth of non-susceptible microorganisms

Antibiotic associated pseudomembranous colitis has been reported with many antibiotics including amoxicillin. A toxin produced with *Clostridium difficile* appears to be the primary cause. The severity of the colitis may range from mild to life threatening. It is important to consider this diagnosis in patients who develop diarrhoea or colitis in association with antibiotic use (this may occur up to several weeks after cessation of antibiotic therapy). If prolonged or significant diarrhoea occurs or the patient experiences abdominal cramps, treatment should be discontinued immediately, and the patient investigated further. Mild cases usually respond to drug discontinuation alone. However, in moderate to severe cases appropriate therapy with a suitable oral antibacterial agent effective against *Clostridium difficile* should be considered. Fluids, electrolytes and protein replacement should be provided when indicated. Drugs which delay peristalsis, e.g. opiates and diphenoxylate with atropine (Lomotil) may prolong and/or worsen the condition and should not be used.

Anticoagulants

Abnormal prolongation of prothrombin time (increased INR) has been reported rarely in patients receiving amoxicillin and oral anticoagulants. Appropriate monitoring should be undertaken when anticoagulants are prescribed concurrently. Adjustments in the dose of oral anticoagulants may be necessary to maintain the desired level of anticoagulation.

Prolonged therapy

As with any potent drug, periodic assessment of renal, hepatic and haematopoietic function should be made during prolonged therapy. The possibility of superinfections with mycotic or bacterial pathogens should be kept in mind during therapy. If superinfections occur (usually involving Aerobacter, Pseudomonas or Candida), the drug should be discontinued and/or appropriate therapy instituted.

Lymphatic Leukaemia

Amoxicillin should be given with caution to patients with lymphatic leukaemia, since they are especially susceptible to ampicillin induced skin rashes.

Skin reactions

The occurrence of a generalized erythema with fever and pustules at the beginning of treatment should make suspect a generalized acute exanthematic pustulosis; this necessitates the interruption of therapy and contraindicated any further administration of amoxicillin.

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. Special caution should be exercised in patients with allergic diatheses or bronchial asthma and hay fever.

Crystalluria

The presence of high urinary concentrations of amoxicillin can cause precipitation of the product in urinary catheters. Therefore, catheters should be visually inspected at intervals. At high doses, adequate fluid intake and urinary output must be maintained to minimise the possibility of amoxicillin crystalluria.

Monitoring

Following single dose therapy of acute lower urinary tract infections, the urine should be cultured. A positive culture may be evidence of a complicated or upper urinary tract infection and call for a longer or larger course of therapy.

As with other beta-lactams, the blood formula should be checked regularly during high-dose therapy. Elevated liver enzymes and changes in blood counts have been reported.

Convulsions

High dose therapy with beta-lactams for patients with renal insufficiency or seizures history, treated epilepsy and meningeal affection, could exceptionally lead to seizures. Dosage should be adjusted in patients with renal impairments (see *section 4.2 DOSE AND METHOD OF ADMINISTRATION*).

Use in renal impairment

Dosage should be adjusted in patients with renal impairment (see *section 4.2 Dose and method of Administration*).

Use in the elderly

No data available.

Paediatric use

Refer *section 4.2 Dose and method of Administration* and *section 4.8 Adverse effects (Undesirable effects) - Miscellaneous*.

Precaution should be taken in premature children and during neonatal period: renal, hepatic and haematological functions should be monitored.

Effects on laboratory tests

Oral administration of amoxicillin will result in high urine concentrations of amoxicillin. Since high urine concentrations of amoxicillin may result in false positive reactions when testing for the presence of glucose in urine using Clinitest, Benedict's solution or Fehling's solution, it is recommended that glucose tests based on enzymatic glucose oxidase reactions (such as Clinistix or Tes-Tape) be used.

Following administration of ampicillin to pregnant women a transient decrease in plasma concentration of total conjugated oestriol, oestriol-glucuronide, conjugated oestrone and oestradiol has been noted. This effect may also occur with amoxicillin.

4.5 INTERACTIONS WITH OTHER MEDICINES AND OTHER FORMS OF INTERACTIONS

Allopurinol

The concurrent administration of allopurinol and ampicillin increases substantially the incidence of rashes in patients receiving both drugs as compared to patients receiving ampicillin alone. It is not known whether this potentiation of ampicillin rashes is due to allopurinol or the hyperuricaemia present in these patients. Similar reactions can be expected with amoxicillin.

Digoxin

An increase in the absorption of digoxin is possible on concurrent administration with amoxicillin. A dose adjustment of digoxin may be necessary.

Anticoagulants

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

Probenecid decreases the renal tubular secretion of amoxicillin. Concurrent use with amoxicillin may result in increased and prolonged blood levels of amoxicillin.

Tetracyclines

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

Methotrexate

Interaction between amoxicillin and methotrexate leading to methotrexate toxicity has been reported. Serum methotrexate levels should be closely monitored in patients who receive amoxicillin and methotrexate simultaneously (see *section 4.4 SPECIAL WARNINGS AND PRECAUTIONS FOR USE*). Amoxicillin decreases the renal clearance of methotrexate, probably by competition at the common tubular secretion system.

Caution is recommended when amoxicillin is given concomitantly with:
Oral hormonal contraceptives

In common with other antibiotics, amoxicillin may affect the gut flora, leading to lower oestrogen re-absorption and reduced efficacy of combined oral contraceptives.

Other forms of interactions:

- Forced diuresis leads to a reduction in blood concentrations by increased elimination of amoxicillin
- Amoxicillin may decrease the amount of urinary estriol in pregnant women.
- At high concentrations, amoxicillin may diminish the results of serum glycemia levels.
- Amoxicillin may interfere with protein testing when colormetric methods are used.

4.6 FERTILITY, PREGNANCY AND LACTATION

Effects on fertility

No data available.

Use in pregnancy

Category A

Animal studies with amoxicillin have shown no teratogenic effects. Amoxicillin has been in extensive clinical use since 1972 and its suitability in human pregnancy has been well documented in clinical studies.

Amoxicillin may be used in pregnancy when the potential benefits outweigh the potential risks associated with treatment.

Use in Labour and Delivery

Oral ampicillin class antibiotics are generally poorly absorbed during labour. Studies in guinea pigs have shown that intravenous administration of ampicillin decreased the uterine tone, frequency of contractions, height of contractions and duration of contractions. However, it is not known whether the use of amoxicillin in humans during labour or delivery has immediate or delayed adverse effects on the foetus, prolongs the duration of labour or increases the likelihood that forceps delivery or other obstetrical intervention or resuscitation of the newborn infant will be necessary.

Use in lactation

Ampicillin class antibiotics are excreted in breast milk; therefore, caution should be exercised when amoxicillin is administered to a nursing woman.

4.7 EFFECTS ON ABILITY TO DRIVE AND USE MACHINES

The effects of this medicine on a person's ability to drive and use machines were not assessed as part of its registration.

4.8 ADVERSE EFFECTS (UNDESIRABLE EFFECTS)

As with other penicillins, it may be expected that untoward reactions will be essentially limited to sensitivity phenomena. They are more likely to occur in individuals who have previously demonstrated hypersensitivity to penicillins.

The following adverse reactions have been reported as associated with the use of amoxicillin:

Infections and Infestations

Mucocutaneous candidiasis has been reported very rarely.

Gastrointestinal

Nausea, vomiting, diarrhoea. Intestinal candidiasis and antibiotic associated colitis (including pseudomembranous colitis and haemorrhagic colitis) have been reported rarely. Black hairy tongue has been reported very rarely (see *section 4.4 Special warnings and precautions for use*).

Hypersensitivity Reactions

Erythematous maculopapular rash, pruritus and urticaria have been reported occasionally. Rarely, skin reactions such as erythema multiforme and Stevens-Johnson syndrome, toxic epidermal necrolysis and bullous, exfoliative dermatitis, acute generalized exanthematous pustulosis (AGEP) and drug reaction with eosinophilia and systemic symptoms (DRESS) have been reported. As with other antibiotics, severe allergic reactions including angioneurotic oedema, anaphylaxis, serum sickness, hypersensitivity vasculitis and interstitial nephritis have been reported rarely. Whenever such reactions occur, amoxicillin should be discontinued.

Note: Urticaria, other skin rashes and serum sickness-like reactions may be controlled with antihistamines and, if necessary, systemic corticosteroids.

Anaphylaxis is the most serious reaction experienced (see *section 4.4 Special warnings and precautions for use*).

Liver

A moderate rise in AST and/or ALT has been noted occasionally but the significance of this finding is unknown. As with other β-lactam antibiotics, hepatitis and cholestatic jaundice have been reported rarely.

Haemic and Lymphatic Systems

Reactions such as anaemia, thrombocytopenia, thrombocytopenic purpura, eosinophilia and leucopenia (including severe neutropenia or agranulocytosis) have been reported during therapy with other penicillins. These reactions are usually reversible on discontinuation of therapy and are believed to be hypersensitivity phenomena. Prolongations of bleeding time and prothrombin time have also been reported rarely.

Renal and Urinary Tract Disorders

Interstitial nephritis, crystalluria (see *section 4.9 Overdose*).

Central Nervous System (CNS) Effects

CNS effects have been seen rarely. These include hyperkinesia, dizziness and convulsions. Convulsions may occur in patients with impaired renal function or in those receiving high doses.

Miscellaneous

Superficial tooth discolouration has been reported very rarely in children. Good oral hygiene may help to prevent tooth discolouration as it can usually be removed by brushing.

Reporting suspected adverse effects

Reporting suspected adverse reactions after registration of the medicinal product is important. It allows continued monitoring of the benefit-risk balance of the medicinal product. Healthcare professionals are asked to report any suspected adverse reactions at *www.tga.gov.au/reporting-problems*.

4.9 OVERDOSE

For information on the management of overdose, contact the Poisons Information Centre on 13 11 26 (Australia).

Gastrointestinal effects such as nausea, vomiting and diarrhoea may be evident and symptoms of water/electrolyte imbalance should be treated symptomatically. During the administration of high doses of amoxicillin, adequate fluid intake and urinary output must be maintained to minimise the possibility of amoxicillin crystalluria. Amoxicillin crystalluria, in some cases leading to renal failure, has been observed (see *section 4.4 Special warnings and precautions for use*).

Amoxicillin can be removed from the circulation by haemodialysis.

5. PHARMACOLOGICAL PROPERTIES

5.1 PHARMACODYNAMIC PROPERTIES

Mechanism of action

Microbiology

Amoxicillin is similar to ampicillin in its bactericidal action against Gram-positive and Gram-negative susceptible organisms during the stage of active multiplication. It acts through the inhibition of biosynthesis of the cell wall mucopeptide.

It is active *in vitro* against most strains of *Haemophilus influenzae**, *Neisseria gonorrhoeae**, *N. meningitides**, *Escherichia coli**, *Proteus mirabilis** and Salmonellae. Because amoxicillin does not resist destruction by penicillinase, it is not active against penicillinase-producing organisms, particularly penicillinase-producing staphylococci. All strains of Pseudomonas species, Klebsiella species, Enterobacter species, indole positive Proteus species, *Serratia marcescens*, Citrobacter species, penicillinase-producing *N. gonorrhoeae* and penicillinase-producing *H. influenzae* are also resistant. *In vitro* studies have demonstrated the susceptibility of most strains of the following gram-positive bacteria: α- and β-haemolytic *streptococci*, *Diplococcus pneumonia*, non-penicillinase producing *staphylococci* and *Streptococcus faecalis*. These organisms are susceptible to amoxicillin at serum concentrations which may be expected following the recommended doses. However, some of the organisms were susceptible to amoxicillin only at concentrations achieved in the urine (see *section 4.1 Therapeutic indications*).

*Activity refers only to β-lactamase negative strains.

Escherichia coli isolates are becoming increasingly resistant to amoxicillin *in vitro* due to the presence of penicillinase producing strains.

Strains of gonococci that are relatively resistant to benzylpenicillin may be sensitive to amoxicillin.

The following *in vitro* data are available, but their clinical significance is unknown:

Table 1 *In vitro* data for Amoxicillin vs. clinical pathogens

Organism (n)	MIC90 (µg/mL)
S. pneumoniae (3493)[1]	2
H. influenzae (3366)[1]	32
S. pyogenes (683)[1]	0.03
H. influenzae b-lac+ (725)[1]	32
H. influenzae b-lac- (2587)[1]	1
Klebsiella pneumoniae (1161)[1]	32
M. catarrhalis (864)[1]	16
MSSA (1232)[1]	32
Bacteroides fragilis group (80)[2]	64
Fusobacterium sp (23)[2]	8
Clostridium difficile (21)[2]	2
N. gonorrhoeae (34)[3]	128

[1] Data from the Augmentin Global Surveillance Study: June 1999-December 2000 from USA, Canada, Brazil, Mexico, Hong Kong, Australia, France, Belgium, Italy, Netherlands, Spain, Sweden and the UK.

[2] Data from 1994-1995, France (Dubreuil L et al, 1996. In vitro evaluation of nitazoxanide and tizoxanide against anaerobes and aerobic organisms. *Antimicrob Agents Chemother*. 40(10), 2266-2270).[3] Data from 1994-1995, UK (Wise R et al, 1996. *In vitro* activity of the tricyclic β-lactam GV104326. *Antimicrob Agents Chemother*. 40(5), 1248-1253).

A positive β-lactamase test predicts resistance to penicillin, ampicillin and amoxicillin.

Table 2 Rates of Resistance to amoxicillin for Common Pathogens in Australia

Organism	Average % resistance
B. fragilis	100
Enterobacter spp.	96
Klebsiella spp.	98
M. catarrhalis	84
P. aeruginosa	100
S. aureus (methicillin-susceptible)	85
Enterococcus faecalis	0.2
Enterococcus faecium	80
E. coli	45.4
H. influenza	20.3
P. mirabilis	14
S. pneumoniae	0.6 (fully resistant) 3.2 (intermediate resistance)

Breakpoints

Streptococcus pneumoniae: S ≤ 0.06 µg/mL (0.03 – 0.12 µg/mL); R ≥ 2 µg/mL.

Note: Because amoxicillin has a greater *in vitro* activity against *S. pneumoniae* than does ampicillin, the majority of *S. pneumoniae* strains with intermediate susceptibility to ampicillin are fully susceptible to amoxicillin.

Susceptibility Tests

Dilution or diffusion techniques – either quantitative (MIC) or breakpoint, should be used following a regularly updated, recognised and standardised method (e.g. NCCLS). Standardised susceptibility test procedures require the use of laboratory control microorganisms to control the technical aspects of the laboratory procedures.

A report of "Susceptible" indicates that the pathogen is likely to be inhibited if the antimicrobial compound in the blood reaches the concentrations usually achievable. A report of "Intermediate" indicates that the result should be considered equivocal, and if the microorganism is not fully susceptible to alternative, clinically feasible drugs, the test should be repeated. This category implies possible clinical applicability in body sites where the drug is physiologically concentrated or in situations where high dosage of drug can be used. This category also provides a buffer zone, which prevents small uncontrolled technical factors from causing major discrepancies in

interpretation. A report of "Resistant" indicates that the pathogen is not likely to be inhibited if the antimicrobial compound in the blood reaches the concentrations usually achievable; other therapy should be selected.

Note: The prevalence of resistance may vary geographically for selected species and local information on resistance is desirable, particularly when treating severe infections. This information gives only an approximate guidance on probabilities whether organisms will be susceptible to amoxicillin.

Cross-resistance: Other β-lactams, β-lactam/β-lactamase inhibitor combinations and cephalosporins.

Resistance mechanisms: Production of penicillinase, altered penicillin binding proteins.

Clinical trials

No data available.

5.2 PHARMACOKINETIC PROPERTIES

Absorption

Amoxicillin is stable in the presence of gastric acid and is rapidly and well absorbed after oral administration, even in the presence of food.

Orally administered doses of 250 and 500 mg result in average peak serum levels 1 to 2 hours after administration of 5 µg/mL and 6.6–10.8 µg/mL respectively. Detectable serum levels of amoxicillin are present 8 hours after ingestion of a single dose.

Distribution

Amoxicillin diffuses rapidly into most body tissues and fluids, with the exception of brain and spinal fluid except when the meninges are inflamed.

Amoxicillin has been shown to diffuse into sputum and saliva and is excreted mainly via the urine where it exists in a high concentration. The amount to be found in the bile is variable depending on normal biliary secretory function.

The amount to be found in the bile is variable depending on normal biliary secretory function.

Amoxicillin is not highly protein bound, being only 17% protein bound in serum as measured by ultrafiltration or equilibrium dialysis.

Excretion

The half-life of amoxicillin is 61.3 minutes with normal renal function, and in the absence of renal function is 16 to 20 hours.

Amoxicillin is excreted in the urine both unchanged and as penicilloic acid. About 75% of a 1 g dose is excreted in the urine in 6 hours in the presence of normal renal function (60% is biologically active and 15% is penicilloic acid). However about 32% of a 3 g dose is excreted via the urine as the biologically active component in 8 hours (by which time most of the urinary excretion is complete). This proportional difference in the amount excreted from the different doses reflects a lack of linearity between doses and extent of absorption with a levelling off at higher doses of oral amoxicillin.

Excretion of amoxicillin can be delayed by concurrent administration of probenecid, thus prolonging its therapeutic effect.

5.3 PRECLINICAL SAFETY DATA

Genotoxicity

No data available.

Carcinogenicity

No data available.

6. PHARMACEUTICAL PARTICULARS

6.1 LIST OF EXCIPIENTS

Sorbitol, sunset yellow FCF, tutti frutti 51880 AP0551 (PI 183), xanthan gum, sodium citrate dihydrate, colloidal anhydrous silica, saccharin sodium.

6.2 INCOMPATIBILITIES

Incompatibilities were either not assessed or not identified as part of the registration of this medicine.

6.3 SHELF LIFE

In Australia, information on the shelf life can be found on the public summary of the Australian Register of Therapeutic Goods (ARTG). The expiry date can be found on the packaging.

6.4 SPECIAL PRECAUTIONS FOR STORAGE

Store below 25°C in a dry place, protected from moisture.

After reconstitution with water, amoxicillin suspension should be stored at 2-8°C in a refrigerator. Unused suspension must be discarded after 14 days.

6.5 NATURE AND CONTENTS OF CONTAINER

Noumed Amoxicillin Powder for Oral Suspension is supplied in a 100 mL HDPE bottle with a child resistant cap.

6.6 SPECIAL PRECAUTIONS FOR DISPOSAL

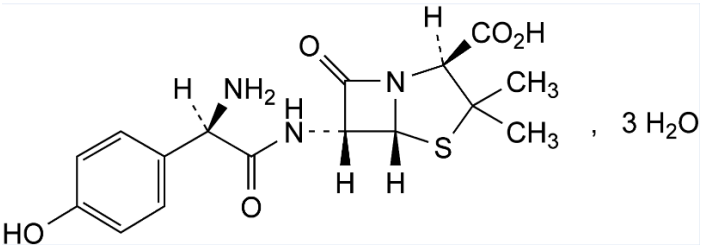
In Australia, any unused medicine or waste material should be disposed of by taking to your local pharmacy.

6.7 PHYSICOCHEMICAL PROPERTIES

Amoxicillin trihydrate is a white or almost white, crystalline powder, slightly soluble in water and in alcohol.

Amoxicillin trihydrate is a semisynthetic antibiotic and is a member of the penicillinase-stable group of penicillins derived from the penicillin nucleus, 6-aminopenicillanic acid, isolated at Beecham Research Laboratories.

Chemical structure:



Chemical Name: (2S,5R,6R)-6[(R)-2-amino-2-(4-hydroxyphenyl)acetamido]-3,3-dimethyl-7-oxo-4-thia-1-azabicyclo[3.2.0]heptane-2-carboxylic acid trihydrate.

Molecular Weight: 419.4

CAS number:

61336-70-7

7. MEDICINE SCHEDULE (POISON STANDARD)

S4 – Prescription only medicine

8. SPONSOR

Avallon Pharmaceuticals Pty Ltd

Level 5, 7 Eden Park Drive

Macquarie Park NSW 2113

9. DATE OF FIRST APPROVAL

18 December 2019

10. DATE OF REVISION

15 April 2020

Table 3 Summary table of changes

Section changed	Summary of new information
All	PI reformat
4.4	Add precautions relating to non-susceptible microorganisms, skin reaction, Jarisch-Herxheimer reaction, Crystalluria, Convulsions; and strengthen precaution for overgrowth of non-susceptible microorganisms and monitoring.
4.5	Added interactions related to digoxin, methotrexate & other forms of interactions
4.8	Add drug reaction with eosinophilia and systemic symptoms (DRESS).
5.1	Add information relating to resistance against penicillinase-producing organisms.
8	Sponsor details updated to Avallon Pharmaceutical Pty Ltd
Table 4	Add/update notes.

Table 4 Prophylaxis of Endocarditis (based on the recommendations of the British Society for Antimicrobial Chemotherapy)

Condition		Adults' Dosage (including elderly)	Children's Dosage	Notes
Dental procedures: Prophylaxis for patients undergoing extraction, scaling or surgery involving gingival tissues, and who have not received a penicillin in the previous month. (NB. Patients with prosthetic heart valves should be referred to hospital - see below.)	Patients not having general anaesthetic.	3 g Amoxicillin orally, 1 hour before procedure. A second dose may be given 6 hours later if considered necessary.	Under 10 years: Half adult dose. Under 5 years: Quarter adult dose.	*Note 1:* Prophylaxis with alternative antibiotics should be considered if the patient has received a penicillin within the previous month, or is allergic to penicillin.
	Patients having general anaesthetic; oral antibiotics are not appropriate.	1 g Amoxicillin IM immediately before induction, with 500 mg orally, 6 hours later.	Under 10 years: Half adult dose.	
Dental procedures: Patients for whom referral to hospital is recommended: (a) patients to be given a general anaesthetic who have been given a penicillin in the previous month; (b) patients to be given a general anaesthetic who have a prosthetic heart valve; (c) patients who have had one or more attacks of endocarditis.		Initially: 1 g Amoxicillin IM with 120 mg gentamicin IM, immediately prior to anaesthesia (if given) or 15 minutes prior to dental procedure. Followed by (6 hours later): 500 mg Amoxicillin orally.	Under 10 years: The amoxicillin doses should be half the adult dose: the dose of gentamicin should be 2 mg/kg.	*Note 2:* Please consult the appropriate data sheet for full prescribing information on gentamicin.
Genitourinary surgery or instrumentation. Prophylaxis for patients who have no urinary tract infection and who are to have genitourinary surgery or instrumentation under general anaesthesia. ***Obstetric and gynaecological procedures and Gastrointestinal procedures*** Routine prophylaxis is recommended only for patients with prosthetic heart valves.		Initially: 1 g Amoxicillin IM with 120 mg gentamicin IM, immediately before induction. Followed by (6 hours later): 500 mg Amoxicillin orally or IM according to clinical condition.	Under 10 years: The amoxicillin doses should be half the adult dose; the dose of gentamicin should be 2 mg/kg	See Note 2 above.
Surgery or Instrumentation of the Upper Respiratory Tract.	Patients other than those with prosthetic heart valves.	1 g Amoxicillin IM immediately before induction. Followed by (6 hours later): 500 mg Amoxicillin IM.	Under 10 years: Half adult dose.	
	Patients with prosthetic heart valves.	Initially: 1 g Amoxicillin IM with 120 mg gentamicin IM, immediately before induction. Followed by (6 hours later): 500 mg Amoxicillin IM.	Under 10 years: The amoxicillin doses should be half the adult doses; the dose of gentamicin should be 2 mg/kg.	See Note 2 above.