Prescribing Information (Summary of Product Characteristics)

1. NAME OF THE MEDICINAL PRODUCT

GRITACILLIN-0.5 gm (Ampicillin Sodium for Injection 0.5 gm)

2. QUALITATIVE AND QUANTITATIVE COMPOSITION

"Each vial contains Ampicillin Sodium BP equivalent to Ampicillin 0.5 gm and 32.9 mg sodium

3. PHARMACEUTICAL FORM

Powder for injection

3.1.Product Distribution Category

"Prescription Only Medicine" (POM)

4. CLINICAL PARTICULARS

4.1.Therapeutic indications

Ampicillin is a broad-spectrum penicillin, indicated for the treatment of a wide range of bacterial infections caused by ampicillin-sensitive organisms. Typical indications include ear, nose and throat infections, bronchitis, pneumonia, urinary tract infections, gonorrhoea, gynaecological infections, septicaemia, peritonitis, endocarditis, meningitis, enteric fever, and gastrointestinal infections.

Extraperitoneal application of Ampicillin to wounds can be used to prevent infection following abdominal surgery.

Parenteral usage is indicated where the oral dosage is inappropriate.

4.2 Therapeutic indications

Posology

Usual adult dosage (including elderly patients):

Septicaemia, endocarditis, osteomyelitis:	500 mg four to six times a day IM or IV for one to six weeks.
Peritonitis, intra-abdominal sepsis:	500mg four times a day IM or IV.
Meningitis:	*Adult dosage:* 2 g six-hourly IV. *Children dosage:* 150 mg/kg daily IV in divided doses.

Ampicillin may also be administered by other routes of conjunction with systemic therapy.

Intraperitoneal:	500 mg daily in up to 10 ml water for injections.
Intrapleural:	500 mg daily in 5-10 ml water for injections.
Intraarticular:	500 mg daily, in up to 5 ml water for injections or sterile 0.5% procaine hydrochloride solution.

Local use in abdominal surgery: 1 g sterile powder sprinkled into the wound extraperitoneally or into muscle layers to prevent wound infection post operatively.

Paediatric population
Half adult routine dosage for children under 10 years.
All recommended dosages are a guide only. In severe infections the above dosages may be increased.

Renal Impairment
In the presence of severe renal impairment (creatinine clearance <10ml/min) a reduction in dose or extension of dose interval should be considered. In cases of dialysis, an additional dose should be administered after the procedure.

Method of administration

Intramuscular:	Add 1.5 ml water for injections to 500mg vial contents.
Intravenous:	Dissolve 500 mg in 10 ml water for injections. Administer by slow injection (three to four minutes). Ampicillin may also be added to infusion fluids or injected, suitably diluted, into the drip tube over a period of three to four minutes.

Preparation of injections:
Intramuscular: Dissolve 500 mg in 1.5 ml Water for Injections.
Intravenous: Dissolve 500 mg in 10 ml Water for Injections.Shake to dissolve.

3. Contraindications

Ampicillin is a penicillin and should not be given to patients with a history of hypersensitivity to beta-lactam antibiotics (e.g. ampicillin, penicillins, cephalosporins). It should not be given to patients with glandular fever or acute lymphatic leukaemia.

4.Special warnings and special precautions for use

Before initiating therapy with ampicillin, careful enquiry should be made concerningprevious hypersensitivity reactions to beta-lactam antibiotics.

Serious and occasionally fatal hypersensitivity reactions (anaphylaxis) have been reported in patients receiving beta-lactam antibiotics. Although anaphylaxis is more frequent following parenteral therapy, it has occurred in patients on oral penicillins. These reactions are more likely to occur in individuals with a history of beta-lactam hypersensitivity.

Ampicillin should be avoided if infectious mononucleosis and/or acute or chronic leukaemia of lymphoid origin are suspected. The occurrence of a skin rash has been associated with these conditions following the administration of ampicillin.

Prolonged use may occasionally result in overgrowth of non-susceptible organisms.

Dosage should be adjusted in patients with renal impairment.

"This medicinal product contains 32.9 mg sodium per vial, equivalent to 1.65% of theWHO recommended maximum daily intake of 2 g sodium for an adult."

5. Interaction with other medicinal products and other forms of Interaction

If ampicillin is prescribed concurrently with an aminoglycoside, the antibiotics should not be mixed in the syringe, intravenous fluid container or giving set because loss ofactivity of the aminoglycoside can occur under these conditions.

Bacteriostatic drugs may interfere with the bactericidal action of ampicillin.

In common with other oral broad-spectrum antibiotics, ampicillin may reduce the efficacy of oral contraceptives and patients should be warned accordingly.

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

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

It is recommended that when testing for the presence of glucose in urine during ampicillin treatment, enzymatic glucose oxidase methods should be used. Due to the high urinary concentrations of ampicillin, false positive readings are common with chemical methods.

Methotrexate excretion is reduced by penicillins.

6. Pregnancy and lactation

Pregnancy:
Animal studies with ampicillin have shown no teratogenic effects. The product has been in extensive clinical use since 1961 and its use in human pregnancy has been well documented in clinical studies. When antibiotic therapy is required during pregnancy Ampicillin for Injection may be considered appropriate.

Lactation:
During lactation, trace quantities of penicillins can be detected in breast milk. Adequate human and animal data on use of Ampicillin during lactation are not available. While adverse effects are apparently rare, three potential problems exist for tenursing infant:

- modification of bowel flora.
- direct effects on the infant such as allergy/sensitisation.
- interference with interpretation of culture results when a pyrexia of unknown origin occurs.

7. Effects on ability to drive and use machines

Adverse effects on the ability to drive or operate machinery have not been observed.

8. Undesirable Effects

The following convention has been used for the classification of undesirable effects interms of frequency

Very Common:	≥ 1/10
Common:	≥ 1/100 and < 1/10
Uncommon:	≥ 1/1000 and < 1/100
Rare:	≥ 1/10,000 and < 1/1000
Very Rare:	< 1/10,000

Skin and subcutaneous tissue disorders
Common: skin rash, pruritus and urticaria. The incidence is higher in patients suffering from infectious mononucleosis and acute or chronic leukaemia of lymphoidorigin. Purpura has also been reported.
Uncommon: skin reactions such as erythema multiforme (Stevens-Johnson syndrome), and toxic epidermal necrolysis have been reported.
Rare: anaphylaxis
Renal and urinary disorders
Uncommon: Interstitial nephritis
Gastrointestinal disorders:
Common: nausea, vomiting and diarrhoea.
Uncommon: Pseudomembranous colitis and haemorrhagic colitis.
Hepatobiliary disorders
Common: a moderate and transient increase in transaminasesUncommon: hepatitis and cholestatic jaundice

Blood and lymphatic system disorders:
Uncommon: haematological effects including transient leucopenia, transient thrombocytopenia and haemolytic anaemia. Prolongation of bleeding time and prothrombin.

9. Overdose
Gastrointestinal effects such as nausea, vomiting and diarrhoea may be evident andshould be treated symptomatically.
Ampicillin may be removed from the circulation by haemodialysis.

5. PHARMACOLOGICAL PROPERTIES

1. Pharmacodynamics properties

Pharmacotherapeutic group: Beta-lactam antibacterials, penicillinsATC-Code: J01CA01

Mode of action
Ampicillin is an aminopenicillin that has a bactericidal action due to its inhibition ofthe synthesis of the bacterial cell wall.

Mechanism of resistance
Bacteria may be resistant to ampicillin due to production of beta-lactamases which hydrolyse aminopenicillins, due to alteration in penicillin-binding proteins, due to impermeability to the drug, or due to drug efflux pumps. One or more of these mechanisms may co-exist in the same organism, leading to variable and unpredictablecross-resistance to other beta-lactams and to antibacterial drugs of other classes.

Breakpoints
The MIC breakpoints for susceptible organisms vary according to species.
Susceptibility:

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

Commonly susceptible speciesGram positive aerobes
Listeria monocytogenes Streptococcus agalactiae Streptococcus pyogenes

Gram negative aerobes
Neisseria meningitidis

Anaerobes
Bacteroides spp.
Clostridium spp
Fusobacterium spp
Peptostreptococci

Species for which acquired resistance may be a problemGram positive aerobes
Enterococcus faecalis
Staphylococcus aureus
Streptococcus pneumoniae

Gram negative aerobes
Escherichia coli
Haemophilus influenzae
Haemophilus
parainfluenzaeMoraxella
catarrhalis Neisseria
gonorrhoeae Proteus spp.
Salmonella spp
Shigella spp

Inherently resistant organismsGram negative aerobes
Acinetobacter spp
Citrobacter spp
Enterobacter
spp*Klebsiella*
spp
Pseudomonas
spp*Serratia* spp

Other
Chlamydia
Mycoplasma
Legionella

2. Pharmacokinetic properties

Following the intramuscular administration of 500 mg, ampicillin reaches peak plasma concentrations within about 1 hour which are reported to range from 7 to 14 µg/ml.
Ampicillin is widely distributed and therapeutic concentrations can be achieved in ascitic, pleural and joint fluids.

Ampicillin is around 20% bound to plasma proteins and the plasma half-life is about 1to 1½ hours.
Ampicillin is metabolised to some extent to penicilloic acid which is excreted in the urine.
Renal clearance of ampicillin occurs partly by glomerular filtration and partly by tubular secretion; it is retarded by the concomitant administration of probenecid. Following parenteral administration, about 60 to 80% is excreted in the urine within 6 hours. Ampicillin is removed by haemodialysis. High concentrations are reached in bile, it undergoes enterohepatic recycling and some is excreted in the faeces.

3. Preclinical safety data

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

6. PHARMACEUTICAL PARTICULARS

6.1.List of Excipients

None

6.2.Incompatibilities

If Ampicillin is prescribed concurrently with an aminoglycoside, the antibiotics should not be mixed in the syringe, intravenous fluid container or giving set; becauseloss of activity of the aminoglycoside can occur under these conditions.
Ampicillin should not be mixed with blood products or other proteinaceous fluids (e.g. protein hydrolysates) or with intravenous lipid emulsions.

6.3.Shelf life

Unopened vial: 3 years.
After reconstitution: From a microbiological point of view, the reconstituted product should be used immediately, unless reconstitution has taken place in controlled and validated aseptic conditions.

6.4.Special precautions for storage

Unopened:

Preserve the tightly closed containers, stored in cool and dry place, not exceeding30°C.
Protect from light.
Keep out of reach of children.

After Reconstitution:
The reconstituted product should be used immediately unless reconstitution has taken place in controlled and validated aseptic conditions.

6.5.Nature and contents of the container

7 ml Type II (soda-lime glass) vial with butyl rubber stopper and aluminum cap, such 50 vials in a carton with a leaflet.

6.6.Special precautions for disposal and other handling

The vials are not suitable for multidose use.

All solutions should be shaken vigorously before injection and administeredimmediately after reconstitution.

Any unused medicinal product or waste material should be disposed of in accordance with local requirements.

7. Marketing Authorization Holder

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8. Marketing Authorization Number (S)

TAN 21 HM 0305

9. Date of First Authorization/Renewal of the Authorization

2021-08-20

10. Date of Revision of the Text