

DATA SHEET

Timentin[®] injection powder

Ticarcillin disodium/Potassium clavulanate

Presentation

TIMENTIN 3.1g vials: Each vial contains sterile ticarcillin disodium equivalent to 3g ticarcillin and sterile potassium clavulanate equivalent to 0.1g clavulanic acid.

TIMENTIN is supplied as a white to pale yellow powder for reconstitution.

TIMENTIN is very soluble in water; its solubility being greater than 600mg/mL. The reconstituted solution is clear, colourless or pale yellow, having a pH of 5.5 to 7.5.

The theoretical sodium content is 4.8mEq (111mg) per gram of **TIMENTIN**.

Uses

Actions

TIMENTIN is an injectable antibacterial combination consisting of the semisynthetic antibiotic, ticarcillin disodium and the beta-lactamase inhibitor, clavulanate potassium (the potassium salt of clavulanic acid) for intravenous administration.

Ticarcillin is derived from the basic penicillin nucleus, 6-amino-penicillanic acid.

Clavulanic acid is produced by the fermentation of *Streptomyces Clavuligerus*. It is a beta-lactam structurally related to the penicillins and possesses the ability to inactivate a wide variety of beta-lactamases by blocking the active sites of these enzymes. Clavulanic acid is particularly active against the clinically important plasmid mediated beta-lactamases frequently responsible for transferred drug resistance to penicillins and cephalosporins.

Pharmacodynamic properties

Activity:

Ticarcillin is a semisynthetic antibiotic with a broad spectrum of bactericidal activity against many Gram-positive and Gram-negative aerobic and anaerobic bacteria.

Ticarcillin is, however, susceptible to degradation by beta-lactamases and therefore the spectrum of activity does not normally include organisms which produce these enzymes.

Clavulanic acid is a beta-lactam, structurally related to the penicillins, which possesses the ability to inactivate a wide range of beta-lactamase enzymes commonly found in microorganisms resistant to penicillins and cephalosporins. In particular, it has good activity against the clinically important plasmid mediated beta-lactamases frequently responsible for transferred drug resistance.

The formulation of ticarcillin with clavulanic acid in **TIMENTIN** protects ticarcillin from degradation by beta-lactamase enzymes and effectively extends the antibiotic spectrum of ticarcillin to include many bacteria normally resistant to ticarcillin and other beta-lactam antibiotics. Thus **TIMENTIN** possesses the distinctive properties of a broad spectrum antibiotic and a beta-lactamase inhibitor.

While *in vitro* studies have demonstrated the susceptibility of most strains of the following organisms, clinical efficacy for infections other than those included in the Indications section has not been documented.

Gram Negative:

- *Acinetobacter* species (beta-lactamase and non-beta-lactamase producing).
- *Branhamella catarrhalis* (beta-lactamase and non-beta-lactamase producing).
- *Citrobacter* species including *C. freundii*, *C. diversus* and *C. amalonaticus* (beta-lactamase and non-beta-lactamase producing).
- *Enterobacter* species (Although most strains of *Enterobacter* species are resistant *in vitro*, clinical efficacy has been demonstrated with **TIMENTIN** in urinary tract infections caused by these organisms).
- *Escherichia coli* (beta-lactamase and non-beta-lactamase producing).
- *Haemophilus influenzae* (beta-lactamase and non-beta-lactamase producing).
- *Klebsiella* species including *K. pneumoniae* (beta-lactamase and non-beta-lactamase producing).
- *Morganella morganii* (formerly *Proteus morganii*) (beta-lactamase and non-beta-lactamase producing).
- *Neisseria gonorrhoeae* (beta-lactamase and non-beta-lactamase producing).
- *Neisseria meningitidis* *.
- *Proteus mirabilis* (beta-lactamase and non-beta-lactamase producing).
- *Proteus vulgaris* (beta-lactamase and non-beta-lactamase producing).
- *Providencia rettgeri* (formerly *Proteus rettgeri*) (beta-lactamase and non-beta-lactamase producing).
- *Providencia stuartii* (beta-lactamase and non-beta-lactamase producing).
- *Pseudomonas aeruginosa* (beta-lactamase and non-beta-lactamase producing).
- *Pseudomonas* species including *P. maltophilia* (beta-lactamase and non-beta-lactamase producing).
- *Salmonella* species (beta-lactamase and non-beta-lactamase producing).
- *Serratia* species including *S. marcescens* (beta-lactamase and non-beta-lactamase producing).

Gram Positive:

- *Staphylococcus aureus* (beta-lactamase and non-beta-lactamase producing).
- *Staphylococcus epidermidis* (coagulase negative *Staphylococci*) (beta-lactamase and non-beta-lactamase producing).
- *Staphylococcus saprophyticus*.
- *Streptococcus agalactiae* * (Group B).
- *Streptococcus bovis* *.
- *Streptococcus faecalis* * (*Enterococcus*).
- *Streptococcus pneumoniae* * (*Diplococcus Pneumoniae*).
- *Streptococcus pyogenes* * (Group A, beta-haemolytic).
- *Viridans* group *Streptococci*.

Anaerobic:

- Bacteroides species, including *B. Fragilis* group (*B. Fragilis*, *B. Vulgatus*) (beta-lactamase and non-beta-lactamase producing), *Non-B. Fragilis* (*beta-Melaninogenicus*) (beta-lactamase and

non-beta-lactamase producing), *B. Thetaiotaomicron*, *B. ovatus*, *B. distasonis*, (beta-lactamase and non-beta-lactamase producing).

- *Clostridium* species including *C. perfringens*, *C. difficile*, *C. sporogenes*, *C. ramosum* and *C. bifermentans* *.
- *Eubacterium* species.
- *Fusobacterium* species including *F. nucleatum* and *F. necrophorum* *.
- *Peptococcus* species*.
- *Peptostreptococcus* species*.
- *Veillonella* species.

*These are non-beta-lactamase producing strains and therefore are susceptible to ticarcillin alone. Some of the beta-lactamase producing strains are also susceptible to ticarcillin alone.

In vitro synergism between **TIMENTIN** and gentamicin, tobramycin or amikacin against multi-resistant strains of *Pseudomonas aeruginosa* has been demonstrated.

SENSITIVITY TESTING DIFFUSION TECHNIQUE: An 85mcg **TIMENTIN** (75mcg ticarcillin plus 10mcg clavulanic acid) diffusion disk is available for use with the Kirby-Bauer method. Based on the zone sizes given below, a report of "Susceptible" indicates that the infecting organism is likely to respond to **TIMENTIN** therapy, while a report of "Resistant" indicates that the organism is not likely to respond to therapy with this antibiotic. A report of "Intermediate" susceptibility indicates that the organism would be susceptible to **TIMENTIN** at a higher dosage or if the infection is confined to tissues or fluids (e.g. urine) in which high antibiotic levels are attained.

SENSITIVITY TESTING DILUTION TECHNIQUE: Broth or agar dilution methods may be used to determine the minimal inhibitory concentration (MIC) values for bacterial isolates to **TIMENTIN**. Tubes should be inoculated with the test culture containing 10⁴ to 10⁵ CFU/mL or plates spotted with a test solution containing 10³ to 10⁴ CFU/mL.

The recommended dilution pattern utilizes a constant level of clavulanic acid, 2mcg/mL, in all tubes together with varying amounts of ticarcillin. MIC's are expressed in terms of the ticarcillin concentration in the presence of 2mcg/mL clavulanic acid.

RECOMMENDED RANGES FOR **TIMENTIN** SUSCEPTIBILITY TESTING ^(1,2,3)

Diffusion Method Disk Zone Size (mm):

Resistant	Intermediate	Susceptible
LE 11	12-14	GE 15

Dilution Method MIC (mcg/mL) Correlates⁽⁴⁾:

Resistant	Susceptible
GE 128	LE 64

1. The non-beta-lactamase producing organisms which are normally susceptible to ticarcillin will have similar zone sizes as for ticarcillin.
2. Staphylococci which are susceptible to **TIMENTIN** but resistant to methicillin, oxacillin or nafcillin must be considered as resistant.
3. The quality control cultures should have the following assigned daily ranges for **TIMENTIN**:

ORGANISM	DISKS	MIC RANGE	MCG/ML
<i>E. coli</i>	(ATCC 25922)	24-30 mm	2/2-8/2
<i>S. aureus</i>	(ATCC 25923)	32-40 mm	-
<i>P. aeruginosa</i>	(ATCC 27853)	20-28 mm	8/2-32/2
<i>E. coli</i>	(ATCC 35218)	21-25 mm	4/2-16/2

S. aureus (ATCC 29213) - 0.5/2-2/2

4. Expressed as concentration of ticarcillin in the presence of a constant 2.0mcg/mL concentration of clavulanic acid.

After an intravenous infusion (30 minutes) of **TIMENTIN**, peak serum concentrations of both ticarcillin and clavulanic acid are attained immediately after completion of infusion. Ticarcillin serum levels are similar to those produced by the administration of equivalent amounts of ticarcillin alone with a mean peak serum level of 330mcg/mL. The corresponding mean peak serum level for clavulanic acid was 8mcg/mL.

Pharmacokinetic properties

SERUM LEVELS IN ADULTS AFTER A 30 MINUTE I.V. INFUSION OF **TIMENTIN**

DOSE	0	15 Min	30 Min	1 Hr	1.5 Hr	3.5 Hr	5.5 Hr
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Ticarcillin Serum Levels (mcg/mL)

3.1g	324 (293-388)	223 (184-293)	176 (135-235)	131 (102-195)	90 (65-119)	27 (19-37)	6 (5-7)
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Clavulanic Acid Serum Levels (mcg/mL)

3.1g	8.0 (5.3-10.3)	4.6 (3.0-7.6)	2.6 (1.8-3.4)	1.8 (1.6-2.2)	1.2 (0.8-1.6)	0.3 (0.2-0.3)	0
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Pharmacokinetics:

The mean area under the serum concentration curves for ticarcillin was 485mcg/mL hr. The corresponding area under the serum concentration curve for clavulanic acid was 8.2mcg/mL hr.

The mean serum half-life of ticarcillin and clavulanic acid in healthy volunteers is 68 minutes.

Approximately 60-70% of ticarcillin and approximately 35-45% of clavulanic acid are excreted unchanged in urine during the first hours after administration of a single dose of '**TIMENTIN**' to normal volunteers with normal renal function. Two hours after an intravenous injection of 3.1g '**TIMENTIN**', concentrations of ticarcillin in urine generally exceed 1500mcg/mL. The corresponding concentrations of clavulanic acid in urine generally exceed 40mcg/mL. By 4-6 hours after injection, the urine concentrations of ticarcillin and clavulanic acid usually decline to approximately 190mcg/mL.

Somewhat higher and more prolonged serum levels of ticarcillin can be achieved with the concurrent administration of probenecid; however, probenecid does not enhance the serum levels of clavulanic acid.

Ticarcillin can be detected in tissues and interstitial fluid following parenteral administration.

Penetration of ticarcillin into the bile, pleural fluid and cerebrospinal fluid with inflamed meninges has been demonstrated. The results of experiments involving the administration of clavulanic acid to animals suggest that this compound, like ticarcillin, is well distributed in body tissues. An inverse relationship exists between the serum half-life of ticarcillin and creatinine clearance. The dosage of '**TIMENTIN**' need only be adjusted in cases of severe renal impairment (see Dosage and Administration).

Ticarcillin may be removed from patients undergoing dialysis; the actual amount removed depends on the duration and type of dialysis.

Protein binding:

Neither component of '**TIMENTIN**' is highly protein bound; ticarcillin has been found to be approximately 50% bound to human serum protein and clavulanic acid approximately 25% bound.

Preclinical safety data

No further information of clinical relevance.

Indications

TIMENTIN is indicated in the treatment of infections caused by susceptible strains of organisms in the conditions listed below:

- Septicaemia (including bacteraemia)
- Lower Respiratory Tract Infections
- Bone and Joint Infections
- Skin and Skin Structure Infections
- Urinary Tract Infections
- Gynaecological Infections
- Surgical Prophylaxis

Because of its broad spectrum of bactericidal activity against Gram-positive and Gram-negative bacteria, **TIMENTIN** is particularly useful for the treatment of mixed infections and for presumptive therapy prior to the identification of the causative organisms. Therapy with **TIMENTIN** may be initiated before results of such tests are known, however, once these results become available, appropriate therapy should be continued.

In certain infections, when the causative organisms are unknown, **TIMENTIN** may be administered in conjunction with an aminoglycoside as initial therapy. As soon as results of culture and susceptibility tests become available, antimicrobial therapy should be adjusted as indicated. **TIMENTIN** may also be administered as single medicine therapy in some situations where normally two antibiotics might be employed.

TIMENTIN may be administered perioperatively (preoperatively, intraoperatively and postoperatively) to patients undergoing vaginal hysterectomy, abdominal surgery, and colorectal surgery when there is a significant risk of postoperative infection or where occurrence of postoperative infection is considered to be especially serious.

In patients undergoing caesarean section, intraoperative (after clamping the umbilical cord) and postoperative use of **TIMENTIN** may reduce the incidence of surgery related postoperative infections.

Effective prophylactic use depends on the time of administration. **TIMENTIN** usually should be given one half to one hour before the operation.

Prophylactic administration of **TIMENTIN** should usually be stopped within 24 hours since the continued administration of any antibiotic increases the possibility of adverse reactions, while in the majority of surgical procedures, it does not reduce the incidence of subsequent infection.

If signs of postsurgical infection should appear, specimens for culture should be obtained for identification of the causative organism(s) so that appropriate therapy may be instituted.

Dosage and administration

The usual recommended dosage for average (60kg) adults is 3.1g (3.1g vial containing 3g ticarcillin and 100mg clavulanic acid) every 4 to 6 hours. For patients weighing less than 60kg, the recommended dosage is 200-300mg/kg/day, based on ticarcillin content, given in divided doses every 4 or 6 hours.

For infections complicated by renal insufficiency, an initial loading dose of 3.1g should be followed by doses based on creatinine clearance and type of dialysis as indicated below:

Creatinine Clearance ml/min	Dosage
Over 60	3.1g every 4 hours
30 - 60	2g (based on ticarcillin content) every 4 hours
10 - 30	2g (based on ticarcillin content) every 8 hours
Less than 10	2g (based on ticarcillin content) every 12 hours
Less than 10 with hepatic dysfunction	2g (based on ticarcillin content) every 24 hours
Patients on peritoneal dialysis	3.1g every 12 hours
Patients on haemodialysis	2g (based on ticarcillin content) every 12 hours supplemented with 3.1g after each dialysis

The half-life of ticarcillin in patients with renal failure is approximately 13 hours.

To calculate creatinine clearance* from a serum creatinine value use the following formula.

$$C_{cr} = \frac{(140 - \text{Age})(\text{wt in kg})}{72 \times S_{cr} (\text{mg } 100\text{mL})}$$

This is the calculated creatinine clearance for adult males, for females it is 15% less.

*Cockcroft DW et al. Prediction of creatinine clearance for serum creatinine. Nephron 1976;16:31-41.

Dosage for any individual patient must take into considerations the site and severity of infection, the susceptibility of the organisms causing infection, and the status of the patient's host defence mechanisms.

The duration of therapy depends upon the severity of infection. Generally **TIMENTIN** should be continued for at least 2 days after the signs and symptoms of infection have disappeared. The usual duration is 10 to 14 days; however, in difficult and complicated infections, more prolonged therapy may be required.

For prophylactic use, the following dosages are recommended:

For patients undergoing caesarean section, the first dose of 3.1g is administered intravenously as soon as the umbilical cord is clamped. This is to be followed by 2 additional doses of 3.1g every 4 hours after the first dose for a total of 3 doses.

For patients undergoing abdominal hysterectomy, a dose of 3.1g administered half to one hour prior to the initial incision followed by 2 additional doses of 3.1g every 4 hours for a total of 3 doses.

For patients undergoing abdominal surgery or colorectal surgery, a dose of 3.1g administered intravenously half to one hour prior to the initial incision followed by 2 additional doses of 3.1g every 4-6 hours for a total of 3 doses.

Frequent bacteriologic and clinical appraisal is necessary during therapy of chronic urinary tract infection and may be required for several months after therapy has been completed; persistent infections may require treatment for several weeks and doses smaller than those indicated above should not be used.

In certain infections, involving abscess formation, appropriate surgical drainage should be performed in conjunction with antimicrobial therapy.

Children (2 - 12 years): The daily dose for children should not exceed the adult dosage. The usual recommended dosage for systemic and urinary tract infections is 200 to 300mg/kg/day based on ticarcillin content, given intravenously in divided doses every 4 to 6 hours.

Children under 2 years and neonates: Insufficient data are available to make a dosage recommendation for this group.

Intravenous Infusion:

The 3.1g vial should be reconstituted by shaking with 20mL of Sterile Water for Injection, Sodium Chloride Injection or Sodium Lactate Injection; when dissolved, the concentration of ticarcillin will be approximately 140mg/mL with a corresponding concentration of 4.5mg/mL clavulanic acid.

Conversely, each 7.4mL of the 3.1g dose reconstituted with 20mL of diluent will contain approximately 1g of ticarcillin and 33mg of clavulanic acid.

Alternatively, stock solutions of approximately 200mg/mL and 400mg/mL (based on ticarcillin content) may be prepared by reconstituting the vials with 12mL and 6mL of diluent, respectively.

The dissolved medicine should be further diluted to desired volume using a suitable solution listed below (see Pharmaceutical Particulars). The solution of reconstituted medicine may then be administered over a period of 30 minutes by direct infusion or through a Y-type intravenous infusion set which may already be in place. If this method or the "piggyback" method of administration is used, it is advisable to discontinue temporarily the administration of any other solutions during the infusion of **TIMENTIN**.

When **TIMENTIN** is given in combination with another antimicrobial, such as an aminoglycoside, each medicine should be given separately in accordance with the recommended dosage and routes of administration for each medicine. After reconstitution and prior to administration, **TIMENTIN**, as with other parenteral medicines, should be inspected visually for particulate matter with discolouration.

Contraindications

TIMENTIN contains ticarcillin which is a penicillin, and should not be given to patients with a history of hypersensitivity to beta-lactam antibiotics (eg. penicillins and cephalosporins).

Warnings and precautions

Before initiating therapy with **TIMENTIN**, careful inquiry should be made concerning previous hypersensitivity reactions to beta-lactams (eg. penicillins and cephalosporins).

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 therapy.

These reactions are more likely to occur in individuals with a history of beta-lactam hypersensitivity. If an allergic reaction occurs, the drug should be discontinued and the appropriate therapy instituted. Serious anaphylactoid reactions require immediate emergency treatment with adrenaline. Oxygen, intravenous steroids, and airway management, including intubation, may also be required.

Precautions:

While **TIMENTIN** possesses the characteristic low toxicity of the penicillin group of antibiotics, periodic assessment of organ system functions, including renal, hepatic and hematopoietic function is advisable during prolonged therapy.

Bleeding manifestations have occurred in some patients receiving beta-lactam antibiotics. These reactions have been associated with abnormalities of coagulation tests such as clotting time, platelet aggregation and prothrombin time are more likely to occur in patients with renal impairment. If bleeding manifestations appear, **TIMENTIN** treatment should be discontinued and appropriate therapy instituted.

TIMENTIN has only rarely been reported to cause hypokalemia; however, the possibility of this occurring should be kept in mind particularly when treating patients with fluid and electrolyte imbalance. Periodic monitoring of serum potassium may be advisable in patients receiving prolonged therapy.

Sodium content: The theoretical sodium content is 4.8mEq (111mg) per gram of **TIMENTIN**. This should be included in the daily allowance of patients on sodium restricted diets.

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

In patients with renal impairment, dosage should be adjusted according to the degree of impairment (see Posology and method of administration).

Pregnancy and Lactation**Pregnancy:**

Animal studies with **TIMENTIN** have shown no teratogenic effects. Penicillins are generally considered safe for use in pregnancy. Limited information is available concerning the results of the use of **TIMENTIN** in human pregnancy. The decision to administer any drug during pregnancy should be taken with the utmost care. Therefore **TIMENTIN** should only be used in pregnancy when the potential benefits outweigh the potential risks associated with treatment.

Lactation:

Trace quantities of **TIMENTIN** are excreted in breast milk.

TIMENTIN may be administered during the period of lactation. With the exception of the risk of sensitization, there are no detrimental effects for the breast-fed infant.

Effects on Ability to Drive and Use Machines

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

Adverse effects

Hypersensitivity reactions:

Hypersensitivity effects, including skin rashes: Skin rashes, pruritus, urticaria, and anaphylactic reactions. Bullous reactions (including erythema multiforme, Stevens-Johnson syndrome and toxic epidermal necrolysis) have been reported very rarely.

Gastrointestinal effects:

Nausea, vomiting and diarrhoea have been reported. Pseudomembranous colitis has been reported rarely.

Hepatic effects:

A moderate rise in AST and/or ALT has been noted in patients receiving ampicillin class antibiotics. Hepatitis and cholestatic jaundice have been reported very rarely. These events have been noted with other penicillins and cephalosporins.

Renal and urinary effects:

Hypokalaemia has been reported rarely. Haemorrhagic cystitis has been reported very rarely.

Central Nervous System effects:

Convulsions may occur rarely, particularly in patients with impaired renal function or in those receiving high doses.

Haematological effects:

Thrombocytopenia, leukopenia, eosinophilia have been reported rarely and reduction of hemoglobin. Prolongation of prothrombin time and bleeding time. Bleeding manifestations have occurred.

Local effects:

Pain, burning, swelling and induration at the injection site and thrombophlebitis with intravenous administration.

Interactions

Co-administration of probenecid cannot be recommended. Probenecid decreases the renal tubular secretion of ticarcillin. Concurrent administration of probenecid delays ticarcillin renal excretion but does not delay the excretion of clavulanic acid.

The presence of clavulanic acid in **TIMENTIN** may cause a non-specific binding of IgG and albumin by red cell membranes leading to a false positive Coombs test.

In common with other antibiotics, ticarcillin may affect the gut flora, leading to lower oestrogen reabsorption and reduced efficacy of combined oral contraceptives.

Overdose

Gastrointestinal effects such as nausea, vomiting and diarrhoea may be evident and should be treated symptomatically.

Disturbances of the fluid and electrolyte balances may be evident and may be treated symptomatically.

Ticarcillin and clavulanic acid may be removed from circulation by haemodialysis.

As with other penicillins, **TIMENTIN** overdosage has the potential to cause neuromuscular hyperirritability or convulsive seizures.

Pharmaceutical precautions

Instructions for Use/Handling

When **TIMENTIN** is given in combination with another antimicrobial, such as an aminoglycoside, each drug should be given separately in accordance with the recommended dosage and routes of administration for each drug.

Administration Instructions

Shake the vial/bottle and solvent well to ensure complete dissolution.

If administering by "piggyback" or infusion method, it is advisable to discontinue temporarily the administration of any other solutions during the infusion of **TIMENTIN**.

INTRAVENOUS INFUSION

Dilute the above solution to the desired concentration (10-100mg/mL). Administer over 30 minutes.

3.1g vial (dilution derived from a stock solution of 200mg/mL)

The concentrated stock solution at 200mg/mL is stable for up to 6 hours at room temperature (21-24°C) or up to 72 hours under refrigeration (4°C).

If the concentrated stock solution (200mg/mL) is held for up to 6 hours at room temperature (21-24°C) or up to 72 hours under refrigeration (4°C) and further diluted to a concentration between 10mg/mL and 100mg/mL with any of the diluents listed below, then the following stability periods apply.

STABILITY PERIOD:

Intravenous Solution (Ticarcillin Concentrations of 10mg/mL to 100mL)	Room Temperature (21-24°C)	Refrigerated (4°C)
Dextrose Injection 5%, U.S.P.	24 hours	3 days
Sodium Chloride Injection U.S.P.	24 hours	7 days
Lactated Ringer's Injection U.S.P.	24 hours	7 days

If the concentrated stock solution (200mg/mL) is stored for up to 6 hours at room temperature and then further diluted to a concentration between 10mg/mL and 100mg/mL, solutions of Sodium Chloride Injection, U.S.P., and Lactated Ringer's Injection, U.S.P. may be stored frozen (-18°C) for up to 30 days. Solutions prepared with Dextrose Injection 5%, U.S.P. may be stored frozen (-18°C) for up to 7 days. All thawed solutions should be used within 8 hours or discarded. Once thawed, solutions should not be refrozen.

Incompatibilities

TIMENTIN is incompatible with Sodium Bicarbonate.

TIMENTIN solutions containing lignocaine hydrochloride should not be used for intravenous administration.

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

Shelf Life

TIMENTIN vials should be stored at room temperature or below for a maximum shelf life of 18 months at 25°C.

Special Precautions for Storage

The stock solutions are stable for 6 hours at room temperature or for 72 hours when stored under refrigeration (4°C).

TIMENTIN at concentrations up to 100mg/mL (based on ticarcillin content) in the following solutions will lose less than 10% activity over 24 hours when stored at room temperature: Sterile Water for Injections BP, Sodium Chloride Injection BP, Sodium Lactate Injection BP. Unused solutions should be discarded after the time period stated.

Medicines classification

Prescription Only Medicine

Package quantities

TIMENTIN 3.1g vials are available in packs of 10 vials.

Further information

Nil.

Name and address

GlaxoSmithKline NZ Limited
AMP Centre
Cnr Albert & Customs Streets
Private Bag 106600
Downtown
Auckland
NEW ZEALAND

Telephone: (09) 367 2900

Facsimile: (09) 367 2506

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