Summary of Product Characteristics for Pharmaceutical Products

1. Name of the medicinal product:

FLOXMED ORAL SOLUTION B.P. 125 MG/5ML

2. Qualitative and quantitative composition

After Reconstitution Each 5 ml Contains:
Flucloxacillin Sodium B.P. equivalent to Flucloxacillin 125 mg

Excipients refer to section 6.1

3. Pharmaceutical form

Dry powder for Oral Solution.

4. Clinical particulars

4.1 Therapeutic indications

FLOXMED Oral Solution is indicated for the treatment of infections due to flucloxacillin sensitive gram positive organisms, including β-lactamase-producing staphyloccoci and streptococci.
Typical indications include: Skin and soft tissue infections: Boils Abscesses Cellulitis Infected skin conditions, e.g. ulcer, eczema, and acne Infected burns Protection for skin grafts Carbuncles Impetigo Furunculosis Infected wounds
Respiratory tract infections: Pneumonia Sinusitis Tonsillitis Lung abscess Pharyngitis Quinsy Empyema
Otitis media and external Other infections caused by Flucloxacillin-sensitive organisms: Osteomyelitis Meningitis Urinary tract infection Endocarditis Enteritis Septicaemia Flucloxacillin is also indicated for use as a prophylactic agent during major surgical procedures when appropriate; for example cardiothoracic and orthopedic surgery. Parenteral usage is indicated where oral dosage is inappropriate. Consideration should be given to official local guidance (e.g. national recommendations) on appropriate use of antibacterial agents. Susceptibility of the causative organism to the treatment should be tested (if possible), although therapy may be initiated before the results are available.

4.2 Posology and method of administration

Usual adult dosage (including elderly patients) 500 mg four times a day.
In serious infections, the above systemic dosage may be doubled.
Usual children's dosage
2-10 years: half the adult dose
Under 2 years: quarter the adult dose.

Depends on the age, weight and renal function of the patient, as well as the severity of the infection.

In case of severe renal impairment (creatinine clearance ≤10ml/min) a reduction in dosage may be necessary. Flucloxacillin is not significantly removed by dialysis and hence no supplementary dosages need to be administered either during, or at the end of the dialysis period

Endocarditis or osteomyelitis
Upto 8g daily in divided doses six to eight hourly.

Surgical prophylaxis
1 to 2 g IV at induction of anaesthesia followed by 500mg six hourly IV, IM or orally for upto 72 hours.

Method of administration:
Oral Use. This medicine is administered half to one hour before meals

4.3 Contraindications

Flucloxacillin should not be given to patients with a history of hypersensitivity to flucloxacillin, other β-lactam antibiotics (e.g. penicillins, cephalosporins) or any of the excipients in the capsule. Flucloxacillin is contraindicated in patients with a previous history of flucloxacillin-associated jaundice/hepatic dysfunction.

4.4 Special warnings and precautions for use

The use of Flucloxacillin (like other penicillins) in patients with renal impairment does not usually require dosage reduction. In the presenceof severe renal failure (creatine clearance less than10ml/min), however, a reduction in dose or an extension of dose interval should be considered because of the risk of neurotoxicity. Flucloxacillin is not significantly removed by dialysis and so no supplementary dosages need to be administered either during or at the end of the dialysis period. Hepatitis and cholestatic jaundice have been reported. These reactions are related neither to the dose nor to the route of administration. Flucloxacillin should be used with caution in patients with evidence of hepatic dysfunction, patients ≥50 years of age and those with serious underlying disease all of whom are at increased risk of hepatic reactions. The onset of these hepatic effects may be delayed for up to two months post-treatment. In several cases, the course of reactions has been protracted and lasted for some months.. In these patients, hepatic events may be severe, and in very rare circumstances, deaths have been reported As for other penicillins contact with the skin should be avoided as sensitization may occur. Patients with a known history of allergy are morelikely to develop a hypersensitivity reaction. Prolonged use may occasionally result in overgrowth of non-susceptible organisms. Before initiating therapy with flucloxacillin, careful enquiry should be made concerning previous hypersensitivity reactions to β-lactams. 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. These reactions are more likely to occur in individuals with a history of β-lactam hypersensitivity. Sodium Content: flucloxacillin oral solution contain approximately 51 mg sodium per g of flucloxacillin. This should be included in the daily allowance of patients on sodium restricted diets. Special caution is essential in the new-born because of the risk of hyperbilirubinaemia. Studies have shown that, at high dose following parenteral administration, Flucloxacillin can displace bilirubin from plasma protein binding sites, and may therefore predispose to kernicterus in a jaundiced baby. In addition, special caution is essential in the new-born because of the potential for high serum levels of Flucloxacillin due to a reduced rate of renal excretion. During prolongedtreatments (e.g. osteomyelitis, endocarditis), regular monitoring of hepatic and renal functions is recommended.

4.5 Interaction with other medicinal products and other forms of interaction

Probenecid and sulfinpyrazone slow down the excretion of flucloxacillin by decreasing tubular secretion. Other drugs, such as piperacillin, which are excreted via renal tubular secretion, may interfere with flucloxacillin elimination. In common with other antibiotics, flucloxacillin may affect the gut flora, leading to lower oestrogen reabsorption and reduced efficacy of combined oral contraceptives. Oral typhoid vaccine may be inactivated by flucloxacillin. Flucloxacillin reduces the excretion of methotrexate which can cause methotrexate toxicity. Flucloxacillin may reduce the response to sugammadex. There are rare cases of altered international normalised ratio (INR) in patients taking warfarin and prescribed a course of flucloxacillin. If co-administration is necessary, the prothrombin time or international normalised ratio should be carefully monitored during addition or withdrawal of flucloxacillin. Bacteriostatic drugs may interfere with the bactericidal action of flucloxacillin.

Flucloxacillin (CYP450 inducer) has been reported to significantly decrease plasma voriconazole concentrations. If concomitant administration of flucloxacillin with voriconazole cannot be avoided, monitor for potential loss of voriconazole effectiveness (e.g. by therapeutic drug monitoring); increasing the dose of voriconazole may be needed.

4.6 Pregnancy and Lactation

Pregnancy

Animal studies with flucloxacillin have shown no teratogenic effects. The product has been in clinical use since 1970 and the limited number of reported cases of use in human pregnancy have shown no evidence of untoward effects. The decision to administer any drug during pregnancy should be taken with the most care. Therefore flucloxacillin should only be used in pregnancy when the potential benefits outweigh the potential risks associated with treatment.

Lactation.

Flucloxacillin may be given during lactation. With the exception of the risk of sensitization associated with the excretion of trace quantities of Flucloxacillin in breast milk, there are no known detrimental effects for the breast-fed infant.

4.7 Effects on ability to drive and use machines

No effect on the above. No sedation / drowsiness has been reported

4.8 Undesirable effects

The following convention has been utilized for the classification of undesirable effects: - Very common (>1/10), common (>1/100, <1/10) uncommon (> 1/1000, <1/100), rare (>1/10,000, <1/1000) very rare (<1/10,000) not known (cannot be estimated from the available data). Unless otherwise stated, the frequency of the adverse events has been derived from more than 30 years of post-marketing reports.

Blood and lymphatic system disorders

Very rare:

Neutropenia (including agranulocytosis) and thrombocytopenia. These are reversible when treatment is discontinued. Haemolytic anaemia.

Immune system disorders

Very rare:

Anaphylactic shock (exceptional with oral administration), angioneurotic oedema. If any hypersensitivity reaction occurs, the treatment should be discontinued.

Gastrointestinal disorders

*Common:-Minor gastrointestinal disturbances.

Very rare:-Pseudomembranous colitis. If pseudomembranous colitis develops, flucloxacillin treatment should be discontinued and appropriate therapy, e.g. oral vancomycin should be initiated.

Hepato-biliary disorders

Very rare: - Hepatitis and cholestatic jaundice. Changes in liver function laboratory test results (reversible when treatment is discontinued). These reactions are related neither to the dose nor to the route of administration. The onset of these effects may be delayed for up to two months post treatment; in several cases the course of the reactions has been protracted and lasted for some months. Hepatic events may be severe and in very rare cases, a fatal outcome has been reported. Most reports of deaths have been in patients ≥50 years and in patients with serious underlying disease.

Skin and subcutaneous tissue disorders

*Uncommon:-Rash, urticaria and purpura.

Very rare:-Erythema multiforme, Stevens-Johnson syndrome and toxic epidermal necrolysis.

Musculoskeletal and connective tissue disorders

Very rare: - Arthralgia and myalgia sometimes develop more than 48 hours after the start of the treatment.

Renal and urinary disorders

Very rare: - Interstitial nephritis. This is reversible when treatment is discontinued.

General disorders and administration site conditions
Very rare: - Fever sometimes develops more than 48 hours after the start of the treatment.
*The incidence of these AEs was derived from clinical studies involving a total of approximately 929 adult and paediatric patients taking flucloxacillin.

Reporting of suspected adverse reactions: Healthcare professionals are asked to report any suspected adverse reactions via pharmacy and poisons board, Pharmacovigilance Electronic Reporting System (PvERS) https://pv.pharmacyboardkenya.org

4.9 Overdose

With high doses (mainly parenteral), neurotoxicity may develop. Gastrointestinal effects such as nausea, vomiting and diarrhoea may be evident and should be treated symptomatically. Flucloxacillin is not removed from the circulation by haemodialysis.

5. Pharmacological properties

5.1 Pharmacodynamic properties

Pharmacotherapeutic group: Beta-lactamase resistant penicillins

ATC code: J01CF05

Flucloxacillin is a penicillin beta-lactam antibiotic used in the treatment of bacterial infections caused by susceptible, usually gram-positive, organisms. The name "penicillin" can either refer to several variants of penicillin available, or to the group of antibiotics derived from the penicillins. Flucloxacillin has in vitro activity against gram-positive and gram-negative aerobic and anaerobic bacteria.
The bactericidal activity of Flucloxacillin results from the inhibition of cell wall synthesis and is mediated through flucloxacillin binding to penicillin binding proteins (PBPs).
It is not active against methicillin-resistant staphylococci.
Flucloxacillin is stable against hydrolysis by a variety of beta-lactamases, including penicillinases, and cephalosporinases and extended spectrum beta-lactamases.

5.2 Pharmacokinetic properties

Absorption
Flucloxacillin is stable in acid media and can therefore be administered either by the oral or parenteral route. The peak serum levels of flucloxacillin reached after 1 hour are as follows.

- after 250 mg by the oral route (in fasting subjects): approximately 8.8 mg/l.
- after 500 mg by the oral route (in fasting subjects): approximately 14.5 mg/l.
- After 500 mg by the IM route: Approximately 16.5 mg/l.

The total quantity absorbed by the oral route represents approximately 79% of the quantity administered.

Distribution:
Flucloxacillin diffuses well into most tissues. Specifically, active concentrations of flucloxacillln have been recovered in bones: 11.6 mg/l (compact bone) and 15.6 mg/l (spongy bone), with a mean serum level of 8.9 mg/l.
Crossing the meningeal barrier flucloxacillin diffuses in only small proportion into the cerebrospinal fluid of subjects whose meninges are not inflamed. Crossing into mother's milk: flucloxacillin is excreted in small quantities in mother's milk.
Metabolism: In normal subjects approximately 10% of the flucloxacillin administered is metabolised to penicilloic acid. The elimination half-life of flucloxacillin is 30-60 minutes.
Excretion: The drug is rapidly excreted by the kidney, about 50% within 6 hours of administration. A small portion of the dose administered is excreted in the bile. The excretion of flucloxacillin is stowed in cases of renal failure.
Protein Binding: The serum protein binding rate is 95 %.

5.3 Preclinical safety data

Preclinical data reveal no special hazard for humans based on conventional studies of safety pharmacology, repeated dose toxicity, genotoxicity and toxicity to reproduction.

6. Pharmaceutical Particulars

6.1 List of Excipients

Sodium Benzoate
Sodium Citrate
Sugar
Flavour pineapple dry mix
Aspartame

6.2 Incompatibilities

N/A

6.3 Shelf-Life

Before openning: 2years from date of manufacture.
After opening: 7 Days after reconstitution when stored in refrigerator at 2 to 80 C

6.4 Special Precautions for storage

Store below 30°c in a cool dry place.
Always keep the amber bottle enclosed in the unit packet to protect from light.
Keep out of reach of children.

6.5 Nature and Content of container

In a white Opaque Virgin High Density Propylethelene bottle in a printed unit carton with literature inserts.

6.6 Special precautions for disposal and other handling

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

7. Marketing Authorization Holder

MEDIVET PRODUCTS LIMITED
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8. Marketing Authorization Number

CTD9270

9. Date of first authorization/renewal of the authorization

18/04/2024

10. Date of revision of the text

05/05/2025