VI.2 Elements for a Public Summary

The active ingredient of this medicinal product is called flucloxacillin. Flucloxacillin is a semisynthetic penicillin antibiotic. It inhibits bacterial cell wall synthesis and kills penicillin susceptible bacteria that are in the growth phase.

VI.2.1 Overview of disease epidemiology

Flucloxacillin Orion is indicated for the treatment of infections caused by staphylococci, *e.g.* skin and soft tissue infections, bone/joint and lung infections, *e.g.* pneumonia, acute exacerbations of chronic bronchitis.

Usually staphylococci infections are caused by bacteria that normally exist in skin or in the nose of even healthy individuals. Most of the time, these bacteria cause no problems or result in relatively minor skin infections. But these infections can turn deadly if the bacteria invade deeper into the body, entering bloodstream, joints, bones or lungs. There are three main reasons that predispose a person to such infections. First reason is locally impaired immunity *e.g.* due to wound, surgery or reduced blood circulation. The second reason is generally impaired immunity like in immunocompromised persons *e.g.* neonates, diabetic patients, persons with severe infections or other severe illnesses and patients receiving immunosuppressants. The third reason is that some bacterial strains are very infective *e.g.* bacteria that cause impetigo or hospital infections.

Staphylococci infections may easily lead to complications, therefore appropriate and effective treatment is important. Immunocompromised persons are more prone to such complications. If staphylococcal bacteria invades the bloodstream, it may lead to a type of infection called sepsis that affects the entire body and may lead to death.

VI.2.2 Summary of treatment benefits

Penicillinase is an enzyme that is produced by certain bacteria, including most strains of staphylococci. Penicillinase destroys penicillin antibiotics. However, some penicillins, like flucloxacillin, are resistant to its effects making flucloxacillin suitable antibiotic therapy in infections caused by penicillinase producing staphylococci strains. Flucloxacillin is usually also effective against following bacteria strains: *staphylococcal aureus* (S.aureus) methicillin-suspectible, streptococci especially group C and G and, *streptococcus pyogenes*. Staphylococcal infections are a common and significant clinical problem in medical practice. Most strains of S.aureus are resistant to penicillin, and methicillin-resistant strains of S. aureus (MRSA) are common in hospitals and are emerging in the community. Penicillinase-resistant penicillins (flucloxacillin) remain the antibiotics of choice for the management of methicillin-susceptible S. aureus (MSSA) infections.

VI.2.3 Unknowns relating to treatment benefits

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 types of infections is questionable.

VI.2.4 Summary of safety concerns

Important identified risks

Risk	**What is known**	**Preventability**
Allergic reactions (Hypersensitivity/anaphylactic reactions)	Cross-allergy between penicillins, such as flucloxacillin, and cephalosporins is possible. This means that if the patient gets allergic reaction *e.g.* from cephalosporin type of antibiotic, he/she may also get allergic reaction from flucloxacillin.	Patients with hypersensitivity/allergy to penicillin or cephalosporins or to any of the other ingredients of this medicinal product should not use Flucloxacillin Orion. Before starting the treatment with flucloxacillin, it is important to tell the doctor about any previous allergic/hypersensitivity reactions to antibiotics. If an allergic reaction occurs (*e.g.* swelling of face, tongue or throat, difficulty in swallowing, breathing difficulties or redness/rash) therapy with Flucloxacillin Orion needs to be stopped. Doctor should be contacted immediately for appropriate treatment.
Liver toxicity/injury (Hepatotoxicity)	Older patients especially those with underlying liver disease and those who receive flucloxacillin for longer periods are at greater risk of flucloxacillin induced liver damage and jaundice (yellowness of skin and eyes). These liver events may get severe and in very rare circumstances, deaths have been reported. There is evidence that that the risk of flucloxacillin induced liver injury is increased in patients having a peculiar type of genetic make-up (*i.e.* HLA-B*5701 allele). However, routine screening of this allele is not recommended due to low predictive value of this test for detecting liver injury.	Before starting the treatment with flucloxacillin, doctor should be informed if the patient is elderly, has any history of liver disease or has received flucloxacillin for a long period.

Risk	**What is known**	**Preventability**
Bowel inflammation (colitis) and increased stool frequency (diarrhoea) associated with antibiotic therapy (Pseudomembranous colitis)	Antibiotic-associated bowel inflammation and diarrhoea may occur during flucloxacillin therapy. Patients with diarrhoea must therefore be closely monitored.	It is important to contact the doctor in case of diarrhoea during antibiotic therapy or soon after.

VI.2.5 Summary of risk minimisation measures by safety concern

All medicines have a Summary of Product Characteristics (SmPC) which provides physicians, pharmacists and other health care professionals with details on how to use the medicine, the risks and recommendations for minimising them. An abbreviated version of this in lay language is provided in the form of the package leaflet (PL). The measures in these documents are known as routine risk minimisation measures. The Summary of Product Characteristics and the Package leaflet for Flucloxacillin Orion can be found in the national authority's web page.

This medicine has no additional risk minimisation measures.

VI.2.6 Planned post authorisation development plan (if applicable)

Not applicable.

VI.2.7 Summary of changes to the risk management plan over time

Not applicable.