Ethambutol Orion 500 mg tablets
Date: 21.10.2016, Version 1.1
PUBLIC SUMMARY OF THE RISK MANAGEMENT PLAN

VI.2 Elements for a Public Summary

VI.2.1 Overview of disease epidemiology

Ethambutol is indicated in the treatment of tuberculosis. Tuberculosis is a potentially serious infectious disease that mainly affects lungs, but can also affect other parts of the body, including kidneys, spine or brain. Infection can be in inactive state (latent tuberculosis) or active state (active tuberculosis).

Tuberculosis is not easy to catch, although it is contagious. The bacteria that cause tuberculosis (*Mycobacterium tuberculosis*) are spread from one person to another through tiny droplets released into the air. This can happen when someone with the untreated, active form of tuberculosis coughs, speaks, sneezes, spits, laughs or sings. People with weakened immune system are more prone to get tuberculosis e.g. people with HIV infection/AIDS, diabetes, end-stage kidney disease, certain cancers and chemotherapy, drugs to prevent rejection of transplanted organs, high dose corticosteroids, malnutrition and very young or advanced age

Tuberculosis is a worldwide infectious disease. In 2014, the WHO estimated 9.6 million new tuberculosis cases, with one million children aged 0 – 14 years being affected. The Western Pacific and the South-East Asia regions accounted for 58% of the new tuberculosis cases in 2014. In the European Region more than 300,000 tuberculosis cases were notified according to the WHO Global Tuberculosis Report 2015.

VI.2.2 Summary of treatment benefits

With a timely diagnosis and correct treatment tuberculosis is a curable disease. The WHO estimates that 43 million lives could be saved with the diagnosis and treatment of tuberculosis between the years 2000 and 2014.

After a few weeks of treatment, the patient won't be contagious anymore and may start to feel better.

Stopping treatment too soon or skipping doses can allow the bacteria that are still alive to become resistant to those drugs, leading to tuberculosis that is much more dangerous and difficult to treat.

Without treatment, tuberculosis can be fatal.

VI.2.3 Unknowns relating to treatment benefits

Not applicable.

VI.2.4 Summary of safety concerns

Important identified risks

Risk	What is known	Preventability
Allergic/hypersensitive reactions including severe reactions (Hypersensitivity, anaphylaxis)	Allergic reactions including severe hypersensitivity reactions (anaphylactic shock) may occur. Allergic skin reactions (redness of the skin, skin rash, itching) are also possible.	Patients sensitive to ethambutol or any other ingredients of the product must not use this medicine. Doctor should be contacted if any unusual symptoms appear. Severe allergic reactions such as anaphylactic shock require immediate medical care.
Visual disturbances	Inflammation of the optic nerve may occur during treatment. This can manifest as red-green colour blindness, visual field defects, reduced sharpness of vision or even loss of vision.	Patients with problems with their eyesight (pre-existing damage of the optic nerve, optic nerve inflammation, recurrent eye inflammation, cataracts, shrinkage of optic nerve tissue, retina disease caused by diabetes) must not use this medicine, if ophthalmological check-ups cannot be reliably performed. Patients are advised to seek medical assistance and immediately report problems with their eye sight to their doctor.
Increased level of uric acid in the blood (Hyperuricemia)	Ethambutol decreases the secretion of uric acid. Treatment with ethambutol might therefore cause joint pain or gout attacks for some of the patients.	Ethambutol may be used only after careful consideration of the benefits and risks in patients with pre-existing gout or/and high uric acid levels. Doctor should be contacted if any unusual symptoms appear.
Inflammatory changes in the lungs (Pneumonitis)	Isolated cases of allergy-induced inflammatory changes in the lungs (allergic pneumonitis) have been reported.	Patients are advised to talk to their doctor or pharmacist if they experience any side effects.
Severe hepatic reactions	Liver damage, yellow skin/eye whites (jaundice) and abnormal liver function tests may occur.	Liver function can be monitored with laboratory test in order to detect adverse effects early. Doctor should be contacted if any unusual symptoms appear.

Severe skin reactions	Isolated cases of severe skin reactions have been reported, such as Stevens-Johnson syndrome (skin redness, blisters in mouth, throat and genital area), toxic epidermal necrolysis (a condition where the top layer of skin dies and becomes detached) and DRESS (also known as drug induced hypersensitivity syndrome with symptoms of fever and rash etc.)	If symptoms appear patients should seek immediate medical assistance.
Drug interaction with aluminium hydroxide	Taking Ethambutol hydrochloride together with aluminium-containing antacids (medicines used to treat excess acid levels in the stomach) can result in reduced absorption (uptake) of ethambutol into the body.	Patients are advised to tell their doctor or pharmacist if they are taking, might take or have taken other medicines. Patients are advised to keep an interval of at least four hours between taking Ethambutol hydrochloride and aluminium-containing antacids.
Severe blood related adverse reactions (Severe haematological reactions)	Leukopenia (a decrease in white blood cells), thrombocytopenia (a decrease in blood platelets), neutropenia (a decrease in certain white blood cells) and eosinophilia (an increase in certain white blood cells) have been reported in association with ethambutol therapy. Symptoms can be e.g. easy bruising or bleeding, increased susceptibility to infection.	Blood values can be monitored with laboratory tests to detect problems in an early phase. Doctor should be contacted if any unusual symptoms appear.
Adverse effects on kidneys (Nephrotoxicity, interstitial nephritis)	Kidney damage and interstitial nephritis (a specific type of kidney inflammation) may occur.	Kidney function can be monitored with laboratory tests to detect problems early. Doctor should be contacted if any unusual symptoms appear.

Important potential risks

Risk	What is known (Including reason why it is considered a potential risk)
Numbness, burning or prickling sensation felt in the hands, arms, legs, or feet (Numbness and paraesthesia of the extremities)	Numbness, burning pain, weakness of arms and legs may occur during treatment. Those can be symptoms of nerve disorder.

Missing information

Risk	What is known
Use in women who are expecting a baby (Use in pregnancy)	Ethambutol crosses the placenta. Animal studies have shown a teratogenic (causing developmental malformations) potential for ethambutol at high doses. Ethambutol should only be used during pregnancy after careful consideration of the benefit-risk ratio.
Use in women who are breast-feeding (Use in lactation)	Ethambutol is excreted in human milk. Information of use during breastfeeding is limited. Ethambutol treatment does not usually prevent breastfeeding. However, careful consideration of the benefit-risk ratio is essential.

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 this medicinal product 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.