VI.2 Elements for a Public Summary

VI.2.1 Overview of disease epidemiology
Allopurinol belongs to a class of medicines called xanthine oxidase inhibitors. It works by reducing the production of uric acid in the body. High levels of uric acid may cause gout attacks or kidney stones. Gout is a complex form of arthritis and can affect anyone. Men are more likely to get gout, but women become increasingly susceptible to gout after menopause. Gout is characterized by sudden, severe attacks of pain, redness and tenderness in joints, often in the joint at the base of the big toe.

Gout appears when uric acid builds up in the body. Eating plenty of certain types of foods, using certain types of medicines, and having treatment for cancer, can all make the uric acid level higher. Uric acid comes from the breakdown of substances called purines. Purines are in body's tissues and in foods, such as liver, dried beans and peas, and anchovies. Normally, uric acid dissolves in the blood. It passes through the kidneys and out of the body in urine. Sometimes uric acid can build up and form needle-like crystals. When they form in joints, it is very painful.

The crystals can also cause kidney stones. Kidney stones are small, hard deposits that are formed inside the kidneys from mineral and acid salts that exist in the urine. Often, stones develop when the urine becomes concentrated, allowing minerals to crystallize and stick together. A kidney stone may be as small as a grain of sand or as large as a pearl. Most kidney stones pass out of the body, but sometimes they may get stuck in the urinary tract, block the flow of urine and cause great pain.

VI.2.2 Summary of treatment benefits.
Allopurinol is used to prevent or treat high uric acid levels in the blood. It reduces the amount of uric acid in the body by blocking one of the processes that makes it. This helps to stop the level of uric acid in the blood from becoming too high and causing problems like gout or kidney stones.

VI.2.3 Unknowns relating to treatment benefits
Not applicable.
### Summary of safety concerns

#### Important identified risks

<table>
<thead>
<tr>
<th>Risk</th>
<th>What is known</th>
<th>Preventability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Serious hypersensitivity (allergic) reactions and increased risk for certain serious skin reactions in people of Han Chinese or Thai origin</td>
<td>Serious hypersensitivity reactions involving fever, skin rash, joint pain, and abnormalities in blood and liver function tests (these may be signs of a multi-organ sensitivity disorder) are rare possible adverse reactions.</td>
<td>This medicinal product should not be used in patients who are hypersensitive to allopurinol or to any of the other ingredients of this medicinal product.</td>
</tr>
<tr>
<td>Serious skin rashes (Stevens-Johnson syndrome, toxic epidermal necrolysis) have been reported with the use of allopurinol. Frequently, the rash can involve ulcers of the mouth, throat, nose, genitals and conjunctivitis (red and swollen eyes). These serious skin rashes are often preceded by influenza-like symptoms fever, headache, body ache (flu-like symptoms). The rash may progress to widespread blistering and peeling of the skin. These serious skin reactions can be more common in people of Han Chinese or Thai origin. Very rarely acute anaphylactic shock has been reported. It is a severe disorder that can be life-threatening without prompt treatment.</td>
<td>The patient should stop taking Allopurinol Orion and contact a doctor immediately if s/he experiences: * an unexpected skin reaction (possibly in association with fever, swollen glands, joint pain, unusual blistering or bleeding, kidney problems or a sudden onset of fits).</td>
<td></td>
</tr>
<tr>
<td>Concomitant administration of ampicillin/amoxicillin</td>
<td>An increase in frequency of skin rash has been reported among patients receiving ampicillin or amoxicillin concurrently with allopurinol compared to patients who are not receiving both drugs. The cause of the reported association has not been established.</td>
<td>If the patient has an allergic reaction, s/he must stop taking allopurinol and see a doctor straight away. The signs may include: * skin rash, flaking skin, boils or sore lips and mouth * swelling of the face, hands, lips, tongue or throat * difficulty swallowing or breathing * very rarely signs may include sudden wheeziness, fluttering or tightness of the chest and collapse. The patient must not take any more tablets unless doctor tells to do so.</td>
</tr>
</tbody>
</table>

#### Important potential risks

<table>
<thead>
<tr>
<th>Risk</th>
<th>What is known (Including reason why it is considered a potential risk)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Concomitant administration of ampicillin/amoxicillin</td>
<td>An increase in frequency of skin rash has been reported among patients receiving ampicillin or amoxicillin concurrently with allopurinol compared to patients who are not receiving both drugs. The cause of the reported association has not been established.</td>
</tr>
</tbody>
</table>
### Risk Management Plan

**Allopurinol Orion (SE/H/1394/001-002/DC)**

#### Risk

<table>
<thead>
<tr>
<th>Administration during pregnancy and lactation</th>
<th>What is known</th>
</tr>
</thead>
<tbody>
<tr>
<td>There is inadequate evidence of safety of allopurinol in human pregnancy. Animal reproductive toxicity studies have shown conflicting results. Reports indicate that allopurinol and oxipurinol are excreted in human breast milk. However, there are no data concerning the effects of allopurinol or its metabolites on the breast-fed baby.</td>
<td></td>
</tr>
</tbody>
</table>

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**Important missing information**

Reports indicate that allopurinol and oxipurinol are excreted in human breast milk. However, there are no data concerning the effects of allopurinol or its metabolites on the breast-fed baby.

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**VI.2.1 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 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.

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**VI.2.2 Planned post authorisation development plan**

Not applicable.

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**VI.2.3 Summary of changes to the Risk Management Plan over time**

Not applicable.