VI.2 Elements for a public summary

VI.2.1 Overview of disease epidemiology

Hypercholesterolaemia is a group of disorders in which the amount of cholesterol in the blood circulation is abnormally high. In some individuals, a high cholesterol concentration in the blood is caused by an inherited genetic defect known as familial hypercholesterolaemia (FH). Raised cholesterol concentrations in the blood are present from birth and lead to the early development of blood vessel narrowing and heart disease (atherosclerosis and coronary heart disease). The disease is transmitted from generation to generation in such a way that brothers and sisters and the children of a person with FH have a 50 per cent risk of also having FH.

The number of people affected by familial hyperlipidaemia varies from country to country. In the United Kingdom, it is estimated that 1 in 500 individuals are affected. The increased blood cholesterol concentrations that characterise the most common form of FH leads to a greater than 50% risk of coronary heart disease by the age of 50 years in men and at least 30% in women by the age of 60 years.

VI.2.2 Summary of treatment benefits

Early detection and treatment of hypercholesterolaemia has been shown to reduce the development of blood vessel and heart disease in FH thereby reducing symptoms and enabling patients to potentially live longer lives.

Initial treatment may consist of diet and other non-drug treatments such as exercise and weight reduction. When these treatments are not adequate to reduce cholesterol levels, then drug treatment may be needed.

Rosuvastatin belongs to a group of drugs called "statins" or "HMG-CoA reductase inhibitors". They work by interfering with the way that the body makes cholesterol in the liver.

VI.2.4 Summary of safety concerns

Important identified risks

Risk	What is known	Preventability
Effects on the muscles used for body movements.	A range of muscle complaints have been reported; from muscle aching, to muscle inflammation (myositis) and rarely muscle protein break down called "rhabdomyolysis". This most severe form of muscle disorder may be accompanied by fever and by kidney failure. These muscle effects are in part related to dose, occurring more commonly in patients on higher doses.	Early detection of muscle effects and either dose reduction and or drug withdrawal may prevent worsening of the condition. In patients with suspected muscle damage, blood tests (CPK) can be performed to confirm a suspicion of muscle damage and help decide if the drug should be stopped.
Allergic reactions including swelling of the face and throat (angioedema).	Rare cases of allergic reaction have been reported.	Allergy to rosuvastatin is not predictable and therefore cannot be prevented. Rapid treatment withdrawal and appropriate anti-allergy treatments may reverse the condition stopping it from worsening.
Diabetes	There is evidence that all statin drugs may increase the amount of sugar (glucose) in the blood, and in some this may be high enough to need anti-diabetic treatment. However, the this risk is outweighed by the benefits of statin treatment in reducing the risk of blood vessel and heart disease.	Blood glucose should be monitored in "at risk patients", i.e. those that have high fasting levels of glucose, who's body mass index (BMI) is high, patients with increased blood triglyceride levels, and patients with high blood pressures. If blood glucose levels are persistently increased, anti-diabetic treatments should be used rather than stopping the statin treatment.
Bouts of severe abdominal pain due to inflammation of the pancreas (Pancreatitis).	This condition has been reported to occur rarely in patients treated with rosuvastatin.	Unlikely to be predictable and therefore not preventable.

Important potential risks

Risk	What is known (Including reason why it is considered a potential risk)
Inflammation, stiffening and scarring to lung tissues leading to difficulty breathing, dry cough, weight loss and fever (Interstitial lung disease).	Very rarely, cases of lung disease have been reported with other statin drugs, especially during long-term treatment. It is not certain if this effect will also be seen with rosuvastatin.
Abnormal liver function and liver disease.	As with other statin treatment, rosuvastatin may be associated with mild changes in liver function which are not accompanied by symptoms and are short-lived. There have been very rare reports of more serious liver disease and it is uncertain if these were caused by rosuvastatin.
Swelling of the breast tissues in male patients (Gynaecomastia).	Very rare cases of breast swelling have been reported - it is uncertain if these were caused by rosuvastatin.
Muscle disease and damage caused by an immune reaction.	This is another type of muscle damage reported rarely, affecting certain types of muscle and occurring either on treatment or following withdrawal of treatment. Additionally testing might be needed to confirm the correct diagnosis and treatment with drugs that suppress the immune system may be required .
Severe skin reactions with blistering and skin loss.	As with many other drugs and statins, mild skin reactions such as itching, rashes and "hives" occur uncommonly. Severe skin reactions have also been reported, although it is not known how commonly this occurs nor is it certain if rosuvastatin caused these reactions.
Tendon disorders including tendon rupture	Disorders of tendons (sinews) which attach muscles to bones have been reported with other statins; occasionally this is associated with the tendon tearing. It is not known if this may also be seen with rosuvastatin.

Important missing information

Risk	What is known
Long-term treatment experience in children and adolescents.	The effects of rosuvastatin in children from age 10 to 17 years has only been studied for up to 1 year of treatment. Although no adverse effects on growth, development and puberty were seen the effect of longer-treatment duration likely to be needed in children with genetic forms of hypercholesterolaemia is not known.
Experience in breast feeding	Rosuvastatin should not be used by breast-feeding women as the potential for risk to the baby out-weigh the possible benefits. Rosuvastatin is excreted in the breast-milk of rats, but it is not known if this also occurs in humans.
Experience in pregnancy	Rosuvastatin should not be used during pregnancy as the potential for risk to the baby out-weigh the possible benefits.

Risk	What is known
Experience in patients with severely damaged livers.	In patients with moderately severe liver damage, the amount of rosuvastatin that is in the circulation is increased which may be accompanied by adverse effects. There is no experience of rosuvastatin in patients with severely damaged livers to determine the appropriate dose or relative safety in such patients.

VI.2.5 Summary of additional risk minimisation measures by safety concern

Rosuvastatin, like other statin drugs has been used extensively in clinical practice. The safety profile of this medicine has been clearly established in the treatment of high cholesterol levels and prevention of blood vessel and heart disease. No new or unexpected safety concerns have been discovered. Accordingly, no risk minimisation measures other than routine information provision through the Summary of Product Characteristics and Patient Information Leaflets have been considered necessary.

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

None are planned

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

Not applicable.