VI.2 Elements for a public summary

VI.2.1 Overview of disease epidemiology

Schizophrenia:

Schizophrenia is a severe mental illness that has a number of symptoms including disorganized thinking and speech, hallucinations (hearing or seeing things that are not there), suspiciousness and delusions (mistaken beliefs), that typically appears in adulthood. Men and women are affected equally though symptoms appear slightly earlier in men than in women. In Europe about 15 in every 100,000 people (0.015%) are newly diagnosed with schizophrenia each year, and it is thought that about 1 in every 100 people (1%) have the disease at any one time.

Bipolar disorder:

Bipolar I disorder is a serious medical illness that causes shifts in mood, energy, and ability to function. Twelve-month occurrence of bipolar I disorder across the world ranged from 0.0% to 0.6%. The lifetime male-to-female occurrence ratio is approximately 1.1:1. Mean age is approximately 18 years for bipolar I disorder. Bipolar disorder is more common in high-income than in low-income countries. Separated, divorced, or widowed individuals have higher rates of bipolar I disorder than do individuals who are married or have never been married. There is an average 10-fold increased risk among adult relatives of individuals with bipolar I and bipolar II disorders. Metabolic syndrome and migraine are more common among individuals with bipolar disorder have an alcohol use disorder, and those with both disorders are at greater risk for suicide attempt.

VI.2.2 Summary of treatment benefits

Quetiapine is an antipsychotic medicine which is used to treat schizophrenia (where you may hear or feel things that are not there, believe things that are not true or feel unusually suspicious, anxious, confused, guilty, tense or depressed), mania (where you may feel very excited, elated, agitated, enthusiastic or hyperactive or have poor judgment including being aggressive or disruptive), bipolar depression and major depressive episodes in major depressive disorder (where you may feel sad all the time or you may find that you feel depressed, feel guilty, lack energy, lose your appetite or can't sleep).

Schizophrenia:

The effectiveness of quetiapine in the treatment of schizophrenia was demonstrated in patients who met DSM-IV criteria (measuring criteria for mental illness) for schizophrenia. Quetiapine 400 mg/day, 600 mg/day and 800 mg/day were associated with statistically significant improvements in psychotic symptoms compared to placebo. In patients stabilised on Quetiapine immediate-release tablet 400 mg to 800 mg, effectiveness was maintained when patients were switched to an equivalent daily dose of quetiapine given once daily.

Bipolar Disorder:

In the treatment of moderate to severe manic episodes, quetiapine demonstrated superior efficacy to placebo in reduction of manic symptoms at 3 and 12 weeks, in two monotherapy studies.

VI.2.3 Unknowns relating to treatment benefits

The safety and effectiveness of quetiapine has not been studied in pregnant and lactating women, patients of different or certain ethnic or racial origin, patient on concomitant cardiovascular medication or valproic acid and long-term exposure and malignancies.

VI.2.4 Summary of safety concerns

Important identified risks

Risk	What is known	Preventability
Increase in the level of sugar in blood (Hyperglycaemia and diabetes)	People taking quetiapine may commonly (may affect less than 1 in 10 patient) developed high blood sugar. People taking quetiapine very rarely (affect less than 1 in 10,000 patients) developed high blood sugar or worsening of pre-existing diabetes. Some side effect like sugar in blood is only seen when a blood test is taken.	The patient should inform the doctor in case of diabetes or is at a risk of getting diabetes. The doctor may check the blood sugar levels while the patient is taking quetiapine. Therefore, your doctor may ask you to have blood tests from time to time.
Decreases in thyroid hormone levels (Hypothyroidism)	People taking quetiapine may uncommonly (affects 1 in 100 patients) developed decreases in thyroid hormone levels. Some side effect like changes in the amount of thyroid hormones in the blood is only seen when a blood test is taken. Changes in thyroid function tests have also been observed in children and adolescents.	If you have thyroid disorder, please tell the same to doctor. Your doctor may check the blood thyroid hormone levels while you are on quetiapine treatment. Therefore, your doctor may ask you to have blood tests from time to time.

Risk	What is known	Preventability
Increased blood pressure in paediatric population	Increase in blood pressure is very common and affect more than 1 in 10 children and adolescents patients.	Please tell the doctor or pharmacist if your child having increase in blood pressure.
Severe reduction in the number of white blood cells (Agranulocytosis)	Quetiapine can lead to severe reduction in the number of white blood cells (agranulocytosis).	You havehad low levels of white blood cells in the past (which may or may not have been caused by other medicines) you should inform to your doctor before taking quetiapine.
Change in electrical activity of the heart seen on ECG (QT prolongation)	People taking quetiapine uncommonly (affect 1 in 100 patients) experienced change in electrical activity of the heart seen on ECG (QT prolongation). QT prolongation was reported with quetiapine at the therapeutic doses and in overdose.	Before you take the medicine, tell your doctor if you, or someone in your family have or had any heart problems such as a very fast heart beat or prolonged QT on an ECG (heart tracing), or if you are taking any medicines that may have an impact on the way your heart beats. If you notice this side effect, please tell your doctor or pharmacist.
Metabolic risk factors	People taking quetiapine very	Your doctor will do weight

Risk	What is known	Preventability
	rarely (affect less than 1 in 10,000 patients) experienced metabolic syndrome. Weight gain has been seen in patients taking quetiapine. Quetiapine can cause changes in the amount of certain fats (triglycerides and total cholesterol) or sugar in the blood, decreases in the number of certain types of blood cells, decrease in the amount of sodium in the blood and increases in the amount of the hormone prolactin in the blood	measurement and blood tests at regular interval while you were on quetiapine treatment.
Obstruction of a blood vessel by a blood clot (Venous thromboembolism)	rarely (affect less than 1 in 1,000 patients) cause blood	Before you take the medicine, tell your doctor if you or someone in your family have or had any history of blood clots, as medicines like quetiapine have been associated with formation of blood clots.
Inflammation of pancreas	Patient taking quetiapine	

Risk	What is known	Preventability
(Pancreatitis)	rarely (affect less than 1 to 1,000 patients) experienced inflammation of pancreas which causes severe pain in the abdomen and back.	During your treatment with quetiapine if you experienced severe pain in the abdomen and back, fever, nausea and vomiting, you should contact your doctor or pharmacist immediately. This can be symptoms of Pancreatitis.
Movement disorders caused by abnormalities in the part of the brain that coordinates movement (Extrapyramidal symptoms)	Patient taking quetiapine very commonly (affect more than 1 to 10 patients) experienced abnormal muscle movements. These include difficulty starting muscle movements, shaking, feeling restless or muscle stiffness without pain. These symptoms occurred at a higher frequency in children and adolescents compared to adults. Neonates exposed to Quetiapine during the third trimester of pregnancy are at risk of shaking, muscle stiffness and/or weakness, sleepiness, agitation, breathing problems and difficulty in feeding that may vary in	If your baby develops shaking, muscle stiffness and/or weakness, sleepiness, agitation, breathing problems and difficulty in feeding you may need to contact his/her doctor.

Risk	What is known	Preventability
	severityanddurationfollowingdelivery.Consequently,newbornsshould be monitored carefully.	
Involuntary movements of the face and jaw (Tardive dyskinesia)	People taking quetiapine uncommonly (affect 1 in 100 patients) experienced uncontrollable movements, mainly of your face or tongue (Tardive dyskinesia).	Tell your doctor if you experience uncontrollable movements, mainly of your face or tongue.
Sleepiness (Somnolence)	People taking quetiapine very commonly (affect more than 1 in 10 patients) feeling sleepy (this may go away with time, as you keep taking Quetiapine Tablets) (may lead to falls).	Tell your doctor if you feeling of severe sleepiness. This could increase the risk of accidental injury (fall) in elderly patients. Tell your doctor if you are taking barbiturates (for difficulty sleeping). Be careful how much alcohol you drink. This is because the combined effect of quetiapine tables and alcohol can make you feel sleepy. If you take more Quetiapine tablets than prescribed by your doctor, you may experience

Risk	What is known	Preventability
		sleepiness.
Fainting and low blood pressure that happens when you stand up from sitting or lying down (Syncope and orthostatic hypotension)	People taking quetiapine very commonly (affect more than 1 in 10 patients) experienced low blood pressure when standing up. This may make you feel dizzy or faint (may led to falls) People taking quetiapine uncommonly (affect 1 in 100 patients) experienced fainting (may lead to falls). People taking quetiapine uncommonly (affect 1 in 100 patients) experienced a slower than normal heart rate which may occur when starting treatment and which may be associated with low blood pressure and fainting.	Before you take quetiapine, tell your doctor if you have low blood pressure. Tell your doctor if you experience decrease in blood pressure during the treatment.
Seizure	People taking quetiapine uncommonly (affect 1 in 100 patients) experienced fits or seizures.	Before you take quetiapine, tell your doctor if you have ever had a fit (seizure). Tell your doctor if you experience fits (seizures) during treatment.

Risk	What is known	Preventability
Abnormally low count of neutrophils (Neutropenia)	In one study, severe neutropenia (neutrophil count <0.5 X 10 ⁹ /L) has been uncommonly reported with quetiapine tablets. Cases of severe neutropenia have occurred within a couple of months of starting therapy with quetiapine tablets. People taking quetiapine very commonly (affect less than 1 in 10 patients) developed decreased neutrophil count.	During the treatment with quetiapine, your doctor may ask for blood test to measure neutrophil count Your doctor may discontinue the treatment if neutrophil count <1.0 X 10 ⁹ /L.
Weight gain	People taking quetiapine very commonly (affect more than 1 in 10 patients) putting on weight.	If you taking quetiapine, you and your doctor should check your weight regularly. Tell your doctor if you putting on weight.
Lipid changes (increased cholesterol (including increased LDLs), increased triglycerides, and decreased HDLs)	Some side effect like changes in the amount of certain fats (triglycerides and total cholesterol) is only seen when a blood test is taken. Increases in triglycerides, LDL and total cholesterol, and decreases in HDL cholesterol	During the treatment with quetiapine your lipid has been change, you should contact your doctor or pharmacist immediately. During the treatment with quetiapine, your doctor may ask for blood test to measure

Risk	What is known	Preventability
	have been observed with quetiapine. In some patients, a worsening of more than one of the metabolic factors of lipids was observed in clinical studies.	lipid level and for actual observation and treatment.
Abnormally high levels of prolactin in the blood (Hyperprolactinaemia)	People taking quetiapine very commonly (affect more than 1 in 10 patients) increases in the amount of hormone call prolactin in the blood. Increasing amount of hormone call prolactin in rare cases can lead to the following: - Swelling of the breasts and unexpected lactation in boys and girls. - The absence or irregularity of menstruation in girls. Elevations in serum prolactin were reported with higher frequency in children and adolescents than in adult patients. Some side effect like increases in the amount of the hormone	If you taking quetiapine, your doctor should check your prolactin level regularly.

Risk	What is known	Preventability
	prolactin in the blood is only seen when a blood test is taken.	
Allergic reaction (Anaphylactic reaction)	People taking quetiapine uncommonly (affect 1 in 100 patients) experienced allergic reactions that may include raised lumps (weals), swelling of the skin and swelling around the mouth. People taking quetiapine very rarely (affect less than 1 in 10,000 patients) experienced severe allergic reaction (called anaphylaxis) that may include difficulty in breathing, dizziness and collapse.	Do not take Quetiapine Tablets if you are allergic (hypersensitive) to quetiapine or any of the ingredients of quetiapine tablets.
Inflammation of the liver with and without yellowing of the skin and eyes (Hepatitis with or without jaundice)	People taking quetiapine rarely (affect less than 1 in 1,000 patients) experienced hepatitis (inflammation of the liver) and jaundice (yellowing of the skin and eyes).	Before you take your medicine, tell your doctor if you have problems with your liver. Your doctor may start your treatment on a lower dose and increase the dose slowly if you have liver problems.
A form of toxic epidermal	People taking quetiapine very	Tell your doctor if you

Risk	What is known	Preventability
necrolysis, in which cell death causes the epidermis to separate from the dermis (Stevens johnson syndrome)	rarely (affect less than 1 in 10,000 patients) developed a severe rash, which may develop quickly. Symptoms may include redness, blistering or peeling of the skin, with possible	experience a form of toxic epidermal necrolysis, in which cell death causes the epidermis to separate from the dermis.
Neurological disorder most often caused by an adverse reaction to neuroleptic or antipsychotic drugs (Neuroleptic malignant syndrome)	blisters in the mouth or nose. People taking quetiapine rarely (affect less than 1 in 1,000 patients) experienced a combination of high temperature (fever), sweating, stiff muscles, feeling very drowsy or faint, large increase in blood pressure or heartbeat (a disorder called "neuroleptic malignant syndrome").	-
Withdrawal (discontinuation) symptoms and neonatal withdrawal	People very commonly (affect more than 1 in 10 patients) experienced discontinuation symptoms (symptoms which occur when you stop taking quetiapine) include not being able to sleep (insomnia), feeling sick (nausea),	If you want to withdraw a quetiapine, gradual withdrawal over a period of at least 1 to 2 weeks is advisable.

Risk	What is known	Preventability
	headache, diarrhoea, being sick (vomiting), dizziness and irritability.Neonatesexposedhird trimester of pregnancy are at riskhird adverseriskofadverseincludingwithdrawal symptomssymptomsthat mayseverityand duration following delivery.Therehave been reportsTherehave been reportsstiffnessand/or weakness, sleepiness, agitation, breathing problemsproblemsand difficultyConsequently,newborns should be monitored carefully.	
Difficulty in swallowing (Dysphagia)	People taking quetiapine uncommonly (affect 1 in 100 patients) experienced difficulty in swallowing.	Swallow your tablets whole with water.
Blockage of small or large intestine (Intestinal obstruction)	None	None

Important potential risks

Risk	What is known
Safety in elderly patients	Before you take your medicine, tell your doctor if:
	- You have had a stroke, especially if you are elderly.
	- You are an elderly person with dementia (loss of brain function). If you are, Quetiapine should not be taken because the group of medicines that Quetiapine belongs to may increase the risk of stroke or in some cases the risk of death, in elderly people with dementia.
	Tell your doctor immediately if you experience:
	- Dizziness or a sever sense of feeling sleepy. This could increase the risk of accidental injury (fall) in elderly patients.
	Elderly people
	If you have liver problems your doctor may change your dose.
A group of conditions that affect the circulation of blood to the brain in elderly patient (Cerebrovascular adverse effects in elderly patients)	Quetiapine should be used with caution in patients with risk factors for stroke (interrupted blood supply to the brain leading to loss of brain function), especially if you are elderly. Before taking quetiapine, doctor should be informed if the patient is an elderly person with dementia (loss of brain function), if quetiapine should not be taken because the group of medicines that quetiapine belongs to may increase the risk of stroke, or in some cases the risk of death, in elderly people with dementia.
A group of conditions that	Quetiapine should be used with caution in patients with heart

Risk	What is known
affect the circulation of blood to the brain in non-elderly patient (Cerebrovascular adverse effects in non-elderly patients)	disease. Before taking quetiapine, doctor should be informed if you have low blood pressure.
Chest pain or discomfort that occurs when a part of the heart does not receive enough blood. (Ischaemic heart disease)	None
Excessive verbal and/or motor behavior (Aggression/ agitation)	Agitation may occur in newborn babies of mothers that have used quetiapine tablets in the last trimester (last three months of their pregnancy). If your baby develops agitation you may need to contact your doctor.
Suicide and suicidality	If you are depressed you may sometimes have thoughts of harming or killing yourself. These may be increased when first starting treatment, since these medicines all take time to work, usually about two weeks but sometimes longer. You may be more likely to think like this if you are a young adult. Information from clinical trials has shown an increased risk of suicidal thoughts and/or suicidal behaviour in young adults aged less than 25 years with depression. If you have thoughts of harming or killing yourself at any time, contact your doctor or go to a hospital straight away. You may find it helpful to tell a relative or close friend that you

Risk	What is known		
	are depressed, and ask them to read package leaflet. You might ask them to tell you if they think your depression is getting worse, or if they are worried about changes in your behaviour.		
Inflammation of lungs and bronchial tubes (Aspiration pneumonia)			
Potential for off-label use and misdosing	vomit is breathed into the lungs or airways leading to the lungs.		

Risk	What is known			
	Elderly people			
	If you have liver problems your doctor may change your dose.			
	Children and adolescents under 18 years			
	Quetiapine should not be used by children and adolescents aged			
	less than 18 years.			
	If you take more Quetiapine than you should			
	If you take more Quetiapine than prescribed by your doctor,			
	you may experience sleepiness, dizziness and abnormal heart			
	beats. Go to your doctor or nearest hospital straight away. Take			
	the Quetiapine with you.			
	If you forget to take a dose of Quetiapine			
	If you forget to take a dose, take it as soon as you remember. If			
	it is almost time to take the next dose, wait until then. Do no			
	take a double dose to make up for a forgotten tablet.			
	If you stop taking Quetiapine			
	If you suddenly stop taking Quetiapine, you may feel nauseous			
	or vomit, or be unable to sleep or have jerky movements, or your original illness might come back. Your doctor may			
	suggest you reduce the dose gradually before stopping			
	treatment.			
Life-threatening irregular	Quetiapine tablets can cause heart rhythm problems, which can			
heart beat (Torsade de pointes)	be serious and in severe cases may be fatal.			
	Before you take quetiapine, tell your doctor if you, or someone			
	in your family have or had any heart problems such as a very			
	fast heart beat or prolonged QT on an ECG (heart tracing), or if			

Risk	What is known	
	you are taking any medicines that may have an impact on t way your heart beats. Tell your doctor if you are taking medicines that affect t heart.	
Increased mortality in elderly demented patients	Quetiapine should not be taken by elderly people with dementia (loss of brain function). Quetiapine may increase the risk of stroke or in some cases the risk of death, in elderly people with dementia.	
Abuse and misuse	None	
Accidental injury	Tell your doctor if you feel severe sleepiness and this could increase the risk of accidental injury (fall) in elderly patients. Therefore, patients should be advised to exercise caution until they are familiar with the potential effects of the medication.	

Missing information

Risk	What is known
Safety in pregnant or breastfeeding women	If you are pregnant, trying to get pregnant, or breast-feeding, talk to your doctor or pharmacist before taking Quetiapine. You should not take Quetiapine during pregnancy unless this has been discussed with your doctor. Quetiapine should not be taken if you are breast-feeding. The following symptoms may occur in newborn babies, of mothers that have used Quetiapine in the last trimester (last

Risk	What is known		
	three months of their pregnancy): shaking, muscle stiffness and/or weakness, sleepiness, agitation, breathing problems, and difficulty in feeding. If your baby develops any of these symptoms you may need to contact your doctor.		
Safety in patient on concomitant cardiovascular medications	Tell your doctor if you are taking any medicines that have an impact on the way your heart beats, for example, drugs that can cause an imbalance in electrolytes (low levels of potassium or magnesium) such as diuretics (water pills) or certain antibiotics (drugs to treat infections).		
Safety in patients on concomitant valproic acid	Effect of sodium valproate and quetiapine were not altered to clinically relevant extent when taken together.		

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.

This medicine has special conditions and restrictions for its safe and effective use (additional risk minimisation measures). Full details on these conditions can be found in Annex 10 and 11 of this RMP; how they are implemented in each country however will depend upon agreement between the manufacturer and the national authorities. These additional risk minimisation measures are for the following risks:

- Metabolic risk factors,
- Extrapyramidal symptoms
- Somnolence and

• Potential for off-label use and misdosing

Education material for physician and health care professionals

Objective and Rationale:

The key aim of educational activities for physicians and other HCPs is to give guidance, based on the SmPC, to ensure the safe and appropriate use of quetiapine in patients with bipolar depression to introduce physicians to the indication, the recommended dosing regimen, and the benefit/risk profile.

Propose Action:

MAH will distribute education material for physician and healthcare professionals

VI.2.6 Planned post authorisation development plan

No studies planned.

Version	Date	Safety Conce	rn	Comment
2.0	03 September 2015	concerns:	as been updated with below safety	Additional Risk minimisation measures have been
	id	Important identified risks (s)	 Hyperglycaemia and diabetes Hypothyroidism 	proposed for safety concerns "metabolic risk factors,
			 Increased blood pressure in paediatric population Agranulocytosis 	extrapyramidal symptoms, somnolence and potential for off-label

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

Version E	Date	Safety Concern		Comment
		 QT pro Metabolic Venous thromb Pancrea Extrapy sympto Tardive Somno Syncop hypoter Seizure Neutro Weight Lipid (increas (includ LDLs), triglyce decreas Hyperp Anaphy Hepatit 	ooembolism atitis yramidal ms dyskinesia lence e and orthostatic nsion penia gain changes sed cholesterol ing increased increased erides, and sed HDLs) rolactinaemia	use and misdosing". As per preliminary variation assessment report for Quetiapine Accord (UK/H/3525/II/001- 005/II/010) on 10 July 2015, the RMP has been updated.

Version	Date	Safety Concern		Comment
			 Stevens johnson syndrome Neuroleptic malignant syndrome Withdrawal (discontinuation) symptoms and neonatal withdrawal Dysphagia Intestinal obstruction 	
		Important pot ential risks	 Safety in elderly patients Cerebrovascular adverse effects in elderly patients Cerebrovascular adverse effects in non-elderly patients Cerebrovascular adverse effects in non-elderly patients Ischaemic heart disease Aggression/ agitation Suicide and suicidality Aspiration pneumonia Potential for off-label 	

Version	Date	Safety Concern		Comment
		Missing information	 Torsade de pointes Increased mortality in elderly demented patients Abuse and misuse Accidental injury Safety in pregnant or breastfeeding women Safety in patient on concomitant cardiovascular medications Safety in patients on concomitant valproic acid 	