Package leaflet: Information for the patient

Jakavi® 5 mg tablets
Jakavi® 10 mg tablets
Jakavi® 15 mg tablets
Jakavi® 20 mg tablets
ruxolitinib

Read all of this leaflet carefully before you start taking this medicine because it contains important information for you.
- Keep this leaflet. You may need to read it again.
- If you have any further questions, ask your doctor or pharmacist.
- This medicine has been prescribed for you only. Do not pass it on to others. It may harm them, even if their signs of illness are the same as yours.
- If you get any side effects, talk to your doctor or pharmacist. This includes any possible side effects not listed in this leaflet. See section 4.

What is in this leaflet

1. What Jakavi is and what it is used for
2. What you need to know before you take Jakavi
3. How to take Jakavi
4. Possible side effects
5. How to store Jakavi
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1. What Jakavi is and what it is used for

Jakavi contains the active substance ruxolitinib.

Jakavi is used to treat adult patients with an enlarged spleen or with symptoms related to myelofibrosis, a rare form of blood cancer.

Jakavi is also used to treat patients with polycythaemia vera who are resistant to or intolerant of hydroxyurea.

How Jakavi works
Enlargement of the spleen is one of the characteristics of myelofibrosis. Myelofibrosis is a disorder of the bone marrow, in which the marrow is replaced by scar tissue. The abnormal marrow can no longer produce enough normal blood cells and as a result the spleen becomes significantly enlarged. By blocking the action of certain enzymes (called Janus Associated Kinases), Jakavi can reduce the size of the spleen in patients with myelofibrosis and relieve symptoms such as fever, night sweats, bone pain and weight loss in patients with myelofibrosis. Jakavi can help reduce the risk of serious blood or vascular complications.

Polycythaemia vera is a disorder of the bone marrow, in which the marrow produce too many red blood cells. The blood becomes thicker as a result of the increased red blood cells. Jakavi can relieve the symptoms, reduce spleen size and the volume of red blood cells produced in patients with polycythaemia vera by selectively blocking enzymes called Janus Associated Kinases (JAK1 and JAK2), thus potentially reducing the risk of serious blood or vascular complications.

If you have any questions about how Jakavi works or why this medicine has been prescribed for you, ask your doctor.

2. What you need to know before you take Jakavi

Follow all the doctor's instructions carefully. They may differ from the general information contained in this leaflet.

Do not take Jakavi
- if you are allergic to ruxolitinib or any of the other ingredients of this medicine (listed in section 6).
- if you are pregnant or breast-feeding.

If either of the above applies to you, tell your doctor who will then decide whether you should start treatment with Jakavi.

Warnings and precautions
Talk to your doctor or pharmacist before taking Jakavi
- if you have any infections. It may be necessary to treat your infection before starting Jakavi. It is important that you tell your doctor if you have ever had tuberculosis or if you have been in close contact with someone who has or has had tuberculosis. Your doctor may perform tests to see if you have tuberculosis or any other infections. It is important that you tell your doctor if you have ever had hepatitis B.
- if you have any kidney problems. Your doctor may need to prescribe a different dose of Jakavi.
- if you have or have ever had any liver problems. Your doctor may need to prescribe a different dose of Jakavi.
- if you are taking other medicines (see section "Other medicines and Jakavi").
- if you have ever had tuberculosis.
- if you have ever had skin cancer.

Talk to your doctor or pharmacist during your treatment with Jakavi
- if you experience unexpected bruising and/or bleeding, unusual tiredness, shortness of breath during exercise or at rest, unusually pale skin, or frequent infections (these are signs of blood disorders).
- if you experience fever, chills or other symptoms of infections.
- if you experience chronic coughing with blood-tinged sputum, fever, night sweats and weight loss (these can be signs of tuberculosis).
- if you have any of the following symptoms or if anyone close to you notices that you have any of these symptoms: confusion or difficulty thinking, loss of balance or difficulty walking, clumsiness, difficulty speaking, decreased strength or weakness on one side of your body, blurred and/or loss of vision. These may be signs of a serious brain infection and your doctor may suggest further testing and follow-up.
- if you develop painful skin rash with blisters (these are signs of shingles).
- if you notice skin changes. This may require further observation, as certain types of skin cancer (non-melanoma) have been reported.

<u>Blood tests</u>
Before you start treatment with Jakavi, your doctor will perform blood tests to determine the best starting dose for you. You will need to have further blood tests during treatment so that your doctor can monitor the amount of blood cells (white cells, red cells and platelets) in your body and assess how you are responding to the treatment and whether Jakavi is having an unwanted effect on these cells. Your doctor may need to adjust the dose or stop treatment. Your doctor will carefully check if you have any signs or symptoms of infection before starting and during your treatment with Jakavi. Your doctor will also regularly check the level of lipids (fat) in your blood.

<u>Stopping Jakavi</u>
When you stop taking Jakavi, the myelofibrosis symptoms may come back. Your doctor may want to gradually reduce the amount of Jakavi taken each day, before stopping it completely.

Children and adolescents
This medicine is not intended for use by children or adolescents aged below 18 years because it has

not been studied in this age group.

Other medicines and Jakavi
Tell your doctor or pharmacist if you are taking, have recently taken or might take any other medicines.

It is particularly important that you mention any of the following medicines containing any of the following active substances, as your doctor may need to adjust the Jakavi dose for you.

The following may increase the risk of side effects with Jakavi:
- Some medicines used to treat infections. These include medicines used to treat fungal diseases (such as ketoconazole, itraconazole, posaconazole, fluconazole and voriconazole), medicines used to treat certain types of bacterial infections (antibiotics such as clarithromycin, telithromycin, ciprofloxacin, or erythromycin), medicines to treat viral infections, including HIV infection/AIDS (such as amprenavir, atazanavir, indinavir, lopinavir/ritonavir, nelfinavir, ritonavir, saquinavir), medicines to treat hepatitis C (boceprevir, telaprevir).
- Nefazodone, a medicine to treat depression.
- Mibefradil or diltiazem, medicines to treat hypertension and chronic angina pectoris.
- Cimetidine, a medicine to treat heartburn.

The following may reduce the effectiveness of Jakavi:
- Avasimibe, a medicine to treat heart disease.
- Phenytoin, carbamazepine or phenobarbital and other anti-epileptics used to stop seizures or fits.
- Rifabutin or rifampicin, medicines used to treat tuberculosis (TB).
- St. John's wort (*Hypericum perforatum*), a herbal product used to treat depression.

While you are taking Jakavi you should never start a new medicine without checking first with the doctor who prescribed Jakavi. This includes prescription medicines, non-prescription medicines and herbal or alternative medicines.

Pregnancy and breast-feeding
Do not take Jakavi during pregnancy. Talk to your doctor about how to take appropriate measures to avoid becoming pregnant during your treatment with Jakavi.

Do not breast-feed while taking Jakavi. Tell your doctor if you are breast-feeding.

If you are pregnant or breast-feeding, think you may be pregnant or are planning to have a baby, ask your doctor or pharmacist for advice before taking this medicine.

Driving and using machines
If you experience dizziness after taking Jakavi, do not drive or use machines.

Jakavi contains lactose and sodium
Jakavi contains lactose (milk sugar). If you have been told by your doctor that you have an intolerance to some sugars, contact your doctor before taking this medicine.

This medicine contains less than 1 mmol sodium (23 mg) per tablet, that is to say essentially 'sodium-free'.

3. How to take Jakavi

Always take this medicine exactly as your doctor or pharmacist has told you. Check with your doctor or pharmacist if you are not sure.

The dose of Jakavi depends on the patient's blood cell count. Your doctor will measure the amount of

blood cells in your body and find the best dose for you, particularly if you have liver or kidney problems.
- The recommended starting dose in myelofibrosis is 15 mg twice daily or 20 mg twice daily, depending on your blood cell count.
- The recommended starting dose in polycythaemia vera is 10 mg twice daily.
- The maximum dose is 25 mg twice daily.

Your doctor will always tell you exactly how many Jakavi tablets to take.

During the treatment your doctor may recommend a lower or higher dose to you if the results of blood tests show that this is necessary, if you have problems with your liver or kidneys, or if you also need treatment with certain other medicines.

If you receive dialysis, take either one single dose or two separate doses of Jakavi only on dialysis days, after the dialysis has been completed. Your doctor will tell you if you should take one or two doses and how many tablets to take for each dose.

You should take Jakavi every day at the same time, either with or without food.

You should continue taking Jakavi for as long as your doctor tells you to. This is a long-term treatment.

Your doctor will regularly monitor your condition to make sure that the treatment is having the desired effect.

If you have questions about how long to take Jakavi, talk to your doctor or pharmacist.

If you experience certain side effects (e.g. blood disorders), your doctor might need to change the amount of Jakavi you have to take or tell you to stop taking Jakavi for a while.

If you take more Jakavi than you should
If you accidentally take more Jakavi than your doctor prescribed, contact your doctor or pharmacist immediately.

If you forget to take Jakavi
If you forgot to take Jakavi simply take your next dose at the scheduled time. Do not take a double dose to make up for a forgotten dose.

If you stop taking Jakavi
If you interrupt your treatment with Jakavi your myelofibrosis-related symptoms may come back. Therefore, you should not stop taking Jakavi without discussing it with your doctor.

If you have any further questions on the use of this medicine, ask your doctor or pharmacist.

4. Possible side effects

Like all medicines, this medicine can cause side effects, although not everybody gets them.

Most of the side effects of Jakavi are mild to moderate and will generally disappear after a few days to a few weeks of treatment.

Tell your doctor immediately if you experience any of the following side effects. Some are very common (may affect more than 1 in 10 people), some are common (may affect up to 1 in 10 people):
- any sign of bleeding in the brain, such as sudden altered level of consciousness, persistent headache, numbness, tingling, weakness or paralysis (common)
- any sign of bleeding in the stomach or intestine, such as passing black or bloodstained stools, or

vomiting blood (very common)
- unexpected bruising and/or bleeding, unusual tiredness, shortness of breath during exercise or at rest, unusually pale skin, or frequent infections (possible symptoms of blood disorders) (very common)
- painful skin rash with blisters (possible symptoms of shingles (*herpes zoster*)) (very common)
- fever, chills or other symptoms of infections (very common)
- low level of red blood cells (*anaemia*), low level of white blood cells (*neutropenia*) or low level of platelets (*thrombocytopenia*) (very common)

Other side effects with Jakavi
Very common (may affect more than 1 in 10 people):
- high level of cholesterol or fat in the blood (*hypertriglyceridaemia*)
- abnormal liver function test results
- dizziness
- headache
- urinary tract infections
- weight gain
- fever, cough, difficult or painful breathing, wheezing, pain in chest when breathing (possible symptoms of pneumonia)
- high blood pressure (*hypertension*), which may also be the cause of dizziness and headaches
- constipation
- high level of lipase in the blood

Common (may affect up to 1 in 10 people):
- reduced number of all three types of blood cells - red blood cells, white blood cells, and platelets (*pancytopenia*)
- frequently passing wind (*flatulence*)

Uncommon (may affect up to 1 in 100 people):
- tuberculosis
- recurrence of hepatitis B infection (which can cause yellowing of the skin and eyes, dark brown-colored urine, right-sided stomach pain, fever and feeling nauseous or being sick).

Reporting of side effects
If you get any side effects, talk to your doctor, pharmacist or nurse. This includes any possible side effects not listed in this leaflet. You can also report side effects directly via the Yellow Card Scheme at: www.mhra.gov.uk/yellowcard or search for MHRA Yellow Card in the Google Play or Apple App Store. By reporting side effects, you can help provide more information on the safety of this medicine.

5. How to store Jakavi

Keep this medicine out of the sight and reach of children.

Do not use this medicine after the expiry date which is stated on the carton or blister after "EXP".

Do not store above 30°C.

Do not throw away any medicines via wastewater or household waste. Ask your pharmacist how to throw away medicines you no longer use. These measures will help protect the environment.

6. Contents of the pack and other information

What Jakavi contains
- The active substance of Jakavi is ruxolitinib.
- Each 5 mg Jakavi tablet contains 5 mg of ruxolitinib.

- Each 10 mg Jakavi tablet contains 10 mg of ruxolitinib.
- Each 15 mg Jakavi tablet contains 15 mg of ruxolitinib.
- Each 20 mg Jakavi tablet contains 20 mg of ruxolitinib.
- The other ingredients are: microcrystalline cellulose, magnesium stearate, colloidal anhydrous silica, sodium starch glycolate, povidone, hydroxypropylcellulose, lactose monohydrate.

What Jakavi looks like and contents of the pack
Jakavi 5 mg tablets are white to almost white round tablets with "NVR" debossed on one side and "L5" debossed on the other side.
Jakavi 10 mg tablets are white to almost white round tablets with "NVR" debossed on one side and "L10" debossed on the other side.
Jakavi 15 mg tablets are white to almost white oval tablets with "NVR" debossed on one side and "L15" debossed on the other side.
Jakavi 20 mg tablets are white to almost white elongated tablets with "NVR" debossed on one side and "L20" debossed on the other side.

Jakavi tablets are supplied in blister packs containing 14 or 56 tablets or multipacks containing 168 (3 packs of 56) tablets

Not all packs may be marketed in your country.

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For any information about this medicine, please contact the local representative of the Marketing Authorisation Holder:

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Other sources of information
Detailed information on this medicine is available on the European Medicines Agency website: http://www.ema.europa.eu