Ruxolitinib (Jakafi®)

Pronounced: RUX-oh-LI-ti-nib

Classification: Kinase Inhibitor

About Ruxolitinib (Jakafi®)

Ruxolitinib is a type of targeted therapy called a kinase inhibitor. A kinase is an enzyme that promotes cell growth. There are many types of kinases, which control different phases of cell growth. By blocking a particular enzyme from working, this medication can slow the growth of cancer cells. Ruxolitinib targets Janus Associated Kinases, JAK1, and JAK2.

How to Take Ruxolitinib

Ruxolitinib comes in a tablet form in multiple dosage strengths. It can be taken with or without food. The exact dose is based on the type of cancer it is treating and how well you tolerate the dose. Your blood counts will be monitored closely while on therapy and your dose may be adjusted based on your blood counts. If you miss a dose, do not take an additional dose to make up for the missed dose and take your next dose as scheduled. Do not stop taking this medication abruptly without talking with your provider as the dose may need to be tapered.

It is important to make sure you are taking the correct amount of medication every time. Before every dose, check that what you are taking matches what you have been prescribed.

The blood levels of this medication can be affected by certain foods and medications, so they should be avoided. These include grapefruit, grapefruit juice, ketoconazole, rifampin, St. Johns Wort, and many anti-fungal medications (fluconazole). Be sure to tell your healthcare provider about all medications and supplements you take.

Storage and Handling

Store your medication in the original, labeled container at room temperature and in a dry location (unless otherwise directed by your healthcare provider or pharmacist). This medication should not be stored in a pillbox. Keep containers out of reach of children and pets.

If a caregiver prepares your dose for you, they should consider wearing gloves or pour the pills directly from their container into the cap, a small cup, or directly into your hand. They should avoid touching the pills. They should always wash their hands before and after giving you the medication. Pregnant or nursing women should not prepare the dose for you. Ask your oncology team where to return any unused medication for disposal. Do not flush down the toilet or throw in the trash.

Where do I get this medication?

Ruxolitinib is available through select specialty pharmacies. Your oncology team will work with your prescription drug plan to identify an in-network specialty pharmacy for distribution of this medication and shipment to the oncology clinic or directly to your home.

This medication may be covered under your prescription drug plan. Patient assistance may be available to qualifying individuals without prescription drug coverage. Co-pay cards, which reduce the patient co-pay responsibility for eligible, commercially (non-government sponsored) insured patients, are also available. Your care team can help you find these resources if they are available.
Possible Side Effects of Ruxolitinib

There are a number of things you can do to manage the side effects of ruxolitinib. Talk to your care team about these recommendations. They can help you decide what will work best for you. These are some of the most common or important side effects:

Low Red Blood Cell Count (Anemia)
Your red blood cells are responsible for carrying oxygen to the tissues in your body. When the red cell count is low, you may feel tired or weak. You should let your oncology care team know if you experience any shortness of breath, difficulty breathing, or pain in your chest. If the count gets too low, you may receive a blood transfusion.

Low Platelet Count (Thrombocytopenia)
Platelets help your blood clot, so when the count is low you are at a higher risk of bleeding. Let your oncology care team know if you have any excess bruising or bleeding, including nose bleeds, bleeding gums, or blood in your urine or stool. If the platelet count becomes too low, you may receive a transfusion of platelets.

- Do not use a razor (an electric razor is fine).
- Avoid contact sports and activities that can result in injury or bleeding.
- Do not take aspirin (salicylic acid), non-steroidal, anti-inflammatory medications (NSAIDs) such as Motrin/Advil (ibuprofen), Aleve (naproxen), Celebrex (celecoxib), etc. as these can all increase the risk of bleeding. Please consult with your healthcare team regarding the use of these agents and all over-the-counter medications/supplements while on therapy.
- Do not floss or use toothpicks and use a soft-bristle toothbrush to brush your teeth.

Increased Infection Risk
Taking this medication can make you more susceptible to infections. You should report any symptoms of infection to your healthcare provider right away, including a fever (temperature greater than 100.4°F or 38°C), sore throat or cold, shortness of breath, cough, burning, or pain with urination.

The following infections have been reported in studies, so you should be aware of these symptoms:

- **Herpes zoster**: symptoms include a skin rash or blisters that may be painful or itchy, localized to one area.
- **Tuberculosis**: symptoms include new or worsening cough, weight loss, night sweats, and fever.
- **Progressive Multifocal Leukoencephalopathy (PML)**: PML is a rare, but very serious brain infection that may develop over several weeks or months. They may include changes in mood or usual behavior, confusion, thinking problems, loss of memory, changes in vision, speech, or walking, and decreased strength or weakness on one side of the body.
- **Hepatitis B**: People with chronic Hepatitis B will be monitored closely during treatment, typically through blood tests.

Liver Toxicity
This medication can cause liver toxicity, which your oncology care team may monitor for using blood tests called liver function tests. Notify your healthcare provider if you notice yellowing of the skin or eyes, your urine appears dark or brown, or you have pain in your abdomen, as these can be signs of liver toxicity.

Hyperlipidemia
This medication can lead to increased cholesterol levels. Your care team will monitor your cholesterol while you are on treatment.

Less common but important side effects can include:

- **Low White Blood Cell Count (Leukopenia or Neutropenia)**: White blood cells (WBC) are important for fighting infection. While receiving treatment, your WBC count can drop, putting you at a higher risk of getting an infection. You should let your doctor or nurse know right away if you have a fever (temperature greater than 100.4°F or 38°C), sore throat or cold, shortness of breath, cough, burning with urination, or a sore that doesn’t heal.

Tips to preventing infection:
● **Washing hands**, both yours and your visitors, is the best way to prevent the spread of infection.
● Avoid large crowds and people who are sick (i.e.: those who have a cold, fever, or cough or live with someone with these symptoms).
● When working in your yard, wear protective clothing including long pants and gloves.
● Do not handle pet waste.
● Keep all cuts or scratches clean.
● Shower or bath daily and perform frequent mouth care.
● Do not cut cuticles or ingrown nails. You may wear nail polish, but not fake nails.
● Ask your oncology care team before scheduling dental appointments or procedures.
● Ask your oncology care team before you, or someone you live with has any vaccinations.

● **Secondary Skin Cancers:** There is a very low risk of developing non melanoma skin cancer or other type of cancer due to treatment with this medication, which can occur many years after treatment. Because this medication has been associated with the development of skin cancers, it is important to practice sun safety. Avoid the sun between 10-2pm, when it is strongest. Wear sunscreen (at least SPF 15) everyday; wear sunglasses, a hat and long sleeves/pants to protect your skin and seek out shade whenever possible.

**Reproductive Concerns**

Exposure of an unborn child to this medication could cause birth defects, so you should not become pregnant or father a child while on this medication. Effective birth control is necessary during treatment. Even if your menstrual cycle stops or you believe you are not producing sperm, you could still be fertile and conceive. You should not breastfeed while receiving this medication and for at least 2 weeks after the last dose.