

# LARACEL®

Dasatinib

## Dosage Form and Presentation

- LARACEL® 20 is a white, biconvex, round, film-coated tablet. Each tablet contains 20 mg of Dasatinib (as monohydrate) and each box contains 60 film-coated tablets.
- LARACEL® 70 is a white, biconvex, round, film-coated tablet. Each tablet contains 70 mg of Dasatinib (as monohydrate) and each box contains 30 film-coated tablets.
- LARACEL® 100 is a white, biconvex, oval, film-coated tablet. Each tablet contains 100 mg of Dasatinib (as monohydrate) and each box contains 30 film-coated tablets.

## Category:

Antineoplastic Agent; Tyrosine Kinase Inhibitor.

## Indications:

- Acute lymphoblastic leukemia-Treatment of adults with Philadelphia chromosome-positive (Ph+) acute lymphoblastic leukemia (ALL) with resistance or intolerance to prior therapy.
- Chronic myeloid leukemia- Treatment of adults with newly diagnosed Ph+ chronic myeloid leukemia (CML) in chronic phase; treatment of adults with chronic, accelerated, or myeloid or lymphoid blast phase Ph+ CML with resistance or intolerance to prior therapy, including imatinib.

- Pediatric patients 1 year of age and older with Ph+ CML in chronic phase.

- Pediatric patients 1 year of age and older with newly diagnosed Ph+ ALL in combination with chemotherapy.

## General Advice:

*This medicine has been prescribed for you. Do not pass it on to others. It may harm them, even if their symptoms are the same as yours.*

Tell your doctor if you have or have had any medical conditions, especially the following:

- **Pediatric use:** The safety profile of this medicine in the pediatric population is similar to that in the younger population, patients aged 65 years and older are more likely to experience the commonly reported adverse reactions of fatigue, pleural effusion, diarrhea, dyspepsia, cough, lower gastrointestinal hemorrhage and appetite disturbance, and more likely to experience the less frequently reported adverse reactions of abdominal distension, dizziness, pericardial effusion, congestive heart failure, hypertension, pulmonary edema and weight decrease, and should be monitored closely.

- **Hepatic function impairment:** Use with caution in patients with hepatic impairment due to extensive hepatic metabolism.

- **QT prolongation:** May prolong QT interval, use with caution in patients at risk for QT prolongation, including patients with long QT syndrome, patients taking antiarrhythmic medications or other medications that lead to QT prolongation or potassium-wasting diuretics, and those taking certain antibiotics, some cytotoxic agents, and some cyclosporine therapy and conditions that cause hypokalemia and hypomagnesemia. Correct hypokalemia and hypomagnesemia prior to initiation of therapy.

- **Tumor lysis syndrome (TLS):** Tumor lysis syndrome (TLS) has been reported in patients who were resistant to prior imatinib therapy. Maintain adequate hydration and monitor serum electrolyte and uric acid levels prior to and during therapy; initiate a uric acid lowering agent prior to starting LARACEL® if necessary. Patients with advanced disease and/or those with a high tumor burden may be at greater risk for developing TLS; monitor these patients frequently.

- **Hepatitis B infection:** Patients who are carriers of hepatitis B virus should be closely monitored for signs and symptoms of active infection throughout treatment and for several months after stopping treatment; doctor advice should be sought for patients who test positive for hepatitis B virus and in those with active infection.

## Contraindications:

Hypersensitivity to dasatinib or any of the other ingredients of this medicine.

## Use in Pregnancy, Fertility and Breast-feeding:

### Pregnancy Category: D

Adverse effects were observed in animal reproduction studies. May cause harm if administered to a pregnant woman. Dasatinib has been reported to cross placenta; fetal plasma and amniotic concentrations were found to be comparable with maternal concentrations. Adverse fetal outcomes have been reported with dasatinib use during pregnancy, although there have also been reports of exposure with no adverse fetal consequences.

Both men and women taking this medicine will be advised to use effective contraception during treatment. Pregnant women are advised to avoid contact with crushed or broken tablets.

### Fertility:

Based on animal data dasatinib may result in damage to female and male reproductive tissues.

### Breast-feeding:

No data are available regarding the presence of dasatinib in human milk, the effects of the drug on the breastfed infant, or the effects of the drug on milk production. Because of the potential for serious adverse reactions in nursing infants from dasatinib, breast-feeding is not recommended during treatment with dasatinib and for 2 weeks after the final dose.

## Warnings/ Precautions:

• **Bone marrow suppression:** Severe dose-related bone marrow suppression (thrombocytopenia, neutropenia, anemia) is associated with treatment (usually reversible); dosage adjustment or temporary interruption may be required for severe myelosuppression; the incidence of myelosuppression is higher in patients with advanced CML and Ph+ ALL. Monitor blood cell counts weekly for the first 2 months, then monthly thereafter (or as clinically necessary).

• **Hemorrhage:** Fatal intracranial and GI hemorrhage have been reported in association with dasatinib use; severe hemorrhage (including CNS, GI) may occur due to thrombocytopenia. Specifically in addition to thrombocytopenia, dasatinib may also cause platelet dysfunction.

• **Fluid retention:** Severe fluid retention/ edema (e.g., pleural effusions, pericardial effusion, pulmonary edema) has been reported with dasatinib therapy. Evaluate patients with symptoms of fluid retention (e.g., new or worsened dyspnea on exertion or at rest, pleuritic chest pain, dry cough) with a chest X-ray or other diagnostic imaging. Management may include diuretic and/or short term steroid therapy; patients with pleural effusions may require thoracentesis and/or oxygen. Therapy interruption or a dose reduction may be necessary in patients who develop severe fluid retention.

• **Cardiovascular adverse events:** Cardiomyopathy, diastolic dysfunction, heart failure (congestive), left ventricular dysfunction, and myocardial infarctions (MI) have been reported. Monitor for signs and symptoms of cardiac dysfunction.

• **Pulmonary arterial hypertension:** Has been reported with use, sometimes after more than 12 months of therapy. Evaluate for underlying cardiopulmonary disease prior to therapy initiation and during therapy; evaluate and rule out alternative etiologies in patients with symptoms suggestive of pulmonary arterial hypertension (PAH) (e.g., dyspnea, fatigue, hypoxia, fluid retention) and interrupt therapy if symptoms are severe. Discontinue permanently with confirmed PAH diagnosis.

• **Monitoring:** Monitor complete blood count with differential (weekly for 2 months, then monthly or as clinically necessary); bone marrow biopsy; liver function tests, electrolytes including calcium, phosphorous, magnesium; monitor for fluid retention; Monitor for signs / symptoms of cardiac dysfunction; electrocardiogram (ECG) monitoring if at risk for QTc prolongation; chest x-ray is recommended for symptoms suggestive of pleural effusion (e.g., cough, dyspnea).

Thyroid function testing recommendations- Preexisting levothyroxine therapy: Obtain baseline thyroid-stimulating hormone (TSH) levels, then monitor every 4 weeks until levels and levothyroxine dose are stable, then monitor every 2 months. Without preexisting thyroid disease, measure TSH at baseline, then monthly for 4 months, then every 2 to 3 months.

• **Hazardous agents:** Use appropriate precautions for handling and disposal of this product.

• **Driving and using machines:** Take special care when driving or using machines in case you experience side effects such as dizziness and blurred vision.

## LARACEL® contains factose:

If you have been told by your doctor that you have an intolerance to some sugars, talk to your doctor before taking this medicine.

## Drug Interactions:

• **Acetaminophen:** May enhance the hepatotoxic effect of dasatinib. Dasatinib may increase the serum concentration of acetaminophen. Consider therapy modification.

• **Agents with anti-platelet properties (e.g., P2Y12 inhibitors, NSAIDs, SSRIs):** Dasatinib may enhance the anticoagulant effect of these medicines. Monitor therapy.

• **Antacids:** May decrease the absorption of dasatinib. Consider therapy modification.

• **Anticoagulants:** Dasatinib may enhance the anticoagulant effect of anticoagulants. Monitor therapy.

• **Aripiprazole:** Dasatinib may increase the serum concentration of aripiprazole. Monitor for increased aripiprazole pharmacologic effects. Aripiprazole dose adjustments may or may not be required based on concomitant therapy and/or indication. Monitor therapy.

• **BCG:** Dasatinib may diminish the therapeutic effect of BCG. Avoid combination.

• **Bosentan:** May decrease the serum concentration of dasatinib. Monitor therapy.

• **Ceritinib, ivacaftor, lufotinazole, simeprevir:** May increase the serum concentration of dasatinib. Monitor therapy.

• **Carbamazepine:** May decrease the absorption of carbamazepine. This may only affect digoxin tablets. Exception: Digitoxin. Monitor therapy.

• **Chloroquine:** Dasatinib may enhance the adverse / toxic effect of chloroquine. Specifically, the risk for agranulocytosis may be increased. Avoid combination.

• **Cocaine:** Dasatinib may diminish the diagnostic effect of the skin test. Monitor therapy.

• **Conivaptan, fusidic acid (systemic):** May increase the serum concentration of dasatinib. Avoid combination.

• **CYP3A4 inducers (Strong) (e.g., dexamethasone, phenytoin, carbamazepine, phenobarbital):** May decrease the serum concentration of dasatinib. Avoid when possible. If such combination cannot be avoided, consider increasing dasatinib dose and monitor clinical response and toxicity closely. Consider therapy modification.

• **CYP3A4 inhibitor (Moderate):** May decrease the metabolism of dasatinib. Monitor therapy.

• **CYP3A4 substrates:** Dasatinib may increase the serum concentration of these medicines. Monitor therapy.

• **Dabrafenib:** May decrease the serum concentration of dasatinib. Seek alternatives to dasatinib when possible. If concomitant therapy cannot be avoided, monitor clinical effects of the substrate closely (particularly therapeutic effects). Consider therapy modification.

• **Deferasirox, siutiximab, tozilumab:** May decrease the serum concentration of dasatinib. Monitor therapy.

• **Denosumab:** May enhance the adverse / toxic effect of dasatinib. Specifically, the risk for agranulocytosis and pancytopenia may be increased. Monitor therapy.

• **Dipyridone:** May enhance the adverse / toxic effect of dasatinib. Specifically, the risk for agranulocytosis and pancytopenia may be increased. Avoid combination.

• **Echinacea:** May diminish the therapeutic effect of dasatinib. Consider therapy modification.

• **H1-Antagonist:** May decrease the absorption of dasatinib. Antacids (taken 2 hours before or after dasatinib administration) can be used in place of H<sub>1</sub>-antagonists if some acid-reducing therapy is needed. Avoid combination.

• **High-risk QTc-prolonging agents:** Dasatinib may enhance the QTc-prolonging effect of these medicines. Avoid such combination when possible. Use should be accompanied by close monitoring for evidence of QT prolongation or other alterations of cardiac rhythm. Consider the use of different agents.

• **I-Leflunomide:** Dasatinib may enhance the adverse / toxic effect of leflunomide. Specifically, the risk of hematologic toxicity such as pancytopenia, agranulocytosis, and/or thrombocytopenia may be increased. Consider not using a leflunomide loading dose in patients receiving dasatinib. Patients receiving both leflunomide and dasatinib should be monitored for bone marrow suppression at least monthly. Consider therapy modification.

• **Lomitapide:** Dasatinib may increase the serum concentration of lomitapide. Consider therapy modification.

• **Mifepristone:** May increase the serum concentration of dasatinib. Minimize doses of dasatinib, and monitor for increased concentration/ toxicity during and 2 weeks following treatment with mifepristone. Avoid cyclosporine, dihydroergotamine, ergotamine, fentanyl, primidone, quinidine, sirolimus, and tacrolimus. Consider therapy modification.

• **Mitotane:** May decrease the serum concentration of dasatinib. Doses of dasatinib may need to be adjusted substantially when used in patients being treated with mitotane. Consider therapy modification.

• **Natalizumab:** Dasatinib may enhance the adverse / toxic effect of natalizumab. Avoid combination.

• **Pimecrolimus, tacrolimus (topical):** May enhance the adverse / toxic effect of dasatinib. Avoid combination.

• **Pimozide:** Dasatinib may increase the serum concentration of pimozide. Avoid combination.

• **Proton pump inhibitors:** May increase the serum concentration of pimozide. Avoid combination.

• **Rofecoxib:** May enhance the immunosuppressive effect of dasatinib. Consider therapy modification.

• **Sipuleucel-T:** Dasatinib may diminish the therapeutic effect of sipuleucel-T. Monitor therapy.

• **Stiripentol:** May increase the serum concentration of dasatinib. Consider therapy modification.

• **Tofacitinib:** Dasatinib may enhance the immunosuppressive effect of tofacitinib. Avoid combination.

• **Trastuzumab:** May enhance the neutropenic effect of dasatinib. Monitor therapy.

• **Vaccines (inactivated):** Dasatinib may diminish the therapeutic effect of vaccines (inactivated). Monitor therapy.

• **Vaccines (live):** Dasatinib may enhance the adverse / toxic effect of vaccines (live). Vaccinal infections may develop. Dasatinib may diminish the therapeutic effect of vaccines (live). Avoid use of live organism vaccines with dasatinib; live-attenuated vaccines should not be given for at least 3 months after dasatinib. Avoid combination.

## Administration and Dosage:

Always take this medicine exactly as your doctor has told you. Check with your doctor if you are not sure. The following information includes only the average doses of this medicine.

### Adult:

#### Acute lymphoblastic leukemia -

**Initial dosage:** 140 mg once daily.

**Dosage adjustment:** May increase to 180 mg once daily in patients who do not achieve a hematologic or cytogenic response at the recommended dosage.

#### Chronic myeloid and leukemic -

**Accelerated phase, or myeloid or lymphoid blast phase:**

**Initial dosage:** 140 mg once daily.

**Dosage adjustment:** May increase to 180 mg once daily in patients who do not achieve a hematologic or cytogenic response at the recommended dosage.

#### Chronic phase:

**Initial dosage:** 100 mg once daily.

**Dosage adjustment:** May increase to 140 mg once daily in patients who do not achieve a hematologic or cytogenic response at the recommended dosage.

#### Proper use of this medicine:

• Depending on how you respond to the treatment, your doctor may suggest a higher or lower dose, or even stopping treatment briefly. For higher or lower doses, you may need to take combinations of the different tablet strengths.

• Take your tablets at the same time every day.

• Swallow the tablets whole. Do not crush, cut or chew them. The tablets should not be dispersed as the exposure in patients receiving a dispersed tablet is lower than in those swallowing a whole tablet.

• Dasatinib tablets can be taken with or without a meal and should be taken consistently either in the morning or in the evening. Take with a meal or with a large glass of water if GI upset occurs.

• Do not take dasatinib with grapefruit or grapefruit juice.

• It is unlikely that the dasatinib tablets will get broken. But if they do, persons other than the patient should use gloves when handling this medicine.

• Take dasatinib daily as directed by your doctor to stop. Make sure you take this medicine as long as it is prescribed.

• If you have accidentally taken too many tablets, talk to your doctor immediately. You may require medical attention.

• If you forget to take dasatinib, do not take a double dose to make up for a forgotten tablet. Take the next scheduled dose at the regular time.

#### Adverse Reactions:

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

The following can be signs of serious side effects. Contact your doctor immediately if you notice any of the following:

- chest pain, difficulty breathing, coughing and fainting
- unexpected bleeding or bruising without having an injury
- find blood in your vomit, stools or urine, or have black stools
- signs of infections such as fever, severe chills
- fever, sore mouth or throat, blistering or peeling of skin and / or mucous membranes
- palpitations, irregular heartbeat, congestive heart failure, weak heart muscle, high blood pressure, increased blood pressure in the lungs, cough
- appetite disturbances, taste disturbance, bloated or distended tummy (abdomen), inflammation of the food pipe, swollen tummy (abdomen), tear in the skin of the anal canal, difficulty in swallowing, inflammation of the gallbladder, blockage of bile ducts, gastro-esophageal reflux (a condition where acid and other stomach contents come back up into the throat)
- skin rash, fever, swelling around the face, hands and feet, headache, feeling tired or weak, bleeding
- palpitations, irregular heartbeat, congestive heart failure, weak heart muscle, high blood pressure, increased blood pressure in the lungs, cough
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