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**Sprycel**

(Dasatinib) - Bristol-Myers Squibb

## THERAPEUTIC CLASS
Kinase inhibitor

## DEA CLASS
RX

## INDICATIONS
Treatment of adults with newly diagnosed Philadelphia chromosome-positive (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. Treatment of adults with Ph+ acute lymphoblastic leukemia (ALL) with resistance or intolerance to prior therapy.

## ADULT DOSAGE
*Adults:* Chronic Phase CML: Initial: 100mg qd. Titrate: If no response, increase to 140mg qd. Accelerated Phase CML/Myeloid or Lymphoid Blast Phase CML/Ph+ ALL: Initial: 140mg qd. Titrate: If no response, increase to 180mg qd. Concomitant Strong CYP3A4 Inducers: Avoid use. If use is necessary, consider dose increase of dasatinib with careful monitoring for toxicity. Concomitant Strong CYP3A4 Inhibitors: Avoid use. If use is necessary, consider dose decrease of dasatinib to 20mg if taking 100mg qd, and to 40mg if taking 140mg qd, with careful monitoring for toxicity. If therapy is not tolerated after dose reduction, either d/c concomitant inhibitor and allow 1-week washout period before increasing dasatinib dose, or d/c dasatinib until end of treatment with inhibitor. Refer to PI for dose adjustment for adverse reactions.

## HOW SUPPLIED
Tab: 20mg, 50mg, 70mg, 80mg, 100mg, 140mg

## WARNINGS/PRECAUTIONS
Severe thrombocytopenia, neutropenia, and anemia reported; monitor CBCs weekly for first 2 months and monthly thereafter, or as clinically indicated. Manage myelosuppression by temporarily withholding therapy or by dose reduction. Severe CNS and GI hemorrhage, including fatalities and other cases of severe hemorrhage, reported. Severe fluid retention, ascites, pulmonary edema, and generalized edema reported; perform chest x-ray if symptoms suggestive of pleural effusion develop (eg, dyspnea, dry cough). QT prolongation reported; correct hypokalemia or hypomagnesemia prior to therapy. Cardiac adverse reactions reported; monitor for signs/symptoms consistent with cardiac dysfunction and treat appropriately. May increase risk of developing pulmonary arterial HTN (PAH); d/c permanently if PAH is confirmed. May cause fetal harm. Caution with hepatic impairment.

## ADVERSE REACTIONS
Myelosuppression, fluid retention, diarrhea, N/V, headache, musculoskeletal pain, abdominal pain, hemorrhage, pneumonia, pyrexia, pleural effusion, dyspnea, skin rash, fatigue, myalgia.

## DRUG INTERACTIONS
See Dosage. CYP3A4 inhibitors (eg, ketoconazole, clarithromycin, ritonavir) and grapefruit juice may increase levels. CYP3A4 inducers (eg, dexamethasone, phenytoin, carbamazepine) and St. John's wort may decrease levels. Avoid with antacids (eg, aluminum hydroxide/magnesium hydroxide); if use is necessary, administer antacid dose at least 2 hrs prior to or after dasatinib dose. $H_2$ antagonists (eg, famotidine) or proton pump inhibitors (eg, omeprazole) may reduce exposure; concomitant use is not recommended. May increase levels of simvastatin (a CYP3A4 substrate); caution with CYP3A4 substrates with narrow therapeutic index (eg, alfentanil, astemizole, ergotamine). Caution with anticoagulants or medications that inhibit platelet function. Antiarrhythmics or other QT-prolonging agents, and cumulative high-dose anthracycline therapy may increase risk of QT prolongation.

## PREGNANCY
Category D, not for use in nursing.

## MECHANISM OF ACTION
Kinase inhibitor; inhibits BCR-ABL, SRC family, c-KIT, EPHA2, and PDGFRβ kinases.

## PHARMACOKINETICS
**Absorption:** $T_{max}$=0.5-6 hrs. **Distribution:** $V_d$=2505L; plasma protein binding (96% [parent], 93% [active metabolite]); crosses placenta. **Metabolism:** Extensive, primarily via CYP3A4. **Elimination:** Feces (85%, 19% unchanged), urine (4%, 0.1% unchanged); $T_{1/2}$=3-5 hrs.

## ASSESSMENT
Assess for signs/symptoms of underlying cardiopulmonary disease, hepatic impairment, presence or risk of QT prolongation, hypokalemia, hypomagnesemia, pregnancy/nursing status, and possible drug interactions.

## MONITORING
Monitor for hemorrhage, cardiac dysfunction, myelosuppression, pleural effusion, fluid retention, QT prolongation, PAH, and other adverse reactions. Perform chest x-ray if symptoms of pleural effusion develop. Monitor CBCs weekly for first 2 months and monthly thereafter.

## PATIENT COUNSELING

Inform of pregnancy risks; advise to avoid becoming pregnant during therapy and to contact physician if patient becomes pregnant, or if pregnancy is suspected. Instruct to seek medical attention if symptoms of hemorrhage, myelosuppression, fluid retention, significant N/V, diarrhea, headache, musculoskeletal pain, fatigue, or rash develop. Inform that product contains lactose.

## ADMINISTRATION/STORAGE

**Administration:** Oral route. Swallow tab whole; do not crush or cut. Take with or without a meal, either in am or pm. **Storage:** 20-25°C (68-77°F); excursions permitted between 15-30°C (59-86°F).