Ibrutinib

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Brand name: Imbruvica

IUPAC: 1-[(3R)-3-[4-amino-3-(4-phenoxyphenyl)pyrazolo[3,4-d]pyrimidin-1-yl]piperidin-1-yl]prop-2-en-1-one

FDA approval: Yes Enlace del fabricante

Usage:

Ibrutinib is used in the treatment of a variety of lymphomas and leukemias, which include: Mantle cell lymphoma (MCL), Chronic lymphocytic leukemia (CLL), Small lymphocytic lymphoma (SLL), Chronic lymphocytic leukemia (CLL), Small lymphocytic lymphoma (SLL) with 17p deletion and Waldenström's macroglobulinemia (WM). Ibrutinib is taken orally in tablet form.

Imbruvica is a capsule, taken by mouth once daily. You may take 1-4 capsules at once depending on your prescribed dose. Take Imbruvica™ at approximately the same time each day. Take Imbruvica™ exactly as prescribed. Swallow Imbruvica™ capsules whole with at least 8 ounces of water. Do not crush, open, chew or dissolve capsules. Do not change your dose or stop Imbruvica™ unless your health care provider tells you to. If you miss a dose of Imbruvica™, it should be taken as soon as possible on the same day with return to the normal schedule the following day. Do not take extra capsules of Imbruvica™ to make up the next dose. Do not take more than 1 dose of Imbruvica™ at one time. Call your health care provider and go to the emergency room right away if you take too much. Store at room temperature (68° F to 77° F); keep medication in original bottle; protect from high humidity, moisture and light. Keep out of reach from children and pets. Safely throw away any Imbruvica™ that is out of date or unused (ask your provider for directions on how to discard the medication). The amount of Imbruvica™ that you will receive depends on many factors, including your general health or other health problems, and the type of cancer or condition you have. Your doctor will determine your exact Imbruvica™ dosage and schedule.

Mechanism:

Ibrutinib inhibits cellular adhesion by blocking the signaling of the B Cell Receptor. In turn, this helps destroy tumor microenvironments, while also disrupting cell migration and causing apoptosis. 1

Imbruvica works by blocking the enzyme that allows cancer cells to grow and divide. Imbruvica $^{\text{m}}$ inhibits the function of Bruton's tyrosine kinase (BTK). BTK is a key signaling molecule of the B-cell receptor signaling complex that plays an important role in the survival of malignant B cells. Imbruvica $^{\text{m}}$ blocks signals that stimulate malignant B cells to grow and divide uncontrollably.



Take a Step With IMBRUVICA®. (n.d.). Retrieved July 11, 2017, from https://www.imbruvicahcp.com/home

Side effects:

Common side effects of Ibrutinib include: decreased platelets, diarrhea, decreased neutrophils, decreased hemaglobin, fatigue, musculoskeletal pain, swelling, upper respiratory tract infection, nausea, bruising.