

**CENTER FOR DRUG EVALUATION AND
RESEARCH**

APPLICATION NUMBER:

210563Orig1s000

210563Orig2s000

LABELING

HIGHLIGHTS OF PRESCRIBING INFORMATION

These highlights do not include all the information needed to use IMBRUVICA safely and effectively. See full prescribing information for IMBRUVICA.

IMBRUVICA® (ibrutinib) capsules, for oral use
IMBRUVICA® (ibrutinib) tablets, for oral use
Initial U.S. Approval: 2013

RECENT MAJOR CHANGES

| | |
|---|---------|
| Indications and Usage (1.6) | 08/2017 |
| Dosage and Administration (2.1, 2.2, 2.3, 2.4, 2.5) | 02/2018 |
| Warnings and Precautions (5) | 12/2017 |

INDICATIONS AND USAGE

IMBRUVICA is a kinase inhibitor indicated for the treatment of adult patients with:

- Mantle cell lymphoma (MCL) who have received at least one prior therapy (1.1).
Accelerated approval was granted for this indication based on overall response rate. Continued approval for this indication may be contingent upon verification and description of clinical benefit in a confirmatory trial.
- Chronic lymphocytic leukemia (CLL)/Small lymphocytic lymphoma (SLL) (1.2).
- Chronic lymphocytic leukemia (CLL)/Small lymphocytic lymphoma (SLL) with 17p deletion (1.3).
- Waldenström's macroglobulinemia (WM) (1.4).
- Marginal zone lymphoma (MZL) who require systemic therapy and have received at least one prior anti-CD20-based therapy (1.5).
Accelerated approval was granted for this indication based on overall response rate. Continued approval for this indication may be contingent upon verification and description of clinical benefit in a confirmatory trial.
- Chronic graft versus host disease (cGVHD) after failure of one or more lines of systemic therapy (1.6).

DOSAGE AND ADMINISTRATION

- MCL and MZL: 560 mg taken orally once daily (2.2).
 - CLL/SLL, WM, and cGVHD: 420 mg taken orally once daily (2.2).
- Dose should be taken orally with a glass of water. Do not open, break, or chew the capsules. Do not cut, crush, or chew the tablets (2.1).

DOSAGE FORMS AND STRENGTHS

Capsules: 70 mg and 140 mg (3)
Tablets: 140 mg, 280 mg, 420 mg, and 560 mg (3)

CONTRAINDICATIONS

None (4)

WARNINGS AND PRECAUTIONS

- Hemorrhage: Monitor for bleeding and manage (5.1).
- Infections: Monitor patients for fever and infections, evaluate promptly, and treat (5.2).
- Cytopenias: Check complete blood counts monthly (5.3).
- Cardiac arrhythmias: Monitor for symptoms of arrhythmias and manage (5.4).
- Hypertension: Monitor blood pressure and treat (5.5).
- Second Primary Malignancies: Other malignancies have occurred in patients, including skin cancers, and other carcinomas (5.6).
- Tumor Lysis Syndrome (TLS): Assess baseline risk and take precautions. Monitor and treat for TLS (5.7).
- Embryo-Fetal Toxicity: Can cause fetal harm. Advise women of the potential risk to a fetus and to avoid pregnancy while taking the drug and for 1 month after cessation of therapy. Advise men to avoid fathering a child during the same time period (5.8, 8.3).

ADVERSE REACTIONS

The most common adverse reactions ($\geq 20\%$) in patients with B-cell malignancies (MCL, CLL/SLL, WM and MZL) were neutropenia, thrombocytopenia, diarrhea, anemia, musculoskeletal pain, rash, nausea, bruising, fatigue, hemorrhage, and pyrexia (6).

The most common adverse reactions ($\geq 20\%$) in patients with cGVHD were fatigue, bruising, diarrhea, thrombocytopenia, muscle spasms, stomatitis, nausea, hemorrhage, anemia, and pneumonia (6).

To report SUSPECTED ADVERSE REACTIONS, contact Pharmacovigilance at 1-877-877-3536 or FDA at 1-800-FDA-1088 or www.fda.gov/medwatch.

DRUG INTERACTIONS

- CYP3A Inhibitors: Dose adjustments may be recommended (2.4, 7.1).
- CYP3A Inducers: Avoid coadministration with strong CYP3A inducers (7.2).

USE IN SPECIFIC POPULATIONS

Hepatic Impairment (based on Child-Pugh criteria): Avoid use of IMBRUVICA in patients with severe baseline hepatic impairment. In patients with mild or moderate impairment, reduce IMBRUVICA dose (2.5, 8.6).

See 17 for PATIENT COUNSELING INFORMATION and FDA approved patient labeling.

Revised: 02/2018

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- Chronic Lymphocytic Leukemia/Small Lymphocytic Lymphoma
- Chronic Lymphocytic Leukemia/Small Lymphocytic Lymphoma with 17p deletion
- Waldenström's Macroglobulinemia
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FULL PRESCRIBING INFORMATION

1 INDICATIONS AND USAGE

1.1 Mantle Cell Lymphoma

IMBRUVICA is indicated for the treatment of adult patients with mantle cell lymphoma (MCL) who have received at least one prior therapy.

Accelerated approval was granted for this indication based on overall response rate. Continued approval for this indication may be contingent upon verification and description of clinical benefit in a confirmatory trial [*see Clinical Studies (14.1)*].

1.2 Chronic Lymphocytic Leukemia/Small Lymphocytic Lymphoma

IMBRUVICA is indicated for the treatment of adult patients with chronic lymphocytic leukemia (CLL)/small lymphocytic lymphoma (SLL).

1.3 Chronic Lymphocytic Leukemia/Small Lymphocytic Lymphoma with 17p deletion

IMBRUVICA is indicated for the treatment of adult patients with chronic lymphocytic leukemia (CLL)/small lymphocytic lymphoma (SLL) with 17p deletion.

1.4 Waldenström's Macroglobulinemia

IMBRUVICA is indicated for the treatment of adult patients with Waldenström's macroglobulinemia (WM).

1.5 Marginal Zone Lymphoma

IMBRUVICA is indicated for the treatment of adult patients with marginal zone lymphoma (MZL) who require systemic therapy and have received at least one prior anti-CD20-based therapy.

Accelerated approval was granted for this indication based on overall response rate [*see Clinical Studies (14.4)*]. Continued approval for this indication may be contingent upon verification and description of clinical benefit in a confirmatory trial.

1.6 Chronic Graft versus Host Disease

IMBRUVICA is indicated for the treatment of adult patients with chronic graft-versus-host disease (cGVHD) after failure of one or more lines of systemic therapy.

2 DOSAGE AND ADMINISTRATION

2.1 Dosing Guidelines

Administer IMBRUVICA orally once daily at approximately the same time each day. The dose should be taken orally with a glass of water. Do not open, break, or chew the capsules. Do not cut, crush, or chew the tablets.

2.2 Recommended Dosage

Mantle Cell Lymphoma and Marginal Zone Lymphoma

The recommended dose of IMBRUVICA for MCL and MZL is 560 mg orally once daily until disease progression or unacceptable toxicity.

Chronic Lymphocytic Leukemia/Small Lymphocytic Lymphoma and Waldenström's Macroglobulinemia

The recommended dose of IMBRUVICA for CLL/SLL and WM is 420 mg orally once daily until disease progression or unacceptable toxicity.

The recommended dose of IMBRUVICA for CLL/SLL when used in combination with bendamustine and rituximab (administered every 28 days for up to 6 cycles) is 420 mg orally once daily until disease progression or unacceptable toxicity.

Chronic Graft versus Host Disease

The recommended dose of IMBRUVICA for cGVHD is 420 mg orally once daily until cGVHD progression, recurrence of an underlying malignancy, or unacceptable toxicity. When a patient no longer requires therapy for the treatment of cGVHD, IMBRUVICA should be discontinued considering the medical assessment of the individual patient.

2.3 Dose Modifications for Adverse Reactions

Interrupt IMBRUVICA therapy for any Grade 3 or greater non-hematological toxicities, Grade 3 or greater neutropenia with infection or fever, or Grade 4 hematological toxicities. Once the symptoms of the toxicity have resolved to Grade 1 or baseline (recovery), IMBRUVICA therapy may be reinitiated at the starting dose. If the toxicity reoccurs, reduce dose by 140 mg per day. A second reduction of dose by 140 mg may be considered as needed. If these toxicities persist or recur following two dose reductions, discontinue IMBRUVICA.

Recommended dose modifications are described below:

| Toxicity Occurrence | Dose Modification for MCL and MZL After Recovery Starting Dose = 560 mg | Dose Modification for CLL/SLL, WM, and cGVHD After Recovery Starting Dose = 420 mg |
|---------------------|--|---|
| First | Restart at 560 mg daily | Restart at 420 mg daily |
| Second | Restart at 420 mg daily | Restart at 280 mg daily |
| Third | Restart at 280 mg daily | Restart at 140 mg daily |
| Fourth | Discontinue IMBRUVICA | Discontinue IMBRUVICA |

2.4 Dose Modifications for Use with CYP3A Inhibitors

Recommended dose modifications are described below [see *Drug Interactions (7.1)*]:

| Patient Population | Coadministered Drug | Recommended IMBRUVICA Dose |
|-----------------------------------|---|--|
| B-Cell Malignancies | <ul style="list-style-type: none"> Moderate CYP3A inhibitor Voriconazole 200 mg twice daily Posaconazole suspension 100 mg once daily, 100 mg twice daily, or 200 mg twice daily | 140 mg once daily Interrupt dose as recommended [see <i>Dosage and Administration (2.3)</i>]. |
| | <ul style="list-style-type: none"> Posaconazole suspension 200 mg three times daily or 400 mg twice daily Posaconazole IV injection 300 mg once daily Posaconazole delayed-release tablets 300 mg once daily | 70 mg once daily Interrupt dose as recommended [see <i>Dosage and Administration (2.3)</i>]. |
| | <ul style="list-style-type: none"> Other strong CYP3A inhibitors | Avoid concomitant use. If these inhibitors will be used short-term (such as anti-infectives for seven days or less), interrupt IMBRUVICA. |
| Chronic Graft versus Host Disease | <ul style="list-style-type: none"> Moderate CYP3A inhibitor | 420 mg once daily Modify dose as recommended [see <i>Dosage and Administration (2.3)</i>]. |
| | <ul style="list-style-type: none"> Voriconazole 200 mg twice daily Posaconazole suspension 100 mg once daily, 100 mg twice daily, or 200 mg twice daily | 280 mg once daily Modify dose as recommended [see <i>Dosage and Administration (2.3)</i>]. |
| | <ul style="list-style-type: none"> Posaconazole suspension 200 mg three times daily or 400 mg twice daily Posaconazole IV injection 300 mg once daily Posaconazole delayed-release tablets 300 mg once daily | 140 mg once daily Interrupt dose as recommended [see <i>Dosage and Administration (2.3)</i>]. |
| | <ul style="list-style-type: none"> Other strong CYP3A inhibitors | Avoid concomitant use. If these inhibitors will be used short-term (such as anti-infectives for seven days or less), interrupt IMBRUVICA. |

After discontinuation of a CYP3A inhibitor, resume previous dose of IMBRUVICA [see *Dosage and Administration (2.2)* and *Drug Interactions (7.1)*].

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