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.

 $\begin{array}{l} IMBRUVICA^{\$} \ (ibrutinib) \ capsules, for \ oral \ use \\ IMBRUVICA^{\$} \ (ibrutinib) \ tablets, for \ oral \ use \\ \end{array}$ Initial U.S. Approval: 2013

---RECENT MAJOR CHANGES--Dosage and Administration (2.2) 5/2022 Warnings and Precautions, Cardiac Arrhythmias, Cardiac Failure, and Sudden Death (5.3) 5/2022

Hypertension (5.4) -----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 This indication is approved under accelerated approval based on overall response rate. Continued approval for this indication may be contingent upon verification and description of clinical benefit in a confirmatory

- 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).

This indication is approved under accelerated approval based on overall response rate. Continued approval for this indication may be contingent upon verification and description of clinical benefit in a confirmatory trial(s).

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 (2.1).
- CLL/SLL, WM, and cGVHD: 420 mg taken orally once daily (2.1).

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)

FULL PRESCRIBING INFORMATION: CONTENTS*

- INDICATIONS AND USAGE
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 - 1.2 Chronic Lymphocytic Leukemia/Small Lymphocytic Lymphoma
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 - 5.1 Hemorrhage
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 - 5.5 Cytopenias
 - 5.6 Second Primary Malignancies
 - Tumor Lysis Syndrome

-----CONTRAINDICATIONS-----

None (4)

5/2022

---WARNINGS AND PRECAUTIONS-----

- Hemorrhage: Monitor for bleeding and manage (5.1).
- Infections: Monitor patients for fever and infections, evaluate promptly, and treat (5.2).
- Cardiac Arrhythmias, Cardiac Failure, and Sudden Death: Monitor for symptoms of arrhythmias and cardiac failure and manage (5.3).
- Hypertension: Monitor blood pressure and treat (5.4).
- Cytopenias: Check complete blood counts monthly (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 females of reproductive potential of the potential risk to a fetus and to use effective contraception (5.8, 8.1, 8.3).

-----ADVERSE REACTIONS-----

- The most common (≥30%) adverse reactions in patients with B-cell malignancies (MCL, CLL/SLL, WM and MZL) are thrombocytopenia, diarrhea, fatigue, musculoskeletal pain, neutropenia, rash, anemia, and bruising (6).
- The most common (≥20%) adverse reactions in patients with cGVHD are fatigue, bruising, diarrhea, thrombocytopenia, muscle spasms, stomatitis, nausea, hemorrhage, anemia, and pneumonia (6).

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

---DRUG INTERACTIONS----

- CYP3A Inhibitors: Modify IMBRUVICA dose as described (2.3, 7.1).
- CYP3A Inducers: Avoid coadministration with strong CYP3A inducers

--USE IN SPECIFIC POPULATIONS---

- Lactation: Advise not to breastfeed. (8.2)
- Hepatic Impairment (based on Child-Pugh criteria): Avoid use of IMBRUVICA in patients with severe hepatic impairment. In patients with mild or moderate impairment, reduce IMBRUVICA dose (2.4, 8.6).

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

Revised: 5/2022

DRUG INTERACTIONS

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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.

This indication is approved under accelerated approval based on overall response rate. Continued approval for this indication may be contingent upon verification and description of clinical benefit in a confirmatory trial(s) [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.

This indication is approved under accelerated approval 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(s).

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 Recommended Dosage

Mantle Cell Lymphoma and Marginal Zone Lymphoma

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



<u>Chronic Lymphocytic Leukemia/Small Lymphocytic Lymphoma and Waldenström's</u> Macroglobulinemia

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

For CLL/SLL, IMBRUVICA can be administered as a single agent, in combination with rituximab or obinutuzumab, or in combination with bendamustine and rituximab (BR).

For WM, IMBRUVICA can be administered as a single agent or in combination with rituximab.

When administering IMBRUVICA in combination with rituximab or obinutuzumab, consider administering IMBRUVICA prior to rituximab or obinutuzumab when given on the same day.

Chronic Graft versus Host Disease

The recommended dosage 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.

Administration

Administer IMBRUVICA at approximately the same time each day with a glass of water.

Swallow tablets or capsule whole. Do not open, break, or chew the capsules. Do not cut, crush, or chew the tablets.

If a dose of IMBRUVICA is not taken at the scheduled time, it can be taken as soon as possible on the same day with a return to the normal schedule the following day. Do not take extra doses of IMBRUVICA to make up for the missed dose.

2.2 Dosage Modifications for Adverse Reactions

For adverse reactions listed in Table 1, interrupt IMBRUVICA therapy. Once the adverse reaction has improved to Grade 1 or baseline (recovery), follow the recommended dosage modifications (see Table 1).

Table 1: Recommended Dosage Modifications for Adverse Reactions

Adverse Reaction ^{a,b}	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
Grade 2 cardiac failure	First	Restart at 420 mg daily ^c	Restart at 280 mg daily ^c
	Second	Restart at 280 mg daily ^c	Restart at 140 mg daily ^c
	Third	Discontinue IMBRUVICA	Discontinue IMBRUVICA
Grade 3 cardiac arrhythmias	First	Restart at 420 mg daily ^c	Restart at 280 mg daily ^c



Adverse Reaction ^{a,b}	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
	Second	Discontinue IMBRUVICA	Discontinue IMBRUVICA
Grade 3 or 4 cardiac failure Grade 4 cardiac arrhythmias	First	Discontinue IMBRUVICA	Discontinue IMBRUVICA
Other Grade 3 or 4 non- hematological toxicities ^d	First	Restart at 420 mg daily	Restart at 280 mg daily
Grade 3 or 4 neutropenia with infection or fever	Second	Restart at 280 mg daily	Restart at 140 mg daily
Grade 4 hematological toxicities	Third	Discontinue IMBRUVICA	Discontinue IMBRUVICA

^a See Warnings and Precautions (5).

2.3 Dosage Modifications for Use with CYP3A Inhibitors

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



^b Grading based on National Cancer Institute-Common Terminology Criteria for Adverse Events (NCI-CTCAE) criteria, or International Workshop on Chronic Lymphocytic Leukemia (iwCLL) criteria for hematologic toxicities in CLL/SLL.

^c Evaluate the benefit-risk before resuming treatment.

^d For Grade 4 non-hematologic toxicities, evaluate the benefit-risk before resuming treatment.

Table 2: Recommended Dosage Modifications for Use with CYP3A Inhibitors

Patient Population	Coadministered Drug	Recommended IMBRUVICA Dosage	
B-Cell Malignancies	Moderate CYP3A inhibitor	280 mg once daily Modify dose as recommended [see Dosage and Administration (2.2)].	
	 Voriconazole 200 mg twice daily Posaconazole suspension 100 mg once daily, 100 mg twice daily, or 200 mg twice daily 	140 mg once daily Modify dose as recommended [see Dosage and Administration (2.2)].	
	 Posaconazole suspension 200 mg three times daily or 400 mg twice daily Posaconazole intravenously 300 mg once daily Posaconazole delayed-release tablets 300 mg once daily 	70 mg once daily Interrupt dose as recommended [see Dosage and Administration (2.2)].	
	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.	
Host Disease	Moderate CYP3A inhibitor	420 mg once daily Modify dose as recommended [see Dosage and Administration (2.2)].	
	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 Dosage and Administration (2.2)].	
	 Posaconazole suspension 200 mg three times daily or 400 mg twice daily Posaconazole intravenously 300 mg once daily Posaconazole delayed-release tablets 300 mg once daily 	140 mg once daily Interrupt dose as recommended [see Dosage and Administration (2.2)].	
	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 (2.1), Drug Interactions (7.1)].



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