MAVENCLAD®
(cladribine) tablets 10 mg

DOSING GUIDE

INDICATION

MAVENCLAD® (cladribine) tablets is indicated for the treatment of relapsing forms of multiple sclerosis (MS), to include relapsing-remitting disease and active secondary progressive disease, in adults. Because of its safety profile, use of MAVENCLAD is generally recommended for patients who have had an inadequate response to, or are unable to tolerate, an alternate drug indicated for the treatment of MS.

Limitations of Use: MAVENCLAD is not recommended for use in patients with clinically isolated syndrome (CIS) because of its safety profile.

IMPORTANT SAFETY INFORMATION

WARNING: MALIGNANCIES and RISK OF TERATOGENICITY

- **Treatment with MAVENCLAD may increase the risk of malignancy. MAVENCLAD is contraindicated in patients with current malignancy. In patients with prior malignancy or with increased risk of malignancy, evaluate the benefits and risks of the use of MAVENCLAD on an individual patient basis. Follow standard cancer screening guidelines in patients treated with MAVENCLAD**
- **MAVENCLAD is contraindicated for use in pregnant women and in women and men of reproductive potential who do not plan to use effective contraception because of the potential for fetal harm. Malformations and embryolethality occurred in animals. Exclude pregnancy before the start of treatment with MAVENCLAD in females of reproductive potential. Advise females and males of reproductive potential to use effective contraception during MAVENCLAD dosing and for 6 months after the last dose in each treatment course. Stop MAVENCLAD if the patient becomes pregnant**

Please see Important Safety Information throughout this piece, and click **here** to view accompanying full Prescribing Information, including **boxed WARNING**.

MAVENCLAD IS A SHORT-COURSE ORAL TREATMENT[1]

MAVENCLAD is the first and only short-course oral treatment with proven efficacy, convenient dosing, and 17 years of safety data[1-3*]

Convenient dosing schedule[1]

MAVENCLAD is administered in 2 treatment courses approximately 1 year apart

The recommended cumulative dosage of MAVENCLAD is 3.5 mg/kg body weight administered orally and divided into 2 yearly treatment courses (1.75 mg/kg per treatment course).

Each treatment course is divided into 2 treatment cycles[1]:

Year 1 treatment course:

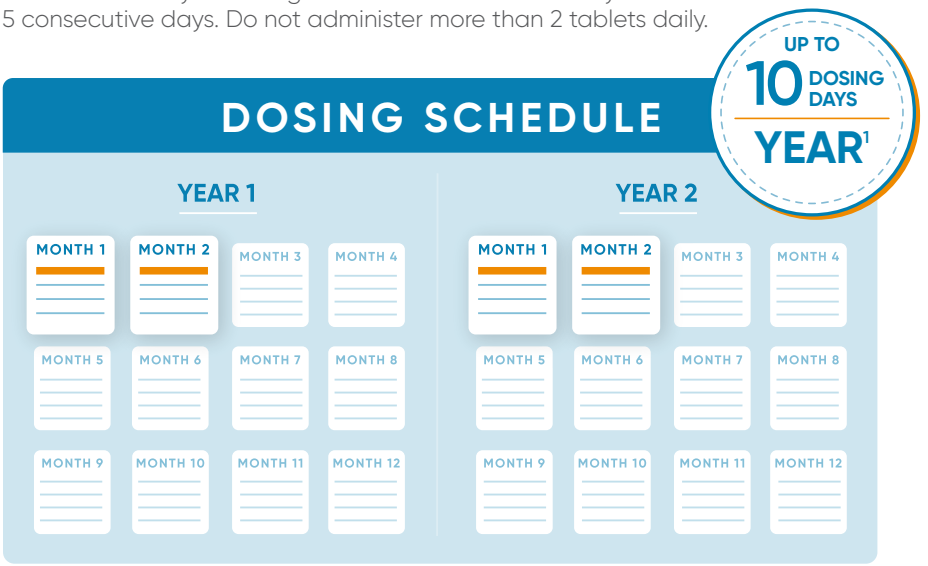
- **First cycle (month 1):** Start any time
- **Second cycle (month 2):** Start 23-27 days after the last dose

Year 2 treatment course:

- **First cycle (month 1):** Start at least 43 weeks after the last dose of the first course/second cycle
- **Second cycle (month 2):** Start 23-27 days after the last dose

Each treatment cycle consists of 4 or 5 consecutive days[1]

Administer the cycle dosage as 1 or 2 tablets once daily over 4 or 5 consecutive days. Do not administer more than 2 tablets daily.



MONTH | **Each orange bar is 4 or 5 consecutive days of treatment.**

*Screening and monitoring should be performed before, during, and after treatment.

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MAVENCLAD dosing is based on patient weight[1]

The distribution of the number of tablets across the 2 treatment cycles is provided below. The dosing schedule is the same for both treatment courses (years 1 and 2), although the number of pills per treatment cycle may vary. Patients in the ≈88- to <110-lb (40- to <50-kg) weight range have only 4 days of treatment per treatment cycle, while all other weight ranges have 5 days.

NUMBER OF 10 MG TABLETS PER CYCLE

	TREATMENT WEEK 1 – YEARS 1 & 2						TREATMENT WEEK 2 – YEARS 1 & 2					
WEIGHT RANGE, ≈lb (kg)	DAY 1	DAY 2	DAY 3	DAY 4	DAY 5	TOTAL # OF TABLETS IN FIRST CYCLE	DAY 1	DAY 2	DAY 3	DAY 4	DAY 5	TOTAL # OF TABLETS IN SECOND CYCLE
88† to <110 (40† to <50 kg)	○	○	○	○	–	4 (40 mg)	○	○	○	○	–	4 (40 mg)
110 to <132 (50 to <60 kg)	○	○	○	○	○	5 (50 mg)	○	○	○	○	○	5 (50 mg)
132 to <154 (60 to <70 kg)	○○	○	○	○	○	6 (60 mg)	○○	○	○	○	○	6 (60 mg)
154 to <176 (70 to <80 kg)	○○	○○	○	○	○	7 (70 mg)	○○	○○	○	○	○	7 (70 mg)
176 to <198 (80 to <90 kg)	○○	○○	○○	○	○	8 (80 mg)	○○	○○	○	○	○	7 (70 mg)
198 to <220 (90 to <100 kg)	○○	○○	○○	○○	○	9 (90 mg)	○○	○○	○○	○	○	8 (80 mg)
220 to <242 (100 to <110 kg)	○○	○○	○○	○○	○○	10 (100 mg)	○○	○○	○○	○○	○	9 (90 mg)
≥242 (≥110 kg)	○○	○○	○○	○○	○○	10 (100 mg)	○○	○○	○○	○○	○○	10 (100 mg)

○ = 1 tablet
○○ = 2 tablets

†The use of MAVENCLAD in patients weighing <88 lb (<40 kg) has not been investigated. Weight ranges in pounds are calculated from kilogram values and have been rounded to the nearest whole number.

Following the administration of 2 treatment courses, do not administer additional MAVENCLAD treatment during the next 2 years. Treatment during these 2 years may further increase the risk of malignancy. The safety and efficacy of reinitiating MAVENCLAD more than 2 years after completing 2 treatment courses has not been studied.

IMPORTANT SAFETY INFORMATION

CONTRAINDICATIONS

- Patients with current malignancy.
- Pregnant women, and women and men of reproductive potential who do not plan to use effective contraception during and for 6 months after the last dose in each treatment course. May cause fetal harm.
- Patients with human immunodeficiency virus (HIV).
- Patients with active chronic infections (e.g., hepatitis or tuberculosis).
- Patients with a history of hypersensitivity to cladribine.
- Women intending to breastfeed while taking MAVENCLAD tablets and for 10 days after the last dose.

PACKAGING DESIGNED FOR PATIENT CONVENIENCE[1]

Patients are dispensed a 1-week supply of MAVENCLAD 10 mg tablets for **each treatment cycle with individualized day packs based on weight**. Each day pack is filled with 1 or 2 tablets and labeled according to the day that the patient should take them. Packaging will vary based on patient weight and is differentiated by color for safety. MAVENCLAD is a cytotoxic drug. Follow applicable special handling procedures.[1]

Learn more and watch the 3D packaging demo here.

One-week supply of individualized day packs

Patients take 1 or 2 MAVENCLAD tablets each treatment day:

- Orally, with water, with or without food, and swallowed whole without chewing
- Separate administration of MAVENCLAD and any other oral drugs by at least 3 hours during the 4- to 5-day MAVENCLAD treatment cycles

ONE-WEEK SUPPLY OF INDIVIDUALIZED DAY PACKS FOR A 165-LB (75-KG) PATIENT

Day 1	MAVENCLAD® (cladribine) tablets 10 mg	2 Tablets
Day 2	MAVENCLAD® (cladribine) tablets 10 mg	2 Tablets
Day 3	MAVENCLAD® (cladribine) tablets 10 mg	1 Tablet
Day 4	MAVENCLAD® (cladribine) tablets 10 mg	1 Tablet
Day 5	MAVENCLAD® (cladribine) tablets 10 mg	1 Tablet

For illustrative purposes only. MAVENCLAD dosage will vary based on patient weight.

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Missed dose

If a dose is missed, patients should not take double or extra doses.

- If a dose is not taken on the scheduled day, then the patient must take the missed dose on the following day and extend the number of days in that treatment cycle
- If 2 consecutive doses are missed, the treatment cycle is extended by 2 days

Storage and handling

MAVENCLAD tablets, 10 mg, are white, round, biconvex, and engraved with a "C" on one side and "10" on the other side. Store at controlled room temperature, 68°F to 77°F (20°C to 25°C); excursions permitted to 59°F to 86°F (15°C to 30°C). Store in original package in order to protect from moisture.

Instruct patients that MAVENCLAD is a cytotoxic drug and to use care when handling MAVENCLAD tablets. Limit direct skin contact with the tablets and wash exposed areas thoroughly. Advise patients to keep the tablets in the original child-resistant blister packaging until just prior to each scheduled dose and consult their pharmacist on the proper disposal of unused tablets.

IMPORTANT SAFETY INFORMATION

WARNINGS AND PRECAUTIONS

- **Malignancies:** Treatment with MAVENCLAD may increase the risk of malignancy. After the completion of 2 treatment courses, do not administer additional MAVENCLAD treatment during the next 2 years. In clinical studies, patients who received additional MAVENCLAD treatment within 2 years after the first 2 treatment courses had an increased incidence of malignancy. The risk of malignancy with reinitiating MAVENCLAD more than 2 years after the completion of 2 treatment courses has not been studied. Follow standard cancer screening guidelines in patients treated with MAVENCLAD.
- **Risk of Teratogenicity:** MAVENCLAD may cause fetal harm when administered to pregnant women. In females of reproductive potential, exclude pregnancy before initiation of each treatment course of MAVENCLAD and prevent by the use of effective contraception during MAVENCLAD dosing and for at least 6 months after the last dose of each treatment course. Women who become pregnant during treatment with MAVENCLAD should discontinue treatment.

Assessments prior to starting each treatment course[1]

Discuss standard cancer screening: Follow age-appropriate screening, such as the American Cancer Society (ACS) guidelines, because of the risk of malignancies.* MAVENCLAD is contraindicated in patients with current malignancy[1]

Exclude pregnancy: Exclude pregnancy prior to treatment with MAVENCLAD in females of reproductive potential. MAVENCLAD is contraindicated in pregnant women and in women and men of reproductive potential who do not plan to use effective contraception during MAVENCLAD dosing and for at least 6 months after the last dose in each treatment course

Obtain a complete blood count (CBC): Obtain a CBC with differential including lymphocyte count. Lymphocytes must be:

- within normal limits before initiating the first treatment course
- at least 800 cells/µL before initiating the second treatment course

If necessary, delay the second treatment course for up to 6 months so that lymphocytes recover to at least 800 cells/µL. If this recovery takes longer, the patient should not receive further treatment with MAVENCLAD.

Rule out latent or acute infections: Consider a delay in MAVENCLAD treatment until any acute infection is fully controlled

- **Obtain a baseline (within 3 months) MRI prior to the first treatment course because of the risk of PML (progressive multifocal leukoencephalopathy)**
- **Screen for tuberculosis:** Delay treatment with MAVENCLAD until tuberculosis has been adequately treated
- **Screen for hepatitis B and C:** MAVENCLAD is contraindicated in patients with active chronic infections
- **Exclude HIV infection:** MAVENCLAD is contraindicated in patients with HIV

Confirm vaccinations and immunizations

- **Check for immunity to varicella zoster virus:** Consider vaccinating patients who are antibody-negative
- **Administer all immunizations according to immunization guidelines prior to starting MAVENCLAD:** Administer live-attenuated or live vaccines at least 4 to 6 weeks prior to starting MAVENCLAD. Please note that the COVID-19 mRNA and viral vector vaccines are not live-attenuated or live vaccines[4–7]

Obtain liver function tests[1]

Please see Important Safety Information throughout this piece, and click **here** to view accompanying full Prescribing Information, including **boxed WARNING**.

Ongoing monitoring

Follow standard cancer screening guidelines

Obtain CBCs at 2 and 6 months after start of treatment: If the lymphocyte count at month 2 is below 200 cells/µL, monitor monthly until month 6. Administer anti-herpes prophylaxis in patients with lymphocyte counts less than 200 cells per microliter. Patients with lymphocyte counts below 500 cells per microliter should be monitored for signs and symptoms suggestive of infections, including herpes infections

Additional considerations

- Patients with prior malignancy or with increased risk of malignancy: evaluate the benefits and risks of the use of MAVENCLAD on an individual patient basis
- Females of reproductive potential should prevent pregnancy by use of effective contraception during MAVENCLAD dosing and for at least 6 months after the last dose in each treatment course
  - Women using systemically acting hormonal contraceptives should add a barrier method during MAVENCLAD dosing and for at least 4 weeks after the last dose in each treatment course
- MAVENCLAD is contraindicated in women intending to breastfeed on a MAVENCLAD treatment day and for 10 days after the last dose
- Initiation of MAVENCLAD in patients currently receiving immunosuppressive or myelosuppressive therapy is not recommended

Refer to the full Prescribing Information for a complete list of treatment considerations prior to starting each MAVENCLAD treatment course. This form is intended to serve as a summary of that information.

*The American Cancer Society recommends that everyone, especially people with chronic illness, have the appropriate cancer screening testing.

IMPORTANT SAFETY INFORMATION (continued)

- **Lymphopenia:** MAVENCLAD causes a dose-dependent reduction in lymphocyte count. In clinical studies, 87% of MAVENCLAD-treated patients experienced lymphopenia. The lowest absolute lymphocyte counts occurred approximately 2 to 3 months after the start of each treatment course and were lower with each additional treatment course. Concomitant use of MAVENCLAD with hematotoxic drugs may increase the risk of adverse reactions because of the additive hematological effects. Monitor lymphocyte counts before and during treatment, periodically thereafter, and when clinically indicated.

IMPORTANT SAFETY INFORMATION (continued)

- **Infections:** MAVENCLAD can reduce the body's immune defense and may increase the likelihood of infections. Infections occurred in 49% of MAVENCLAD-treated patients compared to 44% of patients treated with placebo in clinical studies. The most frequent serious infections included herpes zoster and pyelonephritis. Single fatal cases of tuberculosis and fulminant hepatitis B were reported in the clinical program. Administer live-attenuated or live vaccines at least 4 to 6 weeks prior to starting MAVENCLAD. Screen patients for latent infections; consider delaying treatment until infection is fully controlled. Vaccinate patients antibody-negative to varicella zoster virus prior to treatment. Administer anti-herpes prophylaxis in patients with lymphocyte counts less than 200 cells per microliter. Monitor for infections. In patients treated with parenteral cladribine for oncologic indications, cases of progressive multifocal leukoencephalopathy (PML) have been reported. No case of PML has been reported in clinical studies of cladribine in patients with MS.
- **Hematologic Toxicity:** In addition to lymphopenia, decreases in other blood cells and hematological parameters have been reported with MAVENCLAD in clinical studies. In general, mild to moderate decreases in neutrophil counts, hemoglobin levels, and platelet counts were observed. Severe decreases in neutrophil counts were observed in 3.6% of MAVENCLAD-treated patients, compared to 2.8% of placebo patients. Obtain complete blood count (CBC) with differential including lymphocyte count before and during treatment, periodically thereafter, and when clinically indicated.
- **Risk of Graft-versus-Host Disease With Blood Transfusions:** Transfusion-associated graft-versus-host disease has been observed rarely after transfusion of nonirradiated blood in patients treated with cladribine for non-MS treatment indications.
- **Liver Injury:** In clinical studies, 0.3% of MAVENCLAD-treated patients had liver injury (serious or causing treatment discontinuation) compared to 0 placebo patients. Obtain serum aminotransferase, alkaline phosphatase, and total bilirubin levels prior to treatment. Discontinue if clinically significant injury is suspected.
- **Hypersensitivity:** In clinical studies, 11% of MAVENCLAD-treated patients had hypersensitivity reactions, compared to 7% of placebo patients. Hypersensitivity reactions that were serious and/or led to discontinuation of MAVENCLAD, occurred in 0.5% of MAVENCLAD-treated patients, compared to 0.1% of placebo patients. If a hypersensitivity reaction is suspected, discontinue MAVENCLAD therapy. Do not use MAVENCLAD in patients with a history of hypersensitivity to cladribine.
- **Cardiac Failure:** In clinical studies, one MAVENCLAD-treated patient experienced life-threatening acute cardiac failure with myocarditis, which improved after approximately one week. Cases of cardiac failure have also been reported with parenteral cladribine used for treatment indications other than multiple sclerosis.

Adverse Reactions: The most common adverse reactions with an incidence of >20% for MAVENCLAD are upper respiratory tract infection, headache, and lymphopenia.

Drug Interactions/Concomitant Medication: Concomitant use of MAVENCLAD with immunosuppressive or myelosuppressive drugs and some immunomodulatory drugs (e.g., interferon beta) is not recommended and may increase the risk of adverse reactions. Acute short-term therapy with corticosteroids can be administered.

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Avoid concomitant use of certain antiviral and antiretroviral drugs. Avoid concomitant use of BCRP or ENT/CNT inhibitors as they may alter bioavailability of MAVENCLAD.

Use in Specific Populations: Studies have not been performed in pediatric or elderly patients, pregnant or breastfeeding women. Use in patients with moderate to severe renal or hepatic impairment is not recommended.

References

1. MAVENCLAD [prescribing information]. Rockland, MA: EMD Serono, Inc; 2019.
2. Giovannoni G, Comi G, Cook S, et al; for the CLARITY Study Group. A placebo-controlled trial of oral cladribine for relapsing multiple sclerosis. *N Engl J Med.* 2010;362(5):416-426.
3. Data on file. Merck KGaA, Darmstadt, Germany.
4. Centers for Disease Control and Prevention. Understanding mRNA COVID-19 Vaccines; 2019.
5. Comirnaty [prescribing information]. New York, NY: Pfizer, Inc; 2021.
6. US Food and Drug Administration. SPIKEVAX. Updated February 18, 2022. Accessed April 18, 2022. https://www.fda.gov/vaccines-blood-biologics/spikevax
7. US Food and Drug Administration. Emergency Use Authorization. Janssen Biotech. https://www.fda.gov/media/146303/download

Only MAVENCLAD can deliver proven efficacy at 96 weeks with a maximum of 10 days of treatment a year over 2 years.[1,2]

First & only short-course oral treatment

- Weight-based dosing administered in 2 treatment courses approximately 1 year apart[1]
- Each treatment course consists of 2 cycles that are 4 or 5 consecutive treatment days each[1]
- Screening and monitoring should be performed before, during, and after treatment.[1] After the completion of 2 treatment courses, do not administer additional MAVENCLAD treatment during the next 2 years. The risk of malignancy with reinitiating MAVENCLAD more than 2 years after the completion of 2 treatment courses has not been studied

Well-characterized safety & tolerability profile

- MAVENCLAD has **17 years** of experience in clinical, observational, and real-world settings in MS[3]
- MAVENCLAD includes a **boxed WARNING for malignancies and risk of teratogenicity**
- See full Prescribing Information for additional serious adverse reactions (e.g., infections, lymphopenia)

IMPORTANT SAFETY INFORMATION

WARNING: MALIGNANCIES and RISK OF TERATOGENICITY

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US-MAV-01553 04/22
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