Mavenclad

Description

Mavenclad (cladribine)

Background
Mavenclad (cladribine) is a purine antimetabolite that is thought to involve cytotoxic effects on B and T lymphocytes through impairment of DNA synthesis, resulting in depletion of lymphocytes. The exact mechanism of action in Multiple Sclerosis (MS) is unknown. It is thought that the cytotoxic effect and reduction in the number of circulating lymphocytes may result in a reduction of the damaging immune response seen in MS (1).

Regulatory Status
FDA approved indication: Mavenclad is a purine antimetabolite indicated for the treatment of relapsing forms of multiple sclerosis (MS), to include relapsing-remitting disease and active secondary progressive disease, in adults (1).

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 (1).

Limitations of use: Mavenclad is not recommended for use in patients with clinically isolated syndrome (CIS) because of its safety profile (1).

Mavenclad has a boxed warning that it 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, they should be evaluated for the benefits and risks of the use of Mavenclad on an individual patient basis (1).

Mavenclad also carries a boxed warning regarding the risk of teratogenicity. 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 (1).

Mavenclad is contraindicated in patients with: (1)
- Current malignancy
- Pregnant women, and women and men of reproductive potential who do not plan to use effective contraception during Mavenclad dosing and for 6 months after the last dose in each treatment course
- HIV infection
- Active chronic infections (e.g. hepatitis or tuberculosis)
- Women intending to breastfeed on Mavenclad treatment day and for 10 days after the last dose

Before each Mavenclad treatment course, a complete blood count (CBC) with differential including lymphocyte count should be obtained. Lymphocytes must be within normal limits before initiating the first treatment course and lymphocytes must be at least 800 cells per microliter before initiating the second treatment course (1).

Vaccination of patients who are antibody-negative for varicella zoster virus is recommended prior to Mavenclad initiation (1).

A baseline (within 3 months) magnetic resonance imaging should be obtained prior to the first treatment course because of the risk of progressive multifocal leukoencephalopathy (PML) (1).

Mavenclad has not been administered concomitantly with antineoplastic, immunosuppressive or immune modulating therapies used for treatment of MS. Concomitant use of Mavenclad with any of these therapies would be expected to increase the risk of immunosuppression (1).

Due to the risk of liver injury, serum aminotransferase, alkaline phosphatase, and total bilirubin levels should be obtained (1).

Live, attenuated vaccines are generally not recommended for a person with MS because their ability to cause disease has been weakened but not totally inactivated. Administer live-attenuated or live vaccines at least 4 to 6 weeks prior to starting Mavenclad, because of a risk of
active vaccine infection. Avoid vaccination with live-attenuated or live vaccines during and after Mavenclad treatment while the patient’s white blood cell counts are not within normal limits (1-2).

The safety and effectiveness of Mavenclad in pediatric patients less than 18 years of age have not been established (1).

Related policies
Acthar Gel, Ampyra, Aubagio, Gilenya, Lemtrada, Mayzent, MS Injectables, Ocrevus, Tecfidera, Tysabri

Policy

This policy statement applies to clinical review performed for pre-service (Prior Approval, Precertification, Advanced Benefit Determination, etc.) and/or post-service claims.

Mavenclad may be considered medically necessary in patients 18 years of age or older with Multiple Sclerosis (MS) and if the conditions indicated below are met.

Mavenclad may be considered investigational in patients less than 18 years of age and for all other indications.

Prior-Approval Requirements

Age 18 years of age or older

Diagnosis

Patient must have the following:

Relapsing Multiple Sclerosis (MS), including relapsing-remitting disease and active secondary progressive disease

AND ALL of the following:

1. Prescriber has reviewed baseline liver function tests (LFTs) and complete blood count (CBC) with differential including lymphocyte count
2. Female of reproductive potential: patient is not pregnant
3. Prescriber will advise females and males of reproductive potential to use effective contraception during Mavenclad dosing and for 6 months after the
Section: Prescription Drugs  Effective Date: October 1, 2019
Subsection: Central Nervous System Drugs  Original Policy Date: April 19, 2019
Subject: Mavenclad  Page: 4 of 5

last dose in each treatment course
4. Inadequate treatment response or intolerance to an alternate drug for MS
5. Prescriber agrees to delay the second treatment course until lymphocytes are greater than or equal to 800 cells per microliter

AND NONE of the following:
1. Diagnosis of clinically isolated syndrome (CIS)
2. Presence of current malignancy
3. HIV infection or active chronic infection (e.g. hepatitis or tuberculosis)
4. Concurrent use with other MS disease modifying agents
5. Given concurrently with live vaccines

Prior – Approval Renewal Requirements
None

Policy Guidelines

Pre - PA Allowance
None

Prior - Approval Limits

<table>
<thead>
<tr>
<th>Dose of MAVENCLAD per Cycle by Patient Weight in Each Treatment Course Weight Range</th>
<th>Dose in mg (Number of 10 mg Tablets) per Cycle</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>First Cycle</td>
</tr>
<tr>
<td>kg</td>
<td></td>
</tr>
<tr>
<td>40* to less than 50</td>
<td>40 mg (4 tablets)</td>
</tr>
<tr>
<td>50 to less than 60</td>
<td>50 mg (5 tablets)</td>
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<tr>
<td>60 to less than 70</td>
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<td>80 mg (8 tablets)</td>
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<td>90 to less than 100</td>
<td>90 mg (9 tablets)</td>
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<tr>
<td>100 to less than 110</td>
<td>100 mg (10 tablets)</td>
</tr>
<tr>
<td>110 and above</td>
<td>100 mg (10 tablets)</td>
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</tbody>
</table>

*The use of MAVENCLAD in patients weighing less than 40 kg has not been investigated.
Mavenclad (cladribine) is a purine antimetabolite that is thought to involve cytotoxic effects on B and T lymphocytes through impairment of DNA synthesis, resulting in depletion of lymphocytes. Although the exact mechanism of action in Multiple Sclerosis (MS) is unknown, it is thought that through this cytotoxic effect and by reducing the number of lymphocytes that are circulating in the bloodstream, this results in a reduction of the damaging immune response seen in MS (1).

Prior authorization is required to ensure the safe, clinically appropriate and cost effective use of Mavenclad while maintaining optimal therapeutic outcomes.

### References