



MULTIPLE SCLEROSIS (MS) INJECTABLE DRUGS

Avonex, Rebif (interferon beta-1a); **Plegridy** (peginterferon beta-1a); **Betaseron, Extavia** (interferon beta-1b); Copaxone*(**glatiramer acetate**), **Glatopa (glatiramer acetate)**

Preferred MS injectable products: Avonex, Rebif, Plegridy, Betaseron, generic glatiramer acetate and Glatopa.

*Prior authorization for the brand formulation applies only to formulary exceptions due to being a non-covered medication.

RATIONALE FOR INCLUSION IN PA PROGRAM

Background

Plegridy (peginterferon beta-1a), Avonex / Rebif (interferon beta-1a), Betaseron / Extavia (interferon beta-1b), and Copaxone / Glatopa (glatiramer) are multiple sclerosis (MS) disease-modifying agents. They potentially alter the course of disease by lessening the frequency of clinical exacerbations. Avonex and Rebif may also delay the accumulation of physical disability (1-7).

Avonex / Rebif and Betaseron / Extavia are different brands of the same generic entity, interferons beta-1a and b respectively, recombinant forms of human interferon proteins. Plegridy is a PEG (poly-ethylene glycol)-attached form of interferon beta-1a. Copaxone / Glatopa (glatiramer) is a non-interferon polypeptide consisting of four amino acids. Although their precise mechanisms of action are unknown, the agents affect the body through the immune system (1-7).

Regulatory Status

FDA-approved indications:

Avonex is an interferon beta indicated for the treatment of relapsing forms of multiple sclerosis (MS), to include clinically isolated syndrome, relapsing-remitting disease, and active secondary progressive disease, in adults (1).

Betaseron / Extavia is an interferon beta indicated for the treatment of relapsing forms of multiple sclerosis (MS), to include clinically isolated syndrome, relapsing-remitting disease, and active secondary progressive disease, in adults (2, 4).

Glatopa is indicated for the treatment of patients with relapsing forms of multiple sclerosis (MS), to include clinically isolated syndrome, relapsing-remitting disease, and active secondary progressive disease, in adults (7). **Copaxone / Plegridy** is indicated for the treatment of relapsing forms of

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multiple sclerosis (MS), to include clinically isolated syndrome, relapsing-remitting disease, and active secondary progressive disease, in adults (3, 5).

Rebif is an interferon beta indicated for the treatment of patients with relapsing forms of multiple sclerosis, to include clinically isolated syndrome, relapsing-remitting disease, and active secondary progressive disease, in adults (6).

The MS injectable drugs are available for subcutaneous injection and should be used with precaution in patients with mood or psychiatric disorders and hepatic impairment (1-7).

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 (8).

Safety and effectiveness of the MS injectable drugs in patients younger than 18 years of age have not been established (1-7).

Summary

Plegridy (peginterferon beta-1a), Avonex / Rebif (interferon beta-1a), Betaseron / Extavia (interferon beta-1b), and Copaxone / Glatopa (glatiramer) are multiple sclerosis (MS) disease-modifying agents. They potentially alter the course of disease by lessening the frequency of clinical exacerbations. Avonex and Rebif may also delay the accumulation of physical disability (1-7).

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

References

1. Avonex [package insert]. Cambridge MA: Biogen Inc.; July 2023.
2. Betaseron [package insert]. Whippany NJ: Bayer HealthCare Pharmaceuticals Inc; July 2023.



**BlueCross.
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Federal Employee Program.

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3. Copaxone [package insert]. Parsippany, NJ: Teva Pharmaceuticals USA, Inc.; November 2023.
4. Extavia [package insert]. East Hanover, NJ: Novartis Pharmaceuticals Corporation; July 2023.
5. Plegridy [package insert]. Cambridge, MA: Biogen Inc.; July 2023.
6. Rebif [package insert]. Rockland, MA: EMD Serono; July 2023.
7. Glatopa [package insert]. Princeton, NJ: Sandoz Inc; December 2023.
8. Cahill JF, Izzo A, Garg N. Immunization in patients with multiple sclerosis. Neurological Bulletin. 2010;2(1):17-21.