Disease-modifying treatments for MS

A resource to help MS health professionals encourage shared decision-making among people with MS

UPDATED

Version: beta 7.0, 09-03-2026

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UPDATED

EXPLAINER CARD

About the cards

WHAT ARE THE MS-SELFIE INFOCARDS AND HOW DO I USE THEM?

The MS-Selfie Infocards are bite-sized information cards intended to aid treatment choices for people with MS. They provide an overview of the key aspects of DMTs for MS, to enable easy comparison of any treatments you are considering. The parameters are standardised, allowing for a broad overview across all the DMTs.

These cards are not meant for use in isolation. Please consult other sources such as the MS-Selfie site and the summary of product characteristics for each DMT you may be considering starting. Any treatment decision should be discussed with your MS healthcare team.

HOW CAN I TRUST THE MS-SELFIE INFOCARDS?

We regularly update the MS-Selfie Infocards to ensure they match with the latest research and product characteristics for DMTs. The scores for each drug were based on the ClinicSpeak DMT decision making tool and content from MS-Selfie microsite. MS neurologists fact checked all the DMT "about" sections and helped to determine and adjust the scores.

DISCLAIMER

The opinions expressed in these cards are those of Professor Giovannoni and his team. The advice is intended as general and should not be interpreted as personal clinical advice. If you have any queries or problems, please contact your healthcare professional for help.

For more information

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EXPLAINER CARD

Parameters

EFFECTIVENESS

A high score denotes the drug as very effective at preventing relapses or long-term disability. This is based on a published network meta-analysis.

SIDE EFFECTS

A low score denotes the drug has few or rare short-term or long-term side effects. The score does not correlate to a percentage. More information can be found in each summary of product characteristics.

IMPACTS

Cancer risk is based on published pharmacovigilance analysis. Family planning reflects how compatible the drug is with becoming pregnant and fertility. Vaccinations signals whether the drug impacts response to vaccinations. Clinic visits involve appointments for monitoring, like blood tests, and visits to receive treatment.

"ABOUT" SECTION

Key information is provided on the action of the drug, important side effects, monitoring, any serious risks, and family planning. Detailed information on every aspect of the drug can be found in the summary of product characteristics.

LICENSING

Licensing reflects whether the drug is licensed or not in the UK. The indications are based on those in England. Active MS includes any type of active MS, i.e. also highly active and rapidly evolving severe MS. Check with your MS team to find out what drugs you are eligible for.

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EXPLAINER CARD

Symbols and colour coding and QR codes

ADMINISTRATION SYMBOLS

Infusion

Tablets

Stem cell transplant

Injection

Injector pen

COLOUR CODING

- Immunomodulation
- Immunosuppression
- Selective immune-reconstitution therapy
- Non-selective immune-reconstitution therapy

QR CODES

Please scan the QR codes or click the links on the back of each card for more information on each DMT. These cards are a brief overview; the MS-Selfie site and summary of product characteristics for each DMT provide more in-depth information to aid decision making.

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EXPLAINER CARD

DMT types

MAINTENANCE THERAPY

Maintenance therapy is given continuously, without an interruption in dosing. Although it has the ability to induce long-term remission, it cannot result in a cure. Maintenance therapies include immunomodulators and immunosuppressants. The former tend to have a lower efficacy, but also a lower risk profile than immunosuppressors, which can be more effective. The benefits include ability to switch to a different drug relatively easily if a poor response occurs.

IMMUNE RECONSTITUTION THERAPY

An immune reconstitution therapy (IRT) is given as a short course and has the ability to induce long-term remission and, in some cases, the possibility of disease stability. They generally have very high efficacy but are also perceived to be higher risk than maintenance therapies. IRT has an irreversible effect on the immune system. IRT can be selective, targeting specific parts of the immune system, or non-selective, impacting the whole immune system.

Abbreviations:

pwMS = people with MS

PPMS = primary progressive MS

RRMS = relapsing remitting MS

CIS = clinically isolated syndrome

DMT = disease modifying treatment

SPMS = secondary progressive MS

CNS = central nervous system

PML = progressive multifocal leukoencephalopathy

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ALEMTUZUMAB

TRADE NAME: LEMTRADA / CAMPATH

TYPE: non-selective immune reconstitution therapy (IRT)
DURATION: 5 day course and a 3 day course a year later
TAKEN: infusion

EFFECTIVENESS

	MINIMAL EFFICACY	MAXIMAL EFFICACY
Prevention of relapses		10
Prevention of long-term disability		10

SIDE EFFECTS

	FEW / RARE	MANY / FREQUENT
Short-term side effects	4	
Long-term side effects		9

IMPACTS

Cancer risk	**no / low impact**	unknown impact	increased risk of some cancers
Family planning	compatible	**short-term incompatible**	possible long-term impacts
Vaccinations	good response	**moderate response**	poor response
Clinic visits	minimal	moderate	**many**

ABOUT

LICENSED

- Active relapsing MS
- CIS
- RRMS

- Alemtuzumab is an anti-CD52 monoclonal antibody that depletes the T and B cells to stop them destroying myelin in the CNS.
- Compared to beta interferons, the drug reduces relapses by over 50% and slows disability progression by 42%.
- There is a risk of developing another autoimmune disease following treatment, commonly a thyroid condition or immune thrombocytopenia, a problem with the blood.
- Common side effects include common infections and general malaise after an infusion. 4 in 10 people develop a thyroid problem which requires lifelong medication.
- Monitoring post-alemtuzumab treatment lasts for 4 years. It is necessary to follow a specific diet for one month following infusion due to the risk of listeria infection.
- Pregnancy should be delayed until 4 months after the second treatment cycle of alemtuzumab. Contraception is strongly recommended during treatment.

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MS Selfie InfoCards

ALEMTUZUMAB

TRADE NAME: LEMTRADA

For more information visit MS-Selfie:

View Summary of Product Characteristics here:

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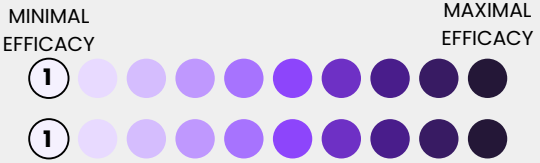
AZATHIOPRINE

TRADE NAME: IMURAN

TYPE: immunosuppression
DURATION: ongoing - taken once or twice a day
TAKEN: tablet form / self-administered

EFFECTIVENESS



SIDE EFFECTS

IMPACTS

Cancer risk	no / low impact	unknown impact	**increased risk of some cancers**
Family planning	**compatible**	short-term incompatible	possible long-term impacts
Vaccinations	**good response**	moderate response	poor response
Clinic visits	minimal	moderate	**many**

ABOUT

Not Licensed for MS

- Azathioprine is an immunosuppressant used in conditions such as rheumatoid arthritis and lupus. It works by inhibiting the formation of purines which are needed to make DNA, resulting in fewer white blood cells being made.
- The efficacy in MS is not yet clear.
- Side effects include nausea, anaemia, and liver damage. Low white blood cell count occurs in more than 1 in 10 people.
- Those on azathioprine require monitoring of blood count and liver function. It is associated with an increased risk of skin cancer and lymphoma if taken for more than 5 years.
- Pregnancy and breastfeeding are possible on azathioprine; however, discussion with your neurologist prior to becoming pregnant is advisable.

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AZATHIOPRINE

TRADE NAME: IMURAN

For more information visit MS-Selfie:

View Summary of Product Characteristics here:

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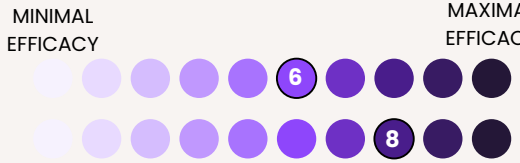
CLADRIBINE

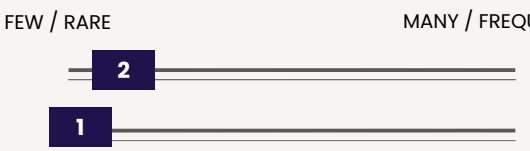
TRADE NAME: MAVENCLAD

TYPE: selective immune reconstitution therapy (IRT)
DURATION: 4 x 5 day courses (across 2 years)
TAKEN: tablet form / self-administered

EFFECTIVENESS



SIDE EFFECTS



IMPACTS

Cancer risk	**no / low impact**	unknown impact	increased risk of some cancers
Family planning	compatible	**short-term incompatible**	possible long-term impacts
Vaccinations	**good response**	moderate response	poor response
Clinic visits	**minimal**	moderate	many

ABOUT

LICENSED

Highly active relapsing MS

Rapidly evolving severe MS

- Cladribine acts by primarily destroying B cells to prevent them from damaging the myelin in the CNS.
- A third or fourth course of cladribine may be required.
- Compared to placebo, relapses are reduced by 58% and the worsening of disability is slowed by 33%.
- Over 1 in 4 people get lymphopenia, a low white blood cell count, which can last for a long time. This may mean the second course of cladribine has to be delayed or, in some cases, will not be administered.
- The most common side effects following cladribine are skin reactions and, rarely, hair loss or thinning.
- There is an increased risk of herpes infection which causes shingles and oral cold sores.
- Pregnancy should be avoided for 6 months after finishing cladribine. Contraception is strongly recommended.

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CLADRIBINE

TRADE NAME: MAVENCLAD

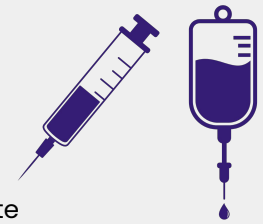
For more information visit MS-Selfie:

View Summary of Product Characteristics here:

Version: 7.0 beta, 09-03-2026

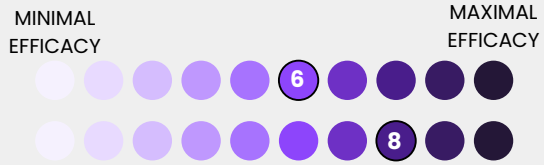
CLADRIBINE

TRADE NAME: LEUSTAT / LITAK

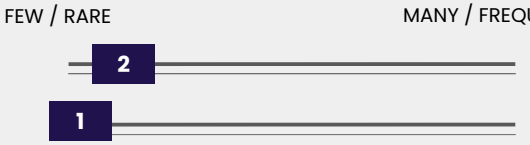


TYPE: selective immune reconstitution therapy (IRT)
DURATION: short course over 2 years, depends on route
TAKEN: injection / infusion

EFFECTIVENESS



SIDE EFFECTS



IMPACTS

Cancer risk	**no / low impact**	unknown impact	increased risk of some cancers
Family planning	compatible	**short-term incompatible**	possible long-term impacts
Vaccinations	**good response**	moderate response	poor response
Clinic visits	**minimal**	moderate	many

ABOUT

Not Licensed for MS

- Cladribine acts by primarily destroying B cells to prevent them from damaging the myelin in the CNS.
- Leustat and Litak are non-oral formulations of cladribine that may be available for off-label use in MS.
- These formulations of cladribine likely have similar efficacy and side effects to the tablet formulations but this is not yet proven.
- Side effects of the injection formulation of cladribine in a small trial included infections, especially shingles, and gastrointestinal symptoms.
- Pregnancy should be avoided for 6 months after finishing cladribine. Contraception is strongly recommended.

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CLADRIBINE (OFF-LABEL FORMULATION)

TRADE NAME: LEUSTAT/ LITAK

For more information visit MS-Selfie:

View Summary of Product Characteristics here:

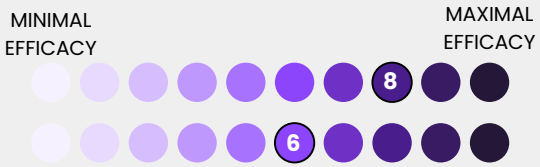
Version: 7.0 beta, 09-03-2026

CYCLOPHOSPHAMIDE

TRADE NAME: CYCLOPHOSPHAMIDE (generic)

TYPE: immunosuppression
DURATION: ongoing - depends on protocol
TAKEN: infusion

EFFECTIVENESS



SIDE EFFECTS

IMPACTS

Cancer risk	no / low impact	unknown impact	**increased risk of some cancers**
Family planning	compatible	short-term incompatible	**possible long-term impacts**
Vaccinations	good response	**moderate response**	poor response
Clinic visits	minimal	**moderate**	many

ABOUT

Not Licensed for MS

- Cyclophosphamide reduces the number of T and B cells when used to treat MS.
- It is used to treat vasculitis and also used as a chemotherapy agent for cancer.
- The efficacy of cyclophosphamide in MS is unclear.
- Short-term side effects include nausea, infertility, bladder irritation, hair loss and infections. Long-term side effects include potential triggering of early menopause and increased risk of leukaemia, lymphoma, and bladder cancer.
- Cyclophosphamide toxicity increases with more doses.
- Cyclophosphamide can lead to infertility. Pregnancy should be avoided for up to a year after stopping treatment. Contraception is strongly recommended during treatment.

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CYCLOPHOSPHAMIDE

TRADE NAME: CYCLOPHOSPHAMIDE (generic)

For more information visit MS-Selfie:

View Summary of Product Characteristics here:

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DIMETHYL FUMARATE

TRADE NAME: TECFIDERA

TYPE: immunosuppression
DURATION: ongoing - one tablet twice a day
TAKEN: tablet form / self-administered

EFFECTIVENESS

	MINIMAL EFFICACY									MAXIMAL EFFICACY
Prevention of relapses				4						
Prevention of long-term disability				4						

SIDE EFFECTS

	FEW / RARE					MANY / FREQUENT
Short-term side effects				5		
Long-term side effects			3			

IMPACTS

Cancer risk	no / low impact	unknown impact	**increased risk of some cancers**
Family planning	compatible	**short-term incompatible**	possible long-term impacts
Vaccinations	**good response**	moderate response	poor response
Clinic visits	minimal	moderate	**many**

ABOUT

LICENSED

RRMS with 2 significant relapses in the past 2 years

- Dimethyl fumarate dampens down inflammation to reduce damage in the CNS and reduces white blood cell count.
- Compared to placebo, dimethyl fumarate reduces relapses by 53% and slows disability worsening by 38%.
- Around 4 in 10 people get mild side effects including flushing, feeling hot, nausea and vomiting.
- People taking dimethyl fumarate are at risk (around 0.002%) of a very rare brain infection called PML (post-2017 data).
- There is an increased risk of breast, genitourinary and nervous system cancers.
- It is best to avoid pregnancy on dimethyl fumarate. Please discuss with your neurologist if you or your partner wishes to become pregnant whilst on dimethyl fumarate.

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DIMETHYL FUMARATE

TRADE NAME: TECFIDERA

For more information visit MS-Selfie:

View Summary of Product Characteristics here:

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DIROXIMEL FUMARATE

TRADE NAME: VUMERITY

TYPE: immunosuppression
DURATION: ongoing - one tablet twice a day
TAKEN: tablet form / self-administered

EFFECTIVENESS

	MINIMAL EFFICACY	MAXIMAL EFFICACY
Prevention of relapses	4	
Prevention of long-term disability	4	

SIDE EFFECTS

	FEW / RARE	MANY / FREQUENT
Short-term side effects	6	
Long-term side effects	3	

IMPACTS

Cancer risk	no / low impact	unknown impact	**increased risk of some cancers**
Family planning	compatible	**short-term incompatible**	possible long-term impacts
Vaccinations	**good response**	moderate response	poor response
Clinic visits	minimal	moderate	**many**

ABOUT

LICENSED

RRMS with 2 significant relapses in the past 2 years

- Diroximel fumarate dampens inflammation and works similarly to dimethyl fumarate.
- It has a similar impact on reduction in relapses as dimethyl fumarate.
- Around 1 in 3 people had stomach or gut issues in the trial of this drug. Around 1 in 10 people get side effects of a cold or chest infection.
- There is an increased risk of breast, genitourinary, and nervous system cancers.
- It is best to avoid pregnancy on diroximel fumarate. Please discuss with your neurologist if you or your partner wishes to become pregnant whilst on diroximel fumarate.

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DIROXIMEL FUMARATE

TRADE NAME: VUMERITY

For more information visit MS-Selfie:

View Summary of Product Characteristics here:

Version: 7.0 beta, 09-03-2026

FINGOLIMOD

TRADE NAME: GILENYA

TYPE: immunosuppression
DURATION: ongoing - one tablet per day
TAKEN: tablet form / self-administered

EFFECTIVENESS

	MINIMAL EFFICACY									MAXIMAL EFFICACY
Prevention of relapses					5					
Prevention of long-term disability					5					

SIDE EFFECTS

	FEW / RARE			MANY / FREQUENT
Short-term side effects		3		
Long-term side effects			5	

IMPACTS

Cancer risk	no / low impact	unknown impact	**increased risk of some cancers**
Family planning	compatible	**short-term incompatible**	possible long-term impacts
Vaccinations	good response	moderate response	**poor response**
Clinic visits	minimal	**moderate**	many

ABOUT

LICENSED

Highly active relapsing MS

Rapidly evolving severe MS in some cases

- Fingolimod prevents T and B cells from leaving the lymph nodes hence preventing damage to the myelin in the CNS.
- Compared to placebo, relapses are reduced by 54% and disability progression reduced by 30%.
- More than 1 in 10 people get diarrhoea and headaches. Rarely, swelling of the yellow spot at the back of your retina may occur. You will be asked to have this checked with ophthalmology.
- Those on fingolimod are at an increased risk of basal and squamous cell carcinomas of the skin, and lymphoma.
- pwMS on fingolimod are at an increased risk of infections including herpes.
- The first dose of fingolimod requires monitoring in hospital as it can cause temporary heart rate and blood pressure changes.
- Pregnancy must be avoided for 2 months after stopping fingolimod as it can harm a fetus. Contraception is strongly recommended during treatment.

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MS Selfie InfoCards

FINGOLIMOD

TRADE NAME: GILENYA

For more information visit MS-Selfie:

View Summary of Product Characteristics here:

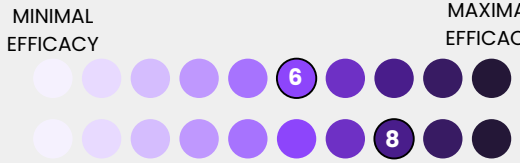
Version: 7.0 beta, 09-03-2026

FLUDARABINE

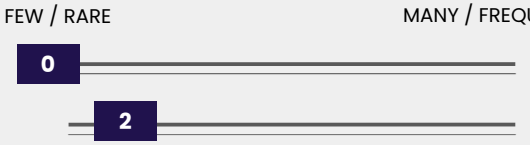
TRADE NAME: FLUDARA

TYPE: selective immune reconstitution therapy (IRT)
DURATION: not yet established in MS
TAKEN: tablet form / self-administered

EFFECTIVENESS



SIDE EFFECTS



IMPACTS

Cancer risk	no / low impact	**unknown impact**	increased risk of some cancers
Family planning	compatible	short-term incompatible	**possible long-term impacts**
Vaccinations	good response	**moderate response**	poor response
Clinic visits	**minimal**	moderate	many

ABOUT

Not Licensed for MS

- Fludarabine is a similar drug to cladribine. It is a chemotherapy drug currently used in the treatment of some blood cancers.
- It has been tested in combination with interferon beta drugs and showed good tolerability for pwMS.
- Fludarabine can cause low red blood cells, low platelets and low neutrophils so requires regular blood monitoring.
- Common side effects also include increased risk of infection, fatigue, nausea and vomiting.
- Rarely, people get more serious side effects including liver changes and a bleed from the bowel.
- Pregnancy must be avoided for 6 months after stopping fludarabine. Contraception is strongly recommended. Long-term fludarabine treatment may lead to infertility.

MS Selfie InfoCards

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MS Selfie InfoCards

FLUDARABINE

TRADE NAME: FLUDARA

For more information visit MS-Selfie:

View Summary of Product Characteristics here:

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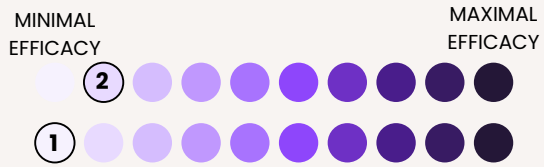
GLATIRAMER ACETATE

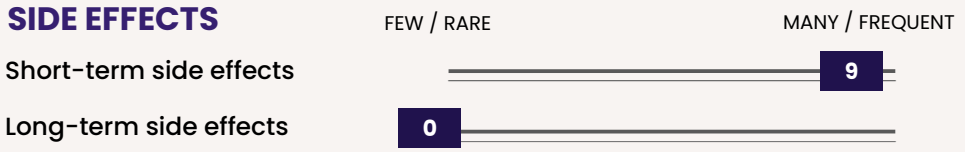
TRADE NAME: BRABIO / COPAXONE

TYPE: immunomodulation
DURATION: ongoing - once a day or 3 times per week
TAKEN: injection / self-administered

EFFECTIVENESS



SIDE EFFECTS



IMPACTS

Cancer risk	**no / low impact**	unknown impact	increased risk of some cancers
Family planning	**compatible**	short-term incompatible	possible long-term impacts
Vaccinations	**good response**	moderate response	poor response
Clinic visits	minimal	moderate	**many**

ABOUT

LICENSED

CIS

RRMS with 1-2 relapses in the past 2 years

- Glatiramer acetate is a mixture of proteins resembling myelin that is recognised by immune cells, indirectly preventing the destruction of real myelin.
- Glatiramer acetate reduces the number of relapses by around 34% compared to placebo.
- More than 1 in 10 people get mild side effects such as flu-like symptoms, a rash or headaches. Soreness at the site of injection is common. Lipoatrophy, permanent damage underneath the skin at injection sites, is a reason some people stop treatment with glatiramer acetate.
- Copaxone can be used during pregnancy or breastfeeding.

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GLATIRAMER ACETATE

TRADE NAME: BRABIO/ COPAXONE

For more information visit MS-Selfie:

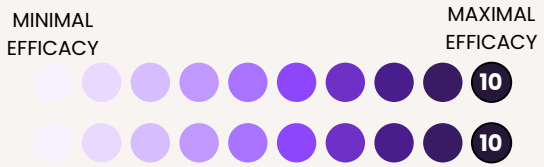
View Summary of Product Characteristics here:

Version: 7.0 beta, 09-03-2026

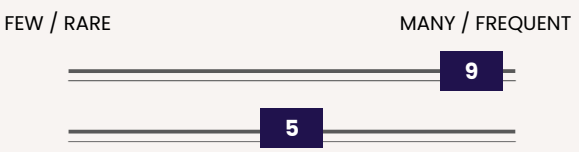
HAEMATOPOIETIC STEM CELL TRANSPLANTATION

TYPE: non-selective immune reconstitution therapy (IRT)
DURATION: one month in isolation
TAKEN: procedure

EFFECTIVENESS



SIDE EFFECTS



IMPACTS

Cancer risk	no / low impact	unknown impact	**increased risk of some cancers**
Family planning	compatible	short-term incompatible	**possible long-term impacts**
Vaccinations	good response	**moderate response**	poor response
Clinic visits	minimal	**moderate**	many

ABOUT

NHS Funded

Some people with rapidly evolving severe MS

- Haematopoietic stem cell transplantation (HSCT) may be an option for those who are early on in their disease course.
- Chemotherapy destroys the body's immune cells. The stem cells extracted from the blood prior to chemotherapy are reintroduced and repopulate the immune system.
- In a trial of people with very active relapsing MS, 99% of people who had HSCT had no relapses for 1 year and 94% had no worsening in disability over 3 years.
- Side effects can include an increased long-term risk of infections, autoimmune conditions and early menopause. Brain fog in the 2 years following treatment is a reported side effect.
- HSCT recipients are at an increased risk of cancer in general, particularly leukaemia, lymphoma, and bladder cancer.
- The chemotherapy element can cause infertility.

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HAEMATOPOIETIC STEM CELL TRANSPLANTATION

For more information visit MS-Selfie:

View summary of the procedure here:

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INTERFERON BETA-1a

TRADE NAME: AVONEX

TYPE: immunomodulation
DURATION: ongoing - once per week
TAKEN: injection pen / self-administered

EFFECTIVENESS

	MINIMAL EFFICACY								MAXIMAL EFFICACY
Prevention of relapses	1								
Prevention of long-term disability	1								

SIDE EFFECTS

	FEW / RARE	MANY / FREQUENT
Short-term side effects		7
Long-term side effects	0	

IMPACTS

Cancer risk	no / low impact	unknown impact	**increased risk of some cancers**
Family planning	**compatible**	short-term incompatible	possible long-term impacts
Vaccinations	**good response**	moderate response	poor response
Clinic visits	minimal	moderate	**many**

ABOUT

LICENSED

CIS

RRMS with 1-2 relapses in the past 2 years

- Interferon beta-1a is a type of beta interferon. Beta interferons are synthetic versions of proteins produced by white blood cells when the body is tackling viral infections.
- Avonex is injected into the muscle once a week.
- Interferon beta-1a drugs reduce relapses by around 30% compared to placebo.
- Common side effects following injection can include flu-like symptoms and red itchy skin at the injection site.
- There is potential increased risk of cancer on interferons.
- Pregnancy on interferons is possible once established on treatment, otherwise a 1 month delay is required. Breastfeeding on interferons is encouraged.

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INTERFERON BETA-1a

TRADE NAME: AVONEX

For more information visit MS-Selfie:

View Summary of Product Characteristics here:

Version: 7.0 beta, 09-03-2026

INTERFERON BETA-1a

TRADE NAME: REBIF

TYPE: immunomodulation
DURATION: ongoing - 3 times per week
TAKEN: injection pen / self-administered

EFFECTIVENESS

	MINIMAL EFFICACY								MAXIMAL EFFICACY
Prevention of relapses	1								
Prevention of long-term disability	1								

SIDE EFFECTS

	FEW / RARE	MANY / FREQUENT
Short-term side effects		7
Long-term side effects	0	

IMPACTS

Cancer risk	no / low impact	unknown impact	**increased risk of some cancers**
Family planning	**compatible**	short-term incompatible	possible long-term impacts
Vaccinations	**good response**	moderate response	poor response
Clinic visits	minimal	moderate	**many**

ABOUT

LICENSED

CIS

RRMS with 1-2 relapses in the past 2 years

- Interferon beta-1a is a type of beta interferon. Beta interferons are synthetic versions of proteins produced by white blood cells when the body is tackling viral infections.
- Rebif is injected under the skin 3 times a week.
- Interferon beta-1a drugs reduce relapses by around 30% compared to placebo.
- Common side effects following injection can include flu-like symptoms and red itchy skin at the injection site.
- There is potential increased risk of cancer on interferons.
- Pregnancy on interferons is possible once established on treatment, otherwise a 1 month delay is required. Breastfeeding on interferons is encouraged.

Version: 7.0 beta, 09-03-2026

INTERFERON BETA-1a

TRADE NAME: REBIF

For more information visit MS-Selfie:

View Summary of Product Characteristics here:

Version: 7.0 beta, 09-03-2026

INTERFERON BETA-1b

TRADE NAME: BETAFERON / EXTAVIA

TYPE: immunomodulation
DURATION: ongoing - every 2 days
TAKEN: injection / self-administered

EFFECTIVENESS

	MINIMAL EFFICACY								MAXIMAL EFFICACY
Prevention of relapses	1								
Prevention of long-term disability	1								

SIDE EFFECTS

	FEW / RARE	MANY / FREQUENT
Short-term side effects		7
Long-term side effects	0	

IMPACTS

Cancer risk	no / low impact	unknown impact	**increased risk of some cancers**
Family planning	**compatible**	short-term incompatible	possible long-term impacts
Vaccinations	**good response**	moderate response	poor response
Clinic visits	minimal	moderate	**many**

ABOUT

LICENSED

SPMS

RRMS with 2 relapses in the past 2 years

- Interferon beta-1b is a type of beta interferon. Beta interferons are synthetic versions of proteins produced by white blood cells when the body is tackling viral infections.
- Betaferon and Extavia reduce the number of relapses by around 30% compared to placebo.
- Side effects can include flu-like symptoms for over 1 in 10 people and red itchy skin at the injection site.
- There is potential increased risk of cancer on interferons.
- Pregnancy on interferons is possible once established on treatment, otherwise a 1 month delay is required. Breastfeeding on interferons is encouraged.

Version: 7.0 beta, 09-03-2026

INTERFERON BETA-1b

TRADE NAME: BETAFERON / EXTAVIA

For more information visit MS-Selfie:

View Summary of Product Characteristics here:

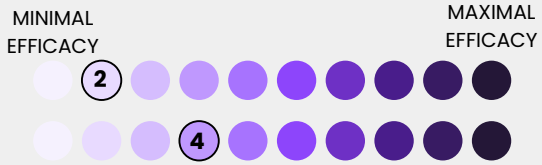
Version: 7.0 beta, 09-03-2026

LEFLUNOMIDE

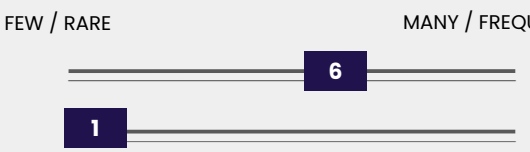
TRADE NAME: LEFLUNOMIDE (oral, generic)

TYPE: immunomodulation
DURATION: not yet established in MS, likely 1 tablet per day
TAKEN: tablet form / self-administered

EFFECTIVENESS



SIDE EFFECTS



IMPACTS

Cancer risk	**no / low impact**	unknown impact	increased risk of some cancers
Family planning	compatible	**short-term incompatible**	possible long-term impacts
Vaccinations	**good response**	moderate response	poor response
Clinic visits	minimal	moderate	**many**

ABOUT

Not Licensed for MS

- Leflunomide is similar to teriflunomide. Teriflunomide is its primary active metabolite.
- Leflunomide is currently used to treat rheumatoid arthritis and psoriatic arthritis.
- Common side effects include abdominal pain, increased hair loss, nausea, vomiting, diarrhoea and weight loss.
- Infections are more common in people on leflunomide.
- Pregnancy and breastfeeding should be avoided on leflunomide. Pregnancy should be delayed until washout treatment is completed. Without washout treatment, pregnancy should be delayed for up to 2 years after stopping leflunomide. Contraception is strongly recommended during treatment.

LEFLUNOMIDE

TRADE NAME: LEFLUNOMIDE (oral, generic)

For more information visit MS-Selfie:

View Summary of Product Characteristics here:

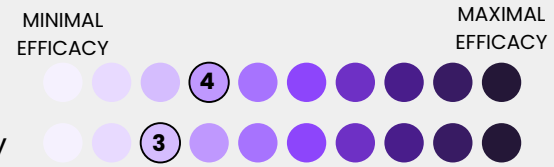
Version: 7.0 beta, 09-03-2026

METHOTREXATE

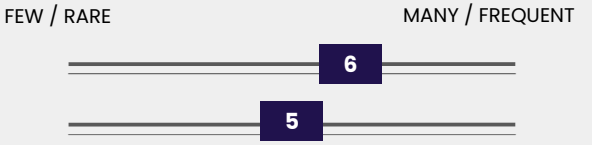
TRADE NAME: METHOTREXATE (oral, generic)

TYPE: immunosuppression
DURATION: ongoing - one tablet once a week
TAKEN: tablet form / self-administered

EFFECTIVENESS



SIDE EFFECTS



IMPACTS

Cancer risk	no / low impact	unknown impact	**increased risk of some cancers**
Family planning	compatible	**short-term incompatible**	possible long-term impacts
Vaccinations	good response	moderate response	**poor response**
Clinic visits	minimal	moderate	**many**

ABOUT

Not Licensed for MS

- Methotrexate is an immunosuppressant used in other conditions such as cancer, arthritis and psoriasis.
- It has been shown to reduce relapse rate and disease progression in the short term in small studies of MS.
- Short-term side effects may include headaches and nausea and vomiting. Common side effects seen in patients taking methotrexate for other conditions include diarrhoea, hair loss and loss of appetite. Liver problems, lung inflammation and kidney problems are rarer side effects.
- Those on methotrexate are at an increased risk of melanoma, non-Hodgkin's lymphoma, and lung cancer.
- Pregnancy should be delayed for 3 months after stopping methotrexate. Breastfeeding should be avoided. Contraception is strongly recommended during treatment.

Version: 7.0 beta, 09-03-2026

METHOTREXATE

TRADE NAME: METHOTREXATE (oral, generic)

For more information visit MS-Selfie:

View Summary of Product Characteristics here:

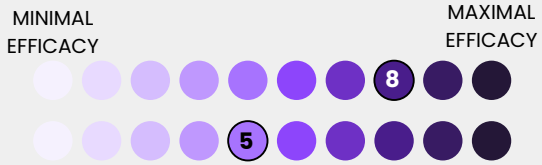
Version: 7.0 beta, 09-03-2026

MITOXANTRONE

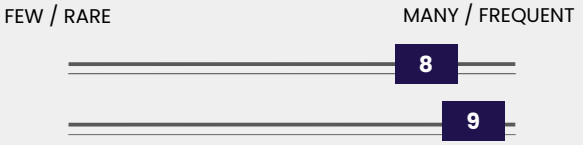
TRADE NAME: NOVANTRONE (US-licensed brand)

TYPE: non-selective immune reconstitution therapy (IRT)
DURATION: every 1-3 months over 2-3 years
TAKEN: infusion

EFFECTIVENESS



SIDE EFFECTS



IMPACTS

Cancer risk	no / low impact	unknown impact	**increased risk of some cancers**
Family planning	compatible	**short-term incompatible**	possible long-term impacts
Vaccinations	good response	**moderate response**	poor response
Clinic visits	minimal	moderate	**many**

ABOUT

Not Licensed for MS

Licensed in some countries outside of the UK

- Mitoxantrone has been shown to be more effective in SPMS than other types of MS. The effect on relapses and disability progression in MS is not yet clear.
- Common side effects include nausea, increased risk of infections and hair loss. Acute leukaemia is a rare side effect.
- Monitoring of liver function is required for those taking mitoxantrone. Only 8-12 doses of mitoxantrone over 2-3 years per lifetime are recommended due to associations with cardiac dysfunction.
- Pregnancy should be delayed for 6 months after stopping mitoxantrone. Breastfeeding should be avoided. Contraception is strongly recommended during treatment.
- Although unlicensed in the UK, mitoxantrone is licensed for MS in Austria, Germany, France, and the USA.

Version: 7.0 beta, 09-03-2026

MITOXANTRONE

TRADE NAME: NOVANTRONE (US-licensed brand)

For more information visit MS-Selfie:

View Summary of Product Characteristics here:

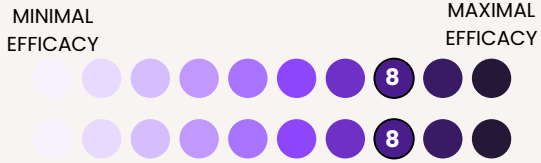
Version: 7.0 beta, 09-03-2026

NATALIZUMAB

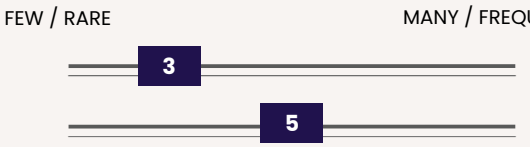
TRADE NAME: TYSABRI / TYRUKO

TYPE: immunosuppression
DURATION: ongoing - once every 4 weeks
TAKEN: infusion

EFFECTIVENESS



SIDE EFFECTS



IMPACTS

Cancer risk	no / low impact	unknown impact	**increased risk of some cancers**
Family planning	**compatible**	short-term incompatible	possible long-term impacts
Vaccinations	good response	**moderate response**	poor response
Clinic visits	minimal	**moderate**	many

ABOUT

LICENSED

Rapidly evolving severe MS

- Natalizumab blocks the transport of immune cells into the brain.
- It reduces relapses by 68% and slows disability worsening by 42% compared to placebo.
- Common side effects after an infusion include dizziness, nausea and vomiting, a sore throat and itchy skin.
- Mainly in pwMS who carry the John-Cunningham virus there is a risk of a severe brain infection called PML (about 0.4%) that increases with longstanding use of the drug.
- There is an increased risk of haematological malignancies.
- Infusions can be continued throughout pregnancy. It is advisable to discuss with your neurologist prior to becoming pregnant. Natalizumab can be continued whilst breastfeeding.

Version: 7.0 beta, 09-03-2026

NATALIZUMAB

TRADE NAME: TYSABRI / TYRUKO

For more information visit MS-Selfie:

View Summary of Product Characteristics here:

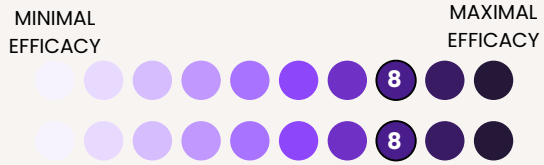
Version: 7.0 beta, 09-03-2026

NATALIZUMAB

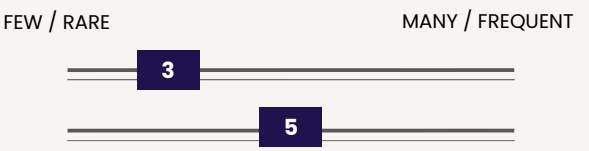
TRADE NAME: TYSABRI

TYPE: immunosuppression
DURATION: ongoing - once every 4 weeks
TAKEN: subcutaneous injection

EFFECTIVENESS



SIDE EFFECTS



IMPACTS

Cancer risk	no / low impact	unknown impact	**increased risk of some cancers**
Family planning	**compatible**	short-term incompatible	possible long-term impacts
Vaccinations	good response	**moderate response**	poor response
Clinic visits	minimal	**moderate**	many

ABOUT

LICENSED

Rapidly evolving severe MS

- Natalizumab blocks the transport of immune cells into the brain.
- It reduces relapses by 68% and slows disability worsening by 42% compared to placebo.
- Common side effects after an injection include dizziness, nausea and vomiting, a sore throat and itchy skin.
- Mainly in pwMS who carry the John-Cunningham virus there is a risk of a severe brain infection called PML (about 0.4%) that increases with longstanding use of the drug.
- There is an increased risk of haematological malignancies.
- Injections can be continued throughout pregnancy. It is advisable to discuss with your neurologist prior to becoming pregnant. Natalizumab can be continued whilst breastfeeding.

MS Selfie InfoCards

Version: 7.0 beta, 09-03-2026

MS Selfie InfoCards

NATALIZUMAB

TRADE NAME: TYSABRI

For more information visit MS-Selfie:

View Summary of Product Characteristics here:

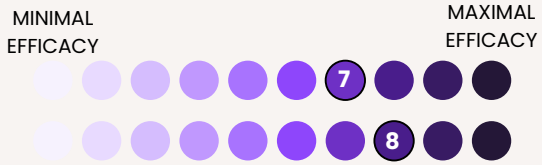
Version: 7.0 beta, 09-03-2026

OCRELIZUMAB

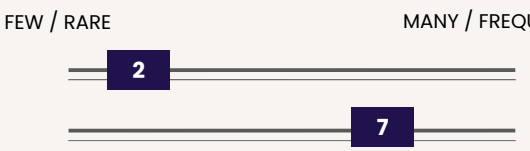
TRADE NAME: OCREVUS

TYPE: immunosuppression
DURATION: ongoing - once every 6 months
TAKEN: infusion

EFFECTIVENESS



SIDE EFFECTS



IMPACTS

Cancer risk	**no / low impact**	unknown impact	increased risk of some cancers
Family planning	**compatible**	short-term incompatible	possible long-term impacts
Vaccinations	good response	moderate response	**poor response**
Clinic visits	**minimal**	moderate	many

ABOUT

LICENSED

Active relapsing forms of MS

Active primary progressive MS

- Ocrelizumab is an anti-CD20 monoclonal antibody that depletes B cells to stop them destroying myelin in the CNS.
- For PPMS, it has been shown to slow disability by 25% compared to placebo. For RRMS, it has been shown to reduce relapses by 46% and slow disability worsening by 40% compared to beta interferons.
- About 4 in 10 people get skin rashes, fever and sore throat after infusion. Response to vaccination is reduced.
- There is an increased risk of severe infections for pwMS on ocrelizumab, especially those who are already more disabled.
- Pregnancy is possible at any time on ocrelizumab. Infusions should be stopped during pregnancy.

Version: 7.0 beta, 09-03-2026

OCRELIZUMAB

TRADE NAME: OCREVUS

For more information visit MS-Selfie:

View Summary of Product Characteristics here:

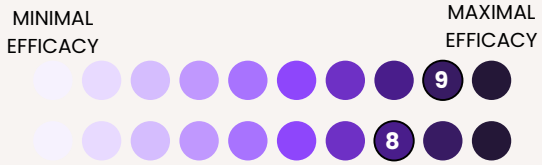
Version: 7.0 beta, 09-03-2026

OFATUMUMAB

TRADE NAME: KESIMPTA

TYPE: immunosuppression
DURATION: ongoing - once every month
TAKEN: injection pen / self-administered

EFFECTIVENESS



SIDE EFFECTS

IMPACTS

Cancer risk	**no / low impact**	unknown impact	increased risk of some cancers
Family planning	**compatible**	short-term incompatible	possible long-term impacts
Vaccinations	good response	moderate response	**poor response**
Clinic visits	**minimal**	moderate	many

ABOUT

LICENSED

Active MS

- Ofatumumab targets the CD20 marker on B cells so that they cannot damage myelin. It also reduces inflammation.
- It is taken via injection using an injector pen once a month.
- Compared to teriflunomide, ofatumumab was shown to reduce relapses by around 60% and slow disability worsening by 34%.
- Side effects of headaches and flushing occur in around 1 in 5 people on ofatumumab, and more than 1 in 10 people get common infections on the drug. The response to vaccines is reduced.
- Pregnancy is possible at any time on ofatumumab. Injections should be stopped during pregnancy but started again straight after birth. Breastfeeding is safe on this drug.

Version: 7.0 beta, 09-03-2026

OFATUMUMAB

TRADE NAME: KESIMPTA

For more information visit MS-Selfie:

View Summary of Product Characteristics here:

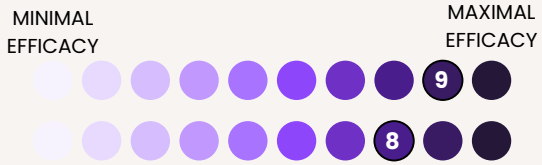
Version: 7.0 beta, 09-03-2026

OFATUMUMAB

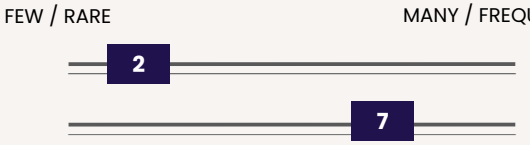
TRADE NAME: BONSPRI

TYPE: immunosuppression
DURATION: ongoing - once every month
TAKEN: injection / self-administered

EFFECTIVENESS



SIDE EFFECTS



IMPACTS

Cancer risk	**no / low impact**	unknown impact	increased risk of some cancers
Family planning	**compatible**	short-term incompatible	possible long-term impacts
Vaccinations	good response	moderate response	**poor response**
Clinic visits	**minimal**	moderate	many

ABOUT

LICENSED

Active MS

- Ofatumumab targets the CD20 marker on B cells so that they cannot damage myelin. It also reduces inflammation.
- This product comes in a vial and has to be drawn up into a syringe and self-administered as an injection once a month.
- Compared to teriflunomide, ofatumumab was shown to reduce relapses by around 60% and slow disability worsening by 34%.
- Side effects of headaches and flushing occur in around 1 in 5 people on ofatumumab, and more than 1 in 10 people get common infections on the drug. The response to vaccines is reduced.
- Pregnancy is possible at any time on ofatumumab. Injections should be stopped during pregnancy but started again straight after birth. Breastfeeding is safe on this drug.

Version: 7.0 beta, 09-03-2026

OFATUMUMAB

TRADE NAME: BONSPRI

For more information visit MS-Selfie:

View Summary of Product Characteristics here:

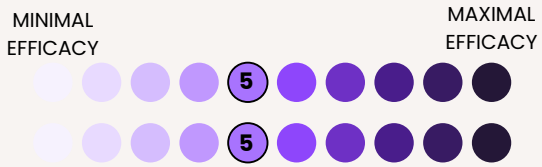
Version: 7.0 beta, 09-03-2026

OZANIMOD

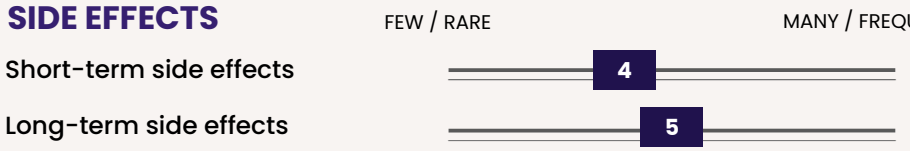
TRADE NAME: ZEPOSIA

TYPE: immunosuppression
DURATION: ongoing - one tablet per day
TAKEN: tablet / self-administered

EFFECTIVENESS



SIDE EFFECTS



IMPACTS

Cancer risk	no / low impact	unknown impact	**increased risk of some cancers**
Family planning	compatible	**short-term incompatible**	possible long-term impacts
Vaccinations	good response	**moderate response**	poor response
Clinic visits	minimal	**moderate**	many

ABOUT

LICENSED

Active MS

- Ozanimod prevents T and B cells from leaving the lymph nodes so that they cannot damage the myelin in the CNS.
- Compared to beta interferons, ozanimod reduces relapses by 38%. The impact on disability progression is not yet clear.
- Common side effects include headaches, increased infections, and increased levels of liver enzymes. Shingles is seen rarely.
- The first dose of ozanimod can transiently lower heart rate.. Monitoring of the heart rate and rhythm is carried out prior to starting ozanimod.
- Those on ozanimod are at an increased risk of basal and squamous cell carcinomas of the skin, and lymphoma.
- Pregnancy should be avoided for 3 months after stopping ozanimod. Contraception is strongly recommended during treatment.

Version: 7.0 beta, 09-03-2026

OZANIMOD

TRADE NAME: ZEPOSIA

For more information visit MS-Selfie:

View Summary of Product Characteristics here:

Version: 7.0 beta, 09-03-2026

PEGINTERFERON BETA-1a

TRADE NAME: PLEGRIDY

TYPE: immunomodulation
DURATION: ongoing - once every 2 weeks
TAKEN: injection pen / self-administered

EFFECTIVENESS

	MINIMAL EFFICACY									MAXIMAL EFFICACY
Prevention of relapses	1									
Prevention of long-term disability	1									

SIDE EFFECTS

	FEW / RARE									MANY / FREQUENT
Short-term side effects							7			
Long-term side effects	0									

IMPACTS

Cancer risk	no / low impact	unknown impact	**increased risk of some cancers**
Family planning	**compatible**	short-term incompatible	possible long-term impacts
Vaccinations	**good response**	moderate response	poor response
Clinic visits	minimal	moderate	**many**

ABOUT

LICENSED

Active MS

- Peginterferon beta 1a is a type of beta interferon. Beta interferons are synthetic versions of these proteins produced by white blood cells when the body is tackling viral infections.
- Compared to placebo, peginterferon beta 1a reduces relapses by around 30%. How well it slows the worsening of disability is not yet clear.
- Over 1 in 10 people will experience flu-like symptoms, headaches or bruised and itchy skin at the injection site. More rarely mood changes and liver abnormalities can occur.
- There is potential increased risk of cancer on interferons.
- Pregnancy on interferons is possible once established on treatment, otherwise a 1 month delay is required. Breastfeeding on interferons is encouraged.

Version: 7.0 beta, 09-03-2026

PEGINTERFERON BETA-1a

TRADE NAME: PLEGRIDY

For more information visit MS-Selfie:

View Summary of Product Characteristics here:

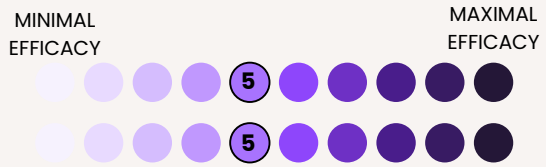
Version: 7.0 beta, 09-03-2026

PONESIMOD

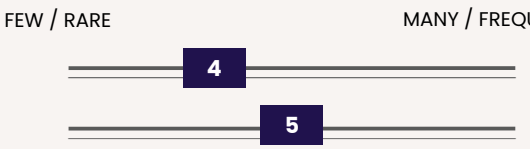
TRADE NAME: PONVORY

TYPE: immunosuppression
DURATION: ongoing - one tablet per day
TAKEN: tablet form / self-administered

EFFECTIVENESS



SIDE EFFECTS



IMPACTS

Cancer risk	no / low impact	unknown impact	**increased risk of some cancers**
Family planning	compatible	**short-term incompatible**	possible long-term impacts
Vaccinations	good response	**moderate response**	poor response
Clinic visits	minimal	**moderate**	many

ABOUT

LICENSED

Active MS

- Ponesimod prevents T and B cells from leaving the lymph nodes to reduce the damage they cause to myelin in the CNS.
- It reduces relapses by 30% compared to teriflunomide and is as effective at slowing disability progression.
- More than 1 in 10 people get a rise in liver enzymes, which subsides for most people and does not require them to stop the drug. Rarer side effects include swelling in part of the retina.
- Those on ponesimod are at an increased risk of basal and squamous cell carcinomas of the skin, and lymphoma.
- Infections are more common in people on ponesimod than on other DMTs, especially colds and chest infections.
- Pregnancy should be delayed until one week after stopping ponesimod. Breastfeeding should be avoided. Contraception is strongly recommended during treatment.

Version: 7.0 beta, 09-03-2026

PONESIMOD

TRADE NAME: PONVORY

For more information visit MS-Selfie:

View Summary of Product Characteristics here:

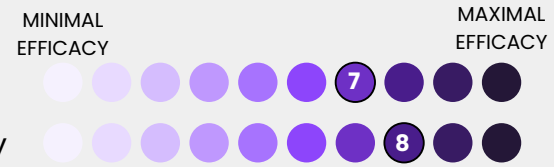
Version: 7.0 beta, 09-03-2026

RITUXIMAB

TRADE NAME: MABTHERA / RITUXAN

TYPE: immunosuppression
DURATION: ongoing - about once a year once established
TAKEN: infusion

EFFECTIVENESS



SIDE EFFECTS

IMPACTS

Cancer risk	no / low impact	**unknown impact**	increased risk of some cancers
Family planning	compatible	**short-term incompatible**	possible long-term impacts
Vaccinations	good response	moderate response	**poor response**
Clinic visits	**minimal**	moderate	many

ABOUT

Not Licensed for MS

- Rituximab is a monoclonal anti-CD20 antibody. It targets B cells to prevent them from further destroying the myelin in the CNS.
- Rituximab is currently in clinical trials for MS but is already used in the treatment of white blood cell cancers and rheumatoid granulomatosis.
- It is administered by infusion about once a year once the regimen is established.
- Infusion-related general malaise is common.
- Response to vaccination is reduced in people taking rituximab and there is an increased risk of severe infections.
- It is advised to delay pregnancy until 6 months after stopping rituximab.

RITUXIMAB

TRADE NAME: MABTHERA/ RITUXAN

For more information visit MS-Selfie:

View Summary of Product Characteristics here:

Version: 7.0 beta, 09-03-2026

SIPONIMOD

TRADE NAME: MAYZENT

TYPE: immunosuppression
DURATION: ongoing - one tablet per day
TAKEN: tablet form / self-administered

EFFECTIVENESS

	MINIMAL EFFICACY									MAXIMAL EFFICACY
Prevention of relapses					5					
Prevention of long-term disability					5					

SIDE EFFECTS

	FEW / RARE									MANY / FREQUENT
Short-term side effects				3						
Long-term side effects						5				

IMPACTS

Cancer risk	no / low impact	unknown impact	**increased risk of some cancers**
Family planning	compatible	**short-term incompatible**	possible long-term impacts
Vaccinations	good response	**moderate response**	poor response
Clinic visits	minimal	**moderate**	many

ABOUT

LICENSED

Active SPMS

- Siponimod acts by stopping T and B cells from leaving the lymph nodes and damaging myelin in the CNS.
- Compared to placebo, siponimod reduces relapses by 46%, and slows the worsening of disability by 37%.
- Side effects include headaches and reduced white blood cell counts.
- Those on siponimod are at an increased risk of basal and squamous cell carcinomas of the skin, and lymphoma.
- The metabolism of siponimod is determined by your genotype of a specific enzyme which must be checked before starting siponimod as it determines the dose you need to take.
- There is reduced vaccination response in people on siponimod and infections are increased, particularly herpes infection.
- Pregnancy should be delayed until 10 days after stopping siponimod. Breastfeeding should also be avoided whilst on the drug. Contraception is strongly recommended during treatment.

Version: 7.0 beta, 09-03-2026

SIPONIMOD

TRADE NAME: MAYZENT

For more information visit MS-Selfie:

View Summary of Product Characteristics here:

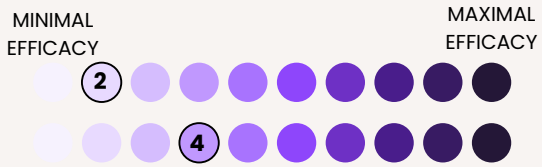
Version: 7.0 beta, 09-03-2026

TERIFLUNOMIDE

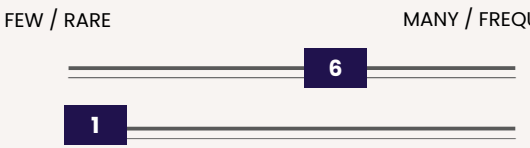
TRADE NAME: TERIFLUNOMIDE (oral, generic)

TYPE: immunomodulation
DURATION: ongoing - one tablet per day
TAKEN: tablet form / self-administered

EFFECTIVENESS



SIDE EFFECTS



IMPACTS

Cancer risk	**no / low impact**	unknown impact	increased risk of some cancers
Family planning	compatible	**short-term incompatible**	possible long-term impacts
Vaccinations	**good response**	moderate response	poor response
Clinic visits	minimal	moderate	**many**

ABOUT

LICENSED

RRMS with 2 relapses in the past 2 years

- Teriflunomide prevents T and B cells from dividing and T cells from getting into the CNS.
- Teriflunomide reduces relapses by about 30% compared to placebo and slows the worsening of disability by 30%.
- The risk of side effects is low but may include headaches, diarrhoea, nausea and transient thinning of the hair for around 1 in 10 people. Liver function disorders are also a side effect of teriflunomide. Teriflunomide may increase the likelihood of getting common infections.
- Pregnancy must be avoided whilst on teriflunomide and for 2 years afterwards, unless medication is taken to speed up reducing the amount of the drug in the body. Breastfeeding should also be avoided whilst on teriflunomide. Contraception is strongly recommended during treatment.

Version: 7.0 beta, 09-03-2026

TERIFLUNOMIDE

TRADE NAME: TERIFLUNOMIDE (oral, generic)

For more information visit MS-Selfie:

View Summary of Product Characteristics here:

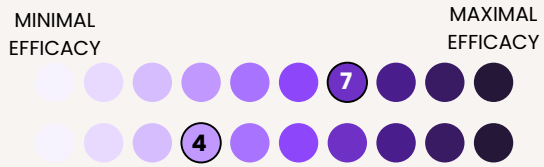
Version: 7.0 beta, 09-03-2026

UBLITUXIMAB

TRADE NAME: BRIUMVI

TYPE: immunosuppression
DURATION: ongoing - once every 6 months
TAKEN: infusion

EFFECTIVENESS



SIDE EFFECTS

IMPACTS

Cancer risk	no / low impact	**unknown impact**	increased risk of some cancers
Family planning	compatible	**short-term incompatible**	possible long-term impacts
Vaccinations	good response	moderate response	**poor response**
Clinic visits	**minimal**	moderate	many

ABOUT

LICENSED

Active relapsing forms of MS

- Ublituximab is an anti-CD20 monoclonal antibody that depletes the B cells to stop them destroying myelin in the CNS.
- For RRMS, it has been shown to reduce relapses by ≥45% compared to teriflunomide. There was a difference favouring ublituximab over teriflunomide in relation to disability progression in the extension study.
- Infusion reactions are infrequent. Response to vaccination is reduced.
- There is an increased risk of severe infections for pwMS on ublituximab, especially those who are already more disabled.
- Contraception should be used while receiving ublituximab and for at least 4 months after the last infusion. Infusions should be stopped during pregnancy and avoided in the first week of breastfeeding.

Version: 7.0 beta, 09-03-2026

UBLITUXIMAB

TRADE NAME: BRIUMVI

For more information visit MS-Selfie:

View Summary of Product Characteristics here:

Version: 7.0 beta, 09-03-2026

WHAT DMT IS BEST FOR YOU?

Consider how important each factor is to you when choosing your DMT

	NOT IMPORTANT AT ALL									EXTREMELY IMPORTANT
PREVENTION OF RELAPSES	1	2	3	4	5	6	7	8	9	10
PREVENTION OF LONG-TERM DISABILITY	1	2	3	4	5	6	7	8	9	10
SHORT-TERM SIDE EFFECTS	1	2	3	4	5	6	7	8	9	10
LONG-TERM SIDE EFFECTS	1	2	3	4	5	6	7	8	9	10
CANCER RISK	1	2	3	4	5	6	7	8	9	10
AMOUNT OF CLINIC VISITS	1	2	3	4	5	6	7	8	9	10
IMPACT ON FAMILY PLANNING	1	2	3	4	5	6	7	8	9	10
VACCINATION RESPONSE	1	2	3	4	5	6	7	8	9	10

These cards are intended as a tool to aid decision making. Ensure you discuss what factors are important to you with your MS Team.

THANK YOU

Thank you for using the MS-Selfie InfoCards. Please use the links to the MS-Selfie microsite page for each licensed DMT, and the summary of product characteristics for more information on any given drug.

We welcome continued feedback for future editions. Please scan the QR code or click here for the feedback form.

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