

First –line therapies

Drug	Who Takes It?	What are the benefits?	How often do I take it?	How is it taken?	Possible side effects	How is it reimbursed?
Aubagio	Aubagio is indicated for the treatment of adults with RRMS	It reduces the number of relapses by up to 36%	Once daily	Oral tablet	<p>Very common side effects (may affect more than 1 in 10 people): Diarrhoea and sickness; increase in blood levels of certain hepatic enzymes; hair thinning.</p> <p>Common side effects (may affect up to 1 in 10 people): Influenza; upper respiratory tract infection, urinary tract infection; bronchitis; sinusitis; sore throat; cystitis; viral gastroenteritis; oral herpes; tooth infection; laryngitis; fungal infection of the foot; low level of white blood cells; anaemia; mild allergic reactions; feeling anxious; pins and needles; feeling weak, numb, tingling or pain in the lower back or leg; feeling numb, burning, tingling or pain in the hands and fingers; increase in blood pressure; vomiting; toothache; upper abdominal pain; rash, acne; musculoskeletal pain; needing to urinate more often than usual; heavy periods; changes in liver and white blood cell test results; weight loss</p>	High-Tech Scheme
Avonex	Adults and adolescents aged 12 years or over diagnosed with relapsing MS or with a single demyelinating event and at high risk	Slows the progression of disability and reduces the frequency of relapses	Once a week	Injection into a muscle e.g. the upper thigh	Very common side effects (at least 1 in 10 people affected) include flu-like symptoms and headache	High-Tech Scheme

	of developing MS					
Betaferon	<p>People with a single demyelinating event with an active inflammatory process, if it is severe enough to warrant treatment with intravenous corticosteroids, if alternative diagnoses have been excluded, and if they are determined to be at high risk of developing clinically definite multiple sclerosis</p> <p>People with RRMS</p> <p>People with SPMS who still mobilise</p>	<p>Delay in the progression from first clinical event (CIS) to clinically definite MS. Reduction in frequency and severity of clinical relapses. Prolongation of the relapse-free interval. Delay of disease progression</p>	Every second day	Subcutaneous injection (under the skin)	At the beginning of the treatment adverse reactions are common but in general they subside with further treatment. The most frequently observed adverse reactions are a flu-like symptom complex and injection site reactions	High-Tech Scheme
Copaxone 20mg/ml	<p>People with RRMS and people who have experienced a well-defined first clinical episode and are determined to be at high risk of developing clinically definite MS</p>	Used to reduce the number of relapses	Daily	Subcutaneous injection (under the skin)	<p>Possible allergic reactions (hypersensitivity): signs include rash, swelling of the eyelids, face or lips, sudden shortness of breath, convulsions, fainting</p> <p>Other reactions following injection (immediate post-injection reaction): flushing or reddening of the chest or face; shortness of breath; chest pain; pounding and rapid heartbeat. These symptoms normally do not cause problems and disappear within half an hour</p>	High-Tech Scheme

					<p>Common side effects (may affect more than 1 in 10 people): infection, flu; anxiety, depression; headache; feeling sick; skin rash; pain in the joints or back; feeling weak; skin reactions at the injection site including reddening of skin, pain, formation of wheals, itching, tissue swelling, inflammation and hypersensitivity; non specific pain</p>	
Copaxone 40mg/ml	People with RRMS	Used to reduce the number of MS relapses	Three times per week, with a minimum of 48 hours between injections	Subcutaneous injection (under the skin)	<p>Possible allergic reactions (hypersensitivity): signs include rash, swelling of the eyelids, face or lips, sudden shortness of breath, convulsions, fainting</p> <p>Other reactions following injection (immediate post-injection reaction): flushing or reddening of the chest or face; shortness of breath; chest pain; pounding and rapid heartbeat. These symptoms normally do not cause problems and disappear within half an hour</p> <p>Common side effects (may affect more than 1 in 10 people): infection, flu; anxiety, depression; headache; feeling sick; skin rash; pain in the joints or back; feeling weak; skin reactions at the injection site including reddening of skin, pain, formation of wheals, itching, tissue swelling, inflammation and hypersensitivity; non specific pain</p>	High-Tech Scheme
Gilenya	People whose neurologists consider their disease is rapidly	54% relapse rate reduction but also benefits on	Once daily	Oral	<p>The five main safety areas of interest are: Bradycardia (slowing heart rate) on first dose; macular oedema (an eye problem) for which you will be examined within</p>	High-Tech Scheme

	evolving	disability, MRI and brain atrophy			three to four months of initiating Gilenya; low lymphocyte count; raised liver enzymes.	
Lemtrada	People with RRMS with active disease defined by clinical or imaging features	Reduces the number of MS relapses and helps to slow down or reverse some of the signs and symptoms of MS	Administered in two treatment courses. For the first treatment course people receive one infusion per day for five days. One year later people receive one infusion per day for three days.	Infusion	<p>Common side effects (more than 1 in 100): thyroid disorders</p> <p>Less common (less than 1 in 100): idiopathic thrombocytopenic purpura is a disorder that prevents the blood from clotting. Kidney disease is also a major but rare side effect (may affect up to 1 in 1,000 people)</p>	National Drugs Management Scheme
Plegridy	Adults with RRMS	Slows the progression of disability and decreases the	Once every two weeks	Injection under the skin of the thigh,	<p>Very common side effects (at least 1 in 10 people affected) include: flu-like symptoms; headache; muscle pain; pain in joints/arms/legs/neck; chills; fever; feeling weak and tired; injection site reactions</p>	High-Tech Scheme

		frequency of relapses		abdomen or upper arm		
Rebif	People with RRMS	Reduces the number and severity of relapses and slows the progression of disability. Also approved for use for people with a diagnosis of CIS.	Three times per week	Subcutaneous injection (under the skin)	<p>Common side effects (more than 1 in 100 people affected) include: flu-like symptoms; injection site reactions; liver enzyme abnormalities; headache; depression; nausea or vomiting; difficulty sleeping; hair loss.</p> <p>Less common side effects (less than 1 in 100 people affected): thyroid dysfunction; allergic reactions; liver inflammation; increased sweating; blood clots</p>	High-Tech Scheme
Tecfidera	Adults with RRMS	Slows the progression of disability and reduces the frequency of relapses	Twice a day	Oral capsule	<p>Very common side effects (at least 1 in 10 people affected) include: flushing; diarrhoea; nausea, stomach pain/cramps</p>	High-Tech Scheme
Tysabri	Adults with highly active rapidly evolving severe relapsing remitting MS	Disabling effects of MS approximately halved and the number of MS attacks decreased by two-thirds in clinical trials	Once a month	Infusion into a vein	<p>Very common side effects (at least 1 in 10 people affected) include infusion reactions e.g. dizziness, feeling sick, itchy rash and shivering. Progressive multifocal leukoencephalopathy (PML) is an uncommon but serious side effect.</p>	National Drugs Management Scheme

Second-line therapies

Drug	Who takes it?	What are the benefits?	How often do I take it?	How is it taken?	Possible side effects	How is it reimbursed?
Gilenya	People who have failed on a first-line treatment	Fewer relapses, reduction in the number and size of MRI lesions, reduction in brain volume loss, less likely to experience worsening of disability	Once daily	Oral	The five main safety areas of interest are: Bradycardia (slowing heart rate) on first dose; macular oedema (an eye problem) for which you will be examined within three to four months of initiating Gilenya; low lymphocyte count; raised liver enzymes.	High-Tech Scheme
Tysabri	Adults with relapsing remitting MS who have high disease activity despite treatment with other DMTs	Disabling effects of MS approximately halved and the number of MS attacks decreased by two-thirds in clinical trials	Once a month	Infusion into a vein	Very common side effects (at least 1 in 10 people affected) include infusion reactions e.g. dizziness, feeling sick, itchy rash and shivering. Progressive multifocal leukoencephalopathy (PML) is an uncommon but serious side effect.	National Drugs Management Scheme
Zinbryta	Adults with relapsing remitting MS who have had an adequate response to two or more other DMTs	Reduced annual relapse rate by 45% compared to beta interferon	Once a month	Subcutaneous injection	Reported side effects included serious infections, serious skin reactions, headaches, cold and flu-like symptoms and fever. Impaired liver function was also reported and it is recommended that liver function testing should be conducted prior to commencing treatment with Zinbryta, and should be continually monitored while on this treatment.	High-Tech Scheme

Symptomatic treatments

Drug	Who takes it?	What are the benefits?	How often do I take it?	How is it taken?	Possible side effects	How is it reimbursed?
Fampyra	Adults with MS related walking disability	Walking speed improvement	Twice daily	Oral tablet	Very common side effects include urinary tract infection	Reimbursed by the HSE on a responder basis

Key: RRMS = Relapsing remitting multiple sclerosis

CIS = Clinically Isolated Syndrome

SPMS = Secondary progressive multiple sclerosis