



A summary of prescribing recommendations from NICE guidance

Multiple sclerosis

NICE CG186; 2014

This guideline covers diagnosis and management of MS-related symptoms and treatment of relapse. Also see Box 1: NICE technology appraisals for disease-modifying treatments.

Definition of terms

MS	multiple sclerosis
RES	rapidly evolving severe relapsing–remitting MS
CBT	cognitive behavioural therapy
EDSS	Expanded Disability Status Scale
MRI	magnetic resonance imaging
IV	intravenous
PAS	patient access scheme
U	unlicensed indication

Diagnosis

- ◆ Be aware that clinical presentations of MS include:
 - > loss or reduction of vision in one eye with painful eye movements,
 - > double vision,
 - > ascending sensory disturbance and/or weakness,
 - > problems with balance, unsteadiness or clumsiness,
 - > altered sensation travelling down the back and sometimes into limbs when bending the neck forwards (Lhermitte's symptom).
- ◆ Usually people with MS present with symptoms or signs as described above, and:
 - > are often aged <50 years,
 - > may have a history of previous neurological symptoms,
 - > have symptoms that have evolved over >24 hours,
 - > have symptoms that may persist over several days or weeks then improve.
- ◆ **Do NOT** routinely suspect MS if main symptoms are fatigue, depression or dizziness unless there is a history or evidence of focal neurological symptoms or signs.
- ◆ Only a consultant neurologist should diagnose MS.
- ◆ **Do NOT** diagnose MS on the basis of MRI findings alone.

Referral

- ◆ In a person suspected of having MS:
 - > exclude alternative diagnoses by performing blood tests: [see NICE pathway](#), then
 - > refer to a consultant neurologist. Speak to them directly if you think a person needs to be seen urgently.

Optic neuritis - [see NICE pathway](#)

Information and support; Coordination of care; [see NICE pathway](#)

Lifestyle advice

- ◆ Encourage regular exercise; advise that this may have beneficial effects on their MS and is not harmful.
- ◆ Advise people not to smoke and explain that it may increase progression of disability.

Vaccinations (also see Box 1)

- ◆ Offer flu vaccination in accordance with national guidelines. Discuss possible benefits and risk of relapse after flu vaccination if they have relapsing-remitting MS.

Pregnancy - [see NICE guideline](#)

Treatment and management: MS symptoms

Mobility

- ◆ **Do NOT** use fampridine* as it is not cost effective.
- ◆ Ensure people with mobility problems have access to an assessment to establish individual goals and discuss ways to achieve them. This usually involves rehabilitation specialists and physiotherapists with expertise in MS.

Fatigue

- ◆ **Do NOT** use vitamin B12 injections to treat fatigue.
- ◆ Assess and offer treatment for anxiety, depression, difficulty in sleeping, and any potential medical problems such as anaemia or thyroid disease. [See NICE pathway: generalised anxiety disorder; depression.](#)
- ◆ Explain that MS-related fatigue may be precipitated by heat, overexertion and stress, or be related to time of day.
- ◆ Offer amantadine^U.
- ◆ Consider mindfulness-based training, CBT or fatigue management.
- ◆ Advise people that aerobic, balance and stretching exercises including yoga may be helpful.
- ◆ Consider a comprehensive programme of aerobic and moderate progressive resistance activity combined with CBT in people with moderately impaired mobility (an EDSS score ≥4).

Mobility and fatigue

- ◆ Consider supervised exercise programmes involving moderate progressive resistance training and aerobic exercise for people with mobility problems and/or fatigue.
- ◆ Consider vestibular rehabilitation for people with fatigue or mobility problems associated with limited standing balance.
- ◆ Encourage and offer help to keep exercising after treatment programmes end for longer term benefits e.g. exercise referral schemes.

Emotional lability

- ◆ Consider amitriptyline^U.

Cognition and memory

- ◆ Be aware that:
 - > symptoms of MS can include cognitive and memory problems that the person may not immediately recognise or associate with their MS,
 - > anxiety, depression, difficulty in sleeping and fatigue can impact on cognitive problems. Offer assessment and treatment.
- ◆ Consider referring people with MS and persisting memory or cognitive problems to an occupational therapist and a neuropsychologist for assessment and management.

Recommendations – wording used such as ‘offer’ and ‘consider’ denote [strength of the recommendation](#).
Drug recommendations – the guideline assumes that prescribers will use a drug’s [Summary of Product Characteristics \(SPC\)](#) to inform treatment decisions.

*People currently receiving treatment started within the NHS not recommended in this NICE guidance should be able to continue until they and their NHS clinician consider it appropriate to stop.

Multiple sclerosis continued.....

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Oscillopsia (oscillating vision)**First-line:** consider gabapentin^U.**Second-line:** consider memantine^U.

- ◆ Refer for specialist advice if there is no improvement after treatment with gabapentin and memantine or side effects prevent continued use.

Spasticity**First-line:** consider baclofen or gabapentin^U depending on contraindications, comorbidities and patient preferences.

- ◆ If the person cannot tolerate one of these drugs consider switching to the other.
- ◆ Consider a combination of baclofen and gabapentin^U if:
 - > individual drugs do not provide adequate relief, **OR**
 - > side effects prevent the dose being increased.

Second-line: consider tizanidine or dantrolene.**Third-line:** consider benzodiazepines and be aware of their potential benefit in treating nocturnal spasms.

- ◆ **Do NOT** offer *Sativex** as it is not cost effective.
- ◆ If spasticity cannot be managed with any of the above treatments, refer to specialist spasticity services.
- ◆ Assess and offer treatment for factors that may aggravate spasticity such as constipation, urinary tract or other infections, inappropriately fitted mobility aids, pressure ulcers, posture and pain.
- ◆ Encourage people with MS to manage their own spasticity symptoms by explaining how doses of drugs can be adjusted within agreed limits.
- ◆ Ensure that the person:
 - > has tried the drug at an optimal dose, or the maximum dose they can tolerate,
 - > stops the drug if there is no benefit at the maximum tolerated dose,
 - > has their drug treatment reviewed at least annually once the optimal dose has been reached.

Pain

- ◆ Treat neuropathic pain according to **NICE pathway: neuropathic pain**. If appropriate, refer to pain services.
- ◆ Be aware that musculoskeletal pain is common in people with MS and is usually secondary to problems with mobility and posture. Assess musculoskeletal pain, offer treatment to the person and refer them as appropriate.

Review

- ◆ Ensure all people with MS have a comprehensive review of all aspects of their care at least once a year.

Recognising acute relapse

- ◆ Before diagnosing a relapse of MS:
 - > rule out infection – particularly urinary tract and respiratory infections, **AND**
 - > discriminate between relapse and fluctuations in disease or progression.
- ◆ Diagnose a relapse of MS if the person:
 - > develops new symptoms, **OR**
 - > has worsening of existing symptoms which last for >24 hours in the absence of infection or any other cause after a stable period of at least one month.
- ◆ **Do NOT** routinely diagnose a relapse of MS if symptoms are present >3 months.

Treating a relapse

- ◆ Assess and offer treatment for relapses of MS that affect the person's ability to perform their usual tasks, as early as possible and within 14 days of onset of symptoms.
- ◆ Not all relapses need treating with steroids. Discuss a person's diagnosis and treatment needs with a specialist.

- ◆ Offer oral methylprednisolone 0.5g daily for 5 days.
- ◆ Consider IV methylprednisolone 1g daily for 3 to 5 days as an alternative for people:
 - > if oral steroids have failed or not been tolerated, **OR**
 - > who need admitting to hospital for a severe relapse or monitoring of medical or psychological conditions such as diabetes or depression.
- ◆ **Do NOT** prescribe steroids at lower doses than methylprednisolone 0.5g daily for 5 days to treat an acute relapse of MS.
- ◆ **Do NOT** give people a supply of steroids to self-administer at home for future relapses.

Counselling

- ◆ Discuss benefits and risks of steroids, taking into account effect of relapse on the person's ability to perform usual tasks and their wellbeing.
- ◆ Explain potential complications of high-dose steroids, e.g. temporary effects on mental health (depression, confusion and agitation) and worsening of blood glucose control in people with diabetes.
- ◆ Give the person and their family members/carers as appropriate, information about side effects of high-dose steroids in a format that is appropriate for them.
- ◆ Ensure that the MS multidisciplinary team is told the person is having a relapse, because relapse frequency may influence which disease-modifying therapies are chosen and whether they need to be changed.

Box 1**Disease-modifying therapies****Beta-interferon and glatiramer (NICE TA32)** are **NOT** recommended*For details of Risk sharing scheme see [NHS England Clinical commissioning policy: disease modifying therapies for patients with MS](#).**Alemtuzumab (NICE TA312)** is recommended as a possible treatment for people with active relapsing–remitting MS.**Dimethyl fumarate (NICE TA320)** and **teriflunomide (NICE TA303)** are recommended as possible treatments for adults with active relapsing-remitting MS (normally defined as two clinically significant relapses in the previous 2 years), only if:

- > they do not have highly active or RES, **AND**
- > the manufacturer provides discount agreed in the PAS.

Fingolimod (NICE TA254) is recommended as a possible treatment of highly active relapsing-remitting MS in adults, only if:

- > they have an unchanged or increased relapse rate or ongoing severe relapses compared with the previous year despite treatment with beta interferon, and
- > the manufacturer provides fingolimod with discount agreed as part of the PAS.

Natalizumab (NICE TA127) is recommended as a possible treatment of RES defined by ≥two disabling relapses in one year, and ≥1 gadolinium-enhancing lesions on brain MRI or a significant increase in T2 lesion load compared with a previous MRI.

- ◆ Be aware that live vaccinations may be contraindicated in people being treated with disease-modifying therapies.

- ◆ **Do NOT** offer vitamin D, omega-3 or omega-6 fatty acid compounds solely for treating MS.

*People currently receiving treatment started within the NHS that is not recommended in this NICE guidance should be able to continue treatment until they and their NHS clinician consider it appropriate to stop.