

Table 2

Symptomatic management in multiple sclerosis

Symptom	Assess for possible underlying cause/trigger	Pharmacological treatment ³	Non-pharmacological treatment ³
Spasticity	Urinary tract or other infections Constipation Inappropriately fitted mobility aids Pressure ulcers Pain	First line (a): baclofen, gabapentin, or a combination of both (b) Second line: tizanidine or dantrolene Other drugs: pregabalin, clonazepam/benzodiazepines (c)	Physiotherapy and exercise Other interventions: Vibration, mid thoracic magnetic stimulation
Reduced mobility	Infections Relapse Accrual of disability within the context of progressive MS	Fampridine: not recommended (d)	Physiotherapy Supervised exercise programmes Vestibular rehabilitation (e) Continued regular exercise
Fatigue	Depression, anxiety Pain Sleep disturbances Heat Medications Infections Medical problems	Amantadine Other treatments (vitamin B12 injections) are not recommended	Aerobic exercise Energy conservation techniques Cognitive behaviour therapy (CBT) Supervised exercise programmes Vestibular rehabilitation (e) Continued regular exercise
Emotional lability and depression	Anxiety, frustration Pain Medical problems	If emotional lability: amitriptyline If depression: antidepressants	CBT for depression Liaison with psychiatrist
Cognitive dysfunction	Depression, anxiety Sleep disturbances Medications		Explain to patients that MS may affect cognitive abilities Assessment by occupational therapist and neuropsychologist
Ataxia and tremor		Isoniazid Other drugs: gabapentin is sometimes used (f)	Physiotherapy Consider neurosurgery if severe
Visual problems (usually oscillopsia)		First line: gabapentin Second line: memantine	Assessment by ophthalmologist
Bladder dysfunction	Urinary tract infection Post-micturition bladder volume	If overactive bladder: antimuscarinic drugs (oxybutynin); botulinum toxin A bladder wall injection; desmopressin if nocturia	If difficulty emptying: intermittent self-catheterisation; indwelling catheter; suprapubic catheter
Sexual dysfunction	Depression, anxiety Medications Pain, spasms	If erectile and/or ejaculatory dysfunction in men: oral sildenafil. If sildenafil fails, intraurethral alprostadil	Physiotherapy of pelvic floor (g) CBT if underlying depression
Bowel/anal sphincter dysfunction	Medications	If constipation: laxatives, rectal stimulants (suppositories, enemas), transanal irrigation	Assessment by continence advisor/physiotherapist If constipation: increase level of exercise, abdominal massage If incontinence: physiotherapy of pelvic floor, biofeedback retraining
Pain	Type of pain: neuropathic vs musculoskeletal pain Possible causes of musculoskeletal pain Depression	For neuropathic pain (except trigeminal neuralgia): First line: either amitriptyline, duloxetine, gabapentin, or pregabalin Second line: tramadol; capsaicin cream if localised neuropathic pain For trigeminal neuralgia: First line: carbamazepine Second line: oxcarbazepine, lamotrigine, gabapentin, pregabalin, baclofen For musculoskeletal pain: Common analgesia	Assessment by pain specialists Physiotherapy Assessment by orthopaedic surgeon/rheumatologist if needed (musculoskeletal pain)
Dysarthria	Medications		Assessment by speech and language therapists
Swallowing problems			Assessment by speech and language therapists Hygiene measures: improve seating, avoid food with mixed textures, add thickeners to liquids Swallowing/chest physiotherapy Consider NGT or PEG if severe
Pressure sore	Formal risk assessment Nutritional status Loss of sensation Cognitive status Handling techniques if wheelchair- or bed-bound Equipment deficiencies	Nutritional supplements and hydration	Debridement if necessary Antibiotics/antiseptics Change position regularly Pressure relieving mattresses Regular skin inspections Referral to palliative care services if/when appropriate ³

FOOTNOTES
(a): start with very low dose and continue until optimum dose/ maximum dose that can be tolerated;

(b): when individual drugs do not provide adequate relief or it is not possible to increase the dose of individual drugs due to side effects;

(c): potentially very useful for nocturnal spasms;

(d): the use of fampridine to treat lack of mobility is not recommended because it is not a cost-effective treatment;

(e): consider this for patients who have fatigue or mobility problems associated with limited standing balance;

(f): not specifically named in the NICE guidelines for this purpose;

(g): a randomised clinical trial has recently shown that pelvic floor muscle training alone or in combination with intravaginal neuromuscular electrostimulation or transcutaneous tibial nerve stimulation may be effective for female sexual dysfunction⁴⁸