MS SYMPTOMATIC MANAGEMENT

Disease-modifying therapy slows MS; **symptomatic management drives quality of life.** Treat the symptoms that limit function — and always screen for reversible drivers (infection, sleep, mood, medication effects, heat) before escalating. Doses are typical adult ranges; individualize and titrate.

Symptom	Treatment options	Clinical notes & cautions
Motor & mobility		
Spasticity	• **Baclofen** (start 5 mg TID, titrate) • **Tizanidine**; gabapentin; benzodiazepines • **Botulinum toxin** — focal spasticity • **Intrathecal baclofen** pump — severe	• Don't abolish useful extensor tone (aids standing) • ⚠ Avoid abrupt baclofen withdrawal • Tizanidine: sedation, hypotension, check LFTs • Pair with stretching / PT
Gait / walking speed	• **Dalfampridine** (Ampyra) 10 mg PO BID • Physical therapy, gait aids	• K^+-channel blocker — improves walking speed in ~1/3 • ⚠ Contraindicated: seizure history, CrCl ≤50 • Don't crush the ER tablet
Tremor	• Clonazepam, propranolol, primidone, topiramate • Thalamic **DBS** — refractory	• Often the hardest MS symptom to treat • OT strategies, wrist weights
Fatigue & sleep		
Fatigue	• **Amantadine** 100 mg BID • **Modafinil** / armodafinil • Methylphenidate • Exercise & sleep hygiene	• First exclude depression, sleep disorder, thyroid, anemia, deconditioning, sedating meds • Trial evidence modest — amantadine/modafinil/methylphenidate no better than placebo (TRIUMPHANT-MS) • Avoid late-day stimulants
Mood, affect & cognition		
Depression / anxiety	• **SSRIs** (sertraline, escitalopram) • **SNRIs** (duloxetine, venlafaxine) • Psychotherapy / CBT	• ⚠ Depression & suicide risk are elevated in MS — screen actively • Interferon-β labels warn of depression / suicidal ideation — monitor mood • Duloxetine / venlafaxine also help neuropathic pain
Pseudobulbar affect	• **Dextromethorphan / quinidine** (Nuedexta) • SSRIs or TCAs (off-label)	• Involuntary laughing/crying incongruent with mood — distinguish from depression • Quinidine: QT prolongation, CYP2D6 interactions
Cognitive impairment	• Cognitive rehabilitation • Treat fatigue, mood, sleep	• No pharmacotherapy proven (donepezil negative) • Optimize DMT, fatigue, depression, and sleep first
Sensory & paroxysmal		
Neuropathic pain / dysesthesia	• **Gabapentin**, **pregabalin** • Duloxetine, amitriptyline	• Central pain & painful tonic spasms are common • TCAs: anticholinergic load (worsens bladder retention, cognition) — use cautiously
Trigeminal neuralgia / paroxysmal symptoms	• **Carbamazepine**, oxcarbazepine • Acetazolamide, lamotrigine, gabapentin (tonic spasms)	• MS is a key **secondary** cause — suspect in young/bilateral cases, get MRI • Monitor Na^+ (hyponatremia) & CBC on carbamazepine/oxcarbazepine • Microvascular decompression / rhizotomy if refractory
Heat sensitivity (Uhthoff)	• Cooling (garments, pre-cooling) • Avoid heat / fever	• Transient pseudo-relapse from raised body temperature — **not a true relapse** • Don't treat with steroids; treat fever / infection
Bladder, bowel & sexual		
Bladder — urgency / overactivity	• Antimuscarinics (oxybutynin, solifenacin, tolterodine) • **Mirabegron** (β3-agonist) • Intradetrusor **onabotulinumtoxinA**	• ⚠ Check post-void residual first — anticholinergics worsen incomplete emptying • Antimuscarinics add anticholinergic / cognitive burden; mirabegron avoids it • Treat UTIs
Bladder — incomplete emptying / DSD	• Clean intermittent catheterization • Treat / monitor for UTI	• Detrusor–sphincter dyssynergia → high residuals, recurrent UTIs, reflux • Urology / urodynamics for mixed patterns
Bowel (constipation)	• Fluids, fiber • Scheduled bowel program, laxatives	• Very common; address before it worsens bladder & spasticity
Sexual dysfunction	• **PDE5 inhibitors** (sildenafil, tadalafil) for erectile dysfunction • Lubricants, pelvic-floor therapy, counseling	• Often multifactorial — also treat fatigue, spasticity, mood, offending meds (SSRIs) • ⚠ PDE5 inhibitors contraindicated with nitrates

Principles: (1) Screen for reversible drivers first — infection/UTI, sleep, mood, heat, deconditioning, sedating meds. (2) Beware stacking **anticholinergic burden** (bladder + TCA + antispasticity) → cognition & retention. (3) A heat- or infection-related worsening (Uhthoff) is a **pseudo-relapse**, not a reason for steroids. (4) One drug can hit two targets — duloxetine (mood + pain), gabapentin (pain + spasticity).