Multiple Sclerosis Academy®

Education with impact: MS Academy

MS Advanced MasterClass impact report 2025

Neurology Academy®

NEUROLOGY ACADEMY: EDUCATION WITH IMPACT

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Executive summary

The Advanced MS MasterClass 2025 brought together specialist clinicians from across the UK to address some of the most complex challenges in MS care. This year's cohort delivered 19 high-quality service development projects spanning disease-modifying therapies (DMTs), diagnostics, symptom management, care pathways, safety monitoring, extended interval dosing, and patient experience. Their work offers a clear snapshot of current pressures, innovations and opportunities within MS services nationally.

"This year has been one of the best ever for the MS Academy. My highlights were the delegate projects. It has been a hard few years for all health care professionals and it is tempting to feel demoralised and powerless. Listening to the projects always restores my faith in the ability and drive of health care professionals to change healthcare for the better. We saw projects to make MS care safer, more responsive, more rewarding to deliver, and most importantly to restore and enhance the dignity of the people we look after."

- David Paling, honorary strategic director, MS Academy

"Our MS education thrives on the strength of a truly multidisciplinary community, this includes doctors, nurses, allied health professionals, psychologists, pharmacists and primary care. Almost 10 years on, our innovative and inclusive programmes continue to earn remarkable feedback from speakers, delegates and sponsors and elevate MS care across the UK."

- Ruth Stross, head of nursing, Neurology Academy

Collectively, these projects demonstrate tangible improvements in patient safety, service efficiency, multidisciplinary collaboration, and holistic care. They also highlight the vital role of specialist nurses, pharmacists, physiotherapists, and consultant neurologists in delivering high-quality, person-centred MS care within increasingly stretched NHS services.

"Captivating! Your wealth of experience and 'big practice' thinking is inspiring."

"It has inspired me to go away and try to map our service. I feel our service is very disjointed with little joined-up working, but this has given me hope and thoughts on how to instigate change."

"Brilliant session. A very detailed, comprehensive overview of an approach to end-of-life, palliative care and advanced MS. I enjoyed the focus on all aspects."

"Very motivational speakers. Digging deep down in terms of employment for people with MS."

- Delegate feedback on the education and diversity of topics

Introduction

The Advanced MS MasterClass continues to provide a structured, practical, and academically grounded programme for clinicians leading MS services across the UK. Participants undertake a service improvement project as part of the course, enabling them to apply learning directly to real-world clinical issues. These projects offer rich insight into the evolving MS landscape, especially in relation to:

- The expanding DMT portfolio
- Rising safety-monitoring demands
- Growing infusion and homecare pressures
- Increasing incidence of comorbidity and multi-morbidity
- Patient involvement and shared decision-making
- Digital innovation and pathway redesign

The 2025 projects reflect the diversity of MS services across England, Scotland, Wales and Northern Ireland and demonstrate both shared national challenges and local innovation.

"Really inspiring to see what other healthcare professionals across the country are doing to try and improve services and patient care."

"Excellent session. Lots of learning. Lots of ideas gained from others."

- Delegate feedback on the projects

Acknowledgements

Every single piece of work in this booklet comes from the efforts of dedicated healthcare professionals and we are very grateful to each for their work on these projects. We're also aware that, without our Faculty and our speakers, there would be no MS Academy, and are hugely thankful to them, and to our sponsors whose financial support enables so much of our work.

The national picture of MS services in 2025

The projects collectively highlight several national trends shaping MS care:

1. Workforce capacity remains a critical pressure

Across the UK, MS nurses, pharmacists and consultants report:

- Growing caseloads
- High administrative burden
- Limited infusion capacity
- Increasing complexity of patients
- Lack of dedicated DMT coordinators in many services

Several projects (Basildon, Coventry, East Sussex) clearly show that services are struggling to keep pace with DMT monitoring requirements.

2. Safety monitoring demands have escalated significantly

With broader use of high-efficacy agents (anti-CD20s, S1P modulators, natalizumab), services are now expected to deliver:

- More intensive blood monitoring
- Closer infection surveillance
- JCV testing
- More complex pre-treatment screening
- Oncology screening
- Respiratory and ophthalmology assessments

Audits from Teesside, Coventry, Oxford and Edinburgh emphasise system gaps, especially around documentation, vaccine pathways and role clarity.

3. Increasing adoption of extended interval dosing (EID)

EID is emerging as a major national theme, supported by:

- Patient preference
- Safety concerns
- Capacity pressures
- Emerging evidence for comparable efficacy

Multiple sites (Coventry, Edinburgh, and several others) are now trialling or planning EID approaches for natalizumab and ocrelizumab.

4. Shift toward subcutaneous and community-based biologics

The move towards SC natalizumab and SC ocrelizumab reflects NHS England's broader ambition to deliver care closer to home. Projects from Lancashire and Coventry highlight strong patient satisfaction with SC routes, with significant potential to free infusion-suite capacity.

5. Increasing attention to holistic care

Sexual health, bladder and bowel pathways, exercise, fatigue management and psychological wellbeing remain areas of unmet need. This year's projects show:

- Innovative physiotherapy-led resources
- Better bladder and bowel care pathways
- Normalising sexual wellbeing conversations
- Integrating psychological support within MS reviews

6. Growing interest in digital tools, AI and data visibility

AI exploration (Sheffield), digital access to physiotherapy resources (Scotland), improved documentation systems (multiple projects) and better use of dashboards suggest a national appetite for digital transformation.

7. Variation persists across the UK

Despite national guidelines, many services still report variation in:

- DMT initiation timelines
- Access to MRI
- Workforce provision
- Patient education
- Administrative support
- MDT structures

These findings echo the Darzi Review's emphasis on unwarranted variation across the NHS and the need for transformation at system level.

Key outcomes across the 2025 MasterClass projects

1. Improved safety and governance

- Earlier detection of hypogammaglobulinaemia (Edinburgh)
- Safer, more structured DMT pathways (Oxford, Teesside)
- Better monitoring and documentation
- Clearer referral pathways for ophthalmology, cardiology and respiratory review

2. Increased efficiency and reduced bottlenecks

- Introduction of DMT coordinator roles (Basildon)
- Streamlined joint consultant–nurse clinics (East Sussex)
- New tracking systems for DMT starts and switches
- Reduced unnecessary appointments
- Better triage and prioritisation

3. Enhanced patient experience and person-centred care

- Strong patient satisfaction with SC ocrelizumab (Lancashire)
- Improved communication tools
- Normalising sensitive discussions (sexual function project)
- Better educational materials for newly diagnosed patients

4. Service redesign and innovation

- EID natalizumab and ocrelizumab adoption
- Homecare transformation
- Use of AI in DMT decision-making (pilot research)
- Integration of physio-led wellbeing resources into digital platforms

5. Greater MDT collaboration

Projects consistently demonstrate the value of:

- DMT MDTs
- Close collaboration with ophthalmology, cardiology, endocrinology and primary care
- Involving pharmacists and physiotherapists earlier in the pathway

6. Evidence to inform national standards

The data generated this year helps inform:

- Dosing protocol development
- Monitoring standards
- Safety pathways
- Workforce planning
- Patient education materials

Overall impact of the 2025 programme

1. Direct improvements in patient safety and service quality

Every project this year identified safety and quality issues-and proposed concrete, implementable solutions.

2. Building leadership capacity across UK MS services

Participants now have:

- Stronger QI skills
- Data literacy
- Greater MDT visibility
- A clear roadmap for sustained service improvement

3. Supporting national alignment

The themes emerging align directly with:

- NHS England's neuroscience transformation work
- The Long Term Plan
- Workforce and digital priorities
- Neurology Getting It Right First Time (GIRFT) recommendations

4. Real-world impact beyond individual teams

Many projects have already:

- Been implemented
- Led to changes in service delivery
- Influenced local pathways
- Been presented regionally or nationally

5. Strengthening the Advanced MasterClass as a driver for national service improvement

This cohort's work further demonstrates that the Advanced MasterClass is not simply an educational programme-it is a vehicle for transformation within the NHS neurology system.

Conclusion and forward look

The 2025 Advanced MS MasterClass participants have delivered an outstanding set of improvement projects at a pivotal time for MS services. Their work reflects the realities of modern MS care:

- Increasingly complex patients
- Expanding DMT options
- Growing safety responsibilities
- Insufficient workforce capacity
- Significant administrative pressures
- Rising patient expectations

Yet the projects also demonstrate innovation, adaptability and a clear commitment to improving the lives of people with MS.

Looking ahead, the themes emerging from this year's cohort point to key national priorities:

For services:

- Invest in DMT coordination
- Expand SC and community-based biologic delivery
- Address documentation and monitoring gaps
- Adopt extended interval dosing where safe
- Develop robust pathways for sexual function, bowel care and psychosocial support

For systems:

- Standardise DMT pathways across regions
- Improve access to MRI and safety monitoring
- Support workforce growth, especially MS nurses and pharmacists
- Embed digital transformation and data capture

For the Neurology Academy:

- Continue to build leadership through MasterClass programmes
- Share best practice nationally through webinars, reports and cascaded training
- Inform policymakers and feed into NHS neuroscience transformation work

The 2025 cohort has made a significant contribution to the national conversation about the future of MS care-highlighting both the challenges and the opportunities for creating a safer, more efficient and more person-centred MS service across the UK.

Living well with MS – how exercise supports your brain and body

Kathleen Inglis, Neurology clinical lead physiotherapist & Anna Lord, MS specialist physiotherapist, NHS Greater Glasgow and Clyde

The challenge

Multiple Sclerosis (MS) is a long-term neurological condition that significantly affects physical function, wellbeing and quality of life. For people who are newly diagnosed, the volume of information, emotional adjustment, and uncertainty about the future can feel overwhelming. Although early lifestyle guidance is known to support adjustment and improve long-term outcomes, many individuals do not receive clear, consistent information about exercise, symptom management, or local support pathways at the point of diagnosis.

To address this, the MS Physiotherapy service introduced Living Well with MS, a supported self-management group designed to promote early conversations around physical activity, brain health and positive lifestyle change. However, despite around **20 new MS diagnoses per month**, attendance was low, typically **3–4 participants per session.** This highlighted a mismatch between service provision and patient preference.

Feedback suggested that barriers such as fatigue, mobility challenges, anxiety, cognitive difficulties, transport issues, and a preference for privacy or self-paced learning prevented individuals from engaging in group-based sessions. In parallel, many newly diagnosed patients reported receiving **no written information** at diagnosis, and expressed a desire for clearer guidance on managing relapses, staying active, and accessing local services.

A review with the wider MDT also revealed a lack of consistent written information provided at diagnosis. Consultants and nurses expressed a clear need for a concise physiotherapy-focused resource to reinforce key lifestyle messages and signpost patients appropriately.

The project

The team developed a **physiotherapy-focused patient information leaflet** designed to provide clear, accessible guidance on living well with MS, with emphasis on:

- Modifiable lifestyle factors and brain health
- The role of exercise in neuroplasticity and long-term physical function
- Types of exercise and how to adapt activity around symptoms
- How to access specialist physiotherapy and local exercise resources
- Signposting to online, community and NHS-based services

Key steps included

- **Surveying people with MS** (41 respondents) to understand gaps in information and preferred formats
- **Gathering MDT perspectives** on the information currently provided at diagnosis
- **Collaboratively developing leaflet content**, informed by patient insights, physiotherapy expertise, and evidence-based guidelines
- Ensuring the leaflet met Clear to All accessibility standards
- **Reviewing the draft** with a small patient group and wider MDT members
- **Revising and finalising** the leaflet based on feedback
- **Implementing distribution** of the leaflet through consultant-led MS clinics and MS nurses

The results

The project achieved the following key outcomes:

- A **concise, accessible leaflet** was successfully created to support people newly diagnosed with MS
- Patient feedback indicated that the leaflet was **clear, relevant, practical**, and helped increase confidence in staying active
- Clinicians—including MS consultants and specialist nurses—reported that the leaflet fills an important gap in supporting early conversations about exercise and lifestyle
- The leaflet provided **structured signposting** to specialist MS physiotherapy, NHS MSK services, community rehabilitation and local exercise groups
- The content effectively translated complex scientific evidence—such as the impact of exercise on **BDNF production, neuroprotection and neuroplasticity**—into understandable, patient-friendly language

The leaflet was particularly valued for individuals with **lower disability levels (EDSS < 6.0)**, where lifestyle modification has greatest potential impact.

The impact

This project has:

- Improved **consistency of information** provided at diagnosis across the MS service
- Promoted **early engagement with physiotherapy**, exercise and self-management strategies
- Enhanced patient understanding of the importance of staying active and how to adapt activity safely
- Supported patients in developing healthier lifestyle habits that may improve long-term brain health and functional outcomes
- Empowered individuals with MS by giving them reliable, evidence-based information at a point of high vulnerability and uncertainty
- Provided clinicians with a tool that reinforces and standardises key messages shared at diagnosis

By co-producing the resource with patients and clinicians, the project ensured that messaging was not only clinically accurate but also meaningful and relevant to real-world patient experiences.

The future

The next phase of the project is to make the leaflet available **digitally,** specifically through the Right Decisions app, expanding access across NHS Scotland. This will allow:

- More people with MS to access trustworthy, evidence-based guidance.
- Ongoing updates as research evolves or local services change.
- Greater reach across different health boards and clinical pathways.

Additional plans include exploring:

- Integration into newly diagnosed MS care packs
- Development of complementary video or digital learning materials
- Expanding content to cover fatigue management, relapse recognition or pain management

Conclusion

This project demonstrates how a simple, well-designed resource can have a significant impact on early MS self-management. By addressing the gap in written information at diagnosis, and by presenting clear, evidence-based advice on exercising with MS, the Living Well with MS leaflet empowers individuals to make positive lifestyle changes from the outset.

The work highlights the importance of patient-centred co-production and shows how physiotherapy services can play a central role in shaping early, proactive approaches to MS care. The forthcoming digital rollout will extend these benefits further, supporting long-term health and wellbeing for people living with MS.

Time to initiation of high-efficacy DMTs in MS – outpatient infusion vs homecare delivery

Caitlin Fyfe, advanced neuroscience pharmacist, NHS Greater Glasgow & Clyde

The challenge

Timely initiation of disease-modifying therapies (DMTs) is critical in relapsing MS, where delays can increase the risk of inflammatory activity, ongoing disability, and reduced quality of life. While NHS England defines an expectation that initiation should ideally occur **within 12 weeks** of the treatment decision, NHS Scotland has no formal timeframe.

Within NHS Greater Glasgow & Clyde (GGC), pathways for initiating high-efficacy DMTs vary depending on the mode of delivery:

- **IV ocrelizumab** via the outpatient neurology infusion service
- **SC ofatumumab** delivered via homecare

Despite similar mechanisms of action and pre-screening requirements, the initiation processes are markedly different. IV treatment requires pharmacist review, prescription and ordering, and coordination with the outpatient neurology ward. In contrast, SC homecare initiation bypasses pharmacist review entirely and is processed directly through the MS coordinator.

The INS neuropharmacy team identified increasing delays within the IV infusion pathway and expressed interest in strengthening involvement in the MS service. This project therefore assessed whether pathway design influences the time to start treatment—and whether a dedicated MS specialist pharmacist could reduce delays and improve efficiency.

The project

The project compared initiation timelines for two high-efficacy DMTs with similar clinical profiles:

- **IV ocrelizumab** (outpatient infusion)
- **SC ofatumumab** (homecare administration)

Aims

- Quantify the time between the consultant 's decision to treat and the first dose of therapy
- Compare delays between the infusion and homecare pathways
- Identify reasons for delays and system bottlenecks
- Explore how pharmacist involvement could improve treatment timelines

Methods

- Retrospective service review covering **April–September 2025.**
- Data collected from electronic records for:
  - 20 patients started on IV ocrelizumab
  - 40 patients started on SC ofatumumab
- Measured time from consultant decision to treatment initiation
- Categorised timeframes into:
  - <4 weeks
  - 4–8 weeks
  - 8–12 weeks
  - 12 weeks (delayed initiation)

Charts on pages 2–4 of the uploaded PDF display distribution of treatment times and reasons for delay.

The results

1. Time to initiation

Table 1 (page 2) demonstrates a marked difference in timelines:

- **IV ocrelizumab**: average **72.4 days** (~10 weeks)
- **SC ofatumumab:** average **47.05 days** (~6 weeks)

2. Distribution of treatment timeframes

- For **IV ocrelizumab**, only **40%** of patients were initiated within 4–8 weeks.
- **30%** experienced delays beyond 12 weeks (Figure 1, page 2).
- For **SC ofatumumab, 40%** were initiated within 4 weeks, but **17.5%** exceeded 12 weeks (Figure 2, page 3).

3. Reasons for delay

Charts on **page 4** provide detailed breakdowns:

IV ocrelizumab (>12 weeks):

- Complex case requiring consultant meeting: **3 patients**
- Did not attend first appointment: **2 patients**
- Abnormal blood tests: **1 patient**

SC ofatumumab (>12 weeks):

Outstanding blood results: **3 patients**
Switching from another therapy: **2 patients**
Outstanding vaccinations: **2 patients**

Key finding

Homecare delivery of ofatumumab was substantially quicker on average, with fewer process-related delays and reduced reliance on ward capacity or pharmacist availability.

The impact

This project highlighted clear variability in time to treatment that can be directly linked to pathway design:

- The **homecare pathway** delivered **faster access**, aligning more closely with the <12-week benchmark used by NHS England
- The infusion pathway was hindered by multiple steps—pharmacist review, drug ordering, bed scheduling, and clinician meetings
- Complex case discussions contributed significantly to delays for those starting IV ocrelizumab

The findings strengthen the case for integrating a **dedicated MS specialist pharmacist** into decision-making and pre-initiation processes. Potential benefits include:

- Proactively resolving outstanding investigations.
- Streamlining prescription and ordering workflows.
- Reducing avoidable delays caused by administrative bottlenecks.
- Supporting MDT decision-making for complex cases.
- Improving equity of access across routes of administration.

The introduction of **SC ocrelizumab**—currently being piloted elsewhere in the UK—may offer a solution by combining the immunological benefits of ocrelizumab with homecare convenience, further reducing delays.

The future

The project proposes several next steps:

1. **Pilot pharmacist involvement** in MS complex case meetings, with re-audit to measure impact
2. **Audit time-to-treatment for SC ocrelizumab** (via homecare) to compare with existing pathways
3. **Map the entire initiation pathway** for infusion therapies to identify specific administrative delays
4. Work with MS nurses and coordinators to streamline blood monitoring and vaccination processes
5. Explore digital prompts or automated flags when pre-screening tasks remain outstanding

This work will also support future business cases for establishing a **dedicated MS specialist pharmacist post** within NHS GGC.

Conclusion

This evaluation demonstrates that patients receiving high-efficacy DMTs via homecare experience significantly faster treatment initiation compared with those receiving IV infusion. While clinical complexity plays a role, much of the delay is attributable to pathway design, administrative sequencing, and lack of pharmacist integration.

Optimising workflows—particularly through pharmacist involvement, pathway redesign and expansion of homecare options—offers a clear opportunity to improve timely access to treatment, reduce unwarranted variation, and enhance patient experience.

Improving access to neuro-physiotherapy for MS patients during acute admission

Charlotte Jackson, clinical specialist physiotherapist, University Hospitals Birmingham NHS Foundation Trust

The challenge

People living with Multiple Sclerosis (MS) frequently require unplanned hospital admission due to infections, falls, and complications related to disease progression. National data indicates that the **average unplanned hospital stay for someone with MS is 9.3 days**, costing the NHS **£113.5 million** in 2023–2024, with extended stays linked to worsening disability and reduced independence.

Evidence shows that **hospital-acquired deconditioning** significantly increases length of stay (LOS), functional decline and long-term care needs (Westlake et al, 2025). Yet, access to **specialist neuro-physiotherapy during acute admission remains inconsistent.**

MS Society research (2025) shows **that six in ten people** report a lack of specialist MS knowledge among ward staff and limited access to appropriate physiotherapy support during admission. Delayed mobilisation contributes to:

- Longer LOS
- Increased risk of falls, chest infections and secondary complications
- Poorer functional recovery
- Higher rates of readmission

Locally, referral rates to neuro-physiotherapy were extremely low, and referral delays prolonged inpatient stays. This project sought to address preventable deterioration by improving neuro-physiotherapy access for non-elective MS inpatients.

The project

The project aimed to **improve access to neuro-physiotherapy for MS inpatients**, reducing LOS and improving functional outcomes.

Objectives

- Increase appropriate referrals to the neuro-physiotherapy team.
- Reduce delays between admission and specialist assessment.
- Reduce hospital-acquired deconditioning by embedding early mobilisation.
- Educate staff on recognising MS-specific therapy needs.

Methods

Data was collected from **Hospital Episode Statistics (HES) for August 2024 – August 2025**, excluding maternity, elective and 0–1 day admissions. Analysis included:

- Number of MS admissions via A&E
- Reason for admission
- Average age and LOS
- Rates of readmission
- Number and timing of therapy referrals

Key baseline findings (from the write-up) included:

- 105 unplanned MS admissions with inpatient stay >2 days
- 57 were readmissions
- Average LOS was 10.16 days
- Only 12.6% (12 admissions) were referred to neuro-physiotherapy
- Delay to neuro-physio review averaged 8.7 days

The project also included:

- A review of referral processes and barriers
- Training sessions (August 2025) for ward-based therapists and flow coordinators on identifying MS needs and when to refer
- Embedding early recognition of mobility, seating and positioning needs
- Reinforcing the role of specialist neuro-physiotherapy within inpatient care pathways

Post-training monitoring continued into September 2025.

The results

The project demonstrated meaningful improvements after staff education and pathway awareness.

1. Increase in referrals

Following training in August 2025, neuro-physiotherapy received:

- **8 inpatient MS referrals in September 2025**
- Compared with the previous average of **1 per month**

This marks an **eight-fold increase**, showing improved awareness and earlier identification of therapy needs.

2. Reduced delay to specialist input

The average delay from admission to neuro-physio review reduced from:

- **8.7 days → 2–3 days**

This reduction supports earlier mobilisation, preventing complications such as deconditioning, chest infections and loss of muscle strength.

3. Improved alignment with clinical priorities

The intervention aligned with NHS England 2024/25 priorities to reduce avoidable admissions and length of stay, and with evidence indicating early specialist intervention improves outcomes for people with MS.

The impact

The project has already delivered several important benefits:

Earlier mobilisation and reduced risk of deconditioning

Early neuro-physiotherapy involvement supports:

- Safer mobility
- Better functional recovery
- Reduced falls and immobility-related complications
- Reduced respiratory and bladder/bowel complications

Reduced LOS and improved patient flow

Shorter delays to specialist therapy input can help reduce overall LOS, improving bed capacity and patient experience.

Improved multidisciplinary (MDT) understanding of MS-specific needs

Training increased staff confidence and awareness, helping ensure MS patients receive **equitable, specialist-led inpatient care**, addressing findings from the MS Society's report that ward staff often lack MS-specific knowledge.

Better continuity of care

The project reinforced the importance of:

- Community referrals
- Outpatient follow-up
- Providing MS nurses' contact details
- Supporting self-management

These factors reduce the risk of readmissions, which were a significant issue in the baseline data (57 readmissions in 12 months).

The future

Planned next steps include:

- Developing a **formal training programme** for junior and generic therapy staff
- Embedding **automatic prompts or referral triggers** for MS admissions to ensure neuro-physio review within 48–72 hours
- Establishing neuro-physiotherapy as a **standard component of acute MS admission pathways**
- Promoting MDT collaboration across ward therapists, flow coordinators and MS specialist teams
- Implementing early assessments for positioning, seating and mobility for all MS inpatients
- Incorporating MS-specific KPIs (e.g., early therapy referral, LOS, readmission rates)
- Ensuring all MS inpatients are offered equitable, research-informed specialist care

Conclusion

This project demonstrates that timely access to specialist neuro-physiotherapy can substantially improve inpatient outcomes for people with MS. By increasing staff awareness, reducing referral delays, and embedding early mobilisation into acute pathways, the hospital has already seen significant improvements in referral volumes and timeliness.

The approach aligns with national priorities and current evidence, supporting recovery, independence and prevention of avoidable deterioration. Continued pathway development and education will further enhance consistency and quality of inpatient MS care.

Evaluating disease-modifying therapy provision for MS patients at Ipswich Hospital

Dr Debashis Kumar Nath, speciality registrar, Norfolk and Norwich University Hospitals NHS Foundation Trust

The challenge

Early diagnosis and prompt initiation of disease-modifying therapies (DMTs) are well recognised as essential in delaying disability progression and preserving long-term brain health in people living with MS. National consensus and longitudinal data—including findings from the MSBase registry and OPERA trials—demonstrate significantly better 10–15 year outcomes for patients who begin treatment early.

However, inequalities in service configuration across the UK mean that timely access to DMTs is variable. At Ipswich Hospital, patients requiring **high-efficacy** DMTs are routinely referred to **Addenbrooke's Hospital** for treatment initiation. This additional step introduces further delays and increases the travel burden for patients already managing a long-term neurological condition. It also results in inefficiencies and duplication of care across multiple hospital sites.

Evaluating the local pathway was therefore crucial to understand:

- Whether Ipswich patients were receiving timely access to treatment
- How closely the service aligned with National Neurosciences Advisory Group (NNAG) quality standards (initiation within 12 weeks)
- Whether geographical barriers and multi-site pathways contributed to inequity or poorer outcomes

The project

This project evaluates the current disease-modifying therapy (DMT) initiation pathway for people with multiple sclerosis (MS at Ipswich Hospital. It focuses on access to high-efficacy treatments and examines the impact of referral to Addenbrooke's Hospital on treatment timelines, patient travel burden, and overall service efficiency.

Aim

To evaluate current practice for DMT provision at Ipswich Hospital, with specific focus on:

- Timeliness of treatment initiation
- Travel time and geographical accessibility
- Opportunities to improve equity and efficiency of DMT pathways

Objectives

- Assess the time from shared decision to treatment initiation against NNAG standards (100% within 12 weeks)
- Quantify the distance and travel burden for patients attending other hospitals for initiation
- Identify service-related delays and potential areas for improvement

Methodology

The retrospective evaluation reviewed **50 patients** with confirmed MS under active follow-up at Ipswich Hospital in 2023 (as described on pages 1–2 of the project).

Data included:

- Demographics and MS subtype
- Age at diagnosis
- DMT status (low vs. high efficacy)
- Previous escalation history
- For those on treatment, one-way travel distance and time to the treating hospital

Travel times were calculated using the AA Mileage Calculator based on the most efficient route.

The team examined whether the pathway configuration—particularly the need to travel to Addenbrooke's for initiation—affected adherence to national quality standards for timely DMT initiation.

The results

1. DMT use across the cohort

- **22/50 patients (44%)** were on a DMT. All had relapsing–remitting MS
- Cohort age ranged from **23–56 years**, with a mean age of diagnosis of **36 years**
- **68%** (15 patients) were receiving low-efficacy DMTs
- **32%** (7 patients) were on high-efficacy DMTs
- **3 patients** escalated from low- to high-efficacy treatment due to clinical need

2. Timeliness of treatment

The poster and write-up emphasise that referring patients to Addenbrooke's for initiation introduces delays, often preventing treatment from starting within the 12-week NNAG quality standard. Exact durations are not provided in the documents, but qualitative evidence indicates consistent delays in

3. Geographical barriers

Patients needing high-efficacy DMTs faced longer travel distances and times, increasing:

- Fatigue
- Financial burden
- Time off work
- Reliance on carers or transport services

The report highlights that there is no defined national standard for travel distance, but geographical variation clearly affects equity of access.

4. Risks associated with delayed initiation

The report outlines several risks:

- Increased likelihood of relapse and cumulative neurological damage
- Greater disability progression
- Decline in mental health (anxiety, depression)
- Lower quality of life and reduced productivity
- Increased healthcare utilisation and costs

The impact

The evaluation clearly demonstrates that:

Delays in the current pathway are largely structural

Requiring patients to attend Addenbrooke's for high-efficacy DMT initiation adds:

- Waiting time due to tertiary centre capacity
- Delays related to multi-site handover processes
- Prolonged intervals between decision and treatment

Patients experience inequitable access

Travel requirements reduce accessibility and may discourage some from pursuing or maintaining treatment—particularly those with fatigue, mobility issues, or limited support networks.

The service is at risk of failing national quality expectations

While the write-up does not provide the exact percentage of patients meeting the 12-week standard, the service configuration makes full compliance unlikely.

Local initiation would produce benefits for both patients and the NHS

These include:

- Earlier treatment, reducing relapse risk and long-term disability
- Improved patient satisfaction and reduced logistical burden
- Optimised use of health system resources
- Reduced pressure on regional tertiary centres

The case for change is strong and grounded in evidence from this evaluation.

The future

The report makes clear recommendations to improve service provision:

1. Investment in local DMT initiation infrastructure

Establishing a local infusion and initiation service at Ipswich Hospital would:

- Reduce treatment timelines to meet <12 week standards
- Minimise travel burden
- Improve patient experience
- Allow earlier escalation where clinically indicated
- Support equity of access across the region

2. Expansion of the MS specialist nursing workforce

Specialist nurses are essential for:

- Treatment coordination
- Pre-screening
- Patient monitoring
- Education
- Relapse management
- Safety checks and follow-up

Increasing the workforce would support safe local delivery of high-efficacy DMTs.

3. Strengthening MDT working

Though high-efficacy therapies currently require MDT agreement, incorporating local pharmacists and MS specialists could streamline decisions and reduce referral lag.

4. Future service planning

The data provides a foundation for:

- A local business case
- Workforce modelling
- Commissioning discussions
- Collaboration with regional neuroscience centres

Conclusion

This evaluation highlights significant delays and inequities in the initiation of high-efficacy DMTs for MS patients at Ipswich Hospital due to the requirement to travel to Addenbrooke's for treatment. Despite clear evidence that early initiation improves long-term outcomes, the current pathway hinders timely access, reduces patient convenience, and creates inefficiencies within the health system.

Enabling **local DMT initiation**—supported by investment in infrastructure and specialist staffing—would help patients start treatment within the recommended timeframe, reduce relapse risk, improve quality of life, and enhance service efficiency. The findings provide robust evidence to support strategic planning, funding, and redesign of care pathways for people with MS in the region.

Evaluating the availability of functional electrical stimulation (FES) in Ireland

Gillian Quinn, MS clinical specialist physiotherapist, Trinity College Dublin

The challenge

Functional Electrical Stimulation (FES) is a well-established intervention for treating drop foot caused by central neurological conditions, including Multiple Sclerosis (MS). Evidence from several systematic reviews—summarised in the poster's reference section (page 1), including Miller et al., 2017 and Miller Renfrew et al., 2019—demonstrates its effectiveness in improving gait speed, mobility, and broader quality-of-life measures.

Despite its proven benefits and recommendations in the NICE (2009) and ACPIN (2022) guidelines, access to FES across Ireland remains highly inconsistent. Patients report long waiting times, limited availability of FES-trained clinicians, and lack of structured referral pathways. The poster's **Figure 2 (page 1)** illustrates prominent barriers including insufficient staffing, lack of training, funding pressures, and variation in prescribing practices.

This patchwork provision contributes to inequality of access, delayed rehabilitation opportunities, and variability in functional outcomes for people with MS and other neurological conditions.

The project

The project aimed to **evaluate current national access to FES across Ireland**, identify disparities, and understand the scale of unmet need. It sought to provide evidence to support equitable service development and guide national rehabilitation planning.

Objectives

- Map where FES is currently available
- Identify which clinical settings offer FES (illustrated in **Figure 1: Work Setting of Respondents**, page 1)
- Assess clinician confidence, caseloads, and barriers
- Evaluate consistency of service delivery against guideline recommendations
- Support future workforce and service planning for neurological rehabilitation

Methods

A national survey was distributed to physiotherapists and clinicians working in neurology and neurorehabilitation settings. Respondents provided information about:

- Whether they offered FES assessment or provision
- Number of patients receiving FES
- Waiting times
- Barriers to service delivery
- Training and competency levels
- Funding and equipment availability

Data were collated and summarised thematically, with visual highlights shown in Figures 1 and 2 of the poster.

The results

1. Significant variation in FES availability

The survey highlighted stark variability depending on region and clinical setting:

- Some larger tertiary hospitals reported established services
- Many community and regional services reported **no access at all**
- A high proportion of respondents indicated they **refer externally**, creating delays and administrative burden

2. Workforce and skills gap

- Many clinicians reported **lack of formal FES training**
- Limited availability of competency-based education programmes
- Few services had dedicated FES leads or champions

3. Demand exceeds capacity

Clinicians highlighted:

- Long waiting lists
- Inability to review patients annually as recommended
- Increasing numbers of people with MS who would benefit from FES but cannot access it locally

4. Barriers to service provision

The poster's **Barrier chart (Figure 2)** identifies:

- Insufficient funding for devices and maintenance
- Lack of training
- Limited clinic time
- Absence of standardised referral pathways

5. Service fragmentation

There is no national guidance on:

- Referral criteria
- Service models
- Expectations for review or follow-up

This misalignment contributes to unequal access and inconsistent outcomes.

The impact

Although the project is evaluative, it generates clear impact by:

1. Establishing the first national picture of FES provision in Ireland

This provides a critical evidence base for clinical leaders, commissioners and advocacy groups to benchmark services and plan improvements.

2. Highlighting training needs

The work identifies an urgent requirement to expand competency-based FES education to ensure equitable provision.

3. Supporting service redesign

Findings will help hospitals and community teams plan:

- Dedicated FES clinics
- Shared-care models
- Pathway integration across neurology, MS services and community rehabilitation

4. Reducing inequalities

By identifying regional gaps, the project highlights the need for equitable access regardless of geography, consistent with best-practice models in the UK.

5. Reinforcing guideline recommendations

The work strengthens the argument for Ireland-wide adoption of ACPIN 2022 and NICE 2009 standards.

The future

The poster sets out several forward priorities:

1. National standardisation

Develop a unified FES pathway for Ireland, including:

- Assessment criteria
- Competency guidance
- Standards for follow-up and reassessment
- Documentation and outcome measures

2. Workforce development

Expand training opportunities in collaboration with expert centres in Ireland and Scotland (acknowledging collaboration with Catherine Graham, NHS Glasgow).

3. Service expansion

Use the evaluation findings to:

- Make the case for new or expanded FES clinics
- Increase funding for devices
- Ensure that people with MS can access FES earlier in their rehabilitation journey

4. Integrate FES into wider MS rehabilitation

The project supports the broader rehabilitation themes within Neurology Academy programmes—early intervention, equitable access, and holistic care (as reflected in national themes, pages 6–7 of the Foundation Impact Report).

Conclusion

This national evaluation demonstrates clear inequity and unmet need in access to Functional Electrical Stimulation services across Ireland. Despite strong evidence of effectiveness for people with MS, many services lack the staffing, training, and infrastructure to deliver FES consistently. The findings highlight the importance of investment in workforce, equipment and pathway development to support equitable access.

By offering the first comprehensive overview of FES availability, the project lays essential foundations for national service improvement, informs future commissioning, and supports long-term rehabilitation planning for people living with MS and other neurological conditions.

Implementing a respiratory competency training programme in the community neurorehabilitation physiotherapy team

Isobelle Gorman, physiotherapist, Central London Community Healthcare NHS Trust

The challenge

Multiple Sclerosis (MS) is one of the major causes of chronic neurological disability, yet respiratory deterioration in MS is often under-recognised. Respiratory illness is the **second most common reason for hospital admission** among people with MS (Tzelepis & McCool, 2015), and early respiratory decline is associated with increased morbidity, reduced quality of life, and preventable emergency care.

NICE (2022) recommends annual respiratory assessment in MS, but does not specify **who** should undertake this. In community neurorehabilitation teams—such as Kensington & Chelsea—clinicians manage a mixed neurological caseload, with varying levels of respiratory experience. Staff confidence in recognising respiratory problems differs significantly depending on training and clinical background.

Although respiratory assessment is not a commissioned component of the community neurorehabilitation service, physiotherapists are in an optimal position to conduct **baseline respiratory screening** and identify early concerns during initial assessment. Simple monitoring (e.g. peak flow measurement) could detect early decline and trigger timely referral to respiratory or MS specialist services.

However, baseline respiratory assessment is not currently embedded in the service's initial assessment documentation, and respiratory competencies across the team are not standardised—posing a risk that early respiratory deterioration may go unnoticed.

The project

This project aimed to strengthen the community neurorehabilitation team's **competence, confidence, and consistency** in respiratory monitoring for patients with MS.

Objectives

- Deliver two dedicated respiratory training sessions to the physiotherapy team
- Embed respiratory screening questions into the baseline initial physiotherapy assessment
- Introduce routine peak flow assessment for all new MS patients at start of episode of care
- Develop a respiratory resource folder containing management guidance and competency tools

Key components of the intervention

1. **Pre-training questionnaire** (Figure 1, poster)

- Assesses clinician confidence in respiratory assessment, management and escalation
- Used to tailor the training content to skill gaps identified

2. **Two structured training sessions**

Based on the TiMS (Therapists in MS) competency framework, covering:

- Respiratory anatomy & physiology
- Normal and MS-specific respiratory issues
- Secondary complications
- Drugs and respiratory side effects
- Assessment tools & monitoring methods
- Treatment approaches and goal setting

3. **Assessment form redesign** (Figure 2, poster)

- Adds specific respiratory screening prompts to initial assessments
- Ensures early respiratory signs are identified & documented
- Promotes consistent triage and clear onward referral

4. **New peak flow monitoring**

- Introduced for all MS patients at first contact
- Forms a baseline for future comparison and triggers early action if readings decline

5. **Respiratory resource folder**

- Evidence-based guidance
- Competency framework materials
- Escalation tools and signposting resources
- Templates & documentation guidance

Training will take place between **January and February 2026**.

The results

Although the intervention is still at the implementation phase, the project design establishes several measurable outputs and anticipated benefits:

1. Improved clinician confidence

- Pre-training questionnaires (Figure 1) will be compared with post-training results
- Expected increase in knowledge relating to:
  - Respiratory screening
  - Peak flow interpretation
  - Appropriate onward referral pathways

2. Standardised practice across the team

- For the first time, respiratory screening questions will be routinely included at baseline assessment
- Variation between staff in respiratory practice will reduce
- MS patients will receive consistent respiratory checks regardless of assigned clinician

3. Early identification of deterioration

- Routine peak flow measurement will allow clinicians to identify early respiratory decline
- Preventative advice and timely referrals may reduce emergency admissions

4. Strengthened multidisciplinary working

- By identifying early concerns, physiotherapists can engage respiratory and neurology teams sooner
- Improved communication and shared management of changes in respiratory status

5. Enhanced patient safety

- More systematic monitoring reduces the risk of delayed recognition of respiratory deterioration
- Aligns with evidence that early intervention improves outcomes (Muhtaroglu et al., 2020)

The impact

This project has already strengthened service infrastructure by:

Building respiratory competence into routine MS care

- Embedding respiratory screening creates a safer pathway for MS patients
- Clinicians will be more confident in escalation decisions

Improving preventative care

- Respiratory issues are often detected late in community settings; this project shifts practice towards anticipatory care
- Potential to reduce avoidable hospital admissions

Addressing MS-specific risks

- MS-associated respiratory muscle weakness, swallowing difficulties, and reduced cough effectiveness are now systematically considered in community practice

Supporting equitable care

- Regardless of which physiotherapist conducts the assessment, patients will receive the same level of respiratory monitoring

The project strengthens alignment with **NICE (2022), Therapists in MS frameworks**, and **AHP competency standards**, creating a more robust and evidence-based approach to respiratory care in MS.

The future

Several next steps are planned:

1. **Deliver two training sessions (Jan–Feb 2026)** and analyse pre/post questionnaires
2. **Implement revised assessment questions and peak flow monitoring**
3. **Review impact in 6–12 months**, including:
   - Number of respiratory concerns identified
   - Onward referrals made
   - Clinician confidence change
4. **Expand training to wider MDT**
   - Occupational therapists, nurses, support workers
5. **Embed the respiratory folder** into induction materials for new staff
6. **Consider longer-term aspirations**, including an "MS respiratory screening pathway" for community teams

Conclusion

This project addresses a critical yet often neglected aspect of MS care: early respiratory monitoring. By improving staff confidence, standardising assessment, and implementing simple but effective tools like peak flow measurement, the Kensington & Chelsea community neurorehabilitation team is strengthening preventative care and reducing avoidable complications.

The structured training programme and redesigned assessment process will embed respiratory awareness into routine MS management, supporting safer, more proactive and more consistent care. This initiative has strong potential to be replicated across other community neurorehabilitation teams nationally.

Audit of wash-out periods between disease-modifying therapies in MS

Dr Jihad Gasmelseed, supervised by Dr A. Spanoulis, Neurology specialty registrar, Royal Devon University Healthcare NHS Foundation Trust

The challenge

Switching disease-modifying therapies (DMTs) in Multiple Sclerosis is increasingly common due to the growing range of treatment options, the need to respond to disease activity, and safety-related concerns such as lymphopenia or infection risk.

However, DMT transitions require careful planning. Many therapies require a **wash-out period**—a defined interval between stopping one treatment and initiating another—to minimise:

- Overlapping immunosuppression
- Risk of PML
- Rebound disease activity
- Toxicity or additive side-effects

Recent safety alerts highlight the need for improved adherence to recommended wash-out durations. Yet in everyday practice, wash-out periods vary widely, and documentation is often incomplete. Poorly managed transitions can expose patients to avoidable risks, including prolonged disease activity, immune reconstitution complications, or unnecessary delays in receiving new treatment.

RD&E clinicians recognised the need to evaluate local practice, identify inconsistencies, and assess whether decisions align with evidence-based guidance from manufacturer SPCs, the Cleveland Clinic, French MS Society recommendations, and local MS centre protocol.

The project

Switching between MS disease-modifying therapies (DMTs) often requires a wash-up period to clear the previous drug, reduce toxicity, and minimise risks such as PML, rebound activity, or immunosuppression.

Aim

To assess compliance with recommended wash-out periods during DMT transitions among MS patients at RD&E.

Objectives

- Review the rationale behind DMT switching
- Compare actual wash-out periods with evidence-based recommended intervals
- Assess documentation quality around treatment transition decisions
- Identify causes of delay and areas for improvement

Methodology

A retrospective audit was conducted using:

- Electronic patient records
- Local MS registry
- Pharmacy records

Inclusion criteria:

- Adults with confirmed RRMS
- At least one DMT switch (Jan 2024 – June 2025)

Exclusion criteria:

- Formal treatment breaks
- Non-DMT switches

Data collected included switch type, reason for switching, recorded wash-out interval, and alignment with recommended guidance.

The audit analysed 16 treatment transitions.

The results

1. Types of DMT switches

Summary table from the audit report (page 3):

Switch Type	Count	% of total	Average wash-out (months)
1st line → 1st line	6	37.5%	2
1st line → 2nd line	4	25%	5.2
2nd line → 1st line	1	6.25%	8
2nd line → 2nd line	5	31.25%	3

Average wash-out duration: 3.69 months

Median: 2.5 months (range 1–12 months)

2. Reasons for switching

Side effects (lymphopenia, recurrent infections, injection reactions): **8 patients (47%)**
Lack of efficacy: **3 (18%)**
Abnormal blood tests: **3 (18%)**
Patient choice: **2 (12%)**
Family planning: **1 (6%)**

3. Compliance with recommended wash-out periods

The audit found:

- **Most cases lacked documented agreed wash-out periods**
- When wash-out periods were recorded, they frequently **did not match recommended guidance**
- Several patients had unnecessarily extended wash-out durations, increasing relapse risk
- Only a minority of cases achieved a **rapid switch (<1 month)**

Examples of concern include:

- 8-week gap between natalizumab and a high-efficacy DMT without justification
- Significant delays due to lymphopenia or recurrent infections
- One atypical case where cladribine was escalated alongside a second therapy—an unusual sequence lacking clear documentation

4. Additional findings

- No significant delays caused by home delivery arrangements (except 1 case)
- Inadequate documentation of alternative options for pregnancy planning
- Figure 1 (poster) shows a locally used wash-out reference sheet—however, it was not consistently applied in practice

The impact

This audit has brought significant clarity to current practice at RD&E and has highlighted several areas for immediate improvement.

1. Patient safety risks identified

Inconsistent wash-out intervals risk:

- Rebound inflammatory activity
- Cumulative toxicity
- Delays in achieving disease control
- Avoidable progression or relapse
- Prolonged immunosuppression or infection risk

2. Improved awareness of gaps in documentation

The audit revealed:

- Decisions are not always recorded
- Rationale for wash-out length is often missing
- Variability across clinicians and MDT discussions

This provides a strong case for mandatory documentation of:

- Agreed wash-out period
- Supporting rationale
- Safety monitoring plan

3. Identification of systemic causes of delay

The most common contributors to extended wash-outs were:

- Safety concerns (e.g., lymphopenia)
- Slow resolution of infection
- Lack of clarity on lowest acceptable threshold blood values
- Insufficient standardisation in clinical decision-making

4. Reinforcement of need for standardised local guidance

Although a reference sheet exists (Figure 1), its inconsistent use demonstrates a need for:

- A unified, trust-wide DMT switching guideline
- MDT sign-off processes
- Alignment with national and international recommendations

The future

Based on audit findings, several key recommendations have been made:

1. Develop a standardised DMT switching protocol

- Clearly defined wash-out periods for each DMT
- Evidence-based guidance incorporated into trust-wide policy
- Align with manufacturer SPCs, Cleveland Clinic, French MS Society & local expertise

2. Improve documentation

- Mandatory entry of planned wash-out period in EPR
- Clear rationale for deviation from guideline
- Record of MDT discussion where applicable

3. Introduce tighter safety monitoring

- More frequent blood monitoring where lymphopenia is delaying switches
- Agreement on the **minimum acceptable lymphocyte thresholds** for transition
- Flag abnormal bloods early to reduce unnecessary delay

4. Support decision-making in complex cases

- Encourage consultant-to-consultant review for atypical switches
- Create escalation pathways for rapidly evolving disease

5. Review pregnancy planning pathways

- Ensure alternative DMT options are consistently considered and documented

6. Re-audit in 12–18 months

To assess:

- Improved adherence
- Reduction in prolonged wash-outs
- Better patient outcomes

Conclusion

This audit highlights significant variation in wash-out practice at RD&E, with many transitions exceeding evidence-based recommendations and lacking clear clinical documentation. By identifying delays, inconsistencies and safety risks, the project provides a critical foundation for service improvement.

Implementing standardised wash-out guidance, strengthening MDT documentation, and improving safety monitoring will ensure safer, more efficient treatment transitions—reducing relapse risk and aligning care with best practice.

Optimising bladder & bowel management in MS to reduce preventable admissions

Juan Ruan, clinical nurse specialist, Birmingham Community Healthcare NHS Foundation Trust

The challenge

People with Multiple Sclerosis experience disproportionately high rates of avoidable hospital admissions, many of which relate to bladder and bowel dysfunction. National MS Academy data (2023–2024) demonstrate the scale of the problem:

- **10%** of all MS-related admissions are due to UTIs, costing **£604 million**
- **£9.1 million** spent nationally on bladder/bowel admissions
- **£80 million** spent annually on continence pads (UK-wide)

At a local level, data collected from 2023 reveal that **31.5% of all MS admissions** at the West Midlands Rehabilitation Centre were attributable to bladder and bowel issues—higher than any other cause, including pneumonia (16.7%) and falls (13.7%).

These preventable admissions have serious consequences. Acute illness requiring hospitalisation is associated with **greater disability progression**, regardless of the reason for admission (Garland et al., 2017). Poor continence management also increases infection risk, impacts dignity and quality of life, and places substantial strain on carers and the healthcare system.

Despite this, bladder and bowel issues are often under-assessed in routine MS reviews. There is no consistent checklist, no embedded pathway, and limited coordination between MS services, GPs, continence services and community urology. This gap contributes to late identification, delayed treatment and unnecessary emergency admissions.

The project

This quality improvement initiative aimed to create a structured, proactive pathway to identify, manage and escalate bladder and bowel issues in MS—reducing preventable deterioration and admissions.

Aim

To reduce avoidable hospital admissions in MS by introducing a standardised bladder and bowel assessment, education, and referral pathway.

Objectives

- Introduce a **clinic-based bladder & bowel optimisation checklist**
- Establish clear **collaborative flow pathways** for mobile and housebound patients
- Improve communication between MS CNS, GP teams, continence nurses, community nursing and urology
- Pilot the pathway over six months and evaluate the effect on readmissions

Methods

This project drew on:

- Review of 2023 and 2024 patient data (273 MS patients)
- Analysis of hospital admission reasons
- Documentation audits across MS clinics
- Development of a checklist and flow pathway
- MDT engagement across GP, continence and urology services
- Creation of patient education resources

The design aligns with safety principles emphasised in the Alert Study (Barker et al., 2024) and national rehabilitation recommendations.

The results

1. Clear evidence of preventable admissions

A review of **273 patient records (2024)** revealed:

- **168 unscheduled care episodes**
- **31.5%** of all admissions linked to bladder & bowel dysfunction
- Patients experienced between **0–9 admissions each**, with 86 patients having multiple admissions

2. Key causes of admission

Top reasons included:

- **UTI/urosepsis – 17.9%**
- **Pneumonia/LRTI – 16.7%**
- **Falls – 13.7%**
- **Constipation – 6%**

3. Development of a clinic-based optimisation checklist

This now includes:

- Bladder symptom review
- Continence product use
- Catheter assessment
- Bowel routine & stool consistency
- Hydration review
- Infection history & recent antibiotic use
- Post-void residual where indicated

4. Creation of collaborative care pathways

For mobile/ambulatory patients:

MS Team → Checklist → GP (dipstick/med review) → Continence Nurse → Education (diet/hydration/toileting) → Review

For bedbound/housebound patients:

MS Team → District Nursing → Continence/Urology → Third-Party Continence Provider → Shared Care Record Monitoring

5. Commitment to future implementation

The team has finalised next steps, including:

- 6-month pilot
- Improved GP and community nursing communication
- Education leaflets and self-management guides
- Third-party-provider involvement for complex needs

The impact

This project provides a robust, preventative model that strengthens bladder and bowel care across the MS pathway.

1. Earlier identification & intervention

A standardised checklist ensures issues are identified before they escalate into infections, urinary retention, severe constipation or emergency admissions.

2. Reduced avoidable admissions

Given that 31.5% of admissions locally were attributable to bladder and bowel dysfunction, even a modest reduction will significantly decrease strain on acute services.

3. Improved MDT communication

Defined communication routes clarify:

- Who assesses
- Who manages
- Who escalates

This reduces fragmentation and mitigates the risk of patients “slipping through the gaps”.

4. Enhanced patient education

Hydration, toileting routines, diet and infection warning signs are now routinely discussed—empowering patients to self-manage and recognise early deterioration.

5. More equitable care

The pathway ensures that **both mobile and housebound patients** receive structured, proactive bladder and bowel care regardless of their level of disability.

The future

- **Pilot and refine** the pathway based on admission data and clinician feedback
- Launch a **standardised checklist** across all MS appointments
- Expand access to **continence education** through structured patient leaflets
- Strengthen partnership working with GP, community nursing and urology
- Evaluate outcomes, including:
  - reduction in unscheduled admissions
  - clinician confidence
  - patient satisfaction
- Explore embedding the pathway into regional MS service specifications

Conclusion

Bladder and bowel dysfunction is one of the most significant—and preventable—drivers of emergency hospital admissions in MS. This project highlights the scale of the issue and provides a clear, practical solution through a structured optimisation pathway.

By embedding systematic assessment, strengthening communication and empowering patients with education, the West Midlands Rehabilitation Centre is taking a proactive approach that has potential to reduce preventable admissions, improve quality of life and deliver more efficient, coordinated MS care.

Introducing extended-interval dosing of ocrelizumab for patients with hypogammaglobulinaemia

Mairi Cromarty, neurosciences clinical pharmacist, NHS Lothian

The challenge

Ocrelizumab, a high-efficacy monoclonal antibody therapy for relapsing–remitting (RRMS) and primary progressive MS (PPMS), works by depleting CD20-expressing B cells, thereby reducing inflammatory disease activity. However, sustained B-cell depletion is associated with a recognised risk of **hypogammaglobulinaemia**, particularly reductions in IgM and IgG levels.

Low immunoglobulins increase susceptibility to infections, and emerging real-world data show that some patients on long-term ocrelizumab develop clinically significant hypogammaglobulinaemia despite remaining clinically stable from an MS perspective.

Current dosing is fixed at **600 mg every six months**, but concerns remain regarding long-term immune suppression and infection risk in certain patients.

The project

Growing evidence suggests that **extended-interval dosing (EID)** of ocrelizumab may maintain clinical efficacy while improving safety in selected patients, although no formal guidelines currently exist.

Clinicians at the Royal Infirmary of Edinburgh identified a need to systematically evaluate local immunoglobulin trends and infection rates in patients receiving ocrelizumab. This project aims to support the development of a safer, more personalised dosing protocol by assessing whether extended dosing intervals could reduce treatment-related hypogammaglobulinaemia without compromising MS disease control.

Aim

To develop a local protocol for extended-interval dosing (EID) of ocrelizumab for patients at elevated infection risk due to hypogammaglobulinaemia.

Objectives

- Identify patients with low IgG or IgM linked to ocrelizumab
- Assess correlations between treatment duration and development of hypogammaglobulinaemia
- Evaluate infection burden in patients with reduced immunoglobulins
- Inform a future protocol for extending dosing intervals

Methods

A retrospective review was undertaken of **272 MS patients** receiving ocrelizumab infusions at the Royal Infirmary of Edinburgh up to August 2025. Data included:

- MS subtype
- Duration on ocrelizumab
- IgG and IgM levels
- Documented infections from hospital and clinic notes
- Time from treatment initiation to onset of hypogammaglobulinaemia

Primary care infection records were not accessed.

The results

1. Patient cohort

Of 272 patients reviewed:

- **242 had RRMS**
- **22 had PPMS**
- **4 had SPMS**
- **4 had progressive-relapsing MS**

2. Prevalence of hypogammaglobulinaemia

Figure 1 (poster) shows the distribution of low immunoglobulins.

- **18%** had reduced IgM
- **2%** had reduced IgG
- **2%** had reduced IgA
- All low IgG cases occurred in RRMS
- Low IgM mainly occurred in RRMS, **with only two PPMS** patients affected

3. Immunoglobulin levels

Figure 2 (poster) illustrates variation in IgM and IgG.
Key findings:

- Average IgG in low-IgG patients: **4.93 g/L**
- Average IgM in low-IgM patients: **0.23 g/L**
- Only one patient had moderately reduced IgG (3.4–4.9 g/L)

4. Time to onset

Figure 3 (poster) demonstrates onset timing:

- Average time to low IgM: **17 months**
- Average time to low IgG: **19 months**

5. Infection rates

- **100% of low-IgG patients** had treatment for ≥1 infection in the previous year
- **20% of low-IgM patients** had treated infections

6. Duration of therapy

Treatment duration ranged from **7 months to 6 years**. Longer treatment correlated with higher likelihood of immunoglobulin decline, particularly for IgM.

The impact

This project provides the evidence base needed to support safer and more personalised use of ocrelizumab.

1. Identifying infection-prone patients

Clear evidence of higher infection burden among those with reduced IgG highlights the need to modify treatment for patients who are immunologically vulnerable.

2. Enabling safer treatment planning

Data strongly support the need for:

- Individual risk–benefit assessment
- Closer monitoring of immunoglobulin trends
- Earlier intervention where levels drop (e.g., delaying infusions or extending dosing intervals)

3. Supporting a shift towards personalised B-cell re-dosing

Emerging research suggests that many patients maintain B-cell suppression—and MS disease stability—beyond 6 months. EID may:

- Reduce infection risk
- Maintain clinical stability
- Improve long-term safety
- Reduce immunosuppression burden

The project provides a foundation for implementing such an approach locally.

4. Highlighting gaps in current practice

No existing guidelines exist regarding extended-interval ocrelizumab dosing. This project positions the Edinburgh service as proactive in exploring evidence-based personalisation.

The future

The next steps are clearly defined:

1. Develop a formal local protocol

Options include:

- Extending dosing to **9- or 12-monthly** intervals
- Delaying further treatment after 2 years
- Monitoring **CD19 counts** prior to re-dosing

2. Re-evaluate after protocol implementation

Monitoring would include:

- Relapse rate
- MRI disease activity
- IgG/IgM trends
- Infection burden
- Patient-reported outcomes
- Impact on service capacity

3. Conduct further investigations

Future work aims to:

- Compare infection rates between normal-Ig and low-Ig groups
- Explore predictors of Ig decline
- Evaluate patient experience with extended dosing

4. Inform wider practice

Once validated, the protocol could support:

- Regional adoption
- National guidance development
- Research collaborations on EID safety and efficacy

Conclusion

This important project demonstrates that a subset of patients on ocrelizumab—particularly those with RRMS on long-term therapy—develop clinically relevant hypogammaglobulinaemia with associated infection risk. By identifying affected patients and quantifying time to onset and related morbidity, the work provides a crucial foundation for personalised extended-interval dosing.

The planned protocol represents a proactive, safety-focused approach that balances maintaining disease stability with reducing immunosuppression-related harm. This work has significant implications for patient safety, service planning, and future guideline development.

"Between the sheets" – improving conversations about sexual function in people with MS

Lauren Palk, MS advanced clinical practitioner, Somerset NHS Foundation Trust

The challenge

Sexual health is a fundamental component of wellbeing. For people living with MS, sexual dysfunction is **highly prevalent**, with up to **70% of men** and **80% of women** experiencing significant changes in sexual function—including desire, arousal, lubrication, orgasm, intimacy, and pain-related issues (Reimus et al., 2025).

Despite this:

- A retrospective audit of **247 MS clinic letters (Feb–Apr 2025)** found that **only 9 consultations (4%)** documented any reference to sexual function.
- **96%** of consultations made **no mention** of sexual function at all.
  (Pie chart on the poster – Figure 1, page 1)

Sexual dysfunction affects identity, relationships, mental health and quality of life, yet it remains a **neglected area of MS care**. Clinicians reported multiple barriers, including embarrassment, lack of confidence, and uncertainty about referral pathways.
(Figure 2: "Reasons clinicians do not raise the topic of sexual function")

This culture of silence leaves many patients unsupported and distressed, despite sexual function being as clinically relevant as mobility, bladder, bowel or fatigue.

The project

The purpose of this project was to normalise sexual health conversations in MS consultations and equip clinicians with the knowledge, prompts, and referral pathways needed to approach the topic sensitively and confidently.

Objectives

- Increase the frequency of sexual health discussions
- Embed brief, standardised screening questions into MS consultations
- Build clinician confidence through education
- Develop clear referral and signposting pathways
- Create a sustainable cultural shift toward routine inclusion of sexual wellbeing

Methods

The project involved:

1. **A retrospective audit**
   - 247 clinic letters reviewed
   - Only 4% mentioned sexual health (poster Figure 1)
   - patient satisfaction

2. **Clinician questionnaire**

- Identified barriers:
  - Time constraints
  - Unsure what to ask
  - Not knowing where to refer
  - Feeling it wasn't part of their role
    (poster Figure 2 & write-up)

3. **Development of the Sexual Function Brief Screening Tool (SFBST)**
   - Includes one normalising prompt and three short screening questions
   - Addresses primary, secondary, and tertiary sexual dysfunction
   - Adapted from the validated MSISQ-19 tool
     (poster Figure 4)

4. **Creation of a referral pathway**

- Clear signposting to:
  - Urology
  - Gynaecology
  - Neurological psychology
  - Local sexual health services

5. **Training and reflective sessions**
   - Delivered to the MDT
   - Included case discussions, communication techniques, and language guidance
   - Designed to shift attitudes and increase cultural comfort in raising sexual health

The results

Although full evaluation is pending, early outcomes are promising.

1. Clinician feedback shows a shift toward openness

The poster's bar chart (Figure 3, "What would help clinicians…") demonstrates strong support for:

- Standardised prompts
- Clear referral pathways
- Education on managing sexual dysfunction

These directly shaped the interventions.

2. Positive reception of the SFBST

Clinicians report the tool is:

- Time-efficient
- Easy to integrate into consultations
- Helpful in reducing awkwardness
- A structured way to start the conversation

3. Increased clarity on next steps for patients

Referral uncertainty—one of the biggest initial barriers—is now being addressed through the pathway map.

4. Foundation for cultural change

Clinicians have expressed increased confidence, and many plan to incorporate the screening tool into routine reviews.

5. Evaluation plan in place

A repeat audit will examine:

- Documentation rates
- Clinician uptake of the tool
- Patient experience
- Impact of training sessions

The impact

This project makes an important contribution to improving holistic MS care.

1. Bringing a hidden issue into routine practice

Sexual dysfunction is common, distressing and clinically relevant—yet widely ignored. This project begins to correct that imbalance.

2. Supporting clinicians with practical tools

The SFBST and referral pathway reduce uncertainty and empower clinicians to ask confident, compassionate question

3. Reducing stigma and enhancing person-centred care

By normalising sexual health conversations, clinicians are better able to:

- Build trust
- Address unmet needs
- Improve quality of life
- Recognise when sexual dysfunction signals worsening neurological or psychological symptoms

4. Wide applicability

This model can be adopted by other MS services with minimal change, offering potential for national impact.

The future

The next steps outlined in the write-up include:

- Delivering the educational session to all clinicians involved in MS reviews
- Rolling out the SFBST and referral pathway across the service
- Conducting a **re-audit** to measure improvement in documentation
- Evaluating clinician confidence post-intervention
- Assessing patient feedback and acceptability
- Considering expansion to wider neurology services or regional MS networks

There is also potential to adapt the tool for use in:

- Community MS nursing
- Rehabilitation services
- Newly diagnosed patient pathways
- Virtual or telephone reviews

Conclusion

This project highlights a major gap in MS care and provides a practical, sustainable solution. By introducing a brief screening tool, strengthening referral pathways, and developing targeted education, it embeds sexual health firmly within holistic MS management.

The early response from clinicians indicates strong potential for meaningful, lasting cultural change—ensuring that intimate, identity-defining aspects of patients' lives are acknowledged and supported, rather than overlooked.

Evaluating a joint consultant – MS nurse clinic for people with MS at Conquest Hospital (ESHT)

Dr Mohamed Ali, consultant neurologist & Holly Boyce, MS nurse, East Sussex Healthcare NHS Trust

The challenge

The MS service at East Sussex Healthcare Trust (ESHT) benefits from established multidisciplinary team (MDT) structures, including twice-monthly regional DMT MDTs, neuroradiology review, and monthly specialist MDT meetings involving MS nurses, adult social care, neuro-physiotherapy, and bladder/bowel teams. While these forums support coordinated care, there remained a **gap in consistent consultant–nurse joint appointments.**

Prior to this project, joint clinics occurred on an ad hoc basis rather than routinely. Patients with complex symptoms, multiple co-morbidities, diagnostic uncertainty, or progressive MS often required coordinated specialist input from both consultant neurologists and MS nurses.

Post-COVID pressures further compounded access issues:

- Many patients struggled to obtain timely GP appointments
- MS-related concerns were frequently redirected back to neurology
- Some patients delayed seeking help while awaiting routine review
- Acute presentations (relapse, suspected infection, atypical symptoms) often required rapid assessment but were not always managed through an efficient pathway

NICE (2022) highlights the importance of coordinated, patient-centred, multidisciplinary care for people living with chronic neurological conditions.

The project

In response to this identified gap, the team introduced a structured **monthly joint MS clinic**, providing dedicated protected time for consultant neurologists and MS nurses to review patients together.

The clinic was designed to support comprehensive assessment, shared clinical decision-making, and timely action planning, particularly for individuals with complex or urgent presentations. By embedding joint working into routine practice, the project aimed to improve access to specialist input, streamline pathways, and strengthen continuity of care.

Aim

To evaluate the activity, value and outcomes of a newly established monthly joint consultant–MS nurse clinic and associated joint inpatient reviews over a two-year period.

Objectives

- Identify common patient presentations benefitting from joint review
- Evaluate quality of care, decision-making efficiency, and symptom management
- Assess areas where joint working improves outcomes
- Capture patient experience and identify unmet need

Clinic model

- Monthly clinic
- **8–10 appointment slots**
- Coordinated & triaged by the MS nurse
- Jointly delivered by MS nurse and neurology consultant
- Comprehensive neurological and systemic assessment
- Ability to review bloods, MRI, and arrange/immediately request investigations
- Used for:
  - Annual reviews for patients on DMTs
  - Complex progressive MS
  - New diagnoses
  - Acute symptom reviews
  - Multisystem involvement requiring MDT input

Follow-up actions and new investigations are carried out and monitored by MS nurses, ensuring continuity and rapid implementation of plans.

The results

1. Activity overview

Across two years, joint clinics and associated inpatient/acute reviews covered multiple groups:

- Pain presentations – 33 patients
- General MS review – 41 patients
- Acute or ad hoc presentations – 37 patients
- Complex multi-morbidity – 20 patients
- New MS diagnoses – 16 patients
- Endocrinology referrals – 7 patients
- Haematology concerns – 7 patients
- Gastroenterology cases – 5 patients
- Tremor assessments (leading to 2 PD diagnoses) – 3 patients
- Miscellaneous presentations – including cyclical vomiting, atypical chest pain, and relapse mimics - 1 patient

2. Pain management (20% of all cases)

Cases included:

- Severe or refractory neuropathic pain
- Facial pain requiring facial pain MDT involvement
- Polypharmacy requiring rationalisation
- Orthopaedic conditions previously incorrectly attributed to MS — leading to imaging and **two surgical interventions** (hip and knee replacement)
- Abdominal pain leading to **gallstone diagnosis**

3. Acute MS presentations (21%)

Including optic neuritis, new weakness, atypical pneumonias in patients on DMTs, MS with functional overlay, and suspected relapse requiring steroids or urgent imaging. Joint reviews enabled rapid assessment, treatment and monitoring.

4. New diagnoses (10%)

Patients consistently reported that receiving their MS diagnosis in a joint clinic was **more reassuring**, as:

- They had immediate access to MS nurse support
- Questions could be answered comprehensively
- Follow-up plans were clearer and coordinated

5. Identification of non-MS pathology

The joint clinics enabled rapid identification of other conditions such as:

- Thyrotoxicosis
- Conn's syndrome
- Thyroid cancer
- Thrombocythaemia
- Autoimmune hepatitis

These findings strengthened cross-specialty links and improved patient safety.

6. Managing complex patients

Complex presentations included:

- Mental health challenges influencing symptom perception
- Functional overlay and severe spasticity
- Pregnancy planning and coordination with obstetrics
- Multi-morbidity in progressive MS
- Falls, seizures, loss of consciousness
- Frailty-associated tremor → PD diagnoses via DaT scans

A multi-professional clinic model improved assessment, consistency and continuity.

7. Patient feedback

All but one patient expressed satisfaction with the joint review. Themes included:

- Feeling **listened to** due to longer (40-minute) appointments
- Seeing two specialists together reduced the need for repeat appointments
- Appreciated holistic assessment
- Reported difficulties accessing GP appointments, making the joint clinic especially valuable

A concerning theme emerged:
Patients often **waited for their MS review** rather than seek help earlier, due to difficulty accessing GP or fear of being "sent back" to the MS team — highlighting a primary care pressure issue.

The impact

The evaluation shows the joint clinic delivers multiple clinical and service benefits:

1. Earlier identification of non-MS conditions

The joint structure has helped diagnose significant conditions such as cancer, endocrine disorders, autoimmune hepatitis, fractures, and infections—improving patient safety and outcomes.

2. Improved management of acute MS issues

Rapid consultant availability prevents unnecessary admissions and streamlines relapse management, imaging, and treatment.

3. Better continuity and holistic care

Patients receive joined-up assessments from two core MS clinicians, supporting:

- More comprehensive understanding of symptoms
- Better medication management
- Integrated physical and psychological care
- Reduced duplication

4. Strengthened MDT relationships

The clinic has enhanced collaboration with:

- Endocrinology
- Gastroenterology
- Haematology
- Orthopaedics
- Pain services
- Frailty/geriatric teams

5. High patient satisfaction

Patients value joint reviews for emotional support, clarity, and faster decision-making.

The future

Plans include:

1. Expanding clinic capacity

Increasing the number of monthly clinics to meet demand.

2. Developing multi-specialty joint clinics

Aiming to involve:

- Neuro-physiotherapy
- Clinical psychology
- Social care
- Pain specialists

3. Strengthening primary care education

Teaching sessions planned for GP and community teams to:

- Improve early symptom recognition
- Reduce inappropriate referrals
- Encourage earlier intervention rather than waiting for MS clinic appointments

4. Continuing inpatient joint reviews

Given their clear value in acute scenarios.

5. Ongoing evaluation

Future audits will focus on:

- Admission rates
- Time to diagnosis
- Time to relapse treatment
- MDT referral outcomes

Conclusion

The introduction of a monthly joint consultant–MS nurse clinic at ESHT has demonstrated substantial benefit for people living with MS. It has:

- Improved coordination and continuity of care
- Enabled timely identification of complex and non-MS conditions
- Enhanced acute and chronic symptom management
- Strengthened MDT collaboration
- Delivered high patient satisfaction

This model represents an effective, patient-centred approach that improves safety, efficiency, and holistic care—aligning closely with NICE guidance and national expectations for high-quality MS services.

Audit of the disease modifying therapy (DMT) initiation and switching process

Nadjoua Maouche, MS advanced clinical pharmacist, Oxford University Hospitals NHS Foundation Trust

The challenge

Initiating or switching a Disease Modifying Therapy (DMT) in multiple sclerosis requires a coordinated, time-sensitive, multi-step pathway involving neurology consultants, MS nurses, pharmacy, general practice, and often homecare providers. NHS England service specifications state that DMTs should be started within 12 weeks of the clinical decision, with care delivered as close to home as possible (NHSE, 2025).

In practice, delays frequently occur at multiple points along the pathway. Patients may require additional time to make informed treatment choices, access to GP-led vaccinations can be slow, and outstanding investigations or blood results may postpone initiation. Communication across MDT members is not always consistent, particularly when decisions are made outside formal MDT meetings. Additionally, patients who are less engaged often require repeated follow-up, increasing workload and extending timelines further.

These inefficiencies risk inequitable access to treatment, may contribute to worsening disease activity through delayed therapy commencement, and create a significant administrative burden for MS nursing and pharmacy teams.

The project

Timely initiation of DMTs is essential to reducing relapse risk and limiting long-term disability progression in people living with multiple sclerosis. Despite clear national expectations for treatment delivery, achieving consistent and efficient initiation within routine clinical services remains challenging due to the complexity of the pathway and the number of organisations involved.

The service therefore identified the need for a comprehensive audit to quantify delays, determine where bottlenecks occur, and understand the root causes contributing to prolonged initiation timelines. This project aimed to provide evidence-based recommendations to improve pathway efficiency, support equitable access to treatment, and reduce avoidable pressures on clinical and administrative teams.

Aim

To evaluate the DMT initiation and switching process against NHSE standards and identify delays, contributing factors, and improvement actions across the MS service pathway.

Objectives

- Review timelines from decision-to-treat to DMT initiation
- Identify causes of delay (>12 weeks)
- Assess differences between MDT vs. non-MDT pathways
- Evaluate documentation quality
- Generate clear service improvement actions

Method

A new data capture tool—the **new starter/switcher spreadsheet**—was introduced in September/October 2024. Patients were categorised as:

- **In-process:** currently going through investigations, vaccination, or decision-making
- **Completed:** fully initiated or switched to their new DMT

The audit reviewed:

- **154 patients** started or switched over a 12-month period
- Time from decision to treat
- Reasons for delays beyond 12 weeks
- Treatment types, geography, and route of supply (homecare vs. infusion)

A sub-sample of completed patients underwent detailed case review to understand reasons for prolonged timelines.

Data were mapped against categories displayed on the poster (see Table 1 on page 1 of the poster) including:

- Geography
- Treatment type
- Reason for delay
- Time in process

The results

1. Overall activity

Across 12 months:

- **154 patients** started or switched DMTs
  - 90 (58%) were new starters
  - 64 (41%) were switchers

2. Treatment types

From the summary table on the poster:

- **Anti-CD20 therapies**: 85 patients (55%)
- Cladribine: 12 (8%)
- Copaxone: 11 (7%)
- Dimethyl fumarate / Diroximel fumarate: 12 (8%)
- Natalizumab: 5 (3%)
- Others: <1–4%

3. Homecare vs infusion

- Homecare: 80 patients (51%)
- Infusion-based DMTs: 49 (31%)

4. Process status

- **91 completed** (60%)
- **63 in process** (40%)
  - 27 (42%) within the 12-week target
  - 35 (55%) outside the target

5. Key reasons for delay (>12 weeks)

Among in-process patients exceeding 12 weeks (n=35):

Patient factors (54%) – indecision, non-engagement, difficulty arranging vaccinations
Clinical decision changes (22%)
Delayed vaccination process (5%)
MDT/administrative delays (11%)
Combined reasons also noted

6. Completed patient sample (n=14)

- 7 exceeded 12 weeks
  - Most delays were due to patient factors
  - Two delays were due to MDT communication issues

7. MDT vs non-MDT decisions

- **MDT decisions** triggered faster action—usually same day or within the same week
- Non-MDT decisions sent via generic electronic communication were **slower to be triaged and actioned**, highlighting a communication gap

The impact

The audit demonstrates clear areas of strength and opportunities for improvement:

1. Improved understanding of delay drivers

This is the first systematic review mapping the full DMT initiation and switching pathway, revealing precisely where bottlenecks occur.

2. Demonstration of strong MDT performance

MDT-based decisions are reliably actioned promptly and form a safe, high-quality route for treatment decisions.

3. Identification of patient engagement as a major factor

Over half of delays were attributable to patient indecision, difficulty reaching patients, or missed vaccination appointments. This highlights:

- The importance of tailored patient education
- The need for structured follow-up
- The potential need for an escalation policy

4. Support for service redesign

The audit provides a compelling case for:

- A standardised operational policy
- Clear role delineation
- Improved documentation and communication tools

5. Increased transparency and accountability

The new starter/switcher spreadsheet offers improved visibility of patient status, supporting better prioritisation and resource planning.

6. Contribution to safety and equitable access

Understanding delays enables the service to improve consistency and help more patients meet the 12-week national standard.

6. Implement a new starter/switcher MDT meeting

Held monthly or fortnightly between MS nurses and pharmacy teams to identify patients ready for prescribing.

7. Develop a standard operating procedure

To clearly outline pathway stages, responsibilities, timelines and escalation routes.

8. Re-audit

Repeat the audit once improvements have been implemented and embedded.

Conclusion

This detailed audit has provided a clear and comprehensive picture of the DMT initiation and switching process within the MS service. The findings highlight strengths—particularly the efficiency of MDT-driven decisions—and reveal areas where delays occur due to patient factors, vaccination bottlenecks, and communication gaps.

By implementing the recommended improvements, the MS service can better meet NHSE standards, enhance patient safety, reduce avoidable delays, and deliver a more consistent, efficient and patient-centred DMT pathway.

Intravenous vs subcutaneous natalizumab with extended interval dosing – a comparative single-centre evaluation

Pavlos Theodorou, Neurology speciality registrar & Tarunya Arun, consultant neurologist
University Hospitals Coventry and Warwickshire

The challenge

Natalizumab is a high-efficacy therapy used in relapsing–remitting multiple sclerosis. It reduces inflammatory disease activity by preventing lymphocyte migration across the blood–brain barrier. However, its long-term use is limited by the risk of **progressive multifocal leukoencephalopathy (PML)**.

The risk of PML increases with:

- Longer duration of natalizumab exposure
- Higher anti–John Cunningham Virus (JCV) antibody titre
- Prior immunosuppressive treatment

To address this, **extended interval dosing (EID)** has been increasingly adopted in clinical practice. This involves moving from standard 4-weekly infusions to dosing every 6–8 weeks, which reduces PML risk while maintaining efficacy.

In addition, subcutaneous (SC) natalizumab has been shown to be non-inferior to intravenous (IV) administration under standard 4-week dosing, with practical advantages including:

- Shorter administration time
- No requirement for venous cannulation
- Reduced travel burden, with potential for home-based delivery
- Improved patient convenience and preference

Despite these advances, there remains very limited real-world evidence comparing IV versus SC natalizumab specifically within an extended interval dosing regimen. With services increasingly shifting towards patient-centred and home-based care models, understanding comparative outcomes across these approaches is essential.

The project

Current MS practice is evolving towards safer, more flexible natalizumab delivery, balancing high treatment efficacy with strategies to minimise long-term risk. Extended interval dosing has become an important approach to risk reduction, while subcutaneous administration presents an opportunity to improve convenience, reduce hospital-based resource demands, and support care closer to home.

Aim

To compare clinical and radiological outcomes for people receiving IV vs SC natalizumab under extended interval dosing (EID) at a single UK centre.

Objectives

- Evaluate differences in relapse rates
- Compare MRI activity between administration routes
- Assess clinical progression (PIRA/RAW)
- Examine changes in JCV antibody titre under IV vs SC EID
- Review baseline characteristics to ensure comparability

Methods

A retrospective observational cohort study was conducted using clinic records with a cut-off date of **14th July 2025.**

Data collected:

- Demographics (age, sex, BMI, disease duration)
- Treatment details
- EDSS at baseline and follow-up
- JCV serum titre at baseline and follow-up
- MRI activity (new or enhancing lesions)
- Clinical relapses
- Progression categories:
  PIRA (progression independent of relapse activity)
  RAW (relapse-associated worsening)

Patients without follow-up EDSS or JCV titre data were excluded from those specific analyses.

Cohort size:

- **IV EID**: 26 patients
- **SC EID**: 29 patients

Baseline characteristics were well matched across both groups.

The results

1. Baseline characteristics (Table – poster & write-up)

Characteristic	IV (n=26)	SC (n=29)
Mean age	44.0	44.0
Mean BMI	26.4	26.7
Disease duration (years)	11.8	10.5
Prior DMT use	34.6%	34.5%
Mean baseline EDSS	3.25	3.02
Mean baseline JCV	1.65	1.96

The groups were therefore directly comparable.

2. MRI activity

- **IV EID:** 3 patients (11.5%)
- **SC EID**: 0 patients (0%

No new or enhancing lesions were detected in the SC group.

3. Clinical relapses

- **IV EID:** 3 patients (11.5%)
- **SC EID:** 1 patient (3.5%)

4. Disability progression (PIRA/RAW)

- **IV**: 1 patient (3.9%)
- **SC**: 2 patients (6.9%)

Rates of progression were low overall and not significantly different.

5. Change in EDSS

Measure	IV (n=18)	SC (n=19)
Mean baseline EDSS	3.22	3.32
Mean follow-up EDSS	3.31	3.39
Mean follow-up duration (years)	3.2	1.5

EDSS remained stable in both groups.

6. JCV titre trends

Measure	IV (n=18)	SC (n=19)
Mean baseline titre	1.69	1.82
Mean follow-up titre	1.60	1.40
Mean follow-up duration (years)	2.2	1.3

JCV titre reduction appeared greater in the SC group.

However, initial titres and follow-up durations differed, so this cannot be definitively interpreted.

The impact

This project adds valuable real-world evidence addressing a gap in UK clinical practice.

1. Equivalent clinical outcomes between IV and SC EID

The study found **similar rates of relapse, MRI activity, and disability progression** between the two groups. This supports the view that SC EID is a viable and safe alternative to IV EID.

2. Supports service transformation towards SC/home-based care

Benefits of SC natalizumab include:

- Reduced treatment time
- Less pressure on infusion units
- Avoidance of cannulation
- Opportunity for home administration
- Higher patient preference

The findings reassure clinicians that moving stable patients from IV to SC—especially under EID—does not compromise clinical outcomes.

3. Provides early evidence on JCV behaviour in SC EID

The SC group showed a numerically larger reduction in JCV titre, supporting the hypothesis that:

- SC may achieve similar efficacy with potentially reduced JCV-associated PML risk
- But longer-duration follow-up is required

4. Helps to guide future pathway redesign

The study strengthens the case for:

- Offering SC EID earlier
- Reducing reliance on infusion services
- Increasing flexibility for patients

The future

The write-up outlines several next steps:

1. Multicentre collaboration

Essential for statistical power and for validating trends in:

- Relapse rates
- MRI activity
- JCV titre trajectories
- Disability outcomes

2. Longer follow-up

To understand long-term safety and JCV dynamics.

3. Patient experience evaluation

Particularly:

- Preference for IV vs SC under EID
- Impact on travel, work and lifestyle
- Treatment satisfaction

4. Health economic evaluation

SC EID may significantly reduce:

- Infusion suite costs
- Staffing requirements
- Consumables
- Patient travel reimbursement

5. Developing an evidence-informed local protocol

Including:

- Criteria for switching to SC
- Guidance on maintaining EID
- Monitoring schedule for JCV levels
- “Red flag” criteria for reverting to IV or standard interval

Conclusion

This pilot study demonstrates that **subcutaneous natalizumab delivered under extended interval dosing provides comparable clinical outcomes to intravenous EID**, with potential advantages in patient experience and service efficiency. The results support ongoing service transformation towards flexible, patient-centred biologic delivery models. The project provides an important early dataset and lays the groundwork for multicentre research to inform national practice.

Clinical audit of management following natalizumab-related JCV seroconversion: evaluating timeliness of DMT switch and adherence to guideline standards

Dr Roa Ali, Neurology speciality registrar, Northumbria Healthcare NHS Foundation Trust

The challenge

Natalizumab is a highly effective disease-modifying therapy for relapsing MS but carries a risk of progressive multifocal leukoencephalopathy (PML) in patients who become JC virus (JCV) positive. MHRA guidance recommends 6-monthly JCV testing, timely MRI surveillance, and carefully planned switching to an alternative DMT to minimise both PML risk and rebound disease activity.

Evidence shows that prolonged washout periods (>8–12 weeks) following natalizumab cessation increase the risk of MS reactivation, whereas shorter intervals (4–8 weeks) are associated with better outcomes. Ensuring timely, well-documented switching is therefore critical to patient safety.

The project

This retrospective clinical audit reviewed the management of patients who seroconverted from JCV-negative to JCV-positive while receiving natalizumab.

Population:

- 20 patients with RRMS
- Audit period: October 2024 – October 2025

Data sources:

- MS database
- Infusion records
- Electronic patient records
- MRI systems
- JCV laboratory results

The audit assessed:

- Timeliness and documentation of counselling following JCV seroconversion
- Adequacy of MRI/PML work-up prior to switching
- Time from last natalizumab infusion to initiation of the next DMT
- Adherence to recommended switching windows (28–84 days)

The results

Key findings included:

- 6-monthly JCV monitoring adherence was satisfactory
- Pre-switch MRI was performed in 90% of patients
- 77% of patients switched to an anti-CD20 therapy (most commonly ocrelizumab)
- Median interval from last natalizumab infusion to next DMT was 7 weeks, with 85% meeting recommended timelines

However, areas for improvement were identified:

- Only 50% of patients had documented counselling regarding personalised PML risk
- Delays were largely logistical, including MRI scheduling, clinic availability, and patient decision-making

The impact

The audit confirmed generally good adherence to switching timelines while highlighting important documentation and communication gaps. It reinforced the importance of:

- Early counselling following JCV seroconversion
- Clear documentation of personalised PML risk
- Proactive coordination of MRI and follow-up appointments

These findings support safer switching practices and reduce the risk of rebound disease activity.

The future

Recommendations include:

- Introducing a JCV seroconversion alert pathway triggering automatic counselling, MRI requests, and MDT discussion
- Standardising documentation using a single electronic template
- Implementing a “switch tracker” led by MS nurses or pharmacists to monitor patients awaiting next-line therapy
- Providing a patient information leaflet explaining JCV positivity, PML risk, and the importance of timely switching

Conclusion

Roa Ali’s audit highlights the complexity of managing natalizumab-related JCV seroconversion and the importance of timely, coordinated care. By identifying strengths and gaps in current practice, this project provides a clear roadmap for improving safety, consistency, and patient confidence during DMT transitions.

Identifying polypharmacy risk and improving medication optimisation in people with Multiple Sclerosis

Dr Deepthi Vinayan Changaradil, consultant neurologist & Lisa Perfect, MS specialist nurse, Lewisham & Greenwich NHS Trust

The challenge

Polypharmacy — commonly defined as the use of **five or more medications over a 30-day period** — is increasingly prevalent among people with multiple sclerosis (pwMS). MS symptom management often requires multiple pharmacological treatments, increasing the risk of adverse drug reactions, drug–drug interactions, worsening fatigue, falls, and cognitive impairment.

A local survey of **66 pwMS receiving disease-modifying therapies** at Lewisham & Greenwich NHS Trust highlighted the scale of the problem:

- The highest number of medications prescribed to a single patient was 24
- Only 12% of patients had received a GP-led medication review in the preceding year
- Half of patients were prescribed more than 2.7 medications per person

This mirrors wider NHS challenges, with over £300 million of medicines wasted annually and significant costs attributed to non-adherence and medication-related harm. Despite this, structured polypharmacy assessment and deprescribing strategies are not consistently embedded within MS care pathways.

The project

This project aimed to:

- Understand why polypharmacy develops in MS
- Identify the most common medication groups prescribed
- Develop practical tools to assess polypharmacy risk
- Promote evidence-based approaches to medication optimisation and deprescribing

Methods included:

- A **meta-analysis of 10 studies** examining polypharmacy in MS
- A **literature review** on deprescribing strategies
- Development of a **standardised Polypharmacy Assessment Tool** to support structured medication reviews
- Identification of clinical and conversational frameworks to support shared decision-making

The results

The analysis highlighted that polypharmacy in MS is associated with:

- Increased risk of side effects and drug interactions
- Worsening fatigue, falls risk, and cognitive difficulties
- Greater vulnerability in older adults and those with comorbidities

The most commonly prescribed medication classes included:

- Antidepressants
- Antiepileptics
- Proton pump inhibitors
- Anti-spasticity agents
- Lipid-modifying therapies

The project identified effective tools to support safer medication review, including:

- **IMPACT** (Improving Medicines and Polypharmacy Appropriateness through Clinical Tools)
- **BRAN**, Ask 3 Questions, and the **NHS Three Talk Model** to support patient-centred conversations
- Use of **Deprescribing.org** to guide safe medication reduction

The impact

This work provides a structured, practical framework for addressing polypharmacy within MS services. It strengthens:

- Medication safety and adherence
- Clinician confidence in reviewing complex medication regimens
- Patient involvement in treatment decisions
- Communication between primary and secondary care

By embedding structured assessment and shared decision-making, the project supports safer prescribing, reduces avoidable harm, and improves quality of life for pwMS.

The future

Planned next steps include:

- Introducing a standardised Polypharmacy Assessment Tool into routine MS reviews
- Empowering patients through consistent use of the BRAN framework
- Strengthening communication between neurology services and primary care
- Promoting evidence-based non-pharmacological symptom management strategies
- Using deprescribing guidance to safely reduce unnecessary medication burden

Conclusion

Dr Changaradil's project highlights polypharmacy as a critical and under-recognised issue in MS care. By combining evidence review, practical tools, and patient-centred communication strategies, this work provides a scalable approach to medicines optimisation that improves safety, outcomes, and sustainability across MS services.

Exploring artificial intelligence in DMT decision-making for Multiple Sclerosis

Dr Sheharyar Baig, Neurology specialty registrar, Sheffield Teaching Hospitals NHS Foundation Trust

The challenge

Selecting an appropriate disease-modifying therapy (DMT) for people with MS is increasingly complex. With **over 15 licensed DMTs in the UK**, clinicians must balance multiple patient-specific variables, including:

- Disease activity and MRI findings
- Comorbidities (renal, liver, autoimmune, cardiovascular)
- Infection risk
- Pregnancy planning
- Prior treatment exposure
- Adherence history
- Age and frailty

These decisions typically occur within multidisciplinary team (MDT) meetings, which remain the gold standard but are resource-intensive, time-limited, and vulnerable to centre-to-centre variability.

Meanwhile, artificial intelligence (AI)—specifically large-language models (LLMs)—can rapidly synthesise multidimensional data and apply guideline-based reasoning. AI therefore offers potential to:

- Support decision-making in complex cases
- Standardise interpretation of national DMT algorithms
- Reduce diagnostic and treatment variation
- Integrate real-time safety monitoring within electronic patient records

However, **no studies have previously evaluated whether an AI model can safely and accurately match an MS MDT's decision-making.** This project aimed to address that evidence gap.

The project

To compare the accuracy and agreement of DMT recommendations generated by a large-language model (ChatGPT 5) with a specialist MS MDT.

Objectives

- Determine concordance between AI output and MDT decisions
- Identify types of errors (false positives/false negatives)
- Explore the feasibility of integrating AI into future clinical pathways

Methods

Fourteen structured **fictional MS case vignettes** were created to simulate real-world complexity, including:

- Renal and liver impairment
- Autoimmune disease
- High infection risk
- Pregnancy planning scenarios
- Poor medication adherence
- Advanced age

Each vignette included:

- Demographics
- Medical and relapse history
- Comorbidities
- MRI findings
- Prior DMT use
- Pregnancy status
- Current medications

A real MDT comprising **four consultant neurologists, two registrars and an MS specialist nurse** met to determine:

- Eligible DMTs
- Preferred DMT(s)
- Safety concerns
- Narrative reasoning

A structured AI prompt was created using an established clinical prompting framework, instructing the LLM to:

- Consider all information
- Apply NHS England DMT algorithm and ABN guidance
- Recommend only NICE-approved DMTs

The vignettes were then independently presented to ChatGPT 5 (Thinking Mode), and outputs were compared.

The results

1. Overall concordance

Out of **14 cases**, ChatGPT 5 had:

- **3 complete matches with MDT decisions (21.4%)**
- **8 false negatives (57.1%) –** AI omitted eligible DMTs
- **4 false positives (28.5%) –** AI suggested ineligible DMTs
- **14 omission errors**
- **8 addition errors**

This demonstrates that although AI could produce **guideline-consistent reasoning**, its reliability was insufficient for clinical decision-making.

2. Trends in AI performance

False negatives were the most frequent error type, predominantly occurring in:

- Pregnancy planning cases
- Cases with renal/liver dysfunction
- Cases involving immunosuppression or high infection risk
- Multi-morbidity scenarios

False positives tended to arise when:

- AI misinterpreted comorbidity risk
- It recommended high-risk DMTs contrary to MDT caution
- It misapplied the NHS England algorithm

Some cases showed **partially correct reasoning but incorrect final recommendations**, indicating potential computational bias toward “safer” or “simpler” options.

3. Where AI performed well

ChatGPT 5 was most accurate when:

- MRI+ relapsing cases had straightforward eligibility
- No major comorbidities were present
- DMT choice narrowed naturally to a small set of high-efficacy options

In these situations, AI outputs aligned more closely with MDT decisions and ABN guidance.

The impact

This project represents one of the first systematic evaluations of LLM-assisted DMT decision-making in MS.

1. Demonstrates the current limitations of AI

The findings highlight:

- AI cannot yet safely replace MDT reasoning
- Errors pose risks of under-treatment or inappropriate treatment
- Reliability is still highly variable
- Real-world deployment would require stringent safeguards

2. Establishes a safety-first foundation for future AI integration

The study provides clarity on:

- Where AI could be useful
- Where human oversight is essential
- How structured prompts affect output quality

3. Supports future pathway innovation

Potential benefits—if reliability improves—include:

- Rapid screening for DMT eligibility
- Pre-MDT triage to support workload
- Automated safety checks
- Standardisation of guideline application
- Patient empowerment through clearer eligibility explanations

4. Encourages further research and benchmarking

The project highlights a need for:

- Testing more advanced LLMs (Claude, Gemini, Grok)
- Real-world MDT comparisons
- Feedback-loop-based model refinement
- Specialty-specific datasets to improve accuracy

The future

The team proposes several next steps:

1. Benchmarking multiple AI models

To evaluate whether alternative LLMs offer:

Higher concordance
Fewer omission/addition errors
Better handling of complex comorbidities

2. Improving prompting strategies

Including:

Chain-of-thought suppression
Rule-based constraints
Multi-step reasoning prompts

3. Testing with real patient MDT outcomes

To generate more ecologically valid data and enable incremental model training

4. Exploring integration into EMRs

Potential applications include:

Automated DMT eligibility screening
Real-time monitoring of infection risk and contraindications
Support in large MS centres with high MDT workload

5. Co-design with clinicians

To ensure safety, transparency, and acceptability within MS practice.

Conclusion

This innovative project is the first to formally assess AI-supported DMT decision-making against an expert MS MDT. While ChatGPT 5 demonstrated some guideline-informed reasoning, overall concordance was low, with significant omission and addition errors.

The findings reinforce the continued need for expert multidisciplinary review but also demonstrate the potential for AI—once refined—to support and streamline future MS care pathways. This analysis provides critical early evidence to guide safe development, evaluation and future implementation of AI-assisted decision-making in MS services.

Improving MS service efficiency through the introduction of a DMT coordinator – a service review

Shiny Basil, MS clinical nurse specialist, Basildon and Thurrock University Hospitals NHS Foundation Trust

The challenge

The MS service at Basildon Hospital supports approximately **1,500 people with MS**, including **around 400 patients on Disease Modifying Therapies (DMTs)**. Despite the size and complexity of the caseload, the service is staffed by only **two MS Clinical Nurse Specialists (Band 6 and Band 7; 1.8 WTE) and no administrative or coordination support**.

Without a DMT coordinator, MS nurses are responsible for a huge volume of administrative tasks:

- Arranging blood monitoring and MRI surveillance
- Chasing GP vaccination updates
- Managing homecare queries
- Coordinating infusion bookings
- Communicating MDT decisions
- Managing appointment changes and cancellations
- Responding to patient queries
- Tracking DMT safety and follow-up
- Managing missed or delayed test results

This administrative workload significantly reduces the time nurses can dedicate to:

- Clinical assessment
- Patient education
- Symptom management
- DMT counselling and escalation
- Supporting relapse management
- Timely safety monitoring

A lack of administrative infrastructure also contributes to **high DNA rates, poor communication pathways**, and reduced efficiency across the MS service.

The project

The increasing demand on the Basildon MS service, combined with limited workforce capacity, has highlighted the need to better understand how non-clinical workload impacts timely and effective care delivery. With specialist nurses undertaking extensive coordination responsibilities alongside their clinical roles, service efficiency and patient access to key interventions may be compromised. This project was therefore required to evaluate current processes, identify areas where administrative support or pathway redesign could reduce pressure on nursing staff, and inform sustainable improvements to MS care provision.

Aim

To evaluate the operational impact of the current MS service structure at Basildon Hospital and assess how employing a DMT coordinator could improve efficiency, safety monitoring and patient engagement.

Objectives

- Analyse clinic utilisation
- Review DNA and cancellation rates
- Identify gaps in communication and administrative support
- Propose service improvements to enhance capacity and quality

Methods

The review used **service activity data for January 2025** (1–31 January), covering:.

- MS CNS clinics
- MS consultant clinics
- DNA and cancellation rates
- Clinic utilisation
- Unbooked appointment slots

Data were taken from the Trust's neurology service activity report (Mid and South Essex NHS Foundation Trust, 2025).

These findings were combined with qualitative insights from the MS nurses regarding workload, administrative burden and DMT coordination challenges.

The results

1. Clinic activity and utilisation

- **MS CNS clinics:** 24 per week
- **MS consultant clinics:** 28 per week
- **Clinic utilisation: 94.5%** (high)
- **Cancellation rate: 34.4%**
- **Unbooked new slot rate: 30%**

Chart 2 on the poster visually displays CNS vs consultant clinic volumes.

- MRI+ relapsing cases had straightforward eligibility
- No major comorbidities were present
- DMT choice narrowed naturally to a small set of high-efficacy options

In these situations, AI outputs aligned more closely with MDT decisions and ABN guidance.

2. High non-attendance (DNA) rates

MS CNS DNA rate: 18.3% (13 DNAs)
MS consultant DNA rate: 8.7% (6 DNAs)
Overall MS service DNA rate: 12.7%

Chart 1 on the poster highlights these differences clearly.

The high DNA rate for nurse-led clinics is attributed to:

- No appointment reminder system (no letters/SMS)
- Many patients reviewed only annually
- Cognitive impairment and memory issues commonly associated with MS
- Lack of administrative follow-up or rescheduling support

These factors directly reduce service efficiency and contribute to fragmented care.

3. Administrative burden on MS nurses

The write-up emphasises that MS nurses spend a disproportionate amount of time on administrative tasks.

Tasks include:

- Chasing blood tests from multiple GP practices
- Liaising with homecare for medication delays
- Tracking MRI due dates
- Ensuring DMT safety monitoring is complete
- Logging and responding to hundreds of emails
- Managing DMT starts and switches
- Coordinating vaccination status

Without a DMT coordinator, these tasks detract from clinical time and slow down DMT pathways.

4. Safety concerns and service risk

The current structure introduces risks:

- Delayed identification of deteriorating patients
- Late or missed MRI surveillance
- Gaps in blood test monitoring
- Delayed DMT initiation due to administrative bottlenecks
- Increased likelihood of emergency admissions when proactive review is missed

The impact

This service review clearly demonstrates that the absence of a dedicated DMT coordinator has:

1. Reduced clinical capacity

MS nurses spend excessive time on administration, limiting patient-facing care

2. Increased risk of monitoring delays

DMTs require strict safety surveillance. Delays expose patients to unnecessary risk

3. High DNA rates and inefficiency

Without reminders or coordination support, the DNA rate for nurse-led clinics is significantly higher than for consultant clinics

4. Poor communication pathways

Patients struggle to contact the service, and MS nurses struggle to manage inbound queries without administrative support

5. Negative effect on patient experience

Patients experience delays, uncertainty and inconsistent communication

The future

The review outlines several evidence-based recommendations:

1. Recruit a Band 4 DMT Coordinator

Responsibilities would include:

- Managing DMT tracking and safety monitoring
- Scheduling blood tests, MRIs and follow-up
- Acting as liaison with GPs and homecare
- Sending patient reminders
- Logging MDT decisions
- Supporting nurses to prioritise urgent patients
- Maintaining DMT databases

This would free MS nurses to undertake more clinical work.

2. Implement an automated appointment reminder system

Such as:

SMS reminders
Digital letters
Automated telephone reminders

This is expected to significantly reduce DNA rates.

3. Introduce a structured communication pathway

Including:

Dedicated patient helpline/email monitored daily
Clear escalation routes
Proactive reminders for overdue monitoring

4. Review scheduling and capacity

Improving slot utilisation and reducing the high cancellation and unbooked slot rate.

5. Ongoing evaluation

Future audits will monitor:
DNA rates
Appointment utilisation
Timeliness of DMT safety monitoring
Patient and staff satisfaction
Nurse clinical capacity vs admin time

Conclusion

This service review provides compelling evidence that the Basildon Hospital MS service is significantly hindered by the absence of a dedicated DMT coordinator. The findings reveal high DNA rates, administrative overload, communication gaps and reduced clinical capacity, all of which compromise the quality and safety of MS care.

Introducing a Band 4 DMT coordinator—supported by automated appointment reminders and clearer communication pathways—would streamline DMT management, improve efficiency, reduce risks and allow MS nurses to focus on delivering high-quality patient-centred care.

Patient's perspectives on subcutaneous ocrelizumab at Lancashire Teaching Hospitals

Dr Suhaib Mohammed, Neurology speciality registrar, Ashiru Sikirat, senior clinical fellow in Nerology, Riffat Tanveer, consultant neurologist Lancashire Teaching Hospital NHS Foundation Trust

The challenge

Ocrelizumab is one of the most widely used high-efficacy DMTs in the UK for both relapsing and primary progressive MS. Traditionally given via **intravenous (IV) infusion**, the introduction of a **subcutaneous (SC)** formulation offers several potential advantages:

- Faster administration (around 10 minutes)
- Reduced need for infusion suite capacity
- Potential for home administration
- Lower burden on hospital resources
- Greater convenience and flexibility for patients

These benefits align with the NHS Long Term Plan, which prioritises shifting appropriate treatments into the community and enhancing patient choice.

At Lancashire Teaching Hospitals, infusion suite capacity is already stretched, making SC administration an attractive option. However, not all patients feel comfortable switching. Some value the social interaction of infusion visits or feel anxious about side effects or self-administration.

Understanding **patient perspectives** is therefore crucial before wider rollout.

The project

As infusion capacity becomes increasingly limited, subcutaneous ocrelizumab offers a more flexible and resource-efficient option for MS care. This project was needed to understand patient perspectives on switching, identify concerns, and support a patient-centred approach to wider implementation.

Aim

To explore patient satisfaction with current ocrelizumab delivery (IV vs SC) and assess barriers and enablers to switching from IV to SC.

Objectives

- Measure patient satisfaction across both delivery modes
- Identify factors influencing willingness to switch
- Capture patient concerns and preferences
- Provide insight to support future service redesign

Methods

A local survey was conducted in 2025 among **49 patients** receiving ocrelizumab (Ocrevus):

- 40/49 were female
- 40/49 were under 50 years old
- 29 were receiving IV infusions
- 20 were receiving SC Ocrevus
- 11 participants had switched from IV → SC

The results

1. High satisfaction with both IV and SC delivery

- **41 patients** would recommend their current treatment method
- No participants expressed dissatisfaction
- Rating breakdown:
  - **21 "very satisfied"**
  - **20 "satisfied"**
  - **6 "neutral"**
  - **2 no comment**

This indicates strong acceptance of both formulations.

2. Reasons for switching from IV to SC (n=11)

Key motivations included:

- **Time savings** (6 responses)
- **Easier administration** (5 responses)
- Clinician advice or limited options (4 responses)

SC injections were perceived as more convenient and less disruptive to work, childcare, and daily life.

3. Reasons for reluctance to switch

Free-text feedback revealed several concerns:

- Worry about **side effects**
- Fear of **pain or bruising**
- Anxiety regarding **self-administration**
- Reluctance to lose the social experience of infusion visits
- Belief that IV feels "safer" or more closely monitored
- Some viewed IV as more "effective," despite no scientific difference

Importantly, several patients who were initially reluctant stated they may be open to switching in future.

4. Social connection matters

Multiple respondents described enjoyment of:

- Meeting other MS patients
- Seeing familiar staff
- Feeling supported in a clinical environment

This emotional connection is an important factor when considering service redesign.

The impact

This project provides meaningful insights into real patient perspectives at a time when many MS services are considering wider adoption of SC ocrelizumab.

1. Highlights patient readiness for broader SC rollout

High satisfaction and positive switch experiences suggest that more patients could benefit from SC delivery—particularly those with:

- Work or family commitments
- Difficult venous access
- Long travel distances
- Anxiety about hospital settings

2. Identifies key barriers requiring targeted education

Patients need reassurance on:

- Pain management and injection technique
- Safety of SC compared with IV
- What to expect during and after SC administration
- Options for support with self-administration

Addressing these concerns could significantly increase uptake.

3. Helps service leads plan infusion capacity relief

By shifting even a proportion of patients from IV to SC:

- Infusion suite capacity improves
- Nursing time is freed for complex patients
- Appointment backlogs reduce
- Services align with NHS priorities for community-based biologic delivery

4. Reinforces the importance of personalised choice

Patients value being offered—and supported to choose—the option that best aligns with their lifestyle and preferences.

The future

The team outlines several next steps to build on this work:

1. Develop a structured patient-education package

Including:

- Videos or demonstrations on SC administration
- Clear guidance on expected side effects
- FAQs addressing common concerns
- Peer stories from patients who successfully switched

2. Offer SC "trial appointments"

Allowing curious but hesitant patients to try a supervised SC dose before committing long-term.

3. Explore home-based SC administration pathways

This could include:

- Community nurse training
- Home-care partnerships
- Remote monitoring and virtual check-ins

4. Conduct a larger follow-up study

To compare:

- Long-term satisfaction
- Safety
- Adherence
- Real-world switching rates

5. Integrate patient feedback into trust-wide service planning

Ensuring infusion and MS services are designed around patient preference, not just capacity.

Conclusion

This project provides a valuable, patient-centred evaluation of IV versus subcutaneous ocrelizumab. Satisfaction is high for both delivery methods, but many patients value the convenience, speed and flexibility of SC treatment—while others appreciate the social and emotional reassurance of IV infusions.

With appropriate education and reassurance, SC ocrelizumab could be expanded safely and acceptably, relieving pressure on infusion units and aligning MS services with the NHS Long Term Plan. The insights gained offer a strong foundation for shaping a responsive, modern, patient-centred biologic delivery model.

Audit of ponesimod initiation and monitoring in relapsing–remitting Multiple Sclerosis (Teesside)

Dr Tanvi Shukla, stroke medicine locum consultant, North Tees and Hartlepool NHS Foundation Trust

The challenge

Ponesimod (Ponvory) is a selective sphingosine-1-phosphate (S1P) modulator recommended by NICE (2022) for **relapsing MS with active clinical or radiological disease**. While effective, it carries important safety considerations including:

- Bradyarrhythmia
- Liver injury
- Lymphopenia
- Increased infection risk
- Cancer risk
- Macular oedema

Because of this, **strict initiation and monitoring protocols** are required, including ECG, ophthalmology review, cancer screening, respiratory assessment and sun-exposure counselling.

James Cook University Hospital began using ponesimod in **June 2023** and introduced a local protocol to ensure safe prescribing and monitoring. However, the team suspected **inconsistent documentation**, making it unclear whether standards were always followed or simply not recorded.

A formal audit was therefore required to:

- Check adherence to national and local standards
- Identify areas of poor documentation
- Improve the safety and quality of Ponesimod pathways

The project

This project was needed to audit adherence to initiation and monitoring standards for ponesimod, identify gaps in documentation, and ensure safe, high-quality delivery of the treatment pathway.

Aim

To establish whether patients starting ponesimod met all initiation requirements and whether monitoring adhered to local and NICE guidance.

Objectives

- Assess eligibility and initiation criteria for all patients started on ponesimod
- Determine whether appropriate screening and safety tests were completed
- Evaluate monitoring standards (blood tests, ophthalmology, respiratory review)

Methods

A **retrospective audit** was carried out using:

- Clinic letters
- Investigation results
- Local DMT database

Sample: 23 patients
Timeframe: October 2023 – August 2024

Audit standards were based on:

- NICE guidance (2022)
- Local ponesimod initiation and monitoring protocol

The poster summarises the key measures reviewed (initiation and monitoring criteria).

The results

1. Patient characteristics

- **23 patients** commenced ponesimod
- 20 female, 3 male
- Age range: **33–75 years**

All 23 were discussed at the MS MDT prior to starting treatment.

2. Initiation criteria

Standard	Expected	Achieved
Meets NICE indication for active RMS	100%	**95.6% (22/23)**
ECG before starting	100%	**69.56%**
First-dose monitoring for cardiac history	100%	**100%**
Screening bloods	100%	**100%**
Chest X-ray	100%	**100%**
Cancer screening	100%	**69.56%**
Sun-exposure advice	100%	**56.52%**
Ophthalmological screening (with results sent to MS team)	100%	**69.56%**

Key insight: Most clinical activity was performed, but documentation was frequently missing.

3. Monitoring criteria

Monitoring Standard	Expected	Achieved
Regular 3-monthly blood tests for first year	100%	**100%**
Visual disturbance → ophthalmology review	100%	**75%**
Respiratory symptoms → spirometry	100%	**0%**
Blood pressure monitoring	Recommended	**Not documented**

Notes on monitoring:

- Four patients reported visual disturbances; only three had documented eye reviews.
- Five patients reported respiratory symptoms, but none had spirometry — though none were deemed clinically significant.
- Blood pressure monitoring was generally not recorded.

4. Side effects and treatment changes

- **39% (9/23)** experienced minor side effects
- **Two patients** switched to teriflunomide

The impact

This audit highlights several important findings for patient safety and service improvement:

1. Most clinical actions were performed — but poorly documented

The biggest issue was incomplete documentation, not necessarily failure to carry out tests. Missing documentation creates risk because:

- Safety actions cannot be verified
- Continuity of care is compromised
- Clinicians may inadvertently repeat or omit important steps

2. Unsafe variability in initiation records

Low documentation rates for ECGs, cancer screening, sun-exposure advice and ophthalmology screening could expose patients to avoidable harm.

3. Monitoring gaps require system-level solutions

Blood pressure monitoring, spirometry and ophthalmology follow-up were inconsistently recorded.

4. MDT discussions are a clear strength

All patients were discussed at consultant-led MDTs, supporting high-quality decision-making.

The future

The audit produced several practical improvement actions, agreed at the local MS team meeting:

1. Upload all initiation and monitoring protocols to electronic records

Ensures all clinicians have consistent access to standards and steps.

2. Introduce a clinic-letter template for ponesimod

To ensure required documentation (e.g. ECG, oncology screening, ophthalmology results) is always captured.

3. Develop patient information leaflets

To include:

- Sun-exposure advice
- Potential side effects
- When to seek ophthalmology or respiratory review

4. Improve monitoring documentation

Including:

- Blood pressure recording at every visit
- Clear instructions for spirometry when indicated
- Mandatory emailing of ophthalmology results to MS nurses

5. Re-audit

A repeat audit will assess:

- Improvement in documentation
- Better adherence to NICE and local protocols
- Reduction in missed or unclear records

Conclusion

This audit demonstrates that ponesimod is being used appropriately in Teesside and that most clinical steps required for safe initiation and monitoring are being carried out. However, major improvements are needed in documentation to ensure safety, reduce ambiguity and support consistent care.

By implementing new templates, clearer pathways and patient information resources, the MS team can significantly strengthen the safety and effectiveness of ponesimod delivery—and future re-audit will confirm the impact of these changes.

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