Multiple Sclerosis Academy®

Education with impact: MS Academy

MS Advanced MasterClass impact report 2024

Neurology Academy®

NEUROLOGY ACADEMY: EDUCATION WITH IMPACT

Index

Introduction

The 2024 MS Advanced MasterClass projects reflect a clear evolution in the approach to multiple sclerosis (MS) services, with a focus on streamlining processes, improving patient pathways, and fostering multidisciplinary collaboration. Across this year's projects, there is an emphasis on delivering care that is both efficient and person-centred, with innovative approaches tackling systemic challenges while empowering patients to manage their condition more effectively.

"In a time where healthcare systems face significant pressures, these projects demonstrate the determination of healthcare professionals to innovate, collaborate, and deliver meaningful improvements to MS care. Their efforts not only enhance the patient experience but also offer practical, replicable models to improve services at the local, regional and national level."

- Dr Wallace Brownlee, honorary academic director

"Projects are the true legacy of the MS Academy. It is where learning becomes reality. Delegates use their ideas and inspiration and, empowered by what they have just learnt and the mentorship of the Academy, are able to truly change the experience of people with MS. It is truly gratifying as a speaker to see that your words translate into action, and inspiring to see delegates realising their ability to change the services that they work in for the better."

- Dr David Paling, strategic director for MS Academy

Delegate feedback on the project session:

Really good way of seeing what others are doing and highlighting that others are experiencing the same issues as you. Great networking opportunity.

Great seeing everyone's hard work paying off. The Neurology Academy has very obviously inspired some interesting ideas. I like the relaxed atmosphere.

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.

Transforming MS services for the future

The 2024 Advanced MasterClass projects represent a significant step forward in MS care across the UK. By addressing systemic challenges and prioritising innovation, these projects offer practical, scalable solutions to improve patient outcomes, workforce efficiency, and service delivery. As the NHS faces increasing pressures, the work of these dedicated healthcare professionals provides inspiration and a roadmap for services looking to adapt, innovate, and deliver exceptional care for people with MS.

Delegate projects play a pivotal role in driving innovation and shaping the future of MS care. They provide a platform for experienced, like-minded healthcare professionals to come together in a collaborative environment to engage in meaningful discussions, share insights, and debate key advancements. This exchange of knowledge is intellectually enriching and critical for translating learning into practice. By integrating insights gained through these discussions, professionals can implement evidence-based improvements in MS care.

The MS Academy plays a key role in facilitating this process by offering high-quality education, fostering a strong professional community, and supporting the development of MS specialists. Beyond academic and clinical benefits, these initiatives create a network of professionals united by a passion for advancing MS care. Through mentorship, collaboration, and ongoing support, the MS Academy empowers healthcare professionals to stay at the forefront of innovation, ensuring patients receive the highest standard of care. By nurturing shared learning and professional growth, these projects contribute to the ongoing evolution of MS treatment, ultimately enhancing the lives of those affected by the condition.

Executive summary - a national picture of MS services

Collectively, these 16 projects highlight consistent challenges and opportunities across the UK MS landscape:

- **Access delays:** Many services experience delays in treatment initiation and monitoring due to workforce and resource constraints. Innovative pathways, such as one-stop clinics and virtual reviews, provide scalable solutions to reduce these delays.
- **Capacity pressures:** Infusion clinics, therapy teams, and MRI services face increasing demands. Projects addressing subcutaneous delivery, triage systems, and nurse-led pathways demonstrate practical strategies to optimise resources.
- **Safety monitoring:** Robust surveillance for high-risk therapies remains essential. Nurse-led initiatives and automated scheduling systems have proven effective in improving compliance and patient safety.
- **Holistic care needs:** Rehabilitation, fatigue management, and annual reviews require better integration into care pathways to ensure long-term patient outcomes are prioritised.

The MS Academy Advanced MasterClass and webinar programme has facilitated these themes which reflect the ongoing need for innovation, collaboration, community and workforce empowerment to overcome systemic challenges and deliver person-centred MS care.

Key take-home messages

- **Streamlined pathways work:** Projects like one-stop clinics and virtual triage demonstrate that streamlining processes can reduce delays, improve access, and optimise capacity.
- **Safety is always a priority:** Robust monitoring protocols, such as nurse-led MRI scheduling, ensure early detection of treatment-related risks like Progressive Multifocal Leukoencephalopathy (PML) and autoimmune complications.
- **Multidisciplinary teams are vital:** Holistic care requires collaboration across MS nurses, therapists, pharmacists, and consultants to address complex needs efficiently.
- **Hybrid care models maximise reach:** Combining in-person and remote approaches improves access to rehabilitation and education while maintaining high-quality care.
- **Data drives improvement:** Regular audits and outcome tracking are essential to ensure interventions are effective, sustainable, and replicable across services.

These projects span a range of themes, including:

- **Optimising medication pathways:** Many initiatives explored strategies to simplify disease-modifying therapy (DMT) delivery, reduce delays, and improve safety monitoring—aligning care delivery with national goals to bring treatment closer to home.
- **Enhancing patient access and communication:** Several delegates identified barriers to accessing specialist services and implemented solutions to improve multidisciplinary team collaboration and streamline referrals.
- **Monitoring and safety improvements:** Projects focused on ensuring the safety of treatments like natalizumab and cladribine, embedding robust monitoring protocols and staff-led interventions to enhance compliance and patient outcomes.
- **Rehabilitation and holistic care:** Initiatives addressing post-discharge rehabilitation, spasticity management, and holistic reviews reflect a commitment to comprehensive MS care that improves quality of life.

By identifying challenges and delivering targeted solutions, these workplace projects highlight the potential for small, local innovations to influence larger-scale improvements. Together, they demonstrate how education, collaboration and leadership drive change—providing inspiration for services across the UK to adapt, replicate, and continue improving outcomes for people living with MS.

At the close of this report, we have identified several key themes and insights drawn from the projects, offering practical takeaways for service development and patient care.

Streamlining siponimod therapy in Northern Ireland: a one-stop clinic for SPMS patients

Dr Conor Hughes, clinical fellow, Belfast Health and Social Care Trust

The challenge

Secondary progressive multiple sclerosis (SPMS) patients in Northern Ireland face substantial delays in accessing Siponimod therapy. The multi-step pre-treatment safety process, involving cardiac monitoring, optical coherence tomography (OCT), and genotyping, creates logistical challenges that result in prolonged waiting times—often exceeding two years. Delays not only compromise timely intervention but also lead to patient frustration and attrition rates.

The project

Dr Conor Hughes set out to address these inefficiencies by evaluating the existing service and exploring the feasibility of a **one-stop clinic** model by assessing current patient pathways, treatment delays, discontinuation reasons, and compliance with safety protocols to inform improvements in service delivery.

Key steps included:

- Reviewing 103 patients approved for Siponimod therapy through multidisciplinary team (MDT) discussions.
- Identifying delays in pre-treatment safety testing and assessing gaps in monitoring compliance.
- Analysing patient demographics, treatment discontinuation trends, and key barriers to service efficiency.

The results

- **Delays in treatment:** 50% of patients waited over 12 months for initiation, with 20% experiencing delays exceeding 24 months.
- **Discontinuation trends:** Among those who began therapy, 29 patients discontinued, citing side effects like fatigue, gastrointestinal upset, and macular oedema.
- **Safety monitoring:** Compliance with baseline OCT and ECG assessments was robust, but follow-up blood monitoring at three months was inconsistent.
- **Patient profile:** Most patients were women aged 50–60 with longstanding MS (20+ years) and EDSS scores averaging 6.5.

The impact

The project demonstrated that delays in treatment initiation could be significantly reduced by introducing a **one-stop clinic.** By consolidating pre-treatment safety tests—ECG, OCT, blood work, and genotyping—into a single session, patients could start Siponimod therapy within weeks rather than months.

Key benefits include:

- Improved patient satisfaction through faster treatment access.
- Reduced administrative burden by streamlining multiple appointments into a single visit.
- Enhanced adherence to safety protocols, ensuring robust baseline assessments and monitoring.

The future

This project highlights the critical need for restructured pathways to deliver efficient, patient-centred care for SPMS patients. Future recommendations include:

1. **Implementation of a pilot one-stop clinic** to assess feasibility across the region.
2. Developing patient education resources to address concerns about side effects and improve treatment uptake.
3. Standardising follow-up monitoring protocols to ensure sustained safety compliance.

View full project

Developing a one-stop MRI surveillance pathway for natalizumab patients

Grace Riley, MS pharmacist, Gloucestershire Hospitals NHS Foundation Trust

The challenge

Patients receiving natalizumab for relapsing-remitting MS require regular MRI surveillance to detect asymptomatic progressive multifocal leukoencephalopathy (PML). Despite clear MHRA guidelines, inconsistencies in MRI scheduling and monitoring posed a risk of delayed PML detection, particularly for high-risk patients (JCV-positive, > 2 years treatment). Grace Riley sought to address this gap by creating a streamlined MRI surveillance pathway.

The project

The project focused on improving adherence to MHRA recommendations for natalizumab safety monitoring through a **one-stop MRI surveillance pathway.**

Key steps included:

- Conducting a retrospective audit of MRI compliance for 57 natalizumab patients, categorised by JCV risk.
- Identifying workflow barriers, including delays in MRI requests, limited radiology capacity, and inconsistent follow-up processes.
- Developing a streamlined pathway for MRI scheduling aligned with patient reviews and anti-JCV testing.

The results

- **MRI compliance:**
    - Overall MRI compliance was 74%, with significant gaps in high-risk patients (50% received MRIs within 6 months).
- **Workflow barriers:**
    - Lack of pre-scheduled MRI slots led to delays in high-risk patient monitoring.
    - MS nurse and pharmacist roles were underutilised for MRI requests, relying solely on consultant-led approvals.
- **One-stop surveillance pathway:**
    - A proposed pathway integrated MRI requests into routine patient reviews, with pre-scheduled imaging slots for high-risk patients.
    - Empowering MS nurses and pharmacists to request MRIs reduced administrative delays and improved efficiency.

The impact

The project demonstrated that a streamlined one-stop pathway can significantly improve MRI surveillance compliance and reduce risks for natalizumab patients.

Key benefits include:

- Improved safety monitoring for high-risk patients through pre-scheduled MRI slots.
- Reduced administrative burden on consultants by enabling MS nurses and pharmacists to lead MRI requests.
- Enhanced adherence to MHRA guidelines, ensuring earlier detection of potential PML.

The future

To sustain improvements in MRI surveillance, Grace recommended:

1. **Embedding the one-stop pathway into standard clinic workflows** to ensure pre-scheduled MRIs for high-risk patients.
2. **Staff training** for MS nurses and pharmacists to lead MRI requests confidently.
3. Conducting a follow-up audit in 12 months to assess sustained improvements in compliance.

Conclusion

This project offers a practical solution to improving MRI surveillance for natalizumab-treated patients, enhancing safety monitoring and aligning care with national guidelines.

View full project

Optimising MS clinic capacity and follow-up services in Basildon

Dr Elina Melikyan, neurology consultant, Basildon and Thurrock University Hospitals NHS Foundation Trust & Dr Maria Papachatzaki, consultant neurologist, Mid and South Essex NHS Foundation Trust

The challenge

Basildon University Hospital's MS service faced increasing pressures due to a growing MS population, stretched resources, and limited clinic capacity. Follow-up appointments often outpaced availability, creating inefficiencies and delaying patient care. Staff reported underutilised clinic slots alongside high demand for follow-up reviews, highlighting the need for improved appointment management.

The project

This project aimed to address inefficiencies within the MS clinic through service optimisation by evaluating clinic utilisation, identifying underperforming areas, and testing interventions to streamline follow-up services without compromising quality of care.

Key steps included:

- Conducting a comprehensive audit of MS clinic utilisation rates and appointment attendance.
- Implementing an MS coordinator role to manage scheduling, appointment tracking, and administrative workflows.
- Redesigning clinic templates to prioritise high-demand follow-up slots.

The results

- **Improved clinic utilisation:** Follow-up clinic slot utilisation increased from 90% to 97% following the introduction of the MS coordinator role.
- **Enhanced capacity:** Clinic efficiency improved by redistributing appointment responsibilities and aligning resources to meet patient needs.
- **Reduced missed appointments:** Improved communication and scheduling reduced "Did Not Attend" (DNA) rates by 12%.
- **Financial benefits:** Fewer missed appointments translated into reclaimed revenue opportunities, reducing wasted capacity.

The impact

By enhancing administrative support and redesigning clinic templates, the project demonstrated clear improvements in resource utilisation and patient access to care. The MS coordinator role was instrumental in reducing inefficiencies, allowing clinical staff to focus on patient-facing activities.

Key benefits include:

- A 7% increase in clinic utilisation, ensuring better use of available capacity.
- Improved patient access to follow-up appointments, reducing delays in care.
- Greater staff satisfaction through clearer workflows and reduced administrative burdens.

The future

The success of this project paves the way for further service enhancements across MS clinics. Future recommendations include:

1. **Expanding MS coordinator roles** to include virtual triage and follow-up management.
2. Introducing automated reminders for follow-up appointments to reduce DNA rates further.
3. Conducting ongoing audits to monitor clinic efficiency and patient satisfaction.

View full project

Reducing MS clinic waiting times through service optimisation

Dr Yousif Elzein, specialty trainee, University Hospitals of Leicester NHS Trust

The challenge

University Hospitals of Leicester faced challenges meeting the 18-week referral-to-treatment (RTT) targets for MS patients. With rising referral volumes and limited consultant capacity, waiting times for new and follow-up appointments significantly exceeded national standards. Patients experienced delays in diagnosis, disease-modifying therapy (DMT) initiation, and follow-up care, leading to reduced satisfaction and potential clinical risk.

The project

A service review was conducted to identify key inefficiencies and propose targeted solutions to reduce MS clinic waiting times. The project focused on improving capacity utilisation, optimising triage systems, and exploring the role of virtual consultations to manage demand effectively.

Key steps included:

- Retrospective audit of referral-to-treatment times for all patients seen between January and March 2024.
- Analysis of consultant-led clinic capacity, triage processes, and appointment “Did Not Attend” (DNA) rates.
- Development of an action plan to address inefficiencies and increase throughput.

The results

- **Referral-to-treatment compliance:**
    - 76% of patients were seen within the 18-week target.
    - 24% experienced delays, primarily due to limited consultant capacity.

- **Identified challenges:**
    - High demand for new appointments exceeded clinic availability.
    - Follow-up appointments occupied a disproportionate number of consultant slots, limiting capacity for new referrals.
    - DNA rates of 8% highlighted the need for improved patient engagement and reminders.

- **Proposed solutions:**
    - Optimising triage systems to prioritise urgent cases and streamline low-complexity follow-ups.
    - Introducing virtual consultations for stable follow-up patients, freeing up in-person slots for new referrals.
    - Expanding the use of MS coordinators to support triage and patient engagement.

The impact

The project demonstrated the potential to reduce waiting times by addressing service inefficiencies. By optimising clinic capacity and leveraging virtual models of care, patients could be seen more quickly while maintaining service quality.

Key benefits include:

- Improved RTT compliance, ensuring timely access to specialist care.
- Reduced waiting times for new referrals by reallocating follow-up appointments to virtual clinics.
- Enhanced patient satisfaction through improved communication and engagement.

The future

To sustain improvements, the following steps were recommended:

1. Conduct a six-month follow-up audit to measure the impact of virtual consultations and triage changes.
2. Expand MS coordinator roles to support triage and appointment tracking.
3. Implement automated reminders to reduce DNA rates further and maximise clinic efficiency.

View full project

Monitoring safety and autoimmune complications following cladribine therapy

Stavroula Charisi, MS highly specialist pharmacist, University Hospital Southampton NHS Foundation Trust

The challenge

Cladribine, an immune reconstitution therapy for relapsing MS, has demonstrated excellent efficacy and convenience as an oral treatment. However, the risk of secondary autoimmune conditions, such as thyroid disease, remains under-researched compared to other immune-modulating therapies like alemtuzumab.

The project

Stavroula Charisi conducted a retrospective audit to identify the prevalence of autoimmune complications in cladribine-treated patients and assess the relationship with lymphopenia. The project conducted a retrospective audit to identify prevalence of autoimmune complications in cladribine treated patients at University Hospital Southampton and aimed to inform ongoing monitoring protocols and enhance patient safety.

Key steps included:

- Retrospective analysis of 317 patients treated with cladribine from December 2017 to January 2024.
- Review of baseline and post-treatment data, including lymphocyte nadirs, thyroid function tests, and autoimmune diagnosis.
- Identification of patterns linking lymphocyte dynamics to autoimmune complications.

The results

- **Autoimmune complications:**
  - 4.7% of patients (15/317) developed new autoimmune disorders post-treatment.
  - Thyroid dysfunction was the most common complication (40% of cases), with diagnoses including hypothyroidism, thyrotoxicosis, and Grave's disease.
  - Additional complications included psoriatic arthropathy and Raynaud's phenomenon.

- **Lymphocyte dynamics:**
  - Grade 2–3 lymphopenia correlated with the occurrence of thyroid dysfunction, suggesting potential mechanisms related to immune reconstitution.
  - Hypo-IgM was observed in 28% of cases, although it did not lead to significant infections within the review period.

The impact

The project provided evidence of a low but measurable risk of autoimmune complications following cladribine therapy. By identifying patterns of risk and improving long-term monitoring protocols, the findings offer a practical framework for enhancing patient safety.

Key benefits include:

- Early detection of thyroid dysfunction through routine post-treatment monitoring.
- Improved patient education on recognising autoimmune symptoms for timely intervention.
- Enhanced clinician awareness of the need for long-term surveillance in cladribine-treated patients.

The future

The following actions were recommended:

1. Implement routine thyroid function testing at baseline and annually for all patients on cladribine.
2. Monitor lymphocyte levels more closely during the first 12 months post-treatment to identify Grade 2–3 lymphopenia early.
3. Reauditing complications over an extended follow-up period to assess delayed autoimmune presentations.

View full project

Mapping an MS physiotherapy service: addressing NICE guideline gaps and improving access

Emily Wilford, MS physiotherapist, North Bristol NHS Trust

The challenge

MS physiotherapy plays a vital role in managing symptoms such as spasticity, fatigue, and mobility impairments. At Bristol and Avon MS Service (BRAMS), Emily recognised gaps in NICE guideline adherence and challenges in providing consistent, accessible physiotherapy services for MS patients. Post-pandemic recovery exacerbated these issues, creating bottlenecks in initial assessments and limiting the availability of supervised exercise programmes.

The project

A service mapping exercise was conducted to evaluate current physiotherapy delivery against NICE guidelines and identify opportunities for improvement. The project focused on caseload management, resource allocation, and pathways to enhance patient access.

Key steps included:

- Data collection over 12 weeks, reviewing referral pathways, waiting times, and session outcomes.
- Comparison of current service delivery with NICE-recommended MS physiotherapy standards.
- Evaluation of resource use and patient engagement strategies.

The results

- **Referral and caseload data:**
  - 588 annual face-to-face contacts, with waiting times averaging 12–16 weeks for initial assessment.
  - 28% of patients required ongoing intervention, exceeding available session capacity.
- **Service provision:**
  - Strengths: Specialist assessments, orthotic reviews, and fatigue management courses were well established.
  - Gaps: No provision of supervised exercise programmes due to staffing constraints.
- **Efficiency improvements:**
  - Telephone pre-assessments reduced DNA rates by 15%.
  - Patients reported increased satisfaction with proactive follow-up strategies.

The impact

By mapping the current service against NICE guidelines, this project identified practical solutions to improve efficiency, enhance patient outcomes, and address gaps in service provision.

Key benefits include:

- Improved resource allocation through telephone triage and virtual reviews.
- Enhanced understanding of referral patterns to reduce bottlenecks.
- Greater patient satisfaction through targeted, proactive engagement.

The future

The following steps were proposed to develop a more robust MS physiotherapy service:

1. **Expand community exercise pathways**: Partner with local services to provide supervised exercise programmes for MS patients.
2. **Implement PROMs (patient-reported outcome measures)**: Tailor services based on individual needs and track long-term benefits.
3. **Regular service audits:** Monitor adherence to NICE guidelines and identify evolving patient needs.

Conclusion

Mapping the BRAMS MS physiotherapy service provided actionable insights into areas of success and improvement. The findings set the foundation for enhanced access, efficiency, and alignment with national clinical standards, ensuring better long-term outcomes for MS patients.

View full project

Enhancing multidisciplinary communication to improve MS care pathways

Natividad Veniegas, MS specialist nurse, South Tees Hospitals NHS Foundation Trust

The challenge

At James Cook University Hospital, fragmented communication between MS teams, general practitioners (GPs), and other healthcare professionals (HCPs) led to delays in referrals, disjointed care pathways, and inconsistent patient management. With increasing caseloads and varying referral processes, there was a clear need to improve teamwork and streamline pathways to ensure efficient, high-quality care.

The project

This project aimed to strengthen communication between MS nurses, GPs, and other HCPs, fostering better collaboration and reducing delays. By evaluating current referral pathways and team interactions, she identified opportunities to standardise processes and build a more connected network of care.

Key steps included:

- Mapping existing pathways and identifying challenges such as inconsistent referrals and lack of awareness of MS services.
- Conducting focused discussions with psychology services, nursing teams, and GP practices.
- Developing proposals for regular engagement sessions to clarify roles and improve referral practices.

The results

- **Referral challenges:**
  - Varying GP practices led to inconsistent pathways, with geographic restrictions causing delays.
  - Some referrals were deemed inappropriate due to unclear criteria or communication gaps.

- **Multidisciplinary team collaboration:**
  - MDT discussions between MS nurses and psychology services highlighted the need for improved communication tools.
  - Engagement with GPs via virtual meetings increased awareness of MS services and pathways.

- **Service impact:**
  - Direct discussions with GP teams improved referral quality and reduced inappropriate referrals.
  - Increased understanding of MS nurse and HCP roles fostered a stronger collaborative approach to patient care.

The impact

By improving communication and referral processes, Natividad's project successfully laid the foundation for a more integrated and efficient care pathway.

Key benefits include:

- Streamlined referral pathways, reducing delays in MS care.
- Improved collaboration between MS nurses, GPs, and psychology services.
- Enhanced understanding of multidisciplinary roles, supporting a patient-centred care model.

The future

To sustain these improvements, Natividad recommended:

1. **Establishing regular GP engagement sessions** to maintain awareness of MS pathways.
2. Developing a unified referral system to standardise digital and paper-based processes.
3. Conducting follow-up audits to monitor the impact of improved communication on referral efficiency.

Conclusion

This project demonstrates the importance of clear, consistent communication in enhancing MS care pathways. By fostering collaboration between MS teams and HCPs, Natividad's work supports timely, coordinated care for MS patients.

View full project

Improving local MS services in Worcestershire: reducing reliance on specialist centres

Dr Delon D’Souza, locum consultant neurologist, Worcestershire Acute Hospitals NHS Trust & Dr Ammar Waraich, specialty registrar neurology, University Hospitals Coventry NHS Trust

The challenge

MS patients in Worcestershire relied heavily on the Queen Elizabeth Hospital (QE) in Birmingham for specialist care, leading to delays in disease-modifying therapy (DMT) initiation and ongoing management. Local MS nurses faced increasing caseloads without sufficient consultant support, creating inefficiencies and frustration for patients waiting up to 18 months for treatment.

The project

This project reviewed MS services in Worcestershire to identify inefficiencies and propose solutions for local care delivery. Their project focused on introducing local MS consultant roles, improving communication with QE, and developing joint MS clinics to manage complex cases.

Key steps included:

- Conducting structured interviews with MS nurses to understand service strengths, challenges, and inefficiencies.
- Analysing delays in DMT approvals and the impact on patient outcomes.
- Developing a proposal for localised MS consultant services and dedicated relapse clinics.

The results

- **Service inefficiencies:**
  - Long waiting times (12–18 months) for DMT approvals at QE delayed treatment initiation.
  - Fragmented communication between Worcestershire and QE disrupted patient follow-ups.

- **Strengths identified:**
  - A dedicated MS nursing team provided exceptional community-based care, including home visits.

- **Proposed solutions:**
  - **Local MS neurologist:** Introducing a local consultant would expedite DMT approvals and reduce reliance on QE.
  - **Joint MS clinics:** Dedicated slots for relapses and follow-ups would streamline care and reduce workloads.
  - **Improved communication:** Implementing email-based updates for referrals and follow-ups would replace delayed letter-based processes.

The impact

The project highlighted actionable solutions to improve access, reduce treatment delays, and enhance the patient experience.

Key benefits include:

- Faster DMT approvals, enabling timely intervention and improved outcomes.
- Reduced pressure on QE services, supporting a more localised care model.
- Strengthened communication channels between MS nurses and specialist centres.

The future

Key recommendations for long-term improvement include:

1. **Recruiting a local MS consultant** to oversee complex cases and manage treatment pathways.
2. Formalising joint MS clinics to provide holistic, multidisciplinary care for relapses.
3. Auditing service improvements after implementation to measure impact on patient waiting times.

Conclusion

This project offers a clear blueprint for improving MS services in Worcestershire by localising care, reducing delays, and fostering better communication with specialist centres.

View full project

Monitoring and addressing spasticity through a therapy-led Sativex service

Jenny Thain, MS clinical specialist physiotherapist, The Walton Centre NHS Foundation Trust

The challenge

Spasticity is a debilitating symptom of multiple sclerosis (MS), significantly affecting mobility, pain levels, and quality of life. Sativex, a cannabis-based oromucosal spray, is licensed for the treatment of moderate-to-severe spasticity in MS patients unresponsive to first-line interventions. Despite its availability, access to Sativex is often limited by fragmented pathways, lack of resources, and concerns over cost-effectiveness.

At The Walton Centre, spasticity management required a streamlined, therapy-led approach to improve access and monitor patient outcomes. Jenny Thain piloted a dedicated Sativex service to address this gap, ensuring patients received timely treatment alongside ongoing therapy input.

The project

The project evaluated a therapy-led pathway for Sativex prescription and monitoring, focusing on improving patient outcomes while maintaining efficient resource use.

Key steps included:

- Reviewing referral criteria to ensure only appropriate patients accessed the service.
- Introducing a therapy-led Sativex pathway, with MS specialist therapists leading assessments, prescribing initiation, and follow-up reviews.
- Collecting patient-reported outcomes on spasticity, mobility, and quality of life at baseline and after treatment initiation.

The results

- **Improved access:**
  - 51 patients were referred for Sativex assessment; 46 initiated treatment, with only 5 patients declining or discontinuing.
  - The therapy-led model ensured timely assessment and prescription within 4 weeks of referral.

- **Patient-reported outcomes:**
  - 80% of patients achieved a clinically significant improvement in spasticity, measured using the Numeric Rating Scale (NRS).
  - SMART goals revealed additional benefits, including improved mobility, sleep quality, and reduced career burden.

- **Resource efficiency:**
  - Therapist-led follow-ups reduced consultant workloads while maintaining high levels of patient satisfaction.
  - Average therapist time was 44–52 minutes for initial assessments and 31–37 minutes for follow-ups.

- **Side effects:**
  - Minimal side effects were reported, though 2 patients discontinued Sativex due to psychosis, requiring close monitoring of high-risk cases.

The impact

The therapy-led Sativex service demonstrated that spasticity management can be improved through structured pathways and multidisciplinary collaboration.

Key benefits include:

- Timely access to Sativex for eligible patients, reducing delays in symptom management.
- Reduced burden on consultants by enabling therapists to lead assessments and monitoring.
- Improved patient-reported outcomes, particularly for mobility and sleep disruption.

The future

The value of therapy-led pathways for managing complex MS symptoms has been highlighted Future recommendations include:

1. **Expanding the model to virtual assessments** to increase accessibility for rural patients.
2. Formalising long-term monitoring pathways to detect and manage rare side effects early.
3. Reauditing outcomes annually to assess sustainability and patient benefits over time.

Conclusion

This project has proven the efficacy of a therapy-led Sativex service, delivering meaningful improvements in spasticity management while optimising clinic resources.

View full project

Mapping MS rehabilitation services: identifying and addressing gaps in post-acute care

Jack Kelly, specialist physiotherapist within neurological rehabilitation, South West Yorkshire Partnership NHS Foundation Trust

The challenge

Following discharge from acute neurological rehabilitation, MS patients require ongoing specialist input to maintain functional gains and prevent regression. At Kendray Hospital's Neurological Rehabilitation Unit (NRU), patients were frequently referred to generic community services, which lacked the expertise to manage complex neurological conditions. This led to delays, poorer outcomes, and increased readmissions.

Jack Kelly's project mapped existing MS rehabilitation pathways to identify gaps in post-acute care and propose solutions to ensure patients receive timely, specialist support.

The project

The project reviewed discharge pathways for MS patients over a 12-month period, evaluating access to specialist community services, waiting times, and functional outcomes post-discharge.

Key steps included:

- Analysing patient discharge data to identify referral patterns and waiting times for community rehabilitation.
- Evaluating patient outcomes, including functional decline and hospital readmissions.
- Engaging with community rehabilitation teams to assess their confidence and capability in managing MS cases.

The results

- **Access to specialist care:**
  - 80% of patients were referred to generic community rehabilitation services, where neurological expertise was limited.
  - Waiting times for the Community Brain Injury Team (CBIT) stretched to 10 months, delaying access to specialist input.
- **Impact on patient outcomes:**
  - 35% of patients experienced functional regression within six months of discharge.
  - Readmission rates were significantly higher for patients referred to generic services compared to those receiving specialist care.

- **Workforce gaps:**
  - Community teams reported limited training and confidence in managing MS-related rehabilitation needs, particularly fatigue, spasticity, and mobility issues.

The impact

This review highlighted the urgent need for specialist neurological rehabilitation pathways to support patients post-discharge.

Key benefits include:

- Improved patient outcomes through timely access to specialist input.
- Reduced readmission rates by providing targeted rehabilitation support.
- Increased confidence and capability within community rehabilitation teams through proposed training programmes.

The future

To bridge the identified gaps, Jack recommended the following actions:

1. **Establish dedicated MS rehabilitation teams** within community services to deliver ongoing specialist care.
2. Develop a triage model to prioritise high-risk patients for immediate intervention.
3. Implement training programmes for community rehabilitation teams to improve MS management skills.

Conclusion

This project provides a clear case for the development of specialist post-acute MS rehabilitation pathways. By addressing gaps in community care, it supports improved patient outcomes, reduces readmissions, and enhances workforce capability.

View full project

“They’re in good hands”: optimising annual comprehensive reviews for people with MS

Dr Elizabeth Davis, consultant in rehabilitation medicine, Cumbria, Northumberland, Tyne and Wear NHS Foundation Trust

The challenge

Annual comprehensive reviews are a critical component of care for people with MS, ensuring symptoms are addressed, disease progression is monitored, and patients receive personalised support. At Cumbria, Northumberland, Tyne & Wear NHS Trust, inconsistencies in service delivery due to resource pressures led to variations in the quality and timeliness of reviews. Elizabeth Davis and Dr Rajesh Rawal identified the need to improve the structure of these reviews, aligning them with NICE guidelines to ensure equitable, high-quality care.

The project

The project focused on auditing the current delivery of annual comprehensive reviews, identifying areas for improvement, and implementing changes to optimise the process. By improving the structure and delivery, the team aimed to enhance patient experience and ensure better resource utilisation.

Key steps included:

- Conducting an audit of compliance with NICE guidelines for annual MS reviews across all domains of care.
- Restructuring MS clinic templates to streamline appointments and improve resource efficiency.
- Introducing multidisciplinary team (MDT) collaboration to address complex patient needs, including pathways for spasticity and cognitive care.

The results

- **Audit findings:**
  - 100% compliance was achieved in 7 domains of NICE guidelines.
  - 75% compliance in 10 domains, showing significant strengths in medication reviews and symptom assessments.
  - <75% compliance in 8 domains, including areas such as cognitive function and fatigue management.
- **Clinic restructuring:**
  - Needs-based appointments were introduced to tailor reviews to individual patient requirements.
  - Consultant-led sessions focused on complex medication management, while MS specialist nurses addressed symptoms like fatigue, spasticity, and pain.

- **Service efficiency:**
  - MS clinic sessions increased from 1.5 to 3.5 per week, improving patient access and reducing waiting times.
  - Outreach services were expanded to include 1 weekly session, enhancing care for patients in rural areas.

The impact

The optimised annual review process ensured comprehensive, patient-centred care while addressing resource challenges.

Key benefits include:

- Improved compliance with NICE guidelines, ensuring a standardised approach to annual MS reviews.
- Enhanced patient outcomes through targeted MDT collaboration for complex needs.
- Increased service efficiency and access, reducing appointment delays and improving patient satisfaction.

The future

Elizabeth and Rajesh recommended the following steps to sustain and build upon their success:

1. Conduct regular audits to measure ongoing compliance with NICE guidelines.
2. Expand the development of structured pathways for fatigue, spasticity, and cognitive care.
3. Engage patients and carers through surveys to gather feedback and refine services further.

Conclusion

By streamlining annual comprehensive reviews and fostering MDT collaboration, this project has significantly improved the quality and consistency of care for MS patients. The work provides a replicable model for other services seeking to optimise patient reviews and enhance outcomes.

View full project

Extended interval dosing of ocrelizumab: balancing safety, efficiency, and clinical outcomes

Dr Valeria Pozzilli, clinical fellow, University College London Hospitals NHS Foundation Trust & Dr Riccardo Nistri, clinical research assistant, University College London Hospitals NHS Foundation Trust

The challenge

Ocrelizumab, an anti-CD20 monoclonal antibody, is routinely administered every six months for relapsing and primary progressive multiple sclerosis (MS). Extended interval dosing (EID), where infusions occur at longer intervals (≥8 months), has emerged as a potential strategy to reduce resource pressures while maintaining safety and efficacy. Valeria Pozzilli and Riccardo Nistri evaluated the clinical impact of EID on relapse rates, MRI activity, and immunoglobulin levels.

The project

The study reviewed patients receiving EID of ocrelizumab, comparing their outcomes with those on standard six-month dosing. The project aimed to identify whether EID could be safely implemented as a standard practice for selected patients without compromising clinical care.

Key steps included:

- Retrospective review of 42 patients receiving ocrelizumab infusions at Queen Square MS Centre.
- Dividing patients into two groups: standard dosing (<8 months) and extended dosing (≥8 months).
- Analysing relapse rates, MRI activity, and immunoglobulin levels (IgM, IgG) over a two-year period.

The results

- **Relapse and MRI activity:**
  - 2 patients experienced relapses, both outside the extended dosing window.
  - Asymptomatic MRI lesions were rare, occurring in only 2 patients (1 in each group), suggesting minimal impact of EID on disease activity.

- **Immunoglobulin levels:**
  - IgM levels significantly decreased in both groups ($p<0.001$), with no significant differences between standard and extended dosing.
  - Hypogammaglobulinaemia (low IgG levels) was observed in 3% of EID patients, warranting monitoring.

- **Resource implications:**
  - EID reduced infusion frequency, freeing capacity in infusion clinics without negatively impacting clinical outcomes.

The impact

This project demonstrated that extended interval dosing of ocrelizumab is a safe and effective alternative to standard dosing for selected patients, offering significant resource and logistical benefits.

Key benefits include:

- Maintaining clinical stability, with no significant increase in relapse rates or MRI activity.
- Optimising infusion clinic capacity by reducing the frequency of ocrelizumab infusions.
- Supporting patient-centred care by reducing the burden of treatment for stable individuals.

The future

Valeria and Riccardo proposed the following next steps:

1. Expanding the pilot to a larger patient cohort to assess long-term safety and efficacy of EID.
2. Developing a risk stratification model to identify suitable candidates for extended dosing.
3. Implementing EID pathways in infusion clinics to maximise resource use and patient benefit.

Conclusion

Extended interval dosing of ocrelizumab provides a promising strategy for balancing patient safety, clinical outcomes, and resource efficiency. This work offers a scalable model for other MS services seeking to optimise treatment delivery.

View full project

Addressing gaps in safety monitoring for natalizumab: improving MRI compliance in high-risk patients

Dr Zeinab Hamed, speciality registrar, Sheffield Teaching Hospitals NHS Foundation Trust

The challenge

Natalizumab is a highly effective treatment for relapsing-remitting multiple sclerosis (RRMS) but carries a known risk of progressive multifocal leukoencephalopathy (PML). This requires strict adherence to safety monitoring protocols, particularly regular MRI surveillance and anti-JC virus (JCV) testing. At Sheffield Teaching Hospitals, compliance with monitoring guidelines for high-risk patients—those JCV-positive and on natalizumab for more than two years—was inconsistent. Zeinab Hamed's project aimed to identify gaps in safety monitoring and improve adherence to MHRA guidelines.

The project

Zeinab conducted a retrospective audit of safety monitoring practices for natalizumab-treated patients. The project focused on evaluating MRI surveillance compliance, identifying barriers to adherence, and developing strategies to standardise monitoring across the service.

Key steps included:

- Auditing 94 patients on natalizumab therapy, assessing MRI compliance and JCV testing frequency.
- Categorising patients into low-risk (JCV-negative) and high-risk (JCV-positive, >2 years treatment) groups.
- Identifying workflow challenges and proposing targeted interventions to address gaps in safety monitoring.

The results

- **Overall compliance:**
  - JCV testing: 100% compliance across all patients, facilitated by MS nurses.
  - MRI monitoring: 83% of JCV-negative patients received annual MRIs, meeting MHRA requirements.
  - Only 64% of JCV-positive high-risk patients adhered to the recommended six-monthly MRI schedule, highlighting a critical gap.
- **Identified challenges:**
  - Limited clinician capacity to request timely MRIs for high-risk patients.
  - Inconsistent workflows for scheduling MRIs, creating delays in follow-up.
  - Communication barriers between MS teams and radiology departments.

- **Proposed solutions:**
  - Empowering MS nurses to lead MRI requests for natalizumab patients.
  - Introducing pre-scheduled MRI slots for high-risk patients, aligned with routine clinic appointments.
  - Developing automated reminder systems to flag overdue MRIs and prompt action.

The impact

The project highlighted key opportunities to strengthen natalizumab safety monitoring, ensuring earlier detection of PML and improving patient safety.

Key benefits include:

- Increased compliance with six-monthly MRI surveillance for high-risk patients.
- Improved workflow efficiency through nurse-led MRI requests and pre-scheduled imaging slots.
- Enhanced communication between MS teams and radiology, reducing delays in safety monitoring.

The future

To sustain these improvements, Zeinab recommended the following actions:

1. **Formalise nurse-led MRI requests** to streamline monitoring processes for high-risk patients.
2. Embed automated reminder systems into patient management workflows.
3. Conduct regular audits to measure ongoing compliance and ensure sustained improvements.

Conclusion

This project provides a robust framework for improving natalizumab safety monitoring, ensuring adherence to MHRA guidelines and enhancing patient outcomes through earlier detection of PML risks.

View full project

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