

A Radiographer's Guide to Examining Multiple Sclerosis Patients



Figure 1: Neural Pathways (Source: Pixabay.com:geralt, n.d.)

What is MS?

Multiple sclerosis is an inflammatory disorder that causes neurodegeneration and demyelination within the whole of the central nervous system (Lassman, 2018). This can cause a wide range of dysfunction and disability in many of the systems within the body, which may affect how radiological examinations are conducted. This leaflet will highlight some key aspects, and how to deal with them.

In 2010, there were 127,000 MS patients in the UK. Women are 2-3 times more likely to develop MS than men. The number of new cases per year is 5000 (Multiple Sclerosis Trust, 2017).

85% of sufferers have the relapsing-remitting type where symptoms can recover, partially or completely

This can lead to the secondary progressive type - a build up of disability

10-15% have the primary progressive type where symptoms get steadily worse

(MS Society, n.d.)

Mobility

(NICE., 2014)

Muscle weakness, dizziness, balance problems, spasticity and fatigue in varying degrees, can be present. Discuss capabilities; don't just assume they are not capable.

Patients may arrive in a chair, trolley or may walk in, with or without walking aids.

For example, when receiving a CXR, a patient may be able to stand for a short period of time, so setting up the room beforehand will help get the best diagnostic image, with least discomfort for the patient.

Extra pillows, pads and sandbags may need to be used in axial examinations to position the patient, where mobility is severely impaired.

You may need assistance from colleagues.

Communication

Cognition, memory, speech and hearing can all be affected, with reduced articulation and speed of verbalisation (Multiple Sclerosis Trust, n.d.).

A combination of verbal and non-verbal communication may need to be used.

Use plain English and allow the patient time to express themselves and absorb your instructions.



Figure 2: Nurse adjusting x-ray machine in examination room (Source: Adobe Stock:Tyler Olsen, n.d.)

Vision

(Sumowski et al., 2018)

Blurred and double vision, oscillopsia and visuo-spatial problems are symptoms of MS.

The patient may need to be guided around the room, or given a detailed explanation of their surroundings. Good communication with the patient, will help them feel at ease.

Talk the patient through what you are doing, as they may not be able to see you approach.



Figure 3: Male patient being reassured by nurse in hospital room (Source: Adobe Stock:Monkey Business, n.d.)

Mental health

The patient may suffer from anxiety and depression, or emotional lability

Be compassionate and understanding when it comes to caring for patients with this complex and unpredictable illness

Other symptoms

Pain

Parasthesia

Tremor

Bladder Problems

Hearing Problems

(NICE, 2014)

Patient-centred care

Talk to your patient and get to know, what their key issues are. MS patients are likely to be frequent visitors to the hospital, so make it a positive experience in their treatment plan. Personalised care and preserving patient's individuality, are key to treating the patient as a 'person'.

Nurses and social workers report that patients just want to be treated like 'normal' human beings (Golla, Galushko, Pfaff & Volz, 2011).



Figure 4: Woman patient ready to be scanned at x-ray machine (Source: Adobe Stock:jovannig, n.d.)

Making every contact count

Research shows that smoking speeds up progression of MS. The earlier a patient stops smoking the better their prognosis (Tanesescu, Constantinescu, Tench & Manouchehrinia, 2017).

Direct them to smoking cessation material wherever possible, which can help reduce long-term disease. MECC aims to maximise the millions of everyday interactions with patients.

References

- Golla, H., Galushko, M., Pfaff, H., Volz, R. (2011). Unmet needs of severely affected multiple sclerosis patients: The health professionals' view. *Palliative Medicine*, 26(2), 139-151 <https://doi.org/10.1177/0269216311401465>
- Lassman, H. (2018). Multiple sclerosis pathology. *Cold Spings Harbor Perspectives in Medicine*, 8(3) doi: 10.1101/cshperspect.a028936
- MS Society. (n.d.). *Types of MS*. Retrieved 11th June, 2018 from <https://www.mssociety.org.uk/about-ms/types-of-ms>
- Multiple Sclerosis Trust. (2017). *Prevalence and incidence of multiple sclerosis*. Retrieved 11th June, 2018 from <https://www.mstrust.org.uk/a-z/prevalence-and-incidence-multiple-sclerosis>
- Multiple Sclerosis Trust. (n.d.). *Symptoms*. Retrieved 11th June, 2018 from <https://www.mstrust.org.uk/understanding-ms/ms-symptoms-and-treatments/symptoms>
- NICE. (2014). *Multiple sclerosis in adults: management*. Retrieved 20th May, 2018 from <https://www.mstrust.org.uk/a-z/prevalence-and-incidence-multiple-sclerosis>
- Sumowski, J., Benedict, R., Enzinger, C., Fillipi, M., Geurts, J., Hamalainen, P., Hulst, H., Inglese, M., Leavitt, V., Rocca, M., Osti-Rotarjari, I., Rao, S. (2018). Cognition in multiple sclerosis. *Neurology*, 90(6) doi: <https://doi.org/10.1212/WNL.0000000000004977>
- Tanesescu, R., Constantinescu, C., Tench, C., Manouchehrinia, A. (2017). Smoking cessation and the reduction of disability progression in multiple sclerosis. *Nicotine and Tobacco Research*, 20(2), 589-595 doi: <https://doi.org/10.1093/ntr/ntx084>
- Figure 1: Pixabay.com:geralt, (n.d.). *Neural Pathways*. [Image]. Retrieved from <https://pixabay.com/en/neural-pathways-artistic-ly-think-221718/>
- Figure 2: Adobe Stock:Tyler Olson, (n.d.). *Nurse adjusting x-ray machine in examination room*. [Photograph]. Retrieved from <https://stock.adobe.com/uk/images/nurse-adjusting-x-ray-machine-in-examination-room/58109121>
- Figure 3: Adobe Stock:Monkey Business, (n.d.). *Male patient being reassured by nurse in hospital room*. [Photograph]. Retrieved from <https://stock.adobe.com/uk/images/male-patient-being-reassured-by-nurse-in-hospital-room/91504093>
- Figure 4: Adobe Stock:jovannig, (n.d.). *Woman patient ready to be scanned at x-ray machine*. [Photograph]. Retrieved from <https://stock.adobe.com/uk/images/woman-patient-ready-to-be-scanned-at-x-ray-machine/113893112>