

## Editorial

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The article presented below [1] provides an update of the previous version of the guidelines for the magnetic resonance imaging (MRI) protocol in patients with multiple sclerosis (MS), which was published in the *Polish Journal of Neurology and Neurosurgery (Neurologia i Neurochirurgia Polska)* in 2018 [2].

The version of the recommendations mentioned above was officially recognised by the Polish Medical Society of Radiology. The current version has been formally approved by two societies: the Polish Medical Society of Radiology (PLTR) and the Polish Society of Neurology (PTN). Moreover, the current updated version of the recommendations is being published in parallel in the official journals of both societies: the *Polish Journal of Radiology* and the *Polish Journal of Neurology and Neurosurgery*.

The new version of the recommendations is a consequence of the work of the expert group of radiologists and neurologists representing both societies. All of the contributors provided many amendments to the previous version, which reflect the progress in MS research, and especially MS imaging research, within last two years.

The most important changes compared to the 2018 version of the recommendations include:

1. The use of linear contrast agents based on gadolinium (GBCA) is not recommended in the follow-up of MS due to the possible occurrence of long-term side effects associated with the accumulation of the contrast agent within the central nervous system. Follow-up gadolinium-enhanced MRI should be performed with the use of macrocyclic contrast agents, but it is recommended only in a limited group of patients (clinical progression of the disease; differential diagnosis of MS is required; other justified clinically cases).

2. As well as brain MRI, it is recommended that scanning of the cervical and thoraco-lumbar sections of the spinal cord should be performed during one imaging session at the MRI department (which is particularly important in the diagnosis of primary progressive MS).
3. Follow-up head MRI scanning can possibly be performed less frequently in patients with clinical stability.
4. In the current version it is recommended that volumetric analysis of the brain should be performed using certified software; in the future possibly with postprocessing by a central centre to standardise the results. This will enable precise assessment of brain atrophy in longitudinal studies, which is very important for establishing prognosis and treatment.

We hope the publication of the updated version of the “Recommendations of the Polish Medical Society of Radiology and the Polish Society of Neurology for the routinely used MRI protocol in patients with multiple sclerosis” will help in the standardisation of the MR protocols in MS patients at MRI departments throughout Poland and possibly in other countries.

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### References

1. Szaśiadek M, Hartel M, Siger M, et al. Recommendations of the Polish Medical Society of Radiology and the Polish Society of Neurology for the routinely used magnetic resonance imaging protocol in patients with multiple sclerosis. *Pol J Radiol* 2020; 85: e273-e278.
2. Szaśiadek M, Katulska K, Majos A, et al. Guidelines of the Polish Medical Society of Radiology for the routinely used MRI protocol in patients with multiple sclerosis. *Neurol Neurochir Pol* 2018; 52: 638-642.

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