MS Journal Appendix for MRI methodology

Hardware	
Field strength	≥ 1 Tesla
Manufacturer	Different per site
Model	Different per site
Coil type (e.g. head, surface)	Head coil
Number of coil channels	Different per site

Acquisition sequence		
Type (e.g. FLAIR, DIR, DTI, fMRI)	T1 Pre, PD/T2, T1 Post	
Acquisition time	25-35 mins	
Orientation	axial	
Alignment (e.g. anterior commissure/poster commissure line)	Subcallosal line	
Voxel size	1mm	
TR	T1 Pre 400-700 ms, PD/T2 2000-3000 ms, T1 Post 400-700 ms	
TE	T1 Pre 5-25 ms, PD/T2 20-40 ms, T1 Post 5-25 ms	
TI	NA	
Flip angle	90	
NEX	2 for T1, 1 for PD/T2	
Field of view	25 cm	
Matrix size	256	
Parallel imaging	Yes	No
If used, parallel imaging method: (e.g. SENSE, GRAPPA)		
Cardiac gating	Yes	No
If used, cardiac gating method: (e.g. PPU or ECG)		
Contrast enhancement	Yes	No

Acquisition sequence			
If used, provide name of contrast agent, dose and timing of scan post-contrast administration	Gadolinium contrast agent (preferably non- linear) was injected after T1 Pre but before PD/T2 and T1 Post sequence		
Other parameters:			

Image analysis methods and outputs	
Lesions	
Type (e.g. Gd-enhancing, T2-hyperintense, T1-hypointense)	Gd-enhancing, T2-hyperintense, T1 hypointense
Analysis method	Local thresholding after visual detection
Analysis software	MIPAV
Output measure (e.g. count or volume [ml])	GdE and T2: count T2 volume, T1 volume: mm ³
Tissue volumes	
Type (e.g. whole brain, grey matter, white matter, spinal cord)	Whole brain
Analysis method	
Analysis software	SIENA/SIENAX
Output measure (e.g. absolute tissue volume in ml, tissue volume as a fraction of intracranial volume, percentage change in tissue volumes)	Percentage change in tissue volumes
Tissue measures (e.g. MTR, DTI, T1-RT, T2-RT	, T2*, T2', ¹H-MRS, perfusion, Na)
Type (e.g. whole brain, grey matter, white matter, spinal cord, normal-appearing grey matter or white matter)	-
Analysis method	
Analysis software	
Output measure	
Other MRI measures (e.g. functional MRI)	
Type (e.g. whole brain, grey matter, white matter, spinal cord, normal-appearing grey matter or white matter)	-
Analysis method	
Analysis software	
Output measure	

Other analysis details: