

MS Journal Appendix for MRI methodology

Hardware	
Field strength	3T
Manufacturer	Siemens
Model	Skyra
Coil type (e.g. head, surface)	Head
Number of coil channels	20

Acquisition sequence	
Type (e.g. FLAIR, DIR, DTI, fMRI)	MP-RAGE
Acquisition time	5:38
Orientation	Axial
Alignment (e.g. anterior commissure/posterior commissure line)	AC-PC line
Voxel size	1.0 x 1.0 x 1.0 mm
TR	2200 ms
TE	2.45 ms
TI	900 ms
Flip angle	8°
NEX	1
Field of view	250 x 250 x 176 mm
Matrix size	250 x 250 x 176
Parallel imaging	<u>Yes</u> <u>No</u>
If used, parallel imaging method: (e.g. SENSE, GRAPPA)	GRAPPA x2
Cardiac gating	Yes <u>No</u>
If used, cardiac gating method: (e.g. PPU or ECG)	
Contrast enhancement	Yes <u>No</u>

Acquisition sequence

If used, provide name of contrast agent, dose and timing of scan post-contrast administration

n/a

Other parameters:

Image analysis methods and outputs	
Lesions	
Type (e.g. Gd-enhancing, T2-hyperintense, T1-hypointense)	n/a
Analysis method	
Analysis software	
Output measure (e.g. count or volume [ml])	
Tissue volumes	
Type (e.g. whole brain, grey matter, white matter, spinal cord)	Whole brain
Analysis method	Mean brain edge displacement
Analysis software	SIENA
Output measure (e.g. absolute tissue volume in ml, tissue volume as a fraction of intracranial volume, percentage change in tissue volumes)	Percentage brain volume change
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)	n/a
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)	n/a
Analysis method	
Analysis software	
Output measure	

Other analysis details: