

## Supplemental Methods

An anatomical acquisition was performed for planning and segmentation purposes, specifically a longitudinal relaxation time (T1) weighted 3D turbo field echo (T1w) was used. A fast fluid attenuated inversion recovery (FLAIR) acquisition was performed to assess white matter hyperintensities (WMH). The parameters for the MRI acquisitions are listed in Supplemental Table I. The FLAIR acquisition was adapted from a previous publication to decrease scan time by increasing the voxel size (from 0.8 to 1.0 mm isotropic), decreasing the repetition time (from 8 to 6 s), increasing the echo train length (from 125 to 200) with a lower refocusing angle (from 70° asymptotic to 25° constant), and clipping the corners of k-space such that 25% was not acquired.<sup>1</sup>

## Supplemental Table I

	T1w	FLAIR
FOV, mm	300x249x190	300x249x190
Slices	190	190
Voxel size, mm	1.0x1.0x1.0	1.0x1.0x1.0
Flip angle, °	7	25
TR / TE / TI, ms	4.1 / 2.0 / -	6000 / 305 <sup>1)</sup> / 1825
BW, Hz/pix	405	1620
TFE / TSE factor	600 / -	- / 200
Sense factor	2x2 (APxRL)	2.5x3 (APxRL)
Shot interval, ms	3000	-
Scan time, min:s	0:45 <sup>2)</sup>	2:42 <sup>2)</sup>

*Supplemental Table I, scan parameters.* The left column shows the parameters for the T1 weighted 3D turbo field echo (T1w) acquisition. The right column shows the parameters for the fluid attenuated inversion recovery (FLAIR) acquisition. The abbreviated parameters are the field of view (FOV), repetition time (TR), echo time (TE), inversion time (TI), bandwidth (BW), turbo field echo (TFE) factor, turbo spin echo (TSE) factor, sensitivity encoding (Sense) factor, anterior-posterior direction (AP) and right-left direction (RL). 1) Due to a T2 weighting preparation scheme, the equivalent TE is 152 ms. 2) The corners of k-space were clipped such that 25% was not acquired, yielding a shorter scan time.

## Supplemental References

1. Visser F, Zwanenburg JJM, Hoogduin JM, Luijten PR. High-resolution magnetization-prepared 3D-FLAIR imaging at 7.0 tesla. *Magn. Reson. Med.* 2010;64:194–202.