

Appendix e-1

SPRINT MRI PROTOCOL

8 or 12 Channel Head Coil used for all acquisitions

SEQUENCE PARAMETERS

1. 3D T1 MPRAGE

Plane: Sagittal

Flip angle: 9°

TR/TE/TI: 1900/2.89/900 ms

FOV: 250 mm, Phase FOV: 100%

Pixel BW: 170 Hz

Echo Train Length: 1

Thickness: 1mm skip 0 mm

Slices: 176

Matrix: 256 x 256

NEX: 1

Time: 4:26

2. 3D FLAIR

Plane: Sagittal

Flip angle: 90°

TR/TE/TI: 6000/160/2200 ms

FOV: 250 mm, Phase FOV: 91%

Pixel BW: 930 Hz

Echo Train Length: 203

Thickness: 1mm skip 0 mm

Slices: 160

Matrix: 258 x 221

NEX: 1

Time: 8:20

3. Pseudocontinuous ASL (Siemens and Philips)

Plane: Axial 2D EPI

TR/TE: 4000/11 ms

Flip angle: 90°

FOV: 220 mm, Phase FOV: 100%

Thickness: 5 mm skip 1 mm

In-plane resolution: 3.4 mm

Label time/post-label delay: 1500/1500 ms

Slices: 20

Matrix: 64 x 64

NEX: 41

Time: 5:32

Pseudocontinuous ASL (GE)

Plane: Axial 3D fast-spin echo (FSE) segmented stack-of-spirals

TR/TE: 4000/10 ms

Flip angle: 90°

FOV: 220 mm, Phase FOV: 100%

Thickness: 5 mm skip 0 mm

In-plane resolution: 3.4 mm

Label time/post-label delay: 1525/2025 ms

Slices: 36

Arms: 8

Points: 512

NEX: 3

Time: 4:37