MULTIPLE SCLEROSIS BRAIN 3T

INSTRUCTIONS AND PATIENT PREPARATION

Instructions	These sequences done in addition to Routine Adult Brain protocol
Position	Supine, head first
Coil	20 channel Head/Neck coil
Landmark	Glabella

CONTRAST AGENT PARAMETERS

Contrast Agent	Dose	Injection Rate
Gadopiclenol (VUEWAY)	0.05 mmol/kg	Hand Bolus
Saline Flush	10 mL	Hand Bolus
Comments	• May use Interpolation & Restore options • May scan postcontrast to allow more time for postcontrast T1 sequences • Report agent administered and dose • Use minimal dose for patients with a GFR <60 mL/sec	

IMAGING PARAMETERS

Scan Description	AXIAL DWI	AXIAL T2	SAGITTAL T1 MPRAGE	AXIAL GRE	Post SAGITTAL FLAIR SPACE	Post SAGITTAL T1 SPACE
Primary Sequence	epse	tseB	tfl	fl_r	spcir	spcR
Dimension	—	2D	3D	2D	3D	3D
PAT Mode	GRAPPA	GRAPPA	GRAPPA	GRAPPA	GRAPPA	GRAPPA
Acceleration Factor PE	2	2	2	2	2	2
Acceleration Factor 3D	—	—	1	—	1	2
AutoAlign	Head > Brain	Head > Brain	Head > Brain	Head > Brain	Head > Brain	Head > Brain

SCAN PARAMETERS

Scan Description	AXIAL DWI	AXIAL T2	T1 MPRAGE	AXIAL GRE	Post SAGITTAL FLAIR SPACE	Post SAGITTAL T1 SPACE
TR	6700.0 ms	3000.0 ms	2200.0 ms	743.0 ms	5000 ms	700 ms
TE	73.00 ms	101 ms	2.48 ms	19.90 ms	391 ms	16 ms
TI	—	—	904 ms	—	—	—
Flip Angle	—	90 deg	8 deg	20 deg	—	—
Turbo Factor	—	24	224	—	284	42
Bandwidth	1502 Hz/Px	363 Hz/Px	250 Hz/Px	220 Hz/Px	781 Hz/Px	630 Hz/Px
EPI Factor	128	—	—	—	—	—
Fat Saturation Mode	Strong	—	—	—	Strong	None
Fat Suppression	Fat Saturation	None	None	None	Fat Saturation	—
Water Suppression	—	None	None	None	—	—
Gradient Mode	Fast	Fast	Normal	Fast	Fast	Normal
RF Pulse Type	Normal	Fast	Fast	Fast	Normal	Normal
Asymmetric Echo	—	—	Allowed	Off	—	—

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Supported by an educational grant from Bracco Diagnostics Inc.

MR Gadopiclenol (VUEWAY®) Protocol for Siemens MRI Scanners
Central Nervous System

IMAGING FORUMS, INC.

ACQUISITION PARAMETERS

Scan Description	AXIAL DWI	AXIAL T2	T1 MPRAGE	AXIAL GRE	Post SAGITTAL FLAIR SPACE	Post SAGITTAL T1 SPACE
Base Resolution	128	320	256	320	256	256
Phase Resolution	100%	—	100%	75%	100%	100%
Slice Resolution	—	—	100%	—	80%	91%
Averages	1, 2	1	1	1	1	1.6
Averaging Mode	—	Short term	Long term	Long term	—	—
Concatenations	1	2	1	1	1	1
b-value	0 s/mm2 1000 s/mm2	—	—	—	—	—
FoV Read	220 mm	220 mm	230 mm	220 mm	250 mm	230 mm
FoV Phase	100%	100%	100%	100%	100%	100%
Phase Encoding Dir.	A >> P	R >> L	A >> P	A >> P	A >> P	A >> P
Phase Oversampling	0%	0%	10%	0%	0%	10%
Slice Oversampling	—	—	27%	—	0%	0%
Phase Partial Fourier	6/8	—	Off	—	Allowed	Off
Slice Partial Fourier	—	—	Off	Off	6/8	Off
Flow Compensation	—	No	No	Slice/Read	No	No

SCANNING RANGE

Scan Description	AXIAL DWI	AXIAL T2	T1 MPRAGE	AXIAL GRE	Post SAGITTAL FLAIR SPACE	Post SAGITTAL T1 SPACE
Elliptical Filter	Off	Off	Off	On	Off	Off
Filter	—	Distortion Corr.(2D), Prescan Normalize	Distortion Corr.(2D), Prescan Normalize, Image Filter	Distortion Corr.(2D), Prescan Normalize, Elliptical filter	Raw filter, Distortion Corr.(2D), Prescan Normalize	Raw filter, Distortion Corr.(2D), Prescan Normalize
Normalize	Prescan	Off	Off	Off	Off	Off
Prescan Normalize	—	On	On	On	On	On
Distance Factor	Off	0%	50%	0%	—	On
Distortion Correction	5.0 mm	On	On	On	On	1.0 mm
Slice Thickness	0	5.0 mm	1.0 mm	5.0 mm	1.0 mm	—
Slices	30 Slices	30 Slices	176 Slices per Slab	30 Slices	176 Slices per Slab	176 Slices per Slab
Acquisition Time	1:09 min	1:38 min	5:38 min	1:40 min	3:42 min	4:12 min

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