IMAGING FORUMS, INC.

EPILEPSY BRAIN - SEIZURES 3T

INSTRUCTIONS AND PATIENT PREPARATION

Instructions	• New onset seizures should be performed as Routine Adult Brain with/without contrast • Contrast can be used for adult examinations • Partial complex seizure, intractable seizure in pediatric patients
Position	Supine, head first
Coil	20 channel Head and Neck coil or better
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 with lower TR's • May do postcontrast. Whole brain coverage • MPR to form Coronal Oblique images if not obtained directly • All Coronal Oblique sequences positioned similarly. Cover and position perpendicular to temporal lobe • Report agent administered and dose • Use minimal dose for patients with a GFR <60 mL/sec	

IMAGING PARAMETERS

Scan Description	AXIAL DWI	AXIAL GRE	AXIAL T2	CORONAL T2 Temporal Lobe	CORONAL T1 MPRAGE	CORONAL FLAIR SPACE	Post CORONAL FLAIR SPACE	Post CORONAL T1 SPACE
Sequence name	epse	fl_r	tseR	tfl	tseR	spcir	spcR	spcir
Mode	—	2D	2D	3D	2D	3D	3D	3D
PAT Mode	GRAPPA	GRAPPA	GRAPPA	GRAPPA	GRAPPA	CAIPIRINHA	GRAPPA	CAIPIRINHA
Acceleration Factor PE	2	2	4	2	4	2	2	2
Acceleration Factor 3D	—	—	—	1	—	2	2	2
AutoAlign	Head > Brain	Head > Brain	Head > Temporal Lobe	Head > Temporal Lobe	Head > Brain	Head > Temporal Lobe	Head > Temporal Lobe	Head > Brain

SCAN PARAMETERS

Scan Description	AXIAL DWI	AXIAL GRE	AXIAL T2	CORONAL T2 Temporal Lobe	CORONAL T1 MPRAGE	CORONAL FLAIR SPACE	Post CORONAL FLAIR SPACE	Post CORONAL T1 SPACE
TR	6700.0 ms	743.0 ms	3510.0 ms	2200.0 ms	3500.0 ms	720.0 ms	720.0 ms	6000.0 ms
TE	73.00 ms	19.80 ms	89.00 ms	2.48 ms	99.00 ms	16.00 ms	16.00 ms	351.00 ms
TI	—	—	—	900 ms	—	1800 ms	—	1800 ms
Flip Angle	—	20 deg	150 deg	8 deg	150 deg	Mode T1 Var	Mode T1 Var	Mode T2 Var
Turbo Factor	—	—	18	224	20	196	42	196
Bandwidth	1502 Hz/Px	220 Hz/Px	260 Hz/Px	250 Hz/Px	303 Hz/Px	698 Hz/Px	630 Hz/Px	698 Hz/Px
EPI Factor	128	—	—	—	—	—	—	—
Fat-Water Contrast	Strong	—	—	—	—	Strong	—	Strong
Fat Saturation	Strong	—	—	—	—	Strong	—	Strong
Gradient Mode	Fast	Fast	Normal	Normal	Normal	Fast	Normal	Fast
RF Pulse Type	Normal	Fast	Normal	Fast	Normal	Normal	Normal	Normal
Asymmetric Echo	—	Off	—	Allowed	—	—	—	—

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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 GRE	AXIAL T2	CORONAL T2 Temporal Lobe	CORONAL T1 MPRAGE	CORONAL FLAIR SPACE	Post CORONAL FLAIR SPACE	Post CORONAL T1 SPACE
Base Resolution	128	320	384	256	384	256	256	256
Phase Resolution	100%	75%	100%	100%	100%	100%	100%	100%
Slice Resolution	—	—	—	100%	—	79%	91%	79%
Averages	—	1	2	1	1	1.6	1.6	1
Averaging Mode	—	—	—	—	—	—	—	—
Concatenations	1	1	2	1	2	1	1	1
b-value	0 s/mm2 1000 s/mm2	—	—	—	—	—	—	—
FoV Read	220 mm	220 mm	180 mm	230 mm	220 mm	230 mm	230 mm	230 mm
FoV Phase	100%	84%	100%	100%	85%	100%	100%	100%
Phase Encoding Dir.	A >> P	R >> L	R >> L	R >> L	R >> L	R >> L	R >> L	R >> L
Phase Oversampling	0%	0%	60%	10%	60%	10%	10%	0%
Slice Oversampling	—	—	—	27%	—	9%	9%	27%
Phase Partial Fourier	6/8	Off	Off	Off	Off	Off	Off	Off
Slice Partial Fourier	—	—	—	Off	—	Off	Off	Off
Flow Compensation	—	Slice/Read	None	None	None	None	None	None

SCANNING RANGE

Scan Description	AXIAL DWI	AXIAL GRE	AXIAL T2	CORONAL T2 Temporal Lobe	CORONAL T1 MPRAGE	CORONAL FLAIR SPACE	Post CORONAL FLAIR SPACE	Post CORONAL T1 SPACE
Elliptical Filter	Off	On	Off	Off	Off	Off	Off	Off
Image Filter	—	Off	Off	Off	Off	Off	Off	Off
Normalize	Prescan	Prescan	Prescan	Prescan	Prescan	Prescan	Prescan	Prescan
Distortion Correction	Off	2D	2D	2D	2D	3D	2D	3D
Distance Factor	0%	0%	0%	50%	0%	—	—	—
Slice Thickness	5.0 mm	5.0 mm	3.0 mm	1.0 mm	5.0 mm	1.0 mm	1.0 mm	1.0 mm
Slices	30 Slices	30 Slices	36 Slices	176 Slices per Slab	30 Slices	176 Slices per Slab	176 Slices per Slab	176 Slices per Slab
Acquisition Time	1:09 min	1:20 min	2:25 min	5:38 min	1:04 min	4:45 min	4:40 min	4:45 min

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