PEDIATRIC EPILEPSY HI-RES 3T

INSTRUCTIONS AND PATIENT PREPARATION

Anatomical Region	Epilepsy Hi-Res
Field Strength	3.0T
Coil	See the Coil Configuration row in the first parameters table below (varies by sequence).
Position & Landmark	Head first, supine. Landmark: center of the coil in use (typically central to the ROI).
Contrast	Weight-based gadolinium contrast per your institution's protocol, supervising radiologist, and the agent's FDA prescribing information. Postcontrast sequences are marked **+C**.

PATIENT POSITION

Scan Description	3Plane Loc	Sag T2 SSFSE	Ax T2 SSFSE	Cor T2 SSFSE	Obl Cor T1 BRAVO	Obl Cor T2 FLAIR Cube	Obl COR STIR	Obl Ax STIR	3D Ax ASL	PseudoSwan (8 shots)	+C Ax T1 BRAVO Stealth
Coil Configuration	GE48chHeadPos, GE48chHeadAnt	GE48chHeadAnt, GE48chHeadPos	GE48chHeadAnt, GE48chHeadPos	GE48chHeadAnt, GE48chHeadPos	GE48chHeadPos, GE48chHeadAnt	GE48chHeadPos, GE48chHeadAnt	GE48chHeadPos, GE48chHeadAnt	GE48chHeadPos, GE48chHeadAnt	GE48chHeadAnt, GE48chHeadPos	GE48chHeadPos, GE48chHeadAnt	GE48chHeadPos, GE48chHeadAnt
Plane	3-PLANE	OBLIQUE	OBLIQUE	OBLIQUE	OBLIQUE	OBLIQUE	OBLIQUE	OBLIQUE	AXIAL	OBLIQUE	OBLIQUE

IMAGING PARAMETERS

Scan Description	3Plane Loc	Sag T2 SSFSE	Ax T2 SSFSE	Cor T2 SSFSE	Obl Cor T1 BRAVO	Obl Cor T2 FLAIR Cube	Obl COR STIR	Obl Ax STIR	3D Ax ASL	PseudoSwan (8 shots)	+C Ax T1 BRAVO Stealth
Imaging Mode	2D	2D	2D	2D	3D	3D	2D	2D	3D	2D	3D
Imaging Options	Seq, EDR, TRF, Fast, SS, ARC	EDR, TRF, Fast, SS, ARC	EDR, TRF, Fast, SS, ARC	EDR, TRF, Fast, SS, ARC	EDR, Fast, ZIP512, ARC, IrP	EDR, Fast, ZIP512, T2P, ARC, IrP	Seq, EDR, TRF, Fast, ARC, IrP	Seq, EDR, TRF, Fast, ARC, IrP	EDR, Fast, Spiral	Asset	EDR, Fast, ZIP512, ARC, IrP
Pulse Sequence	Spin Echo	Spin Echo	Spin Echo	Spin Echo	BRAVO	Cube T2 FLAIR	FSE-XL	FSE-XL	3DASL	Gradient Echo EPI	BRAVO
ARC Phase	2	2	2	2	1.5	2	2	2	—	—	2
ARC Slice	—	—	—	—	1	2	—	—	—	—	1
Phase	—	—	—	—	—	—	—	—	—	2	—

IMAGE RECON

Scan Description	3Plane Loc	Sag T2 SSFSE	Ax T2 SSFSE	Cor T2 SSFSE	Obl Cor T1 BRAVO	Obl Cor T2 FLAIR Cube	Obl COR STIR	Obl Ax STIR	3D Ax ASL	PseudoSwan (8 shots)	+C Ax T1 BRAVO Stealth
Recon DL Strength	Off	Medium	Medium	Medium	Low	Off	Medium	Medium	Off	—	—
Intensity Correction	NONE	SCENIC	SCENIC	SCENIC	PURE	PURE	SCENIC	SCENIC	NONE	PURE	PURE
Intensity Filter	None	None	None	None	None	None	None	None	None	None	None
Save Original	Off	Off	Off	Off	Off	Off	On	On	Off	Off	Off

SCAN RANGE

Scan Description	3Plane Loc	Sag T2 SSFSE	Ax T2 SSFSE	Cor T2 SSFSE	Obl Cor T1 BRAVO	Obl Cor T2 FLAIR Cube	Obl COR STIR	Obl Ax STIR	3D Ax ASL	PseudoSwan (8 shots)	+C Ax T1 BRAVO Stealth
FOV	30	20	20	20	20	20	17	17	24	24	24
Slice Thickness	10	4	4	4	0.7	0.7	2.5	2.5	4	3	0.6
Slice Spacing	5	0	0	0	—	—	0	0	—	1	—
Overlap Locations	0	0	0	0	0	0	0	0	0	—	0
No Phase Wrap	1	1	1	1	1	1	1	1	—	1	1
Number of Slices	—	1	1	1	1	—	37	37	1	34	1
Slices per Slab	—	—	—	—	272	300	—	—	—	—	272
No Slab Wrap	—	—	—	—	1.03	1.03	—	—	1	—	—
Slice Resolution(%)	—	—	—	—	50	50	—	—	0	—	50

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MR Gadopiclenol (VUEWAY®) Protocol for GE MRI Scanners
Pediatric

IMAGING FORUMS, INC.

ACQUISITION TIMING

Scan Description	3Plane Loc	Sag T2 SSFSE	Ax T2 SSFSE	Cor T2 SSFSE	Obl Cor T1 BRAVO	Obl Cor T2 FLAIR Cube	Obl COR STIR	Obl Ax STIR	3D Ax ASL	PseudoSwan (8 shots)	+C Ax T1 BRAVO Stealth
Acq Voxel Size	1.0 X 1.6 X 10.0	0.8 X 1.0 X 4.0	0.8 X 1.0 X 4.0	0.8 X 1.0 X 4.0	0.8 X 0.8 X 1.4	0.8 X 0.8 X 1.4	0.4 X 0.7 X 2.5	0.4 X 0.7 X 2.5	—	0.9 X 0.8 X 3.0	0.9 X 0.9 X 1.2
Freq	288	256	256	256	256	256	480	480	512	256	256
Phase	192	192	192	192	256	256	256	256	8	320	256
Freq DIR	Unswap	Unswap	Unswap	Unswap	A/P	Unswap	S/I	S/I	R/L	R/L	A/P
# of Acq. Before Pause	0	0	0	0	—	—	0	0	—	—	—
Phase FOV	1	1	1	1	1	0.8	1	1	—	1	1
Auto Shim	Auto	Auto	Auto	Auto	Auto	Auto	Auto	Auto	Auto	Auto	Auto
Phase Correct	Off	Off	Off	Off	Off	Off	Off	Off	Off	On	Off
RF Drive Mode	Preset	Preset	Preset	Preset	Preset	Preset	Preset	Preset	Preset	Preset	Preset
Excitation Mode	Selective	Selective	Selective	Selective	Selective	Selective	Selective	Selective	Selective	Selective	Selective
NEX	—	1	1	1	1	1	2	2	3	1	1
Fat Shift DIR	—	—	—	—	Reversed (P)	Normal	Normal (I)	Normal (I)	—	—	Reversed

SCAN TIMING

Scan Description	3Plane Loc	Sag T2 SSFSE	Ax T2 SSFSE	Cor T2 SSFSE	Obl Cor T1 BRAVO	Obl Cor T2 FLAIR Cube	Obl COR STIR	Obl Ax STIR	3D Ax ASL	PseudoSwan (8 shots)	+C Ax T1 BRAVO Stealth
TE	80	Min Full	Min Full	Min Full	—	Maximum	40	40	—	35	—
Number of Echoes	1	1	1	1	1	1	1	1	1	1	1
TR	1000	Minimum	Minimum	Minimum	—	7000	8631	8631	—	2575	—
Receiver Bandwidth	83.33	83.33	83.33	83.33	31.25	62.5	50	50	62.5	—	31.25
Flip Angle	—	130	130	130	12	—	142	142	—	60	12
TI	—	—	—	—	450	1986	300	300	—	—	450
Recovery Time	—	—	—	—	0	—	—	—	—	—	0
Echo Train Length	—	—	—	—	—	180	14	14	—	—	—
Post Label Delay	—	—	—	—	—	—	—	—	2025	—	—
Number of Shots	—	—	—	—	—	—	—	—	—	8	—

CONTRAST

Scan Description	3Plane Loc	Sag T2 SSFSE	Ax T2 SSFSE	Cor T2 SSFSE	Obl Cor T1 BRAVO	Obl Cor T2 FLAIR Cube	Obl COR STIR	Obl Ax STIR	3D Ax ASL	PseudoSwan (8 shots)	+C Ax T1 BRAVO Stealth
Contrast Yes/No	No	No	No	No	No	No	No	No	No	No	+C

OTHERS

Scan Description	3Plane Loc	Sag T2 SSFSE	Ax T2 SSFSE	Cor T2 SSFSE	Obl Cor T1 BRAVO	Obl Cor T2 FLAIR Cube	Obl COR STIR	Obl Ax STIR	3D Ax ASL	PseudoSwan (8 shots)	+C Ax T1 BRAVO Stealth
3D Geometry Correction	Off	Off	Off	Off	On	—	—	—	Off	—	On
Anatomical Region	Head	Brain	Brain	Brain	Head	Brain	Brain	Brain	Brain	Brain	Head

AIRX

Scan Description	3Plane Loc	Sag T2 SSFSE	Ax T2 SSFSE	Cor T2 SSFSE	Obl Cor T1 BRAVO	Obl Cor T2 FLAIR Cube	Obl COR STIR	Obl Ax STIR	3D Ax ASL	PseudoSwan (8 shots)	+C Ax T1 BRAVO Stealth
Anatomical Reference	—	None	None	None	None	None	None	None	—	—	—
Anatomical Plane	—	None	None	None	None	None	None	None	—	—	—

SATURATION

Scan Description	3Plane Loc	Sag T2 SSFSE	Ax T2 SSFSE	Cor T2 SSFSE	Obl Cor T1 BRAVO	Obl Cor T2 FLAIR Cube	Obl COR STIR	Obl Ax STIR	3D Ax ASL	PseudoSwan (8 shots)	+C Ax T1 BRAVO Stealth
Fat/Water Saturation	—	—	—	—	—	Fat	—	—	Fat	Fat	—

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GATING / TRIGGER

Scan Description	3Plane Loc	Sag T2 SSFSE	Ax T2 SSFSE	Cor T2 SSFSE	Obl Cor T1 BRAVO	Obl Cor T2 FLAIR Cube	Obl COR STIR	Obl Ax STIR	3D Ax ASL	PseudoSwan (8 shots)	+C Ax T1 BRAVO Stealth
Pause After Navigator Prescan	—	—	—	—	—	—	—	—	0	0	—
Auto Trigger Type	—	—	—	—	—	—	—	—	—	Off	Off

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