PEDIATRIC BRAIN 1.5T

INSTRUCTIONS AND PATIENT PREPARATION

Instructions	• This exam is tailored to the patient's condition and is meant for the needs of children under 8 years of age • Take Fat Sat off for metal artifacts • FOV and slice thickness should vary with head size • Contrast as needed based on diagnosis • Can use perfusion-weighted imaging or other sequences from adult protocols as needed
Position	Supine, head first
Coil	8ch Brain, HNU (Head 24 selected if possible)
Landmark	Glabella/Nasion

CONTRAST AGENT PARAMETERS

Contrast Agent	Dose	Injection Rate
Gadopiclenol (VUEWAY)	0.05 mmol/kg up to a calculated volume of 10 mL Gadopiclenol (VUEWAY) is approved for adult and pediatric patients, including term neonates. Safety has not been established in preterm neonates.	2 mL/sec
Saline Flush	10-20 mL	2 mL/sec
Comments	• Report agent administered and dose • Use minimal dose for patients with a GFR <60 mL/sec	

IMAGING PARAMETERS

Scan Description	3PL LOCALIZER	SAGITTAL T1 FLAIR	SAGITTAL T2 3D CUBE	AXIAL DWI	AXIAL T2 FS	AXIAL T2* GRE	CORONAL T2 FS	Pre or Post SAGITTAL T2 FLAIR CUBE	Pre or Post AXIAL T1 3D BRAVO	Post CORONAL T1 CUBE
Primary Sequence	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Mode	2D	2D	3D	2D	2D	3D	2D	3D	3D BRAVO	3D
Pulse Sequence	SSFSE	FLAIR	CUBE	DWI-PROPELLER	PROPELLER	GRE	PROPELLER	CUBE	BRAVO	CUBE
Imaging Options	SEQ, EDR, FAST, SS, ARC, TRF	SEQ, TRF, ZIP512	EDR, FAST, FR, ZIP2, ARC	PROPELLER, ARC (DWDuo if available)	EDR,TRF, ARC	EDR	TRF, ARC	ARC, T2 IRP, ZIP2, EDR	FAST, IRP, ZIP2, ASSET	EDR, ZIP2, ZIP512, FR, ARC

SCAN PARAMETERS

Scan Description	3PL LOCALIZER	SAGITTAL T1	SAGITTAL T2 3D CUBE	AXIAL DWI	AXIAL T2 FS	AXIAL T2* GRE	CORONAL T2 FS	Pre or Post SAGITTAL T2 FLAIR CUBE	Pre or Post AXIAL T1 3D BRAVO	Post CORONAL T1 CUBE
TE	80	Min-Full	90	Min	—	25	—	—	4	24
TR	Min	2500	2400	Auto (8000)	5000	800	6000	6000	11	550
TI	—	784	—	—	—	—	—	1954 (Fixed with TR)	450	—
Flip Angle	—	—	—	—	—	20	—	Auto	13	13
ETL	—	4	120	24	24	—	24	160	—	24
Bandwidth	83	20	41	62	41	31	41	32	25	62
Sat	—	—	—	Fat	Fat	—	Fat	Fat	—	Fat

Disclaimer: The MR Protocols information is provided by independent physicians and technologists and is not intended to provide definitive or complete medical instructional or treatment information. Products referenced herein should be used consistently with their package inserts, and any devices referenced herein should be used consistently with the operation instructions provided by their respective manufactures. Northwest Imaging Forums, Inc. and Bracco Diagnostics Inc. do not offer medical advice and shall not be responsible for any person's reliance on this protocol.

Supported by an educational grant from Bracco Diagnostics Inc.

MR Gadopiclenol (VUEWAY®) Protocol for GE HealthCare Systems
Central Nervous System

IMAGING FORUMS, INC.

ACQUISITION PARAMETERS

Scan Description	3PL LOCALIZER	SAGITTAL T1	SAGITTAL T2 3D CUBE	AXIAL DWI	AXIAL T2FS	AXIAL T2* GRE	CORONAL T2FS	Pre or Post SAGITTAL T2 FLAIR CUBE	Pre or Post AXIAL T1 3D BRAVO	Post CORONAL T1 CUBE
MATRIX freq	256	288	256	128	416	256	320	256	256	288
MATRIX phase	192	288	256	128	—	192	—	256	256	288
NEX	1	2	1	2	1	1	1	1	1	1
Phase FOV	1	1	1	1	Full	1	1	—	—	0.7
Freq Direction	Unswap	S/I	S/I	A/P	A/P	A/P	A/P	S/I	A/P	S/I
Image Enhance	—	PURE	PURE	PURE	PURE	—	PURE	PURE	PURE	PURE
User CV	—	—	ACC=2 Opt HS 1.2	B1000 DIFF Dir ALL Ramp Samp=1 ADC=On DIFF PREP=On ACC=2	ACC=2 Oversampling=1	—	ACC=2 Oversampling=1	ACC=2 SL=2	—	Fat Sat Eff 1 CUBE Enh 3 ACC=2

SCANNING RANGE

Scan Description	3PL LOCALIZER	SAGITTAL T1	SAGITTAL T2 3D CUBE	AXIAL DWI	AXIAL T2FS	AXIAL T2* GRE	CORONAL T2FS	Pre or Post SAGITTAL T2 FLAIR CUBE	Pre or Post AXIAL T1 3D BRAVO	Post CORONAL T1 CUBE
FOV	30	20	20	20	20	20	20	23	22	24
Slice Thickness	7	4	1.6	5	4	4	3	1.6	1	1
Spacing	5	.5	—	0	0.4	0.4	0.3	0	0	—
Number of Slices	7-Ax/Sag/Cor	20	112	24-26	30	30	30	126	128	112
Scan Time	0:30 sec	2-3 min	3-5 min	3:20 min	3:30 min	2:20 min	3:30 min	3-5 min	3:30 min	2:30 min

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