PEDIATRIC ROUTINE ORBIT (SMALLER PATIENTS) 3T

INSTRUCTIONS AND PATIENT PREPARATION

Instructions	Position the head in the head coil and immobilize with cushions Give cushions under the legs for extra comfort Connect the anterior portion of the head coil and secure it in place. Sedation vs bundle and feed is the ordering provider's decision
Common Indications	Tumor Optic nerve neuritis Proptosis Vision disturbance
Position	Head First Supine
Coil	Head Coil 20ch
Landmark	Center over the glabella
Patient Population	These protocols are intended for smaller patients and serve as starting points. If a smaller FOV is needed, the parameters are modified accordingly.

CONTRAST AGENT PARAMETERS

Contrast Agent	Dose	Injection Rate	Dose Timing Method and Scan Delay
Gadopiclenol (VUEWAY)	0.1 mL/kg	Hand injected	Post-contrast series acquired after gadolinium administration

IMAGING PARAMETERS

Scan Description	AAhead_scout	COR T2 DIXON ORBITS (3mm) DRB	AX T1 DIXON ORBITS (3MM) DRB	AX T2 DIXON ORBITS (3mm) DRB	AX RESOLVE (3mm)	POST AX T1WI FS DIXON ORBITS (3mm)	POST COR T1WI FS DIXON ORBITS (3mm) DRB
Sequence Name	fl	tse	tse	tse	resolve	tse	tse
Dimension	3D	2D	2D	2D	2D	2D	2D
Acceleration mode	GRAPPA	GRAPPA	GRAPPA	GRAPPA	GRAPPA	GRAPPA	GRAPPA
Acceleration Factor PE	3	2	2	2	2	2	2
Acceleration Factor 3D	1	—	—	—	—	—	—
Reference Lines PE	24	31	27	31	96	27	27
Reference Scans	Integrated	Integrated	Integrated	Integrated	EPI/Separate	Integrated	Integrated
Deep Resolve	—	On	On	On	—	On	On

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

IMAGING FORUMS, INC.

SCAN PARAMETERS

Scan Description	AAhead_scout	COR T2 DIXON ORBITS (3mm) DRB	AX T1 DIXON ORBITS (3MM) DRB	AX T2 DIXON ORBITS (3mm) DRB	AX RESOLVE (3mm)	POST AX T1WI FS DIXON ORBITS (3mm)	POST COR T1WI FS DIXON ORBITS (3mm) DRB
TR	3.15 ms	3000.0 ms	400.0 ms	3370.0 ms	4000.0 ms	400.0 ms	543.0 ms
TE	1.37 ms	84.00 ms	9.50 ms	84.00 ms	TE 1: 67 ms TE 2: 111 ms	9.50 ms	9.50 ms
Flip Angle	8 deg	160 deg	160 deg	160 deg	180 deg	160 deg	160 deg
Bandwidth	540 Hz/Px	383 Hz/Px	630 Hz/Px	383 Hz/Px	620 Hz/Px	630 Hz/Px	630 Hz/Px
Turbo Factor	—	17	3	17	—	3	3
Echo Spacing	—	10.50 ms	9.48 ms	10.50 ms	0.38 ms	9.48 ms	9.48 ms
Echo Trains per Slice	—	16	90	16	—	90	90
EPI Factor	—	—	—	—	96	—	—
Readout Segments	—	—	—	—	7	—	—
Gradient Mode	Normal	Fast	Fast	Fast	Fast	Fast	Fast
RF Pulse Type	Fast	Normal	Normal	Normal	Normal	Normal	Normal
RF Spoiling	On	—	—	—	—	—	—
Asymmetric Echo	Weak	Off	Off	Off	—	Off	Off
Flow Compensation	—	None	None	None	—	None	None
Reduce Motion Sens.	—	On	On	On	—	On	On
Phase Correction	—	Automatic	Automatic	Automatic	—	Automatic	Automatic

CONTRAST & MAGNETIZATION

Scan Description	AAhead_scout	COR T2 DIXON ORBITS (3mm) DRB	AX T1 DIXON ORBITS (3MM) DRB	AX T2 DIXON ORBITS (3mm) DRB	AX RESOLVE (3mm)	POST AX T1WI FS DIXON ORBITS (3mm)	POST COR T1WI FS DIXON ORBITS (3mm) DRB
Fat-Water Contrast	Standard	Dixon	Dixon	Dixon	Fat Saturation	Dixon	Dixon
Fat Saturation	—	Strong	Strong	Strong	Strong	Strong	Strong
Magn. Preparation	—	None	None	None	None	None	None
MTC	—	Off	Off	Off	Off	Off	Off
Dark Blood	—	Off	Off	Off	—	Off	Off
Contrasts	1	1	1	1	2	1	1
Reconstruction	Magnitude	Magnitude	Magnitude	Magnitude	Magnitude	Magnitude	Magnitude
Wrap-up Magn.	—	None	None	None	—	None	None

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ACQUISITION PARAMETERS

Scan Description	AAhead_scout	COR T2 DIXON ORBITS (3mm) DRB	AX T1 DIXON ORBITS (3MM) DRB	AX T2 DIXON ORBITS (3mm) DRB	AX RESOLVE (3mm)	POST AX T1WI FS DIXON ORBITS (3mm)	POST COR T1WI FS DIXON ORBITS (3mm) DRB
Base Resolution	160	256	256	256	192	256	256
Phase Resolution	100 %	80 %	80 %	80 %	100 %	80 %	80 %
Slice Resolution	69 %	—	—	—	—	—	—
Averages	1	1	1	1	—	1	1
Concatenations	1	2	2	1	1	2	2
FoV Read	260 mm	140 mm	140 mm	140 mm	180 mm	140 mm	140 mm
FoV Phase	100.0 %	100.0 %	100.0 %	100.0 %	100.0 %	100.0 %	100.0 %
Phase Encoding Dir.	A >> P	R >> L	R >> L	R >> L	A >> P	R >> L	R >> L
Phase Oversampling	0 %	150 %	150 %	150 %	0 %	150 %	150 %
Slice Oversampling	0.0 %	—	—	—	—	—	—
Phase Partial Fourier	6/8	Off	Off	Off	Off	Off	Off
Slice Partial Fourier	6/8	—	—	—	—	—	—
Readout Partial Fourier	—	—	—	—	7/8	—	—
Interpolation	—	On	On	On	On	On	On
Trajectory	Cartesian	Cartesian	Cartesian	Cartesian	—	Cartesian	Cartesian
Multi-Slice Mode	Sequential	Interleaved	Interleaved	Interleaved	Interleaved	Interleaved	Interleaved

SCANNING RANGE

Scan Description	AAhead_scout	COR T2 DIXON ORBITS (3mm) DRB	AX T1 DIXON ORBITS (3MM) DRB	AX T2 DIXON ORBITS (3mm) DRB	AX RESOLVE (3mm)	POST AX T1WI FS DIXON ORBITS (3mm)	POST COR T1WI FS DIXON ORBITS (3mm) DRB
Slice Thickness	1.6 mm	3.0 mm	3.0 mm	3.0 mm	3.0 mm	3.0 mm	3.0 mm
Slices	128 Slices per Slab	30 Slices	18 Slices	18 Slices	18 Slices	18 Slices	30 Slices
Distance Factor	20 %	10 %	10 %	10 %	10 %	10 %	10 %
Special Saturation	—	None	None	None	None	None	None
Raw Filter	Off	Off	Off	Off	On	Off	Off
Elliptical Filter	Off	Off	Off	Off	—	Off	Off
Image Filter	Off	Off	Off	Off	—	Off	Off
Distortion Correction	3D	2D	2D	2D	2D	2D	2D
Normalize	Prescan	Prescan	Prescan	Prescan	Prescan	Prescan	Prescan
Noise Masking	Off	—	—	—	Off	—	—
Time of Acquisition	14 sec	3:20 min	2:26 min	1:53 min	2:38 min	2:26 min	3:18 min

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DIFFUSION

Scan Description	AAhead_scout	COR T2 DIXON ORBITS (3mm) DRB	AX T1 DIXON ORBITS (3MM) DRB	AX T2 DIXON ORBITS (3mm) DRB	AX RESOLVE (3mm)	POST AX T1WI FS DIXON ORBITS (3mm)	POST COR T1WI FS DIXON ORBITS (3mm) DRB
Diffusion Mode	—	—	—	—	4-Scan Trace	—	—
Diffusion Scheme	—	—	—	—	Monopolar	—	—
Diff. Directions	—	—	—	—	4	—	—
b-value 1	—	—	—	—	0 s/mm²	—	—
b-value 2	—	—	—	—	1000 s/mm²	—	—
Averages b-value 1	—	—	—	—	1	—	—
Averages b-value 2	—	—	—	—	1	—	—
Diff. Weightings	—	—	—	—	2	—	—
Diff. Weighted Images	—	—	—	—	Off	—	—
Trace Weighted Images	—	—	—	—	On	—	—
ADC Maps	—	—	—	—	On	—	—
Exponential ADC Maps	—	—	—	—	Off	—	—
FA Maps	—	—	—	—	Off	—	—
Calculated Image	—	—	—	—	Off	—	—

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