PEDIATRIC ROUTINE NECK (SMALLER PATIENTS) 3T

INSTRUCTIONS AND PATIENT PREPARATION

Instructions	Position the head in the head/neck 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	Thyroid disease Abscess Tumor Airway obstruction
Position	Head First Supine
Coil	Head/Neck 20ch
Landmark	Mid neck
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	localizer	COR T2WI DIXON (3mm)	AX T1WI DIXON (3mm)	AX T2WI DIXON (3mm)	AX RESOLVE DWI (3mm Through Lesion)	POST AX T1WI DIXON (3mm)	POST COR T1WI DIXON (3mm)
Sequence Name	qfl	tseR	tse	tse	resolve	tse	tse
Dimension	2D	2D	2D	2D	2D	2D	2D
Acceleration mode	GRAPPA	GRAPPA	GRAPPA	GRAPPA	GRAPPA	GRAPPA	GRAPPA
Acceleration Factor PE	2	2	2	2	2	2	2
Reference Lines PE	20	32	32	32	116	32	32
Reference Scans	Integrated	Self-calibration	Self-calibration	Self-calibration	EPI/Separate	Self-calibration	Self-calibration
Deep Resolve	Off	Off	Off	Off	—	Off	Off

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

IMAGING FORUMS, INC.

SCAN PARAMETERS

Scan Description	localizer	COR T2WI DIXON (3mm)	AX T1WI DIXON (3mm)	AX T2WI DIXON (3mm)	AX RESOLVE DWI (3mm Through Lesion)	POST AX T1WI DIXON (3mm)	POST COR T1WI DIXON (3mm)
TR	8.2 ms	4550.0 ms	500.0 ms	3600.0 ms	3880.0 ms	500.0 ms	630.0 ms
TE	3.66 ms	92.00 ms	8.90 ms	86.00 ms	TE 1: 69 ms TE 2: 118 ms	8.90 ms	8.90 ms
Flip Angle	20 deg	160 deg	160 deg	140 deg	180 deg	160 deg	160 deg
Bandwidth	320 Hz/Px	868 Hz/Px	977 Hz/Px	558 Hz/Px	620 Hz/Px	977 Hz/Px	977 Hz/Px
Turbo Factor	—	17	4	13	—	4	4
Echo Spacing	—	9.19 ms	8.88 ms	10.76 ms	0.36 ms	8.88 ms	8.88 ms
Echo Trains per Slice	—	16	39	12	—	39	64
EPI Factor	—	—	—	—	116	—	—
Readout Segments	—	—	—	—	7	—	—
Gradient Mode	Whisper	Fast	Fast	Fast	Fast	Fast	Fast
RF Pulse Type	Normal	Normal	Normal	Normal	Normal	Normal	Normal
RF Spoiling	On	—	—	—	—	—	—
Asymmetric Echo	Off	Off	Weak	Off	—	Weak	Off
Flow Compensation	None	None	None	None	—	None	None
Reduce Motion Sens.	—	On	On	On	—	On	On
Phase Correction	—	Automatic	Automatic	Automatic	—	Automatic	Automatic

CONTRAST & MAGNETIZATION

Scan Description	localizer	COR T2WI DIXON (3mm)	AX T1WI DIXON (3mm)	AX T2WI DIXON (3mm)	AX RESOLVE DWI (3mm Through Lesion)	POST AX T1WI DIXON (3mm)	POST COR T1WI DIXON (3mm)
Fat-Water Contrast	Standard	Fast Dixon	Fast Dixon	Fast Dixon	Fat Saturation	Fast Dixon	Fast Dixon
Fat Saturation	—	Strong	Strong	Strong	Strong	Strong	Strong
Magn. Preparation	None	None	None	None	None	None	None
MTC	Off	Off	Off	Off	Off	Off	Off
Dark Blood	Off	Off	Off	Off	—	Off	Off
Contrasts	1	1	1	1	2	1	1
Reconstruction	Magnitude	Magnitude	Magnitude	Magnitude	Magnitude	Magnitude	Magnitude
Wrap-up Magn.	—	Restore	None	None	—	None	None

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ACQUISITION PARAMETERS

Scan Description	localizer	COR T2WI DIXON (3mm)	AX T1WI DIXON (3mm)	AX T2WI DIXON (3mm)	AX RESOLVE DWI (3mm Through Lesion)	POST AX T1WI DIXON (3mm)	POST COR T1WI DIXON (3mm)
Base Resolution	256	320	320	320	192	320	320
Phase Resolution	80 %	80 %	80 %	80 %	100 %	80 %	80 %
Averages	1	3	3	3	—	3	3
Concatenations	15	1	4	2	1	4	2
FoV Read	300 mm	240 mm	240 mm	240 mm	240 mm	240 mm	240 mm
FoV Phase	100.0 %	100.0 %	100.0 %	100.0 %	100.0 %	100.0 %	100.0 %
Phase Encoding Dir.	R >> L	F >> H	A >> P	A >> P	A >> P	A >> P	H >> F
Phase Oversampling	38 %	100 %	20 %	20 %	20 %	20 %	100 %
Phase Partial Fourier	Off	Off	Off	Off	Off	Off	Off
Readout Partial Fourier	—	—	—	—	Off	—	—
Interpolation	On	Off	Off	Off	On	Off	Off
Trajectory	—	Cartesian	Cartesian	Cartesian	—	Cartesian	Cartesian
Multi-Slice Mode	Sequential	Interleaved	Interleaved	Interleaved	Interleaved	Interleaved	Interleaved

SCANNING RANGE

Scan Description	localizer	COR T2WI DIXON (3mm)	AX T1WI DIXON (3mm)	AX T2WI DIXON (3mm)	AX RESOLVE DWI (3mm Through Lesion)	POST AX T1WI DIXON (3mm)	POST COR T1WI DIXON (3mm)
Slice Thickness	6.0 mm	3.0 mm	3.0 mm	3.0 mm	3.0 mm	3.0 mm	3.0 mm
Slices	5 Slices	25 Slices	40 Slices	40 Slices	20 Slices	40 Slices	25 Slices
Distance Factor	50 %	10 %	10 %	10 %	10 %	10 %	10 %
Special Saturation	None	None	None	Parallel F/H	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	2D	2D	2D	2D	2D	2D	2D
Normalize	Prescan	Prescan	Prescan	Prescan	Prescan	Prescan	Prescan
Noise Masking	—	—	—	—	On	—	—
Time of Acquisition	20 sec	3:44 min	3:56 min	4:28 min	5:39 min	3:56 min	4:03 min

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DIFFUSION

Scan Description	localizer	COR T2WI DIXON (3mm)	AX T1WI DIXON (3mm)	AX T2WI DIXON (3mm)	AX RESOLVE DWI (3mm Through Lesion)	POST AX T1WI DIXON (3mm)	POST COR T1WI DIXON (3mm)
Diffusion Mode	—	—	—	—	3D Diagonal	—	—
Diffusion Scheme	—	—	—	—	Monopolar	—	—
Diff. Directions	—	—	—	—	1	—	—
b-value 1	—	—	—	—	50 s/mm²	—	—
b-value 2	—	—	—	—	800 s/mm²	—	—
Averages b-value 1	—	—	—	—	4	—	—
Averages b-value 2	—	—	—	—	8	—	—
Diff. Weightings	—	—	—	—	2	—	—
Diff. Weighted Images	—	—	—	—	On	—	—
Trace Weighted Images	—	—	—	—	Off	—	—
ADC Maps	—	—	—	—	On	—	—
Exponential ADC Maps	—	—	—	—	Off	—	—
FA Maps	—	—	—	—	Off	—	—
Calculated Image	—	—	—	—	Off	—	—

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