PEDIATRIC COMPLETE SPINE CORE 1.5T

INSTRUCTIONS AND PATIENT PREPARATION

Instructions	Core imaging used on all pediatric spine protocols. Optional sequences added based on clinical indication.
Position	Head first supine
Coil	Head coil, Spine coil, and Body 18 (anterior)
Contrast Timing	T2 is performed immediately post contrast to allow time for peak contrast enhancement on T1 imaging.
Patient Preparation	Landmark per department pediatric protocol — pending sign-off.
Coverage and Technique Notes	• 3 PLANE HASTE LOC UPPER AND LOWER THEN COMPOSED • SAG T1 FLAIR UPPER AND LOWER WITH SUBTRACTIONS OF PRE AND POST • TRAN VIBE THROUGH ENTIRE SPINE (ANGLE WITH THE CORD AND USE SET AND GO PROTOCOL WITHOUT COMPOSING)

CONTRAST AGENT PARAMETERS

Contrast Agent	Dose	Injection Rate	Dose Timing Method and Scan Delay
Gadopiclenol (VUEWAY)	0.05 mmol/kg	Hand Bolus or Power Injection	Per department pediatric contrast protocol — pending technologist/radiologist sign-off.
Comments	• Use minimal dose for patients with a GFR <60 mL/sec • Report agent administered and dose		

IMAGING PARAMETERS

Scan Description	SAG T1 FLAIR UPPER	SAG T1 FLAIR LOWER	Post SAG T2 DIXON UPPER	Post SAG T2 DIXON LOWER	Post SAG T1 FLAIR UPPER	Post SAG T1 FLAIR LOWER	Post TRAN VIBE UPPER	Post TRAN VIBE LOWER
Sequence Name	tir	tir	tseR	tseR	tir	tir	fl	fl
Mode	Interleaved	Interleaved	Interleaved	Interleaved	Interleaved	Interleaved	—	—
PAT Mode	None	None	None	None	None	None	GRAPPA	GRAPPA
Dimension	2D	2D	—	—	2D	2D	3D	3D
Acceleration Factor PE	—	—	—	—	—	—	2	2
Acceleration Factor 3D	—	—	—	—	—	—	1	1

SCAN PARAMETERS

Scan Description	SAG T1 FLAIR UPPER	SAG T1 FLAIR LOWER	Post SAG T2 DIXON UPPER	Post SAG T2 DIXON LOWER	Post SAG T1 FLAIR UPPER	Post SAG T1 FLAIR LOWER	Post TRAN VIBE UPPER	Post TRAN VIBE LOWER
TR	1300.0 ms	1300.0 ms	3500.0 ms	3500.0 ms	1300.0 ms	1300.0 ms	8.01 ms	8.01 ms
TE	7.20 ms	7.20 ms	81.00 ms	81.00 ms	7.20 ms	7.20 ms	3.88 ms	3.88 ms
TI	613 ms	613 ms	—	—	613 ms	613 ms	—	—
Flip Angle	150 deg / 90 deg	150 deg / 90 deg	150 deg / 90 deg	150 deg / 90 deg	150 deg / 90 deg	150 deg / 90 deg	12 deg	12 deg
Turbo Factor	6	6	16	16	6	6	—	—
Bandwidth	241 Hz/Px	241 Hz/Px	781 Hz/Px	781 Hz/Px	241 Hz/Px	241 Hz/Px	200 Hz/Px	200 Hz/Px
EPI Factor	—	—	—	—	—	—	—	—
Fat Saturation Mode	—	—	Strong	Strong	—	—	—	—
Fat Suppression	Standard	Standard	Dixon	Dixon	Standard	Standard	Standard	Standard
Gradient Mode	Fast	Fast	Fast	Fast	Fast	Fast	Normal	Normal
RF Pulse Type	Fast	Fast	Normal	Normal	Fast	Fast	Normal	Normal
Asymmetric Echo	—	—	Off	Off	—	—	Off	Off

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

IMAGING FORUMS, INC.

ACQUISITION PARAMETERS

Scan Description	SAG T1 FLAIR UPPER	SAG T1 FLAIR LOWER	Post SAG T2 DIXON UPPER	Post SAG T2 DIXON LOWER	Post SAG T1 FLAIR UPPER	Post SAG T1 FLAIR LOWER	Post TRAN VIBE UPPER	Post TRAN VIBE LOWER
Base Resolution	192	192	128	128	192	192	128	128
Phase Resolution	80 %	80 %	70 %	70 %	80 %	80 %	100 %	100 %
Slice Resolution	—	—	—	—	—	—	61 %	61 %
Averages	1	1	1	1	1	1	1	1
Concatenations	2	2	1	1	2	2	1	1
b-value	—	—	—	—	—	—	—	—
FoV Read	120 mm	120 mm	120 mm	120 mm	120 mm	120 mm	75 mm	75 mm
FoV Phase	250.0 %	250.0 %	250.0 %	250.0 %	250.0 %	250.0 %	187.5 %	187.5 %
Phase Encoding Dir.	H >> F	H >> F	H >> F	H >> F	H >> F	H >> F	A >> P	A >> P
Phase Oversampling	25 %	25 %	40 %	40 %	25 %	25 %	100 %	100 %
Slice Oversampling	—	—	—	—	—	—	100.0 %	100.0 %
Phase Partial Fourier	Off	Off	Off	Off	Off	Off	Off	Off
Slice Partial Fourier	—	—	—	—	—	—	Off	Off
Flow Compensation	None	None	None	None	None	None	—	—

SCANNING RANGE

Scan Description	SAG T1 FLAIR UPPER	SAG T1 FLAIR LOWER	Post SAG T2 DIXON UPPER	Post SAG T2 DIXON LOWER	Post SAG T1 FLAIR UPPER	Post SAG T1 FLAIR LOWER	Post TRAN VIBE UPPER	Post TRAN VIBE LOWER
Elliptical Filter	On	On	On	On	On	On	On	On
Normalize	Prescan	Prescan	Prescan	Prescan	Prescan	Prescan	Prescan	Prescan
Distortion Correction	2D	2D	2D	2D	2D	2D	2D	2D
Slice Thickness	3.0 mm	3.0 mm	3.0 mm	3.0 mm	3.0 mm	3.0 mm	3.0 mm	3.0 mm
Distance Factor	0%	0%	0%	0%	0%	0%	0%	0%
Slices	15	15	15	15	15	15	88	88
Acquisition Time	3:35 min	3:35 min	2:25 min	2:25 min	3:35 min	3:35 min	2:56 min	2:56 min

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