NW
IMAGING FORUMS, INC

PEDIATRIC TOTAL SPINE 0-2 3T

INSTRUCTIONS AND PATIENT PREPARATION

Anatomical Region	Total Spine 0-2
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	C-T-Sag T1 FLAIR DL	T-L-Sag T1 FLAIR DL	C-T-Sag T2 Fat DL	T-L-Sag T2 Fat DL	C-T Ax 2D MERGE	C-T Ax T1 DL	T-L Ax T2 DL	T-L Ax T1 .7pFOV	C-T +C Sag T1 Fat DL	T-L+C Sag T1 Fat DL	+C C-T Ax T1 Fat	+C T-L Ax T1 Fat
Coil Configuration	GE19chGEMHNUFace, GE40chGEMPA	GE19chGEMHNUFace, GE40chGEMPA	GE19chGEMHNUFace, GE40chGEMPA	GE19chGEMHNUFace, GE40chGEMPA	GE19chGEMHNUFace, GE40chGEMPA	GE19chGEMHNUFace, GE40chGEMPA	GE19chGEMHNUFace, GE40chGEMPA	GE19chGEMHNUFace, GE40chGEMPA	GE19chGEMHNUFace, GE40chGEMPA	GE19chGEMHNUFace, GE40chGEMPA	GE19chGEMHNUFace, GE40chGEMPA	GE19chGEMHNUFace, GE40chGEMPA	GE19chGEMHNUFace, GE40chGEMPA
Plane	3-PLANE	OBLIQUE	OBLIQUE	OBLIQUE	OBLIQUE	OBLIQUE	OBLIQUE	OBLIQUE	OBLIQUE	OBLIQUE	OBLIQUE	OBLIQUE	OBLIQUE

IMAGING PARAMETERS

Scan Description	3Plane Loc	C-T-Sag T1 FLAIR DL	T-L-Sag T1 FLAIR DL	C-T-Sag T2 Fat DL	T-L-Sag T2 Fat DL	C-T Ax 2D MERGE	C-T Ax T1 DL	T-L Ax T2 DL	T-L Ax T1 .7pFOV	C-T +C Sag T1 Fat DL	T-L+C Sag T1 Fat DL	+C C-T Ax T1 Fat	+C T-L Ax T1 Fat
Imaging Mode	2D	2D	2D	2D	2D	2D	2D	2D	2D	2D	2D	2D	2D
Imaging Options	Seq, EDR, Fast, SS, ARC	FC, Seq, EDR, TRF, Fast, T1flair	FC, Seq, EDR, TRF, Fast, T1flair	FC, EDR, TRF, Fast, FR	FC, EDR, TRF, Fast, FR	FC, EDR, Fast	EDR, TRF, Fast, ZIP512, ARC	FC, EDR, TRF, Fast, ZIP512	EDR, TRF, Fast, ZIP512, ARC	EDR, TRF, Fast	EDR, TRF, Fast	EDR, TRF, Fast, ZIP512, ARC	EDR, TRF, Fast, ZIP512, ARC
Pulse Sequence	Spin Echo	FSE-XL	FSE-XL	FSE-XL	FSE-XL	MERGE	FSE-XL	FSE-XL	FSE-XL	FSE-XL	FSE-XL	FSE-XL	FSE-XL
ARC Phase	2	—	—	—	—	—	1.5	—	1.5	—	—	1.5	1.5

IMAGE RECON

Scan Description	3Plane Loc	C-T-Sag T1 FLAIR DL	T-L-Sag T1 FLAIR DL	C-T-Sag T2 Fat DL	T-L-Sag T2 Fat DL	C-T Ax 2D MERGE	C-T Ax T1 DL	T-L Ax T2 DL	T-L Ax T1 .7pFOV	C-T +C Sag T1 Fat DL	T-L+C Sag T1 Fat DL	+C C-T Ax T1 Fat	+C T-L Ax T1 Fat
Recon DL Strength	Off	Medium	Medium	Medium	Medium	Off	Medium	Medium	Medium	Medium	Medium	Medium	Medium
Intensity Correction	NONE	SCENIC	SCENIC	PURE	PURE	SCENIC	SCENIC	SCENIC	SCENIC	SCENIC	SCENIC	SCENIC	SCENIC
Intensity Filter	None	None	None	None	None	None	None	None	None	None	None	None	None
Save Original	Off	On	On	On	On	On	Off	Off	Off	On	On	Off	Off

SCAN RANGE

Scan Description	3Plane Loc	C-T-Sag T1 FLAIR DL	T-L-Sag T1 FLAIR DL	C-T-Sag T2 Fat DL	T-L-Sag T2 Fat DL	C-T Ax 2D MERGE	C-T Ax T1 DL	T-L Ax T2 DL	T-L Ax T1 .7pFOV	C-T +C Sag T1 Fat DL	T-L+C Sag T1 Fat DL	+C C-T Ax T1 Fat	+C T-L Ax T1 Fat
FOV	35	16	16	16	16	16	16	16	16	16	16	16	16
Slice Thickness	5	4	4	4	4	4	4	4	4	4	4	4	4
Slice Spacing	5	0.2	0.2	0.2	0.2	0	0.4	0.4	0.4	0.2	0.2	0.4	0.4
Overlap Locations	0	0	0	0	0	0	0	0	0	0	0	0	0
No Phase Wrap	1	1.5	1.5	1.5	1.5	2	2	2	2	1.5	1.5	2	2
Number of Slices	—	17	17	17	17	—	21	1	21	—	—	21	21

ACQUISITION TIMING

Scan Description	3Plane Loc	C-T-Sag T1 FLAIR DL	T-L-Sag T1 FLAIR DL	C-T-Sag T2 Fat DL	T-L-Sag T2 Fat DL	C-T Ax 2D MERGE	C-T Ax T1 DL	T-L Ax T2 DL	T-L Ax T1 .7pFOV	C-T +C Sag T1 Fat DL	T-L+C Sag T1 Fat DL	+C C-T Ax T1 Fat	+C T-L Ax T1 Fat
Acq Voxel Size	0.9 X 2.2 X 5.0	0.5 X 0.6 X 4.0	0.5 X 0.6 X 4.0	0.5 X 0.6 X 4.0	0.5 X 0.6 X 4.0	0.6 X 0.8 X 4.0	0.7 X 0.9 X 4.0	0.7 X 0.8 X 4.0	0.7 X 0.9 X 4.0	0.5 X 0.6 X 4.0	0.5 X 0.6 X 4.0	0.7 X 0.9 X 4.0	0.7 X 0.9 X 4.0
Freq	384	320	320	320	320	288	220	220	220	320	320	220	220
Phase	160	256	256	256	256	192	180	200	180	256	256	180	180
Freq DIR	Unswap	A/P	A/P	A/P	A/P	Swap	R/L	R/L	R/L	Swap	Swap	R/L	R/L
# of Acq. Before Pause	0	0	0	—	—	—	0	—	0	—	—	0	0
Phase FOV	1	1	1	1	1	0.7	0.7	0.65	0.7	1	1	0.7	0.7
Auto Shim	Auto	Auto	Auto	Auto	Auto	Auto	Auto	Auto	Auto	Auto	Auto	Auto	Auto
Phase Correct	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off
RF Drive Mode	Preset	Quadrature (CP)	Quadrature (CP)	Preset	Preset	Quadrature (CP)	Preset	Preset	Preset	Preset	Preset	Preset	Preset
Excitation Mode	Selective	Selective	Selective	Selective	Selective	Selective	Selective	Selective	Selective	Selective	Selective	Selective	Selective
NEX	—	1	1	1.5	1.5	1	1	1.5	1	1	1	1	1
Flow Comp Direction	—	Freq	Freq	Freq	Freq	—	—	Slice	—	—	—	—	—
Fat Shift DIR	—	Normal (P)	Normal (P)	Normal (P)	Normal (P)	—	Normal (L)	Normal (L)	Normal (L)	Normal	Normal	Normal (L)	Normal (L)

SCAN TIMING

Scan Description	3Plane Loc	C-T-Sag T1 FLAIR DL	T-L-Sag T1 FLAIR DL	C-T-Sag T2 Fat DL	T-L-Sag T2 Fat DL	C-T Ax 2D MERGE	C-T Ax T1 DL	T-L Ax T2 DL	T-L Ax T1 .7pFOV	C-T +C Sag T1 Fat DL	T-L+C Sag T1 Fat DL	+C C-T Ax T1 Fat	+C T-L Ax T1 Fat
TE	80	24	24	85	85	—	18	120	18	18	18	18	18
Number of Echoes	1	1	1	1	1	3	1	1	1	1	1	1	1
TR	Minimum	2600	2600	8588	8588	850	701	5000	701	850	850	515	588
Receiver Bandwidth	83.33	62.5	62.5	62.5	62.5	41.67	31.25	35.71	31.25	62.5	62.5	31.25	31.25
Flip Angle	—	142	142	142	142	20	111	150	111	120	120	111	111
TI	—	1069	1069	—	—	—	—	—	—	—	—	—	—
Echo Train Length	—	8	8	25	25	—	3	17	3	4	4	3	3

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 MRI Scanners
Pediatric

NW
IMAGING FORUMS, INC

CONTRAST

Scan Description	3Plane Loc	C-T-Sag T1 FLAIR DL	T-L-Sag T1 FLAIR DL	C-T-Sag T2 Fat DL	T-L-Sag T2 Fat DL	C-T Ax 2D MERGE	C-T Ax T1 DL	T-L Ax T2 DL	T-L Ax T1 .7pFOV	C-T +C Sag T1 Fat DL	T-L+C Sag T1 Fat DL	+C C-T Ax T1 Fat	+C T-L Ax T1 Fat
Contrast Yes/No	No	No	No	No	No	No	No	No	No	+C	+C	No	No

OTHERS

Scan Description	3Plane Loc	C-T-Sag T1 FLAIR DL	T-L-Sag T1 FLAIR DL	C-T-Sag T2 Fat DL	T-L-Sag T2 Fat DL	C-T Ax 2D MERGE	C-T Ax T1 DL	T-L Ax T2 DL	T-L Ax T1 .7pFOV	C-T +C Sag T1 Fat DL	T-L+C Sag T1 Fat DL	+C C-T Ax T1 Fat	+C T-L Ax T1 Fat
3D Geometry Correction	Off	—	—	—	—	—	—	—	—	—	—	—	—
Anatomical Region	Cervico-thoracic spine	Cervico-thoracic spine	Lumbar spine	Cervico-thoracic spine	Lumbar spine	Cervical spine	Cervical spine	Thoraco-lumbar spine	Thoraco-lumbar spine	Cervico-thoracic spine	Lumbar spine	Cervical spine	Thoraco-lumbar spine

SATURATION

Scan Description	3Plane Loc	C-T-Sag T1 FLAIR DL	T-L-Sag T1 FLAIR DL	C-T-Sag T2 Fat DL	T-L-Sag T2 Fat DL	C-T Ax 2D MERGE	C-T Ax T1 DL	T-L Ax T2 DL	T-L Ax T1 .7pFOV	C-T +C Sag T1 Fat DL	T-L+C Sag T1 Fat DL	+C C-T Ax T1 Fat	+C T-L Ax T1 Fat
SAT Location A	—	A0.0	A0.0	A0.0	A0.0	—	A14.7	A14.7	A14.7	—	—	A14.7	A14.7
SAT Location P	—	A43.8	A43.8	A43.8	A43.8	—	—	—	—	—	—	—	—
Fat/Water Saturation	—	—	—	Fat	Fat	—	—	—	—	Fat	Fat	Fat	Fat

GATING / TRIGGER

Scan Description	3Plane Loc	C-T-Sag T1 FLAIR DL	T-L-Sag T1 FLAIR DL	C-T-Sag T2 Fat DL	T-L-Sag T2 Fat DL	C-T Ax 2D MERGE	C-T Ax T1 DL	T-L Ax T2 DL	T-L Ax T1 .7pFOV	C-T +C Sag T1 Fat DL	T-L+C Sag T1 Fat DL	+C C-T Ax T1 Fat	+C T-L Ax T1 Fat
Pause After Navigator Prescan	—	—	—	—	—	0	—	—	—	—	—	—	—

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.