NW
IMAGING FORUMS, INC.

PEDIATRIC MAXILLOFACIAL / EXTRACRANIAL HEAD 3T

INSTRUCTIONS AND PATIENT PREPARATION

Instructions	Maxillofacial (extracranial head) imaging with whole-brain coverage.
Position	Head first supine
Coil	Head 20 or Head 64
Patient Preparation	Landmark per department pediatric protocol — pending sign-off.
Coverage	**Whole brain** — SAG 3D T1 MPRAGE **Maxillofacial** — TRAN T2 TSE DIXON • Superior — Above frontal sinus • Inferior — Hyoid Bone • Anterior — Tip of nose • Posterior — Back of head **Cover area of interest/abnormality** — TRAN DWI, TRAN T1 VIBE DIXON PRE AND POST CONTRAST, COR T2 TSE DIXON, COR 3D T1 SPACE FS

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 3D T1 MPRAGE	Tran _T2_TSE_Dixon DR	TRANS rDWI	Tran_T1_VIBE_Dixon	Cor _T2_TSE_Dixon DR	Post Tran_T1_VIBE_Dixon	Post COR 3D T1 SPACE FS
Sequence Name	tfl	tseR	resolve	fl	tseR	fl	spcR
Mode	Single Shot	Interleaved	Interleaved	—	Interleaved	—	—
PAT Mode	GRAPPA	GRAPPA	—	None	GRAPPA	None	CS
Dimension	3D	—	2D	3D	—	3D	3D
Acceleration Factor PE	2	2	2	—	2	—	—
Acceleration Factor 3D	1	—	—	—	—	—	—

SCAN PARAMETERS

Scan Description	SAG 3D T1 MPRAGE	Tran _T2_TSE_Dixon DR	TRANS rDWI	Tran_T1_VIBE_Dixon	Cor _T2_TSE_Dixon DR	Post Tran_T1_VIBE_Dixon	Post COR 3D T1 SPACE FS
TR	1540.0 ms	4140.0 ms	4970.0 ms	5.64 ms	4040.0 ms	5.64 ms	900.0 ms
TE	2.76 ms	93.00 ms	51 ms / 84 ms	2.46 ms / 3.69 ms	84.00 ms	2.46 ms / 3.69 ms	15.00 ms
TI	900 ms	—	—	—	—	—	—
Flip Angle	15 deg	160 deg	180 deg	11 deg	160 deg	11 deg	—
Turbo Factor	132	21	—	—	21	—	44
Bandwidth	150 Hz/Px	376 Hz/Px	1063 Hz/Px	740 Hz/Px	372 Hz/Px	740 Hz/Px	434 Hz/Px
EPI Factor	—	—	74	—	—	—	—
Fat Saturation Mode	—	Strong	Strong	—	Strong	—	Strong
Fat Suppression	Standard	Dixon	Fat Saturation	Dixon	Dixon	Dixon	Fat Saturation
Gradient Mode	Normal	Normal	Fast	Fast	Normal	Fast	Fast
RF Pulse Type	Fast	Normal	Normal	Fast	Normal	Fast	Normal
Asymmetric Echo	Allowed	Off	—	Weak	Off	Weak	—

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 Siemens MRI Scanners
Pediatric

IMAGING FORUMS, INC.

ACQUISITION PARAMETERS

Scan Description	SAG 3D T1 MPRAGE	Tran _T2_TSE_Dixon DR	TRANS rDWI	Tran_T1_VIBE_Dixon	Cor _T2_TSE_Dixon DR	Post Tran_T1_VIBE_Dixon	Post COR 3D T1 SPACE FS
Base Resolution	192	416	98	160	320	160	320
Phase Resolution	100 %	75 %	100 %	90 %	75 %	90 %	100 %
Slice Resolution	75 %	—	—	75 %	—	75 %	75 %
Averages	1	1	—	1	1	1	1.0
Concatenations	1	3	1	1	3	1	1
b-value	—	—	0 s/mm²/1000 s/mm²	—	—	—	—
FoV Read	192 mm	220 mm	150 mm	130 mm	170 mm	130 mm	210 mm
FoV Phase	100.0 %	100.0 %	100.0 %	117.5 %	75.0 %	117.5 %	75.0 %
Phase Encoding Dir.	A >> P	R >> L	A >> P	R >> L	R >> L	R >> L	R >> L
Phase Oversampling	20 %	15 %	50 %	15 %	15 %	15 %	10 %
Slice Oversampling	10.0 %	—	—	55.6 %	—	55.6 %	60.0 %
Phase Partial Fourier	Off	Off	Off	Off	Off	Off	Off
Slice Partial Fourier	Off	—	—	Off	—	Off	Off
Flow Compensation	None	None	—	—	None	—	None

SCANNING RANGE

Scan Description	SAG 3D T1 MPRAGE	Tran _T2_TSE_Dixon DR	TRANS rDWI	Tran_T1_VIBE_Dixon	Cor _T2_TSE_Dixon DR	Post Tran_T1_VIBE_Dixon	Post COR 3D T1 SPACE FS
Elliptical Filter	On	Off	—	Off	Off	Off	Off
Normalize	Prescan	Prescan	Prescan	Prescan	Prescan	Prescan	Prescan
Distortion Correction	2D	2D	2D	2D	2D	2D	2D
Slice Thickness	1.00 mm	3.0 mm	3.0 mm	0.8 mm	3.0 mm	0.8 mm	0.70 mm
Distance Factor	0%	0%	0%	0%	0%	0%	—
Slices	160	45	37	144	45	144	120
Acquisition Time	3:17 min	4:22 min	3:15 min	3:05 min	2:39 min	3:05 min	3:40 min

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