PEDIATRIC FACE / NECK 3T

INSTRUCTIONS AND PATIENT PREPARATION

Instructions	No NPO requirements. Free-breathing. Instruct patient to minimize deep breathing.
Position	Supine, head first
Coil	16-channel dStream HeadNeckSpine coil
Landmark	Center at area of interest

CONTRAST AGENT PARAMETERS

Contrast Agent	Dose	Injection Rate	Dose Timing Method and Scan Delay
Gadopiclenol (VUEWAY)	0.1 mL/kg (single dose, weight-based)	Hand injection	IV placed prior to start of MRI
Saline Flush	5-10 mL	Hand injection	Following contrast
Comments	Single dose of VUEWAY 0.1 mL/kg based on patient weight; hand inject followed by 5-10 mL saline flush. Report agent administered and dose.		

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

IMAGING FORUMS, INC.

INFO PAGE

Scan Description	Survey	AXT1W HR mDIXON TSE AP	AX T2W HR mDIXON TSE AP	CO T2W HR mDIXON TSE RL	SG T2W mDIXON TSE	DWI TSE	AX T1W POST CONTRAST HR mDIXON	CO T1W POST CONTRAST HR mDIXON
Total scan duration	—	07:09.9	07:04.8	06:15.2	06:31.1	06:00.0	07:09.9	06:49.7
Rel. SNR	—	3.97524333	1.56431043	1.99498606	4.98264503	8.01198387	3.97524333	2.36037421
Act. TR(ms)	—	637	2930	2535	3180	3000	637	563
Act. TE(ms)	—	7.4	92	80	90	72	7.4	14
Act. TR/TE(ms)	—	—	—	—	—	—	—	—
Act. TR/TI(ms)	—	—	—	—	—	—	—	—
Act. TR/TE1/delta TE(ms)	—	—	—	—	—	—	—	—
ACQ matrix M x P	—	288 x 216	312 x 242	332 x 244	252 x 200	128 x 97	288 x 216	332 x 250
ACQ voxel MPS (mm)	—	0.69 / 0.93 / 3.00	0.64 / 0.83 / 3.00	0.60 / 0.82 / 3.00	0.79 / 1.00 / 4.00	1.80 / 2.01 / 4.00	0.69 / 0.93 / 3.00	0.60 / 0.80 / 3.00
REC voxel MPS (mm)	—	0.60 / 0.60 / 3.00	0.60 / 0.60 / 3.00	0.60 / 0.60 / 3.00	0.69 / 0.69 / 4.00	0.96 / 0.96 / 4.00	0.60 / 0.60 / 3.00	0.60 / 0.60 / 3.00
Scan percentage (%)	—	75	77.4038467	73.3905563	79.3650818	89.0909119	75	75.2136765
Packages	—	9	5	4	3	3	9	8
TFE shots	—	—	—	—	—	—	—	—
TFE dur. shot / acq (ms)	—	—	—	—	—	—	—	—
TFE shot interval (ms)	—	—	—	—	—	—	—	—
Min. TI delay	—	—	—	—	—	—	—	—
Min. slice gap (mm)	—	3	3	3	4	4	3	3
EPIfactor	—	—	—	—	—	—	—	—
Act.slicegap (mm)	—	0.300000012	0.300000012	0.300000012	0.400000006	—	0.300000012	0.300000012
Act. WFS (pix) / BW (Hz)	—	—	—	—	—	—	—	—
Min. WFS (pix) / Max. BW (Hz)	—	—	—	—	—	—	—	—
Min. TR/TE(ms)	—	—	—	—	—	—	—	—
Min. TR/TE1/delta TE(ms)	—	—	—	—	—	—	—	—
WFS (pix) / BW (Hz)	—	0.751 / 578.7	0.770 / 564.3	0.900 / 482.7	1.296 / 335.2	0.730 / 595.5	0.751 / 578.7	0.819 / 530.3
TSE es / shot(ms)	—	7.4 / 59	7.7 / 176	8.0 / 152	8.6 / 171	5.3 / 263	7.4 / 59	7.8 / 63
TEeff / TEequiv(ms)	—	7 / 7	92 / 76	80 / 65	90 / 72	11 / 8	7 / 7	14 / 13
Min. TR(ms)	—	637	2930	2535	3180	2806	637	563
Min. TR/TI(ms)	—	—	—	—	—	—	—	—
BW in EPI freq. dir. (Hz)	—	—	—	—	—	—	—	—
SPIR offset act./default (Hz)	—	—	—	—	—	—	—	—
Local torso SAR	—	< 62 %	< 62 %	< 62 %	< 62 %	< 39 %	< 62 %	< 62 %
Whole body SAR / level	—	< 2.0 W/kg / normal	< 2.0 W/kg / normal	< 2.0 W/kg / normal	< 2.0 W/kg / normal	< 1.3 W/kg / normal	< 2.0 W/kg / normal	< 2.0 W/kg / normal
SED	—	< 0.9 kJ/kg	< 0.8 kJ/kg	< 0.8 kJ/kg	< 0.8 kJ/kg	< 0.5 kJ/kg	< 0.9 kJ/kg	< 0.8 kJ/kg
Coil Power	—	59 %	59 %	59 %	59 %	37 %	59 %	59 %
Max B1+rms	—	1.80 uT	1.81 uT	1.80 uT	1.81 uT	1.43 uT	1.80 uT	1.81 uT
PNS / level	—	52 % / normal	49 % / normal	43 % / normal	51 % / normal	67 % / normal	52 % / normal	43 % / normal
dB/dt	—	46.7 T/s	42.9 T/s	44.7 T/s	40.7 T/s	73.2 T/s	46.7 T/s	52.2 T/s
Sound Pressure Level (dB)	—	8.7768898	9.92487717	7.83355379	9.53989029	8.34594536	8.7768898	10.8433132
Boil-off (hPa/h)	—	—	—	—	—	—	—	—
Max Boil-off (hPa/h)	—	—	—	—	—	—	—	—

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Boil-off (hPa)	—	—	—	—	—	—	—	—

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

IMAGING FORUMS, INC.

GEOMETRY

Scan Description	Survey	AXT1W HR mDIXON TSE AP	AX T2W HR mDIXON TSE AP	CO T2W HR mDIXON TSE RL	SG T2W mDIXON TSE	DWI TSE	AX T1W POST CONTRAST HR mDIXON	CO T1W POST CONTRAST HR mDIXON
Nucleus	—	—	—	—	—	—	—	—
SmartSelect	yes	yes	yes	yes	yes	yes	yes	yes
Coil 1 (exclude)	—	None	None	None	None	None	None	None
Uniformity	Classic	CLEAR	CLEAR	CLEAR	CLEAR	CLEAR	CLEAR	CLEAR
FOV AP (mm)	—	200	200	131.699997	200	230	200	131.699997
FOV FH (mm)	300	148.199997	148.199997	199.993881	200	119	148.199997	199.993881
FOV RL (mm)	300	200	200	199.993881	149.199997	195.5	200	199.993881
stack RL (mm)	—	—	—	—	—	—	—	—
ACQ voxel size AP (mm)	—	0.875912011	0.806915998	—	1	1.79999995	0.875912011	—
ACQ voxel size FH (mm)	1.171875	—	—	0.600000024	0.800000012	—	—	0.600000024
ACQ voxel size RL (mm)	1.67597795	0.699999988	0.639999986	0.760095	—	2	0.699999988	0.779999971
Slice thickness (mm)	10	3	3	3	4	4	3	3
Recon voxel size AP (mm)	—	0.59523809	0.59523809	—	0.694444418	0.958333313	0.59523809	—
Recon voxel size FH (mm)	1.171875	—	—	0.59521991	0.694444418	—	—	0.59521991
Recon voxel size RL (mm)	1.171875	0.59523809	0.59523809	0.59521991	—	0.958333313	0.59523809	0.59521991
Fold-over suppression	oversampling	no	no	oversampling	oversampling	no	no	oversampling
Slice oversampling	—	—	—	—	—	—	—	—
oversample factor	—	—	—	—	—	—	—	—
ENCASE enable	—	—	—	—	—	—	—	—
RF select. FOS	—	—	—	—	—	—	—	—
Reconstruction matrix	256	336	336	336	288	240	336	336
SENSE	no	yes	yes	yes	yes	yes	yes	yes
Preduction (AP)	—	1.5	1.5	—	2	—	1.5	—
MB SENSE	—	—	—	—	—	—	—	—
CS-SENSE	no	no	no	no	no	no	no	no
reduction	—	—	—	—	—	—	—	—
denoising	—	—	—	—	—	—	—	—
k-t Acceleration	no	no	no	no	no	no	no	no
Stacks	3	1	1	1	1	1	1	1
current	—	—	—	—	—	—	—	—
type	parallel	parallel	parallel	parallel	parallel	parallel	parallel	parallel
slices	5	45	45	40	34	24	45	40
slice gap	user defined	default	default	default	default	user defined	default	default
gap (mm)	10	—	—	—	—	1	—	—
slice orientation	coronal	transverse	transverse	coronal	sagittal	transverse	transverse	coronal
fold-over direction	RL	AP	AP	RL	AP	RL	AP	RL
fat shift direction	P	L	L	F	F	P	L	F
Minimum number of packages	1	1	1	1	1	2	1	1
Multi-chunk	—	—	—	—	—	—	—	—
Slice scan order	default	default	default	default	default	default	default	default

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Stack scan order	ascend	—	—	—	—	—	—	—
Stack sort order	no	—	—	—	—	—	—	—
O-MAR	—	no	no	no	no	no	no	no
Large table movement	no	no	no	no	no	no	no	no
Plan Align	no	no	no	no	no	no	no	no
REST slabs	0	0	0	0	0	0	0	0
type	—	—	—	—	—	—	—	—
thickness (mm)	—	—	—	—	—	—	—	—
position	—	—	—	—	—	—	—	—
gap	—	—	—	—	—	—	—	—
power	—	—	—	—	—	—	—	—
Interactive positioning	no	no	no	no	no	no	no	no
Allow table movement	—	—	—	—	—	—	—	—
Patient position	head first	head first	head first	head first	head first	head first	head first	head first
Patient body position	head first	head first	head first	head first	head first	head first	head first	head first
Patient orientation	supine	supine	supine	supine	supine	supine	supine	supine
Patient body orientation	supine	supine	supine	supine	supine	supine	supine	supine

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Pediatric

IMAGING FORUMS, INC.

CONTRAST

Scan Description	Survey	AXT1W HR mDIXON TSE AP	AX T2W HR mDIXON TSE AP	CO T2W HR mDIXON TSE RL	SG T2W mDIXON TSE	DWI TSE	AX T1W POST CONTRAST HR mDIXON	CO T1W POST CONTRAST HR mDIXON
Scan type	Imaging	Imaging	Imaging	Imaging	Imaging	Imaging	Imaging	Imaging
Scan mode	MS	MS	MS	MS	MS	MS	MS	MS
technique	FFE	SE	SE	SE	SE	SE	SE	SE
Modified SE	—	no	no	no	no	no	no	no
3D non-selective	—	—	—	—	—	—	—	—
loop order	—	—	—	—	—	—	—	—
Contrast enhancement	no	—	—	—	—	—	—	—
Acquisition mode	cartesian	cartesian	cartesian	cartesian	cartesian	cartesian	cartesian	cartesian
Fast Imaging mode	none	TSE	TSE	TSE	TSE	TSE	TSE	TSE
3D VIEW	—	—	—	—	—	—	—	—
shot mode	—	multishot	multishot	multishot	multishot	single-shot	multishot	multishot
TFE factor	—	—	—	—	—	—	—	—
TSE factor	—	8	23	19	20	49	8	8
startup echoes	—	0	0	0	0	1	0	0
shot interval	—	—	—	—	—	—	—	—
profile order	—	asymmetric	linear	linear	linear	low_high	asymmetric	asymmetric
turbo direction	—	—	—	—	—	—	—	—
DRIVE	—	no	no	no	no	no	no	no
ultrashort	—	no	no	no	yes	no	no	yes
shift	—	—	—	—	—	—	—	—
fid reduction	—	default	default	default	default	strong	default	default
Echoes	1	1	1	1	1	1	1	1
partial echo	yes	no	no	no	no	no	no	no
shifted echo	no	—	—	—	—	—	—	—
TE	shortest	shortest	shortest	user defined	user defined	shortest	shortest	user defined
(ms)	—	—	—	80	90	—	—	14
echospacing	—	shortest	—	—	—	—	shortest	shortest
(ms)	—	—	—	—	—	—	—	—
flyback	—	—	—	—	—	—	—	—
Flip angle (deg)	45	90	100	90	90	90	90	90
Refocusing control	—	constant	constant	constant	constant	constant	constant	constant
angle (deg)	—	100	105	100	100	50	100	90
bright fat reduction	—	no	no	no	no	no	no	no
TR	shortest	range	range	range	range	user defined	range	range
(ms)	—	—	—	—	—	3000	—	—
minimum (ms)	—	400	2500	2500	2500	—	400	450
maximum (ms)	—	650	3500	3500	3500	—	650	650
Halfscan	no	no	no	no	no	no	no	no
factor	—	—	—	—	—	—	—	—
factor Y	—	—	—	—	—	—	—	—

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factor Z	—	—	—	—	—	—	—	—
Water-fat shift	maximum	maximum	maximum	maximum	maximum	user defined	maximum	maximum
(pixels)	—	—	—	—	—	2	—	—
IR delay (ms)	—	—	—	—	—	—	—	—
dual	—	—	—	—	—	—	—	—
power	—	—	—	—	—	—	—	—
RF Shims	fixed	fixed	fixed	fixed	fixed	fixed	fixed	fixed
Shim	default	default	default	default	default	auto	default	default
mDIXON	no	yes	yes	yes	yes	no	yes	yes
Fat suppression	no	no	no	no	no	SPIR	no	no
strength	—	—	—	—	—	strong	—	—
power	—	—	—	—	—	—	—	—
inversion delay	—	—	—	—	—	—	—	—
suppr. level	—	—	—	—	—	—	—	—
frequency offset	—	—	—	—	—	default	—	—
offset (Hz)	—	—	—	—	—	—	—	—
Grad Rev Fat suppr	—	no	no	no	no	no	no	no
Water suppression	no	no	no	no	no	no	no	no
TFE prepulse	—	—	—	—	—	—	—	—
slice selection	—	—	—	—	—	—	—	—
delay	—	—	—	—	—	—	—	—
(ms)	—	—	—	—	—	—	—	—
BB pulse	—	no	no	no	no	no	no	no
MTC	no	no	no	no	no	no	no	no
T2prep	—	—	—	—	—	—	—	—
echo time(ms)	—	—	—	—	—	—	—	—
refocusing pulses	—	—	—	—	—	—	—	—
APT	—	no	no	no	no	no	no	no
Custom prepulse	no	no	no	no	no	no	no	no
MDME	no	no	no	no	no	no	no	no
Diffusion mode	no	no	no	no	no	DWI	no	no
sequence	—	—	—	—	—	—	—	—
gradient expert mode	—	—	—	—	—	—	—	—
gradient overplus	—	—	—	—	—	yes	—	—
direction	—	—	—	—	—	—	—	—
nr of b-factors	—	—	—	—	—	2	—	—
b-factor order	—	—	—	—	—	ascending	—	—
max b-factor	—	—	—	—	—	1000	—	—
average high b	—	—	—	—	—	yes	—	—
T1 mapping	no	no	no	no	no	no	no	no
Transmit channels	both	both	both	both	both	both	both	both
SAR mode	high	high	high	high	high	high	high	high

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B1 mode	user defined	default	default	default	default	default	default	default
SAR allow first level	no	no	no	no	no	no	no	no
Patient pregnancy	no	no	no	no	no	no	no	no
Patient WB SAR [W/kg]	3.82999992	3.82999992	3.82999992	3.82999992	3.82999992	3.82999992	3.82999992	3.82999992
Patient Head SAR [W/kg]	0	0	0	0	0	0	0	0
Patient max. dB/dt [T/s]	0	0	0	0	0	0	0	0
Max slewrate [T/m/s]	0	0	0	0	0	0	0	0
Max. B1+rms [uT]	0	0	0	0	0	0	0	0
PNS mode	low	low	low	low	low	high	low	low
Gradient mode	default	default	default	default	default	maximum	default	default
SofTone mode	no	no	no	no	no	no	no	no

MOTION

Scan Description	Survey	AXT1W HR mDIXON TSE AP	AX T2W HR mDIXON TSE AP	CO T2W HR mDIXON TSE RL	SG T2W mDIXON TSE	DWI TSE	AX T1W POST CONTRAST HR mDIXON	CO T1W POST CONTRAST HR mDIXON
Cardiac synchronization	no	no	no	no	no	no	no	no
Heart rate > 250 bpm	no	no	no	no	no	no	no	no
Respiratory compensation	no	no	no	no	no	no	no	no
Navigator respiratory comp	no	no	no	no	no	no	no	no
Flow compensation	no	no	no	no	no	no	no	no
Temporal slice spacing	default	default	default	default	default	default	default	default
Motion smoothing	—	yes	yes	yes	yes	no	yes	yes
fMRI echo stabilisation	no	—	—	—	—	—	—	—
NSA	1	2	2	2	2	4	2	2
MRE enable	no	no	no	no	no	no	no	no

DYNAMIC ANGIO

Scan Description	Survey	AXT1W HR mDIXON TSE AP	AX T2W HR mDIXON TSE AP	CO T2W HR mDIXON TSE RL	SG T2W mDIXON TSE	DWI TSE	AX T1W POST CONTRAST HR mDIXON	CO T1W POST CONTRAST HR mDIXON
Angio / Contrast enh.	no	—	—	—	—	—	—	—
Quantitative flow	no	—	—	—	—	—	—	—
CENTRA	—	—	—	—	—	—	—	—
Manual start	no	no	no	no	no	no	no	no
Dynamic study	no	no	no	no	no	no	no	no
Arterial Spin labeling	no	no	no	no	no	no	no	no

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POST PROCESSING

Scan Description	Survey	AXT1W HR mDIXON TSE AP	AX T2W HR mDIXON TSE AP	CO T2W HR mDIXON TSE RL	SG T2W mDIXON TSE	DWI TSE	AX T1W POST CONTRAST HR mDIXON	CO T1W POST CONTRAST HR mDIXON
Preparation phases	auto	auto	auto	auto	auto	auto	auto	auto
Interactive F0	no	no	no	no	no	no	no	no
Quick Survey	default	default	default	default	default	default	default	default
SmartPlan survey	no	no	no	no	no	no	no	no
B0 field map	no	no	no	no	no	no	no	no
B1 field map	no	no	no	no	no	no	no	no
MIP/MPR	no	no	no	no	no	no	no	no
SWIp	no	—	—	—	—	—	—	—
Images	no	—	—	—	—	no	—	—
Autoview image	M	—	—	—	—	M	—	—
Calculated images	no	—	—	—	—	no	—	—
Reference tissue	Skeletal muscle	Skeletal muscle	Skeletal muscle	Skeletal muscle	Skeletal muscle	Grey matter	Skeletal muscle	Skeletal muscle
Recon compression	No	No	No	No	No	No	No	No
Preset window contrast	soft	soft	soft	soft	soft	soft	soft	soft
Reconstruction mode	immediate	immediate	immediate	immediate	immediate	real time	immediate	immediate
Save raw data	no	no	no	no	no	no	no	no
Hardcopy protocol	no	no	no	no	no	no	no	no
Image filter	system default	system default	system default	system default	system default	system default	system default	system default
Uniformity correction	no	no	no	no	no	no	no	no
Geometry correction	default	default	default	default	default	default	default	default
EPI geometry correction	—	—	—	—	—	—	—	—
ADC correction	—	—	—	—	—	no	—	—
Elliptical k-space shutter	—	—	—	—	—	—	—	—
Free rotatable	no	no	no	no	no	no	no	no

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