CERVICAL SPINE WITH/WITHOUT IV CONTRAST 3T R5.6

INSTRUCTIONS AND PATIENT PREPARATION

Instructions	Patient change into hospital issued gown and pants
Position	Supine head first
Coil	Posterior Coil with dStream Torso Coil OR NVArray Coil
Landmark	Chin

CONTRAST AGENT PARAMETERS

Contrast Agent	Dose	Injection Rate
Gadopiclenol (VUEWAY)	0.05 mmol/kg	Hand Bolus
Saline Flush	10-20 mL	Hand Flush
Comments	• Gadolinium optional. Contrast use is recommended for possible spinal cord tumor, inflammation, or extra-axial spine tumor or in the setting of postoperative spine • If available, use mDIXON XD Fat Sat technique for the postcontrast scans	

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MR Gadopiclenol (VUEWAY®) Protocol for Philips Healthcare Systems
Central Nervous System

IMAGING FORUMS, INC.

INFO PAGE

Scan Description	LOCALIZER	SAGITTAL T1	SAGITTAL T2	SAGITTAL T2 Fat Sat	AXIAL T2	AXIAL T1	SAGITTAL T1 +C Fat Sat	AXIAL T1 +C
Total scan duration	00:33.8	—	04:09.6	04:51.4	—	—	02:32.7	—
Rel. SNR	1.2	—	0.4	0.7	—	—	2.1	—
Act. TR (ms)	—	—	3618	3237	—	—	525	—
Act. TE (ms)	—	—	100	70	—	—	10	—
Act. TR/TE (ms)	9.3 / 5.4	—	—	—	—	—	—	—
ACQ matrix M x P	240 x 200	—	268 x 295	268 x 295	—	—	168 x 239	—
ACQ voxel MPS (mm)	1.25 / 1.50 / 10.00	—	0.60 / 0.82 / 3.00	0.60 / 0.81 / 3.00	—	—	0.89 / 1.00 / 3.00	—
REC voxel MPS (mm)	0.94 / 0.94 / 10.00	—	0.43 / 0.43 / 3.00	0.50 / 0.50 / 3.00	—	—	0.47 / 0.47 / 3.00	—
Scan percentage (%)	83	—	73	73	—	—	89	—
Packages	3	—	3	3	—	—	3	—
Min. slice gap (mm)	0	—	3	3	—	—	3	—
Act. slice gap (mm)	—	—	0.3	0.3	—	—	0.3	—
Optimal slices	—	—	8	8	—	—	8	—
TFE factor	400	—	—	—	—	—	—	—
TFE dur. shot / acq (ms)	3750.9 / 3713.8	—	—	—	—	—	—	—
Act. WFS (pix) / BW (Hz)	0.817 / 531.5	—	—	—	—	—	—	—
Min. WFS (pix) / Max. BW (Hz)	0.817 / 531.5	—	—	—	—	—	—	—
WFS (pix) / BW (Hz)	—	—	1.132 / 383.9	1.071 / 405.6	—	—	2.079 / 209.0	—
Full flow comp.	—	—	no	no	—	—	no	—
TSE es / shot (ms)	—	—	8.0 / 192	7.8 / 132	—	—	10.0 / 40	—
TEeff / TEequiv (ms)	—	—	—	—	—	—	10 / 10	—
Min. TR (ms)	—	—	3618	3237	—	—	525	—
SPAIR offset act./default (Hz)	—	—	—	200 [220]	—	—	—	—
Local torso SAR	< 11 %	—	< 100 %	< 100 %	—	—	< 100 %	—
Whole body SAR / level	< 0.3 W/kg / normal	—	< 2.3 W/kg / 1st level	< 2.3 W/kg / 1st level	—	—	< 2.7 W/kg / 1st level	—
SED	0.0 kJ/kg	—	< 0.6 kJ/kg	< 0.7 kJ/kg	—	—	< 0.4 kJ/kg	—
Coil Power	—	—	48%	0.48	—	—	80%	—
Max B1+rms	0.55 uT	—	1.62 uT	1.65 uT	—	—	2.09 uT	—
PNS / level	10 % / normal	—	51 % / normal	53 % / normal	—	—	59 % / normal	—
dB/dt	15.4 T/s	—	45.6 T/s	47.6 T/s	—	—	42.4 T/s	—
Sound Pressure Level (dB)	2.3	—	19.8	15.3	—	—	16.6	—

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NW IMAGING FORUMS, INC.

GEOMETRY

Scan Description	LOCALIZER	SAGITTAL T1	SAGITTAL T2	SAGITTAL T2 Fat Sat	AXIAL T2	AXIAL T1	SAGITTAL T1 +C Fat Sat	AXIAL T1 +C
SmartSelect	yes	yes	yes	yes	yes	yes	yes	yes
Coil 1 (exclude)	—	None	None	None	None	None	None	None
Uniformity	—	CLEAR	CLEAR	CLEAR	CLEAR	CLEAR	CLEAR	CLEAR
FOV AP (mm)	—	159	160	160	180	180	150	180
FOV FH (mm)	300	240	241	240	151	151	240	151
FOV RL (mm)	300	39	39	39	180	180	39	180
FOV (mm)	(2) 32, (18) 40	—	—	—	—	—	—	—
ACQ voxel size AP (mm)	—	1	0.6	0.6	0.8	0.8	0.9	0.8
ACQ voxel size FH (mm)	1.3	0.8	0.8	0.8	—	—	1	—
ACQ voxel size RL (mm)	1.5	—	—	—	1	1	—	1
lice thickness (mm)	10	3	3	3	3	3	3	3
Bar orientation	RL	—	—	—	—	—	—	—
VOI orientation	transverse	—	—	—	—	—	—	—
VOI size AP (mm)	30	—	—	—	—	—	—	—
VOI size FH (mm)	30	—	—	—	—	—	—	—
VOI size RL (mm)	30	—	—	—	—	—	—	—
Recon voxel size AP (mm)	—	0.5	0.4	0.5	0.5	0.5	0.5	0.5
Recon voxel size FH (mm)	0.9	0.5	0.4	0.5	—	—	0.5	—
Recon voxel size RL (mm)	0.9	—	—	—	0.5	0.5	—	0.5
Fold-over suppression	oversampling	oversampling	oversampling	oversampling	oversampling	oversampling	oversampling	oversampling
A (mm)	—	50	—	—	—	—	—	—
F (mm)	—	—	200	200	—	—	195	—
H (mm)	—	—	200	200	—	—	165	—
L (mm)	150	—	—	—	90	90	—	90
P (mm)	—	20	—	—	—	—	—	—
R (mm)	150	—	—	—	90	90	—	90
Reconstruction matrix	320	512	560	480	384	384	512	384
SENSE	no	no	no	no	no	no	no	no
CS-SENSE	no	yes	yes	yes	yes	yes	yes	yes
reduction	—	1.3	1.5	1.6	2	2	1.6	2
denoising	—	system default	system default	system default	system default	system default	system default	system default
k-t Acceleration	no	no	no	no	no	no	no	no
Stacks	3	1	1	1	1	1	1	1
type	(20) parallel	parallel	parallel	parallel	parallel	parallel	parallel	parallel
Slices	(20) 3	12	12	12	38	38	12	38
slice gap	user defined	default	default	default	user defined	user defined	default	user defined
gap (mm)	(2) 1, (18) 5	—	—	—	1	1	—	1
Slice orientation	coronal, sagittal, (18) transverse	sagittal	sagittal	sagittal	transverse	transverse	sagittal	transverse
Fold-over direction	RL, FH, (18) AP	AP	FH	FH	RL	RL	FH	RL
Fat shift direction	F, P, (18) L	F	P	P	P	P	P	P
radial axis	RL, (2) AP, (17) RL	—	—	—	—	—	—	—

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radial angle (deg)	(20) 0	—	—	—	—	—	—	—
Stacks as packages	yes	—	—	—	—	—	—	—
Minimum number of packages	1	1	1	1	1	1	1	1
Slice scan order	default	default	default	default	default	default	interleaved	default
Stack scan order	ascend	—	—	—	—	—	—	—
Move table per stack	no	—	—	—	—	—	—	—
O-MAR	—	no	no	no	no	no	no	no
Large table movement	no	no	no	no	no	no	no	no
Stack alignment	no	—	—	—	—	—	—	—
Stack sort order	no	—	—	—	—	—	—	—
PlanAlign	yes	yes	no	no	yes	yes	yes	yes
REST slabs	0	1	0	0	0	0	1	0
type	—	free	—	—	—	—	free	—
orientation	—	coronal	—	sagittal	—	—	coronal	—
thickness (mm)	—	59.6	—	—	—	—	59.6	—
power	—	1	—	—	—	—	1	—
orientation	—	—	—	—	—	—	sagittal	—
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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Central Nervous System

IMAGING FORUMS, INC.

CONTRAST

Scan Description	LOCALIZER	SAGITTALT1	SAGITTALT2	SAGITTALT2 Fat Sat	AXIALT2	AXIALT1	SAGITTALT1 +C Fat Sat	AXIALT1 +C
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
Contrast enhancement	T1	—	—	—	—	—	—	—
Modified SE	—	no	no	no	no	no	no	no
Acquisition mode	cartesian	cartesian	cartesian	cartesian	cartesian	cartesian	cartesian	cartesian
Fast Imaging mode	TFE	TSE	TSE	TSE	TSE	TSE	TSE	TSE
shot mode	single-shot	multishot	multishot	multishot	multishot	multishot	multishot	multishot
TSE factor	—	4	24	17	4	4	4	4
TE spacing	—	user defined	—	—	user defined	user defined	user defined	user defined
(ms)	—	8	—	—	10	10	10	10
TFE startup echoes	default	—	—	—	—	—	—	—
startup echoes	—	—	—	—	—	—	—	—
profile order	linear	asymmetric	linear	linear	asymmetric	asymmetric	asymmetric	asymmetric
DRIVE	—	no	no	no	no	no	no	no
ultrashort	—	yes	yes	yes	yes	yes	yes	yes
fid reduction	—	strong	strong	strong	default	default	strong	default
Echoes	1	1	1	1	1	1	1	1
partial echo	no	no	no	no	no	no	no	no
shifted echo	no	—	—	—	—	—	—	—
TE	shortest	shortest	user defined	user defined	shortest	shortest	shortest	shortest
(ms)	—	—	100	70	—	—	—	—
Flip angle (deg)	20	90	90	90	90	90	90	90
Refocusing control	—	constant	no	no	constant	constant	constant	constant
angle (deg)	—	120	—	—	105	105	120	105
TR	shortest	range	range	range	range	range	range	range
minimum (ms)	—	400	3000	3000	400	400	350	400
maximum (ms)	—	600	5000	4000	600	600	650	600
Halfscan	no	no	no	no	no	no	no	no
Water-fat shift	minimum	maximum	user defined	user defined	maximum	maximum	maximum	maximum
(pixels)	—	—	1.2	1.2	—	—	—	—
RF Shims	—	adaptive	adaptive	adaptive	adaptive	adaptive	adaptive	adaptive
Shim	—	default	default	volume	default	default	volume	default
ShimAlign	—	—	—	no	—	—	no	—
mDIXON	no	no	no	no	no	no	no	no
Fat suppression	no	no	no	SPAIR	no	no	SPAIR	no
power	—	—	—	2	—	—	1	—
inversion delay	—	—	—	auto	—	—	auto	—
suppr. level	—	—	—	strong	—	—	strong	—
frequency offset	—	—	—	user defined	—	—	default	—
Water suppression	no	no	no	no	no	no	no	no
BB pulse	—	no	no	no	no	no	no	no

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TFE prepulse	no	—	—	—	—	—	—	—
MTC	no	no	no	no	no	no	no	no
Diffusion mode	no	no	no	no	no	no	no	no
T1 mapping	no	no	no	no	no	no	no	no
SAR mode	low	high	high	high	high	high	high	high
B1 mode	default	user defined	default	default	user defined	user defined	user defined	user defined
amplitude (uT)	—	10	—	—	10	10	10	10
SAR allow first level	yes	yes	yes	yes	yes	yes	yes	yes
Patient pregnancy	no	no	no	no	no	no	no	no
Patient WB SAR [W/kg]	—	—	—	—	—	—	—	—
Patient Head SAR [W/kg]	—	—	—	—	—	—	—	—
Patient max. dB/dt [T/s]	—	—	—	—	—	—	—	—
Max slewrate [T/m/s]	—	—	—	—	—	—	—	—
Max. B1+rms [uT]	—	—	—	—	—	—	—	—
PNS mode	low	low	low	low	low	low	low	low
Gradient mode	regular	default	default	default	default	default	default	default
SofTone mode	yes	no	no	no	no	no	no	no

MOTION

Scan Description	LOCALIZER	SAGITTAL T1	SAGITTAL T2	SAGITTAL T2 Fat Sat	AXIAL T2	AXIAL T1	SAGITTAL T1 +C Fat Sat	AXIAL T1 +C
Cardiac synchronization	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	sensitized	sensitized	sensitized	no	no	sensitized	no
Temporal slice spacing	default	default	default	default	default	default	default	default
fMRI echo stabilisation	no	—	—	—	—	—	—	—
Motion smoothing	—	yes	yes	yes	yes	yes	yes	yes
NSA	1	3	1	1	1	1	1	1
SMART	—	yes	—	—	—	—	—	—
MRE enable	no	no	no	no	no	no	no	no

DYNAMIC ANGIO

Scan Description	LOCALIZER	SAGITTAL T1	SAGITTAL T2	SAGITTAL T2 Fat Sat	AXIAL T2	AXIAL T1	SAGITTAL T1 +C Fat Sat	AXIAL T1 +C
Angio / Contrast enh.	no	—	—	—	—	—	—	—
Quantitative flow	no	—	—	—	—	—	—	—
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	LOCALIZER	SAGITTAL T1	SAGITTAL T2	SAGITTAL T2 Fat Sat	AXIAL T2	AXIAL T1	SAGITTAL T1 +C Fat Sat	AXIAL T1 +C
Preparation phases	no	auto	auto	auto	auto	auto	full	auto
Interactive F0	—	no	no	no	no	no	select	no
Quick Survey	default	default	default	default	default	default	default	default
B0 field map	no	no	no	no	no	no	no	no
MIP/MPR	no	no	no	no	no	no	no	no
SWIp	no	—	—	—	—	—	—	—
Images	M, (3) no	M, (3) no	M, (3) no	M, (3) no	M, (3) no	M, (3) no	M, (3) no	M, (3) no
Autoview image	M	M	M	M	M	M	M	M
Calculated images	(4) no	(4) no	(4) no	(4) no	(4) no	(4) no	(4) no	(4) no
Reference tissue	Skeletal muscle	Skeletal muscle	Skeletal muscle	Skeletal muscle	Skeletal muscle	Skeletal muscle	Skeletal muscle	Skeletal muscle
Recon compression	No	No	No	No	No	No	No	No
Preset window contrast	hard	hard	intermediate	intermediate	hard	hard	hard	hard
Reconstruction mode	real time	real time	real time	real time	real time	real time	real time	real time
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
Free rotatable	no	no	no	no	no	no	no	no
IF_info_seperator	1634755923	1634755923	1634755923	1634755923	1634755923	1634755923	0	1634755923

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