ORBITS WITH/WITHOUT IV CONTRAST 1.5T R5.6

INSTRUCTIONS AND PATIENT PREPARATION

Instructions	• Change patient into hospital issued gown and pants • 20- to 22-gauge IV access preferred
Position	Supine, head first
Coil	15 channel head coil
Landmark	Glabella

CONTRAST AGENT PARAMETERS

Contrast Agent	Dose	Injection Rate
Gadopiclenol (VUEWAY)	0.05 mmol/kg	1-2 mL/sec
Saline Flush	10 mL	1-2 mL/sec
Comments	• Axial coverage - inferior margin of orbital rim to superior margin of orbital rim, angled with orbital segments of the optic nerves • Coronal coverage - Anterior margin of globe to anterior surface of pons, perpendicular to axis of the orbital segment of the optic nerves	

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

IMAGING FORUMS, INC.

INFO PAGE

Scan Description	Survey Orbits	AXIAL T1	AXIAL STIR	CORONAL T1	CORONAL T2	CORONAL STIR	Cisternogram	Source DTI	AXIAL T1 +C Fat Sat	CORONAL T1 +C Fat Sat
Total scan duration	00:31.4	—	—	—	01:21.6	02:30.0	04:42.0	02:08.4	04:29.8	04:30.5
Rel. SNR	1	—	—	—	1	1	1	1	1	1
Act. TR (ms)	—	—	—	—	4798	—	1200	7136	500	632
Act. TR/TI (ms)	—	—	—	—	—	3000 / 180	—	—	—	—
Act. TR/TE (ms)	15 / 5.2	—	—	—	—	—	—	—	—	—
Act. TE (ms)	—	—	—	—	80	15	159	74	16	23
ACQ matrix M x P	256 x 126	—	—	—	300 x 241	300 x 254	320 x 300	112 x 111	240 x 224	212 x 194
ACQ voxel MPS (mm)	0.98 / 1.98 / 10.0	—	—	—	0.60 / 0.75 / 3.00	0.60 / 0.71 / 3.00	0.50 / 0.53 / 1.00	2.00 / 2.02 / 3.00	0.75 / 0.80 / 3.00	0.85 / 0.93 / 3.00
REC voxel MPS (mm)	0.98 / 0.98 / 10.0	—	—	—	0.40 / 0.40 / 3.00	0.35 / 0.35 / 3.00	0.31 / 0.31 / 0.50	1.00 / 1.00 / 3.00	0.40 / 0.40 / 3.00	0.40 / 0.40 / 3.00
Scan percentage (%)	49	—	—	—	80	85	94	99	93	92
Packages	—	—	—	—	1	2	—	1	3	4
Min. slice gap (mm)	—	—	—	—	0	3	—	0	3	3
Act. slice gap (mm)	—	—	—	—	0.3	—	-0.5	—	0.3	0.3
Optimal slices	—	—	—	—	—	—	—	—	20	16
Max. slices	—	—	—	—	—	—	—	—	—	32
EPI factor	—	—	—	—	—	—	—	111	—	—
WFS (pix) / BW (Hz)	—	—	—	—	0.626 / 347.2	1.043 / 208.3	0.492 / 441.4	20.105 / 10.8	0.325 / 667.7	0.306 / 710.4
BW in EPI freq. dir. (Hz)	—	—	—	—	—	—	—	1579	—	—
TSE es / shot (ms)	—	—	—	—	8.4 / 152	8.0 / 96	8.8 / 318	—	7.9 / 24	7.7 / 38
TEeff / TEequiv (ms)	—	—	—	—	80 / 65	—	159 / 141	—	—	—
Min. TR (ms)	—	—	—	—	4798	—	331	—	500	632
Min. TR/TI (ms)	—	—	—	—	—	2312 / 50	—	—	—	—
TFE shots	3	—	—	—	—	—	—	—	—	—
TFE dur. shot / acq (ms)	698.5 / 630.0	—	—	—	—	—	—	—	—	—
TFE shot interval (ms)	698.5	—	—	—	—	—	—	—	—	—
Min. TI delay	373.6	—	—	—	—	—	—	—	—	—
Act. WFS (pix) / BW (Hz)	1.161 / 187.1	—	—	—	—	—	—	—	—	—
Min. WFS (pix) / Max. BW (Hz)	0.525 / 413.8	—	—	—	—	—	—	—	—	—
Min. TR/TE (ms)	10 / 5.2	—	—	—	—	—	—	—	—	—
Local torso SAR	< 9 %	—	—	—	< 83 %	< 60 %	< 19 %	< 15 %	< 75 %	< 75 %
Whole body SAR / level	< 0.2 W/kg / normal	—	—	—	< 2.1 W/kg / 1st level	< 1.5 W/kg / normal	< 0.5 W/kg / normal	< 0.4 W/kg / normal	< 1.9 W/kg / normal	< 1.9 W/kg / normal
SED	0.0 kJ/kg	—	—	—	< 0.2 kJ/kg	< 0.2 kJ/kg	< 0.1 kJ/kg	0.0 kJ/kg	< 0.5 kJ/kg	< 0.5 kJ/kg
Max B1+rms	1.05 uT	—	—	—	3.12 uT	3.32 uT	1.83 uT	1.39 uT	3.11 uT	3.11 uT
PNS / level	17 % / normal	—	—	—	48 % / normal	45 % / normal	57 % / normal	60 % / normal	48 % / normal	46 % / normal
dB/dt	12.8 T/s	—	—	—	45.4 T/s	37.9 T/s	51.1 T/s	56.4 T/s	42.0 T/s	42.5 T/s
Sound Pressure Level (dB)	-3.8	—	—	—	10.5	10	11.6	10.1	12.1	11.5

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

IMAGING FORUMS, INC.

GEOMETRY

Scan Description	Survey Orbits	AXIAL T1	AXIAL STIR	CORONAL T1	CORONAL T2	CORONAL STIR	Cisternogram	Source DTI	AXIAL T1 +C Fat Sat	CORONAL T1 +C Fat Sat
SmartSelect	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Uniformity	—	CLEAR	CLEAR	CLEAR	CLEAR	CLEAR	CLEAR	CLEAR	CLEAR	CLEAR
FOV AP (mm)	250	180	180	99	99	102	160	224	180	99
FOV (mm)	50, 76, 50, (17) 10	—	—	—	—	—	—	—	—	—
FOV FH (mm)	250	99	99	180	180	180	55	150	99	180
FOV RL (mm)	—	180	180	180	180	180	160	224	180	180
ACQ voxel size AP (mm)	2	0.7	0.7	—	—	—	0.5	2	0.8	—
ACQ voxel size FH (mm)	1	—	—	0.7	0.6	0.6	1	—	—	0.9
ACQ voxel size RL (mm)	—	0.7	0.9	0.8	0.7	0.6	0.5	2	0.8	0.9
Slice thickness (mm)	10	3	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)	1	0.4	0.6	—	—	—	0.3	1	0.4	—
Recon voxel size FH (mm)	1	—	—	0.4	0.4	0.4	0.5	—	—	0.4
Recon voxel size RL (mm)	—	0.4	0.6	0.4	0.4	0.4	0.3	1	0.4	0.4
Fold-over suppression	no	no	no	no	no	oversampling	no	no	no	no
A (mm)	50	—	—	—	—	—	—	—	—	—
L (mm)	—	—	—	—	—	10	—	—	—	—
P (mm)	50	—	—	—	—	—	—	—	—	—
R (mm)	—	—	—	—	—	10	—	—	—	—
Slice oversampling	—	—	—	—	—	—	default	—	—	—
Reconstruction matrix	256	448	320	448	448	512	512	224	448	448
SENSE	no	no	no	no	no	no	no	no	no	no
CS-SENSE	no	yes	yes	yes	yes	yes	yes	no	yes	yes
reduction	—	2	1.7	2	1.7	2	3.5	—	1.7	1.5
denoising	—	system default	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	no	no
Stacks	3	1	1	1	1	1	1	1	1	1
type	(20) parallel	parallel	parallel	parallel	parallel	parallel	—	parallel	parallel	parallel
Slices	(3) 3, (17) 1	30	30	30	30	30	110	50	30	30
slice gap	user defined	default	default	default	default	user defined	—	user defined	default	default
gap (mm)	10, 22.95, (18) 10	—	—	—	—	0.4	—	0	—	—
Slice orientation	sagittal, coronal, (18) transverse	transverse	transverse	coronal	coronal	coronal	transverse	transverse	transverse	coronal
Fold-over direction	AP, (19) RL	RL	RL	RL	RL	RL	RL	AP	RL	RL
Fat shift direction	(2) F, (18) P	P	P	F	F	F	P	P	P	F
radial axis	AP, RL, AP, (17) RL	—	—	—	—	—	—	—	—	—
radial angle (deg)	(20) 0	—	—	—	—	—	—	—	—	—
Multi-chunk	—	—	—	—	—	—	no	—	—	—

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Minimum number of Packages	—	1	1	1	1	1	—	1	1	1
Slice scan order	default	default	default	default	default	default	—	default	default	default
Stack scan order	ascend	—	—	—	—	—	—	—	—	—
O-MAR	—	no	no	no	no	no	no	—	no	no
Move table per stack	no	—	—	—	—	—	—	—	—	—
Large table movement	no	no	no	no	no	no	no	no	no	no
Stack alignment	no	—	—	—	—	—	—	—	—	—
Stack sort order	no	—	—	—	—	—	—	—	—	—
PlanAlign	no	no	no	no	no	no	no	no	no	no
REST slabs	0	0	0	0	0	0	1	0	0	0
type	—	—	—	—	—	—	parallel	—	—	—
thickness (mm)	—	—	—	—	—	—	40	—	—	—
position	—	—	—	—	—	—	feet	—	—	—
gap	—	—	—	—	—	—	default	—	—	—
orientation	—	—	—	—	—	—	—	—	—	coronal
Interactive positioning	no	no	no	no	no	no	no	no	no	no
Patient position	head first	head first	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	head first	head first
Patient orientation	supine	supine	supine	supine	supine	supine	supine	supine	supine	supine
Patient body orientation	supine	supine	supine	supine	supine	supine	supine	supine	supine	supine

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

IMAGING FORUMS, INC.

CONTRAST

Scan Description	SurveyOrbits	AXIALT1	AXIALSTIR	CORONALT1	CORONALT2	CORONALSTIR	Cisternogram	SourceDTI	AXIALT1 +C Fat Sat	CORONALT1 +C Fat Sat
Scan type	Imaging	Imaging	Imaging	Imaging	Imaging	Imaging	Imaging	Imaging	Imaging	Imaging
Scan mode	M2D	MS	MS	MS	MS	MS	3D	MS	MS	MS
technique	FFE	SE	IR	SE	SE	IR	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	cartesian	cartesian
Fast Imaging mode	TFE	TSE	TSE	TSE	TSE	TSE	TSE	EPI	TSE	TSE
3D VIEW	—	—	—	—	—	—	no	—	—	—
shot mode	multishot	multishot	multishot	multishot	multishot	multishot	multishot	single-shot	multishot	multishot
TSE factor	—	3	5	3	18	12	35	—	3	5
TE spacing	—	—	—	—	—	user defined	—	—	—	—
(ms)	—	—	—	—	—	8	—	—	—	—
TFE factor	42	—	—	—	—	—	—	—	—	—
startup Echoes	default	—	—	—	—	—	—	—	—	—
shot interval	shortest	—	—	—	—	—	—	—	—	—
profile order	linear	linear	low_high	linear	linear	asymmetric	linear	—	linear	linear
turbo direction	—	—	—	—	—	—	radial	—	—	—
DRIVE	—	no	no	no	no	no	yes	—	no	no
ultrashort	—	no	no	no	no	no	yes	—	no	no
fid reduction	—	default	default	default	default	default	default	—	default	default
3D non-selective	—	—	—	—	—	—	no	—	—	—
Echoes	1	1	1	1	1	1	1	1	1	1
partial echo	no	no	no	no	no	no	no	no	no	no
shifted echo	no	—	—	—	—	—	—	—	—	—
TE	shortest	user defined	user defined	shortest	user defined	user defined	shortest	user defined	shortest	shortest
(ms)	—	15	15	—	80	15	—	74	—	—
Flip angle (deg)	20	69	—	69	90	—	90	90	69	69
Refocusing control	—	no	no	no	constant	no	constant	—	no	no
angle (deg)	—	—	—	—	100	—	120	—	—	—
TR	user defined	range	range	range	range	range	user defined	shortest	range	range
(ms)	15	—	—	—	—	—	1200	—	—	—
minimum (ms)	—	400	3000	400	3000	3000	—	—	400	400
maximum (ms)	—	750	6000	700	7000	6500	—	—	700	700
Halfscan	no	no	no	no	no	no	—	yes	no	no
factor	—	—	—	—	—	—	—	0.6	—	—
Water-fat shift	maximum	maximum	maximum	maximum	maximum	maximum	maximum	minimum	maximum	maximum
IR delay (ms)	—	—	180	—	—	180	—	—	—	—
acquire during delay	—	—	yes	—	—	yes	—	—	—	—
dual	—	—	no	—	—	no	—	—	—	—
Shim	—	default	default	default	default	default	default	auto	default	volume
ShimAlign	—	—	—	—	—	—	—	—	—	no
mDIXON	no	no	no	no	no	no	no	no	yes	yes

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Fat suppression	no	no	no	no	no	no	no	SPIR	no	no
strength	—	—	—	—	—	—	—	strong	—	—
frequency offset	—	—	—	—	—	—	—	default	—	—
Water suppression	no	no	no	no	no	no	no	no	no	no
BB pulse	—	—	—	—	—	—	no	—	—	—
TFE prepulse	invert	—	—	—	—	—	—	—	—	—
slice selection	no	—	—	—	—	—	—	—	—	—
shared	no	—	—	—	—	—	—	—	—	—
delay	shortest	—	—	—	—	—	—	—	—	—
PSIR	no	—	—	—	—	—	—	—	—	—
MTC	no	no	no	no	no	no	no	no	no	no
T2prep	no	—	—	—	—	—	—	—	—	—
Diffusion mode	no	no	no	no	no	no	no	DTI	no	no
gradient overplus	—	—	—	—	—	—	—	yes	—	—
directional resolution	—	—	—	—	—	—	—	medium (15)	—	—
nr of b-factors	—	—	—	—	—	—	—	2	—	—
b-factor order	—	—	—	—	—	—	—	ascending	—	—
max b-factor	—	—	—	—	—	—	—	800	—	—
average high b	—	—	—	—	—	—	—	no	—	—
T1 mapping	no	no	no	no	no	no	no	no	no	no
SAR mode	high	moderate	high	moderate	high	high	high	high	moderate	moderate
B1 mode	default	default	default	default	default	default	default	default	default	default
SAR allow first level	yes	yes	yes	yes	yes	yes	no	yes	yes	yes
Patient pregnancy	no	no	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	low	low
Gradient mode	regular	default	default	default	default	default	default	default	default	default
SofTone mode	no	no	no	no	no	no	no	no	no	no

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Central Nervous System

IMAGING FORUMS, INC.

MOTION

Scan Description	Survey Orbits	AXIAL T1	AXIAL STIR	CORONAL T1	CORONAL T2	CORONAL STIR	Cisternogram	Source DTI	AXIAL T1 +C Fat Sat	CORONAL T1 +C Fat Sat
Cardiac synchronization	no	no	no	no	no	no	no	no	no	no
Respiratory compensation	no	no	no	no	no	no	no	no	no	no
Navigator respiratory comp	no	no	no	no	no	no	no	no	no	no
Flow compensation	no	no	no	no	no	no	no	no	no	no
fMRI echo stabilisation	no	—	—	—	—	—	—	—	—	—
Temporal slice spacing	—	default	—	default	default	—	—	default	default	default
Motion smoothing	—	no	no	no	no	no	no	—	no	no
NSA	1	2	1	2	2	2	1	1	2	2
SMART	—	no	—	no	no	no	—	—	no	no
MRE enable	no	no	no	no	no	no	no	no	no	no
CENTRA	—	—	—	—	—	—	no	—	—	—

DYNAMIC ANGIO

Scan Description	Survey Orbits	AXIAL T1	AXIAL STIR	CORONAL T1	CORONAL T2	CORONAL STIR	Cisternogram	Source DTI	AXIAL T1 +C Fat Sat	CORONAL T1 +C Fat Sat
Angio / Contrast enh.	no	—	—	—	—	—	—	—	—	—
Quantitative flow	no	—	—	—	—	—	—	—	—	—
Manual start	no	no	no	no	no	no	no	no	no	no
Dynamic study	no	no	no	no	no	no	no	no	no	no
Arterial Spin labeling	no	no	no	no	no	no	no	no	no	no

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IMAGING FORUMS, INC.

POST PROCESSING

Scan Description	Survey Orbits	AXIAL T1	AXIAL STIR	CORONAL T1	CORONAL T2	CORONAL STIR	Cisternogram	Source DTI	AXIAL T1 +C Fat Sat	CORONAL T1 +C Fat Sat
Preparation phases	—	auto	auto	full	auto	auto	auto	auto	full	full
Interactive F0	no	no	no	no	no	no	no	no	no	no
Quick Survey	default	default	default	default	default	default	default	default	default	default
MIP/MPR	no	no	no	no	no	no	no	no	no	no
SWIp	no	—	—	—	—	—	—	—	—	—
mDIXON images	—	—	—	—	—	—	—	—	water, (5) no	water, (5) 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	no	M	M	M	—	—
Calculated images	(4) no	(4) no	—	(4) no	(4) no	—	(4) no	(4) no	—	—
Reference tissue	White matter	White matter	White matter	White matter	White matter	White matter	White matter	White matter	White matter	White matter
Recon compression	No	No	No	No	No	No	No	No	No	No
Preset window contrast	soft	soft	soft	soft	soft	soft	soft	soft	soft	soft
Reconstruction mode	immediate	immediate	immediate	immediate	real time	real time	immediate	immediate	immediate	immediate
Save raw data	no	no	no	no	no	no	no	no	no	no
Hardcopy protocol	no	no	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	system default	system default
Uniformity correction	no	no	no	no	no	no	no	no	no	no
Geometry correction	default	default	default	default	default	default	default	default	default	default
Elliptical k-space shutter	—	—	—	—	—	—	default	—	—	—
Free rotatable	no	no	no	no	no	no	no	no	no	no
IF_info_seperator	0	0	0	0	1634755923	0	1634755923	0	0	0

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