SILICONE SEQUENCES 1.5T

INSTRUCTIONS AND PATIENT PREPARATION

Instructions	• Ensure to increase the FOV as needed to include all breast tissue and axillae; use same FOV for all sequences • Ensure to pull abdominal tissue down to prevent a fold into the coil and FOV • Ensure to pull medial breast tissue into coil • Ensure axilla tissue is in the coil and not above the side panel
Common Indications	Silicone screening
Position	Prone
Coil	Bilateral Breast Coil
Landmark	Mid-breast, Nipples

CONTRAST AGENT PARAMETERS

Contrast Agent	Dose	Injection Rate
Gadopiclenol (VUEWAY)	0.05 mmol/kg up to a calculated volume of 10 mL (If adding Routine Bilateral)	2 mL/sec
Saline Flush	20 mL	2 mL/sec

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MR Gadopiclenol (VUEWAY®) Protocol for Philips Healthcare Systems
Breast MR Imaging

IMAGING FORUMS, INC.

INFO PAGE

Scan Description	SURVEY	AXIAL SILICONE	AXIAL T2 F_S	LT SILICONE	RT SILICONE
Total scan duration	00:23.3	04:14.4	05:32.5	04:14.4	04:14.4
Rel. SNR	2.4	1.1	3	1.1	1.1
Act. TR (ms)	—	—	4750	—	—
Act. TE (ms)	—	60	74	60	60
Act. TR/TE (ms)	7.1 / 3.5	—	—	—	—
Act. TR/TI (ms)	—	10600 / 2700	—	10600 / 2700	10600 / 2700
ACQ matrix M x P	256 x 128	184 x 197	184 x 224	176 x 142	176 x 142
ACQ voxel MPS (mm)	1.76 / 3.52 / 10.0	1.25 / 1.56 / 3.00	1.25 / 1.37 / 3.00	1.25 / 1.55 / 3.00	1.25 / 1.55 / 3.00
REC voxel MPS (mm)	1.76 / 1.76 / 10.0	0.87 / 0.87 / 3.00	0.48 / 0.48 / 3.00	0.76 / 0.76 / 3.00	0.76 / 0.76 / 3.00
Scan percentage (%)	50	80	91	80	80
Packages	—	2	2	2	2
Min. slice gap (mm)	—	3	3	3	3
Act. slice gap (mm)	—	0.3	—	0.3	0.3
Act. WFS (pix) / BW (Hz)	0.854 / 254.3	—	—	—	—
Min. WFS (pix) / Max. BW (Hz)	0.280 / 775.0	—	—	—	—
WFS (pix) / BW (Hz)	—	0.796 / 272.8	0.336 / 647.0	0.794 / 273.7	0.794 / 273.7
TSE es / shot (ms)	—	6.0 / 114	7.0 / 141	6.0 / 114	6.0 / 114
TEeff / TEequiv (ms)	—	—	74 / 53	—	—
Min. TR (ms)	—	—	4750	—	—
Min. TR/TE (ms)	7.1 / 3.1	—	—	—	—
Local torso SAR	< 21 %	< 42 %	< 50 %	< 42 %	< 42 %
Whole body SAR / level	< 0.7 W/kg / normal	< 1.4 W/kg / normal	< 1.7 W/kg / normal	< 1.4 W/kg / normal	< 1.4 W/kg / normal
SED	0.0 kJ/kg	< 0.4 kJ/kg	< 0.6 kJ/kg	< 0.4 kJ/kg	< 0.4 kJ/kg
Max B1+rms	1.95 uT	2.75 uT	3.01 uT	2.75 uT	2.75 uT
PNS / level	24 % / normal	50 % / normal	60 % / normal	60 % / normal	60 % / normal
dB/dt	12.8 T/s	52.4 T/s	90.6 T/s	47.8 T/s	47.8 T/s
Sound Pressure Level (dB)	9.5	14.2	18.6	11.1	11.1

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Breast MR Imaging

NW IMAGING FORUMS, INC.

GEOMETRY

Scan Description	SURVEY	AXIAL SILICONE	AXIAL T2 F_S	LT SILICONE	RT SILICONE
SmartSelect	yes	yes	yes	yes	yes
Coil 1 (exclude)	—	None	None	None	None
Uniformity	—	CLEAR	CLEAR	CLEAR	CLEAR
FOV AP (mm)	450	230	230	220	220
FOV (mm)	290, (19) 82	—	—	—	—
FOV FH (mm)	450	152	192	220	220
FOV RL (mm)	—	307	307	152	152
ACQ voxel size AP (mm)	3.5	1.3	1.25	1.5	1.5
ACQ voxel size FH (mm)	1.8	—	—	1.3	1.3
ACQ voxel size RL (mm)	—	1.5	1.2	—	—
Slice thickness (mm)	10	3	3	3	3
Bar orientation	RL	—	—	—	—
VOI orientation	transverse	—	—	—	—
VOI size AP (mm)	30	—	—	—	—
VOI size RL (mm)	30	—	—	—	—
VOI size FH (mm)	30	—	—	—	—
Recon voxel size AP (mm)	1.8	0.9	0.5	0.8	0.8
Recon voxel size FH (mm)	1.8	—	—	0.8	0.8
Recon voxel size RL (mm)	—	0.9	0.5	—	—
Image shutter	yes	—	—	—	—
Fold-over suppression	no	oversampling	oversampling	oversampling	oversampling
L (mm)	—	101.5	21.7	—	—
R (mm)	—	101.5	21.7	—	—
P (mm)	50	—	—	144.8	144.8
A (mm)	50	—	—	144.8	144.8
Reconstruction matrix	256	352	640	288	288
SENSE	no	no	yes	no	no
P reduction (RL)	—	—	1.6	—	—
CS-SENSE	no	yes	no	yes	yes
reduction	—	3.5	—	3.5	3.5
denoising	—	system default	—	system default	system default
Stacks	3	1	1	1	1
type	(20) parallel	parallel	parallel	parallel	parallel
Slices	15, (19) 5	46	64	46	46
slice gap	user defined	default	user defined	default	default
gap (mm)	10, (19) 8	—	0	—	—
Slice orientation	sagittal, transverse, (18) coronal	transverse	transverse	sagittal	sagittal
Fold-over direction	AP, (19) RL	RL	RL	AP	AP
Fat shift direction	F, P, (18) F	P	P	F	F
radial axis	(2) AP, (18) RL	—	—	—	—
radial angle (deg)	(20) 0	—	—	—	—

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Minimum number of packages	—	1	1	1	1
Slice scan order	default	default	default	default	default
Stack scan order	ascend	—	—	—	—
O-MAR	no	no	no	no	no
Large table movement	no	no	no	no	no
Stack alignment	no	—	—	—	—
Stack sort order	no	—	—	—	—
PlanAlign	no	no	no	no	no
REST slabs	0	0	0	0	0
Interactive positioning	no	no	no	no	no
Patient position	feet first	feet first	feet first	feet first	feet first
Patient body position	feet first	feet first	feet first	feet first	feet first
Patient orientation	prone	prone	prone	prone	prone
Patient body orientation	prone	prone	prone	prone	prone

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IMAGING FORUMS, INC.

CONTRAST

Scan Description	SURVEY	AXIAL SILICONE	AXIAL T2 F_S	LT SILICONE	RT SILICONE
Scan type	Imaging	Imaging	Imaging	Imaging	Imaging
Scan mode	M2D	MS	MS	MS	MS
technique	FFE	IR	SE	IR	IR
Modified SE	—	—	no	—	—
Contrast enhancement	T1	—	—	—	—
Acquisition mode	cartesian	cartesian	cartesian	cartesian	cartesian
Fast Imaging mode	none	TSE	TSE	TSE	TSE
shot mode	—	multishot	multishot	multishot	multishot
TSE factor	—	19	20	19	19
startup Echoes	—	—	—	—	—
profile order	—	linear	linear	linear	linear
DRIVE	—	no	no	no	no
ultrashort	—	no	yes	no	no
fid reduction	—	default	default	default	default
Echoes	1	1	1	1	1
partial echo	no	no	no	no	no
shifted echo	no	—	—	—	—
TE	user defined	user defined	user defined	user defined	user defined
(ms)	3.5	60	74	60	60
Flip angle (deg)	50	—	90	—	—
Refocusing control	—	no	PSS Adv (T2-opt)	no	no
min. angle (deg)	—	—	70	—	—
mid. angle (deg)	—	—	100	—	—
max. angle (deg)	—	—	140	—	—
TR	shortest	shortest	range	shortest	shortest
minimum (ms)	—	—	2500	—	—
maximum (ms)	—	—	5000	—	—
Halfscan	no	no	no	no	no
Water-fat shift	maximum	maximum	maximum	maximum	maximum
IR delay (ms)	—	2700	—	2700	2700
acquire during delay	—	yes	—	yes	yes
dual	—	yes	—	yes	yes
delay (ms)	—	180	—	180	180
Shim	—	default	default	default	default
mDIXON	no	no	yes	no	no
Fat suppression	no	no	no	no	no
Water suppression	no	no	no	no	no
BB pulse	—	no	no	no	no
MTC	no	no	no	no	no
Diffusion mode	no	no	no	no	no
T1 mapping	no	no	no	no	no
SAR mode	high	high	high	high	high

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B1 mode	default	default	default	default	default
SAR allow first level	yes	yes	yes	yes	yes
Patient pregnancy	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
Gradient mode	default	default	maximum	default	default

MOTION

Scan Description	SURVEY	AXIAL SILICONE	AXIAL T2 F_S	LT SILICONE	RT SILICONE
Cardiac synchronization	no	no	no	no	no
Respiratory compensation	no	no	no	no	no
Navigator respiratory comp	no	no	no	no	no
Flow compensation	no	no	no	no	no
fMRI echo stabilisation	no	—	—	—	—
Temporal slice spacing	—	—	default	—	—
Motion smoothing	—	no	yes	no	no
NSA	1	2	2	2	2
SMART	—	no	yes	no	no
MRE enable	no	no	no	no	no

DYNAMIC ANGIO

Scan Description	SURVEY	AXIAL SILICONE	AXIAL T2 F_S	LT SILICONE	RT SILICONE
Angio / Contrast enh.	no	—	—	—	—
Quantitative flow	no	—	—	—	—
Manual start	no	no	no	no	no
Dynamic study	no	no	no	no	no
Arterial Spin labeling	no	no	no	no	no

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POST PROCESSING

Scan Description	SURVEY	AXIAL SILICONE	AXIAL T2 F_S	LT SILICONE	RT SILICONE
Preparation phases	—	full	auto	full	full
Interactive F0	no	no	no	no	no
Quick Survey	default	default	default	default	default
MIP/MPR	no	no	no	no	no
SWIp	no	—	—	—	—
mDIXON images	—	—	water, (5) no	—	—
Images	M, (3) no	M, R, (2) no	—	M, R, (2) no	M, R, (2) no
Autoview image	M	M	—	M	M
Calculated images	(4) no	—	—	—	—
Reference tissue	Breast	Breast	Breast	Breast	Breast
Recon compression	No	No	No	No	No
Preset window contrast	soft	soft	soft	soft	soft
Reconstruction mode	real time	real time	real time	real time	real time
Save raw data	no	no	yes	no	no
Hardcopy protocol	no	no	no	no	no
Image filter	system default	system default	medium	system default	system default
Uniformity correction	yes	yes	yes	yes	yes
Geometry correction	default	default	default	default	default
Free rotatable	no	no	no	no	no
IF_info_seperator	1634755923	1634755923	1634755923	1634755923	1634755923

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