

Protocol: adult_pelvis_GUY-DCE PROSTATE 2023

3Plane Localizer H/Res - 3Plane Localizer H/Res	IMAGING PARAMETERS		SCAN TIMING	
	Imaging Mode	2D	Flip Angle	45
	Pulse Sequence	Fiesta	TE	Min Full
	Imaging Options	Seq, Fast	Number of Echoes	1
	SCAN RANGE		Receiver Bandwidth	100.00
	FOV	30.0	IMAGE ENHANCE	
	Slice Thickness	5.00	Filter Choice	None
	Slice Spacing	0.0	GATING/TRIGGER	
	Overlap Locations	0	Pause After Navigator Prescan	0
	ACQ TIMING		FMRI	
	Freq	256	PSD Trigger	Internal
	Phase	128	Slice Order	Interleaved
	Freq DIR	Unswap	View Order	Bottom/Up
	NEX	0.50	# of Repetitions REST	0
	# of Acq. Before Pause	0	# of Repetitions ACTIVE	0
	Phase FOV	1.00	SAT	
	Auto Shim	Auto	Tag Type	None
	Phase Correction	No	TRICKS	
	RF Drive Mode	Quadrature (CP)	Pause On/Off	On
	Excitation Mode	Selective	Auto Subtract	0
	USER CVS		Auto SCIC	Off
	User CV Mask2	0		
	MULTI-PHASE			
	Seperate Series	0		
	Mask Phase	0		
	Mask Pause	0		
	Preserve	0		
	DIFFUSION			
	Recon All Images	On		
	# Synthetic b-values	1		
	Synthetic b-value	1000.0;		
	CONTRAST			
	Contrast Yes/No	No		

3Plane Localizer H/Res - 3Plane Localizer H/Res

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Sag Cube T2 2mm - Sag Cube T2 2mm

IMAGING PARAMETERS	
Imaging Mode	3D
Pulse Sequence	Cube
Imaging Options	EDR, Fast, ZIP512, FR, ARC
Phase	2.00
Slice	2.00
SCAN RANGE	
FOV	22.0
Slice Thickness	1.0
Location per Slab	108
Overlap Locations	0
Number of Slices	1
ACQ TIMING	
Freq	288
Phase	224
Freq DIR	A/P
NEX	1.00
Auto Shim	Auto
Phase Correction	No
RF Drive Mode	Preset
Excitation Mode	Selective
USER CVS	
User CV Mask2	0
MULTI-PHASE	
Seperate Series	0
Mask Phase	0
Mask Pause	0
DIFFUSION	
Recon All Images	On
CONTRAST	
Contrast Yes/No	No

SCAN TIMING	
TE	Maximum
Number of Echoes	1
TR	3000.0
Echo Train Length	90
Receiver Bandwidth	83.33
IMAGE ENHANCE	
Filter Choice	None
GATING/TRIGGER	
Auto Trigger Type	Off
FMRI	
PSD Trigger	Internal
Slice Order	Interleaved
View Order	Bottom/Up
# of Repetitions REST	0
# of Repetitions ACTIVE	0
SAT	
SAT Location	A
SAT Location	P
Tag Type	None
TRICKS	
Pause On/Off	On
Auto Subtract	0
Auto SCIC	Off
OTHERS	
Protocol Notes	- If attempting to scan an axial Cube of the pelvis, be aware that annefact artifact may be present in the images. - For optimal image quality, if using ARC and NPW, it is recommended to use at least a 2 NEX.

Sag Cube T2 2mm - Sag Cube T2 2mm

Sag Cube T2 2mm - Sag Cube T2 2mm

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IMAGING PARAMETERS

Imaging Mode	2D
Pulse Sequence	FSE-XL
Imaging Options	EDR, TRF, Fast, ARC
Phase	2.00

SCAN RANGE

FOV	32.0
Slice Thickness	6.00
Slice Spacing	2.0
Overlap Locations	0
Number of Slices	31

ACQ TIMING

Freq	512
Phase	288
Freq DIR	A/P
Fat Shift DIR	Normal (A)
NEX	0.50
# of Acq. Before Pause	0
Phase FOV	1.00
Auto Shim	Auto
Phase Correction	No
RF Drive Mode	Preset
Excitation Mode	Selective

FMRI

PSD Trigger	Internal
View Order	Bottom/Up
# of Repetitions REST	0
# of Repetitions ACTIVE	0

SAT

SAT Location	A
SAT Location	S
SAT Location	I
Tag Type	None

TRICKS

Pause On/Off	On
Auto Subtract	0
Auto SCIC	3

CONTRAST

Contrast Yes/No	No
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SCAN TIMING

Flip Angle	111
TE	Min Full
Number of Echoes	1
TR	799.0
Echo Train Length	5
Receiver Bandwidth	62.50

IMAGE ENHANCE

Filter Choice	None
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USER CVS

User CV17	1.00
TR Min	400.0
TR Max	850.0
User CV30	1.00
User CV Mask2	1024

MULTI-PHASE

Seperate Series	0
Mask Phase	0
Mask Pause	0
Preserve	0

DIFFUSION

Recon All Images	On
# Synthetic b-values	1
Synthetic b-value	1000.0;

TRACKER

Tracker Length	200.0
Tracker Thickness	20.0

Ax T1 FSE Bifurcation - Ax T1 FSE Bifurcation

Ax T1 FSE Bifurcation - Ax T1 FSE Bifurcation

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Ax Thin FRFSE T2 3/0 ARDL M - Ax Thin FRFSE T2 3/0 ARDL M	IMAGING PARAMETERS		SCAN TIMING	
	Imaging Mode	2D	Flip Angle	111
	Pulse Sequence	FSE-XL	TE	102.0
	Imaging Options	TRF, Fast, ZIP512, FR	Number of Echoes	1
	SCAN RANGE		TR	2816.0
	FOV	18.0	Echo Train Length	16
	Slice Thickness	3.00	Receiver Bandwidth	35.71
	Slice Spacing	Intleave	IMAGE ENHANCE	
	Overlap Locations	0	Filter Choice	None
	Number of Slices	29	USER CVS	
	ACQ TIMING		User CV15	1
	Freq	448	TR Min	2000.0
	Phase	256	TR Max	11000.0
	Freq DIR	A/P	User CV30	1.00
	Fat Shift DIR	Normal (A)	User CV Mask2	1024
	NEX	1.00	MULTI-PHASE	
	Phase FOV	1.00	Seperate Series	0
	Auto Shim	Auto	Mask Phase	0
	Phase Correction	Yes	Mask Pause	0
	RF Drive Mode	Preset	Preserve	0
	Excitation Mode	Selective	DIFFUSION	
	FMRI		Recon All Images	On
	PSD Trigger	Internal	# Synthetic b-values	1
	View Order	Bottom/Up	Synthetic b-value	1000.0;
	# of Repetitions REST	0	TRACKER	
	# of Repetitions ACTIVE	0	Tracker Length	200.0
	SAT		Tracker Thickness	20.0
	Tag Type	None		
	TRICKS			
	Pause On/Off	On		
	Auto Subtract	0		
	Auto SCIC	3		
	CONTRAST			
	Contrast Yes/No	No		

Ax Thin FRFSE T2 3/0 ARDL M - Ax Thin FRFSE T2 3/0 ARDL M

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Ax DWI b1400/750/100 3/0mm ARDL L - Ax DWI b1400/750/100 3/0mm ARDL L	IMAGING PARAMETERS		SCAN TIMING	
	Imaging Mode	2D	TE	Minimum
	Pulse Sequence	Spin Echo	Number of Echoes	1
	Imaging Options	EDR, EPI, DIFF, Asset	TR	3775.0
	Phase	2.00	Number of Shots	1
	SCAN RANGE		Receiver Bandwidth	111.11
	FOV	28.0	IMAGE ENHANCE	
	Slice Thickness	3.00	Filter Choice	None
	Slice Spacing	Intleave	USER CVS	
	Overlap Locations	0	User CV5	1.00
	Number of Slices	29	User CV Mask2	0
	ACQ TIMING		MULTI-PHASE	
	Freq	128	Seperate Series	0
	Phase	128	Mask Phase	0
	Freq DIR	R/L	Mask Pause	0
	Phase FOV	1.00	Preserve	0
	Auto Shim	Auto	DIFFUSION	
	Phase Correction	Yes	Optimized TE	Yes
	RF Drive Mode	Preset	Diffusion Directions	All
	Excitation Mode	Selective	Number of Diffusion Directions	3
	FMRI		Number of T2 Images	0
	PSD Trigger	Internal	Dual Spin Echo	Off
	View Order	Bottom/Up	Recon All Images	On
	# of Repetitions REST	0	Multi b-values	1400.0;750.0;100.0;
	# of Repetitions ACTIVE	0	Multi NEX Values	3.0;3.0;1.0;
	SAT		Real Time Field Adjustment	1
	Tag Type	None	# Synthetic b-values	2
	TRICKS		Synthetic b-value	2000.0;2500.0;
	Pause On/Off	On	TRACKER	
	Auto Subtract	0	Tracker Length	200.0
	Auto SCIC	Off	Tracker Thickness	20.0
	CONTRAST			
	Contrast Yes/No	No		

Ax DWI b1400/750/100 3/0mm ARDL L - Ax DWI b1400/750/100 3/0mm ARDL L

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IMAGING PARAMETERS

Imaging Mode 2D
Pulse Sequence Spin Echo
Imaging Options EDR, EPI, DIFF

SCAN RANGE

FOV 24.0
Slice Thickness 3.00
Slice Spacing 0.0
Overlap Locations 0
Number of Slices 16

ACQ TIMING

Freq 160
Phase 80
Freq DIR R/L
Phase FOV 0.50
Auto Shim Auto
Phase Correction Yes
RF Drive Mode Preset
Excitation Mode Focus

FMRI

PSD Trigger Internal
View Order Bottom/Up
of Repetitions REST 0
of Repetitions ACTIVE 0

SAT

Tag Type None

TRICKS

Pause On/Off On
Auto Subtract 0
Auto SCIC Off

OTHERS

Protocol Notes
* Always place a shim volume in the area of interest to improve image quality
Phase FOV should always be < 0.50
of phase encodes (phase matrix) = freq x pFOV
Example: 160 (Freq matrix) x .50 (pfov) = 80 phase matrix

SCAN TIMING

TE Minimum
Number of Echoes 1
TR 4000.0
Number of Shots 1

IMAGE ENHANCE

Filter Choice None

USER CVS

User CV0 1.00
User CV5 1.00
User CV Mask2 0

MULTI-PHASE

Seperate Series 0
Mask Phase 0
Mask Pause 0
Preserve 0

DIFFUSION

Optimized TE Yes
Diffusion Directions All
Number of Diffusion Directions 3
Number of T2 Images 0
Dual Spin Echo Off
Recon All Images On
Multi b-values 2000.0;100.0;
Multi NEX Values 16.0;8.0;
Real Time Field Adjustment 1
Synthetic b-values 1
Synthetic b-value 2500.0;

CONTRAST

Contrast Yes/No No

Ax DWI Focus b2000 - Ax DWI Focus b2000

Ax DWI Focus b2000 - Ax DWI Focus b2000

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IMAGING PARAMETERS

Imaging Mode	3D
Pulse Sequence	LAVA
Imaging Options	EDR, Fast, MPh, ARC, Flex
IDEAL	3
Phase	2.00
Slice	1.00

SCAN RANGE

FOV	24.0
Slice Thickness	3.0
Location per Slab	22
Overlap Locations	0
Number of Slices	1

ACQ TIMING

Freq	192
Phase	192
Freq DIR	R/L
NEX	1.00
# of Acq. Before Pause	0
Phase FOV	0.85
Auto Shim	Auto
Phase Correction	No
RF Drive Mode	Preset
Excitation Mode	Selective

USER CVS

User CV Mask2	0
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MULTI-PHASE

Slice per Location	4
Delay after Acquisition	Minimum
Seperate Series	0
Delay after Acquisition without AV	1
Trigger Delay without AV	0
Mask Phase	0
Mask Pause	0

DIFFUSION

Recon All Images	On
# Synthetic b-values	1
Synthetic b-value	1000.0;

TRACKER

Tracker Length	200.0
Tracker Thickness	20.0

SCAN TIMING

Flip Angle	13
TE	Min Full
Number of Echoes	2
Receiver Bandwidth	142.86

IMAGE ENHANCE

Filter Choice	None
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GATING/TRIGGER

Auto Trigger Type	Off
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FMRI

PSD Trigger	Internal
Slice Order	Interleaved
View Order	Bottom/Up
# of Repetitions REST	0
# of Repetitions ACTIVE	0

SAT

Tag Type	None
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TRICKS

Pause On/Off	On
Auto Subtract	0
Auto SCIC	Off

CONTRAST

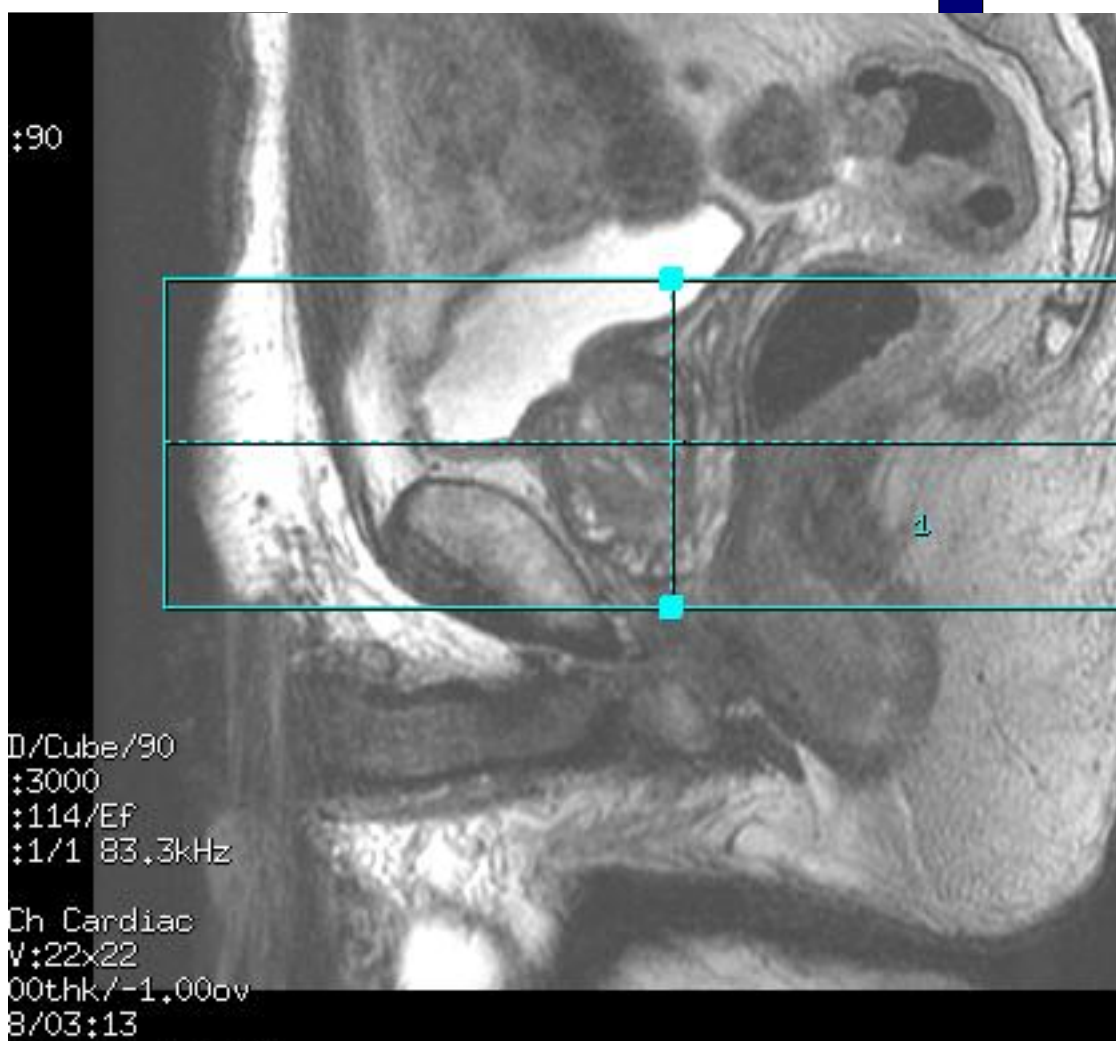
Contrast Yes/No	No
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DCE Lava test - DCE Lava test

DCE Lava test - DCE Lava test

OTHERS

Protocol Notes



*Start pump (using DCE
Prostate (28 second delay)
and scan simultaneously
after prep.*

*Give Contrast using power
injector and 28 second
delay (start of fifth phase)
single dose Gadovist:
 $\text{volume (ml)} = \text{weight (kg)} / 10$
If increase of scan time due
to parameter change -
please adjust the delay
appropriately - delay must
be whatever the start time
says for 5th phase. See pic*



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IMAGING PARAMETERS

Imaging Mode	3D
Pulse Sequence	LAVA
Imaging Options	EDR, Fast, MPh, ARC, Flex
IDEAL	3
Phase	2.00
Slice	1.00

SCAN RANGE

FOV	24.0
Slice Thickness	3.00
Location per Slab	22
Overlap Locations	0
Number of Slices	1

ACQ TIMING

Freq	192
Phase	192
Freq DIR	R/L
NEX	1.00
# of Acq. Before Pause	0
Phase FOV	0.85
Auto Shim	Auto
Phase Correction	No
RF Drive Mode	Preset
Excitation Mode	Selective

FMRI

PSD Trigger	Internal
Slice Order	Interleaved
View Order	Bottom/Up
# of Repetitions REST	0
# of Repetitions ACTIVE	0

SAT

Tag Type	None
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TRICKS

Pause On/Off	On
Auto Subtract	0
Auto SCIC	Off

CONTRAST

Contrast Yes/No	No
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SCAN TIMING

Flip Angle	13
TE	Min Full
Number of Echoes	2
Receiver Bandwidth	142.86

IMAGE ENHANCE

Filter Choice	None
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USER CVS

User CV30	1.00
User CV Mask2	0

MULTI-PHASE

Slice per Location	40
Delay after Acquisition	Minimum
Seperate Series	0
Delay after Acquisition without AV	1
Trigger Delay without AV	0
Mask Phase	0
Mask Pause	0

DIFFUSION

Number of Diffusion Directions	0
Dual Spin Echo	Off
Diffusion Tenser Processing Output	No Selection
Recon All Images	On
Multi b-values	1000.0;
Multi NEX Values	1.0;
# Synthetic b-values	1
Synthetic b-value	1000.0;

TRACKER

Tracker Length	200.0
Tracker Thickness	20.0

DCE Lava-Flex+C - DCE Lava-Flex+C

DCE Lava-Flex+C - DCE Lava-Flex+C

OTHERS

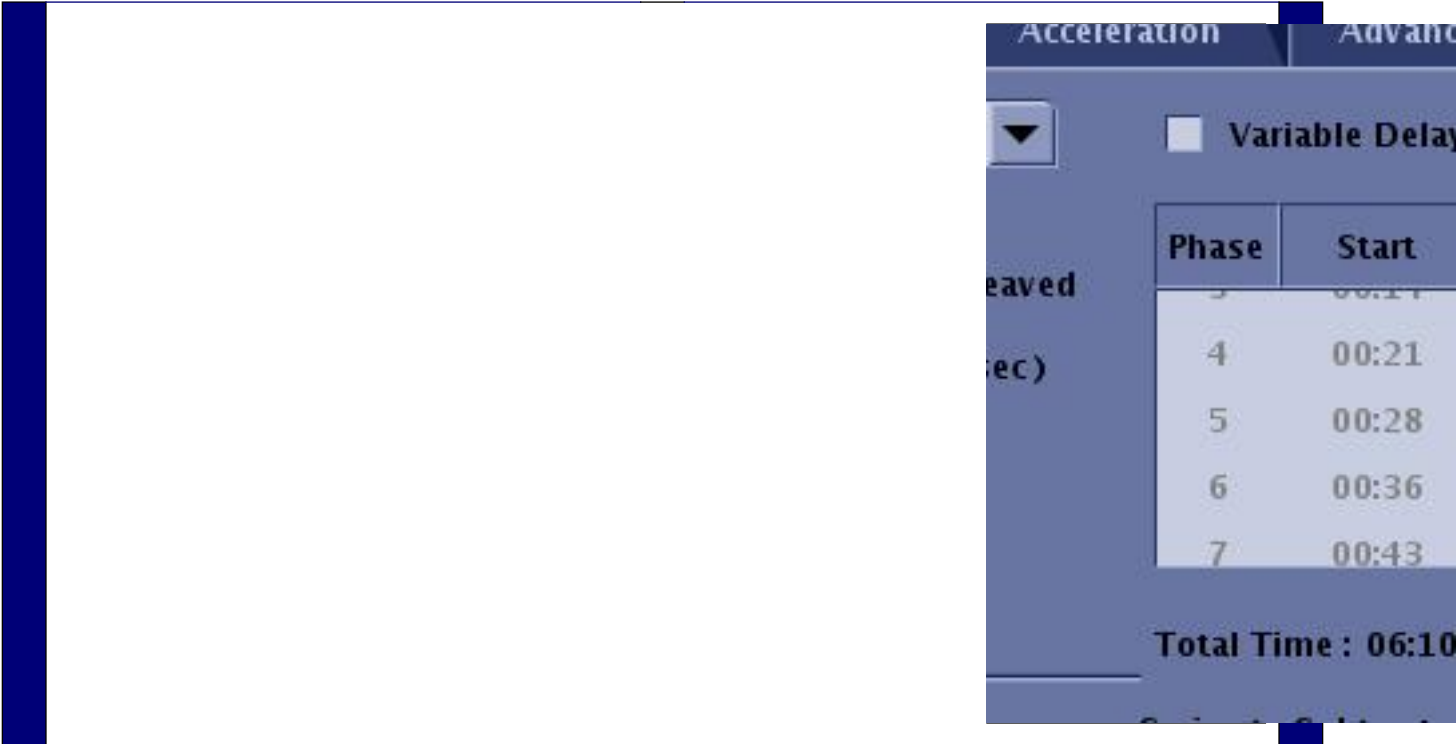
Protocol Notes



*Start pump (using DCE
Prostate (28 second delay)
and scan simultaneously
after prep.*

*Give Contrast using power
injector and 28 second
delay (start of fifth phase)
single dose Gadovist:
volume (ml) = weight (kg) /
10*

*If increase of scan time due
to parameter change -
please adjust the delay
appropriately - delay must
be whatever the start time
says for 5th phase. See pic*



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IMAGING PARAMETERS

Imaging Mode *2D*
Pulse Sequence *Spin Echo*
Imaging Options *Seq, EDR, Fast, SS, ARC*
Phase *2.00*

SCAN RANGE

FOV *40.0*
Slice Thickness *8.0*
Slice Spacing *0.0*

ACQ TIMING

Freq *320*
Phase *160*
Freq DIR *Unswap*
of Acq. Before Pause *0*
Phase FOV *1.00*
Auto Shim *Auto*
Phase Correction *No*
RF Drive Mode *Quadrature*
Excitation Mode *Selective*

USER CVS

User CV1 *1.0*
User CV2 *240.00*
User CV13 *1.00*
User CV39 *1.00*
User CV Mask2 *256*

MULTI-PHASE

Seperate Series *0*
Mask Phase *0*
Mask Pause *0*

DIFFUSION

Recon All Images *On*

CONTRAST

Contrast Yes/No *No*

SCAN TIMING

TE *80.0*
TR *Minimum*
Receiver Bandwidth *83.33*

IMAGE ENHANCE

Filter Choice *None*

GATING/TRIGGER

Auto Trigger Type *Off*

FMRI

PSD Trigger *Internal*
Slice Order *Interleaved*
View Order *Bottom/Up*
of Repetitions REST *0*
of Repetitions ACTIVE *0*

SAT

Tag Type *None*

TRICKS

Pause On/Off *On*
Auto Subtract *0*
Auto SCIC *Off*

---if motion do propeller--- - ---if motion do propeller---

---if motion do propeller--- - ---if motion do propeller---

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Ax T2 PROPELLER - Ax T2 PROPELLER	IMAGING PARAMETERS		SCAN TIMING	
	Imaging Mode	2D	Flip Angle	120
	Pulse Sequence	PROPELLER	TE	71.8
	Imaging Options	EDR, TRF, Fast, FR, ARC	Number of Echoes	1
	Phase	2.00	TR	1950.0
	SCAN RANGE		Echo Train Length	24
	FOV	24.0	Receiver Bandwidth	55.56
	Slice Thickness	3.00	IMAGE ENHANCE	
	Slice Spacing	0.0	Filter Choice	None
	Overlap Locations	0	USER CVS	
	Number of Slices	20	User CV15	0
	ACQ TIMING		TR Min	400.0
	Freq	384	TR Max	11000.0
	Freq DIR	R/L	User CV29	1.00
	Fat Shift DIR	Normal (L)	User CV30	1.00
	NEX	3.50	User CV Mask2	1024
	# of Acq. Before Pause	0	MULTI-PHASE	
	Auto Shim	On	Seperate Series	0
	Phase Correction	No	Mask Phase	0
	RF Drive Mode	Preset	Mask Pause	0
	Excitation Mode	Selective	Preserve	0
	FMRI		DIFFUSION	
	PSD Trigger	Internal	Recon All Images	On
	View Order	Bottom/Up	Multi b-values	1000.0;
	# of Repetitions REST	0	Multi NEX Values	1.0;
	# of Repetitions ACTIVE	0	# Synthetic b-values	1
	SAT		Synthetic b-value	1000.0;
	Tag Type	None	CONTRAST	
	TRICKS		Contrast Yes/No	No
	Pause On/Off	On		
	Auto Subtract	0		
	Auto SCIC	3		

Ax T2 PROPELLER - Ax T2 PROPELLER

Protocol: adult_pelvis_GUY-DCE PROSTATE 2023

IMAGING PARAMETERS

Imaging Mode	3D
Pulse Sequence	Cube
Imaging Options	EDR, Fast, ZIP512, FR, ARC
Phase	2.00
Slice	1.00

SCAN RANGE

FOV	28.0
Slice Thickness	0.60
Location per Slab	136
Overlap Locations	0
Number of Slices	1

ACQ TIMING

Freq	288
Phase	288
Freq DIR	A/P
Fat Shift DIR	Normal (P)
NEX	1.00
Phase FOV	1.00
Auto Shim	Auto
Phase Correction	No
RF Drive Mode	Preset
Excitation Mode	Selective

FMRI

PSD Trigger	Internal
View Order	Bottom/Up
# of Repetitions REST	0
# of Repetitions ACTIVE	0

SAT

SAT Location	A
SAT Location	P
Tag Type	None

TRICKS

Pause On/Off	On
Auto Subtract	0
Auto SCIC	3

SCAN TIMING

TE	Maximum
Number of Echoes	1
TR	2000.0
Echo Train Length	90
Receiver Bandwidth	62.50

IMAGE ENHANCE

Filter Choice	G
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USER CVS

User CV30	1.00
User CV34	100.00
User CV Mask2	1034

MULTI-PHASE

Seperate Series	0
Mask Phase	0
Mask Pause	0
Preserve	0

DIFFUSION

Recon All Images	On
Multi b-values	1000.0;
Multi NEX Values	1.0;
# Synthetic b-values	1
Synthetic b-value	1000.0;

CONTRAST

Contrast Yes/No	No
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Sag Cube T2 1.2 - Sag Cube T2 1.2

Sag Cube T2 1.2 - Sag Cube T2 1.2