

Protocol: adult_upperExtremities_HAND WO 11-7-17

PATIENT POSITION		IMAGING PARAMETERS	
Patient Entry	<i>Feet First</i>	Imaging Mode	<i>2D</i>
Patient Position	<i>Supine</i>	Pulse Sequence	<i>Gradient Echo</i>
Coil Configuration	<i>GEM Flex Medium Array</i>	Imaging Options	<i>Seq, Fast</i>
Plane	<i>3-PLANE</i>	SCAN RANGE	
Series Description	<i>3-Plane Loc</i>	FOV	<i>20.0</i>
SCAN TIMING		Slice Thickness	<i>5.0</i>
Number of Echoes	<i>1</i>	Slice Spacing	<i>2.0</i>
IMAGE ENHANCE		ACQ TIMING	
Filter Choice	<i>None</i>	Freq	<i>256</i>
GATING/TRIGGER		Phase	<i>128</i>
Auto Trigger Type	<i>Off</i>	Freq DIR	<i>Unswap</i>
MULTI-PHASE		NEX	<i>1.00</i>
Seperate Series	<i>0</i>	Phase FOV	<i>1.00</i>
Mask Phase	<i>0</i>	Auto Shim	<i>Auto</i>
Mask Pause	<i>0</i>	Phase Correction	<i>No</i>
DIFFUSION		FMRI	
Recon All Images	<i>On</i>	PSD Trigger	<i>Internal</i>
CONTRAST		View Order	<i>Bottom/Up</i>
Contrast Yes/No	<i>No</i>	# of Repetitions REST	<i>0</i>
		# of Repetitions ACTIVE	<i>0</i>
		SAT	
		Tag Type	<i>None</i>
		TRICKS	
		Pause On/Off	<i>On</i>
		Auto Subtract	<i>0</i>
		Auto SCIC	<i>Off</i>

3-Plane Loc

3-Plane Loc

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PATIENT POSITION		IMAGING PARAMETERS	
Patient Entry	<i>Feet First</i>	Imaging Mode	<i>2D</i>
Patient Position	<i>Supine</i>	Pulse Sequence	<i>FSE-XL</i>
Coil Configuration	<i>GEM Flex Medium Array</i>	Imaging Options	<i>NPW, EDR, TRF, Fast</i>
Plane	<i>OBLIQUE</i>	SCAN RANGE	
Series Description	<i>Cor T1</i>	FOV	<i>15.0</i>
SCAN TIMING		Slice Thickness	<i>3.0</i>
Flip Angle	<i>160</i>	Slice Spacing	<i>0.0</i>
TE	<i>Min Full</i>	ACQ TIMING	
Number of Echoes	<i>1</i>	Freq	<i>352</i>
TR	<i>499.0</i>	Phase	<i>256</i>
Echo Train Length	<i>3</i>	Freq DIR	<i>S/I</i>
Receiver Bandwidth	<i>35.71</i>	Fat Shift DIR	<i>Normal (I)</i>
IMAGE ENHANCE		NEX	<i>3.00</i>
Filter Choice	<i>None</i>	Auto Shim	<i>Auto</i>
GATING/TRIGGER		Phase Correction	<i>Yes</i>
Auto Trigger Type	<i>Off</i>	USER CVS	
FMRI		User CV8	<i>2.00</i>
PSD Trigger	<i>Internal</i>	User CV9	<i>1.00</i>
View Order	<i>Bottom/Up</i>	User CV22	<i>1.00</i>
# of Repetitions REST	<i>0</i>	TR Min	<i>350.0</i>
# of Repetitions ACTIVE	<i>0</i>	TR Max	<i>800.0</i>
SAT		MULTI-PHASE	
Tag Type	<i>None</i>	Seperate Series	<i>0</i>
TRICKS		Mask Phase	<i>0</i>
Pause On/Off	<i>On</i>	Mask Pause	<i>0</i>
Auto Subtract	<i>0</i>	DIFFUSION	
Auto SCIC	<i>Off</i>	Recon All Images	<i>On</i>
		CONTRAST	
		Contrast Yes/No	<i>No</i>

Cor T1

Cor T1

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PATIENT POSITION		IMAGING PARAMETERS	
Patient Entry	<i>Feet First</i>	Imaging Mode	<i>2D</i>
Patient Position	<i>Supine</i>	Pulse Sequence	<i>FSE-XL</i>
Coil Configuration	<i>GEM Flex Medium Array</i>	Imaging Options	<i>Seq, EDR, TRF, Fast, ZIP512, FR, IrP</i>
Plane	<i>OBLIQUE</i>	SCAN RANGE	
Series Description	<i>COR STIR</i>	FOV	<i>15.0</i>
SCAN TIMING		Slice Thickness	<i>3.0</i>
Flip Angle	<i>160</i>	Slice Spacing	<i>0.0</i>
TE	<i>41.0</i>	ACQ TIMING	
Number of Echoes	<i>1</i>	Freq	<i>320</i>
TR	<i>3430.0</i>	Phase	<i>192</i>
TI	<i>140</i>	Freq DIR	<i>S/I</i>
Echo Train Length	<i>11</i>	Fat Shift DIR	<i>Normal (I)</i>
Receiver Bandwidth	<i>35.71</i>	NEX	<i>3.00</i>
IMAGE ENHANCE		Phase FOV	<i>1.00</i>
Filter Choice	<i>None</i>	Auto Shim	<i>Auto</i>
GATING/TRIGGER		Phase Correction	<i>Yes</i>
Auto Trigger Type	<i>Off</i>	USER CVS	
FMRI		User CV8	<i>1.00</i>
PSD Trigger	<i>Internal</i>	User CV21	<i>1.00</i>
View Order	<i>Bottom/Up</i>	TR Min	<i>2500.0</i>
# of Repetitions REST	<i>0</i>	TR Max	<i>8000.0</i>
# of Repetitions ACTIVE	<i>0</i>	MULTI-PHASE	
SAT		Seperate Series	<i>0</i>
Tag Type	<i>None</i>	Mask Phase	<i>0</i>
TRICKS		Mask Pause	<i>0</i>
Pause On/Off	<i>On</i>	DIFFUSION	
Auto Subtract	<i>0</i>	Recon All Images	<i>On</i>
Auto SCIC	<i>Off</i>	CONTRAST	
		Contrast Yes/No	<i>No</i>

COR STIR

COR STIR

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PATIENT POSITION		IMAGING PARAMETERS	
Patient Entry	Feet First	Imaging Mode	2D
Patient Position	Supine	Pulse Sequence	FSE-XL
Coil Configuration	GEM Flex Medium Array	Imaging Options	Seq, EDR, TRF, Fast, ZIP512, FR, IrP
Plane	OBLIQUE	SCAN RANGE	
Series Description	SAG STIR	FOV	15.0
SCAN TIMING		Slice Thickness	3.0
Flip Angle	160	Slice Spacing	1.0
TE	41.0	ACQ TIMING	
Number of Echoes	1	Freq	320
TR	5011.0	Phase	192
TI	140	Freq DIR	S/I
Echo Train Length	12	Fat Shift DIR	Normal (S)
Receiver Bandwidth	35.71	NEX	4.00
IMAGE ENHANCE		Phase FOV	0.50
Filter Choice	None	Auto Shim	Auto
GATING/TRIGGER		Phase Correction	Yes
Auto Trigger Type	Off	USER CVS	
FMRI		User CV8	1.00
PSD Trigger	Internal	TR Min	2500.0
View Order	Bottom/Up	TR Max	8000.0
# of Repetitions REST	0	MULTI-PHASE	
# of Repetitions ACTIVE	0	Seperate Series	0
SAT		Mask Phase	0
Tag Type	None	Mask Pause	0
TRICKS		DIFFUSION	
Pause On/Off	On	Recon All Images	On
Auto Subtract	0	CONTRAST	
Auto SCIC	Off	Contrast Yes/No	No

SAG STIR

SAG STIR

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PATIENT POSITION		IMAGING PARAMETERS	
Patient Entry	<i>Feet First</i>	Imaging Mode	<i>2D</i>
Patient Position	<i>Supine</i>	Pulse Sequence	<i>FSE-XL</i>
Coil Configuration	<i>GEM Flex Medium Array</i>	Imaging Options	<i>Seq, EDR, TRF, Fast, ZIP512</i>
Plane	<i>OBLIQUE</i>	SCAN RANGE	
Series Description	<i>SAG T1</i>	FOV	<i>15.0</i>
SCAN TIMING		Slice Thickness	<i>3.0</i>
Flip Angle	<i>160</i>	Slice Spacing	<i>1.0</i>
TE	<i>Min Full</i>	ACQ TIMING	
Number of Echoes	<i>1</i>	Freq	<i>352</i>
TR	<i>762.0</i>	Phase	<i>256</i>
Echo Train Length	<i>3</i>	Freq DIR	<i>S/I</i>
Receiver Bandwidth	<i>31.25</i>	Fat Shift DIR	<i>Normal (S)</i>
IMAGE ENHANCE		NEX	<i>4.00</i>
Filter Choice	<i>None</i>	Phase FOV	<i>0.50</i>
GATING/TRIGGER		Auto Shim	<i>Auto</i>
Auto Trigger Type	<i>Off</i>	Phase Correction	<i>Yes</i>
FMRI		USER CVS	
PSD Trigger	<i>Internal</i>	User CV8	<i>1.00</i>
View Order	<i>Bottom/Up</i>	User CV22	<i>1.00</i>
# of Repetitions REST	<i>0</i>	TR Min	<i>400.0</i>
# of Repetitions ACTIVE	<i>0</i>	TR Max	<i>800.0</i>
SAT		MULTI-PHASE	
Tag Type	<i>None</i>	Seperate Series	<i>0</i>
TRICKS		Mask Phase	<i>0</i>
Pause On/Off	<i>On</i>	Mask Pause	<i>0</i>
Auto Subtract	<i>0</i>	DIFFUSION	
Auto SCIC	<i>Off</i>	Recon All Images	<i>On</i>
		CONTRAST	
		Contrast Yes/No	<i>No</i>

SAG T1

SAG T1

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PATIENT POSITION		IMAGING PARAMETERS	
Patient Entry	<i>Feet First</i>	Imaging Mode	<i>2D</i>
Patient Position	<i>Supine</i>	Pulse Sequence	<i>Gradient Echo</i>
Coil Configuration	<i>GEM Flex Medium Array</i>	Imaging Options	<i>ZIP512</i>
Plane	<i>OBLIQUE</i>	SCAN RANGE	
Series Description	<i>SAG GRE T2*</i>	FOV	<i>15.0</i>
SCAN TIMING		Slice Thickness	<i>3.0</i>
Flip Angle	<i>33</i>	Slice Spacing	<i>1.0</i>
TE	<i>15.0</i>	ACQ TIMING	
Number of Echoes	<i>1</i>	Freq	<i>320</i>
TR	<i>450.0</i>	Phase	<i>224</i>
Receiver Bandwidth	<i>12.50</i>	Freq DIR	<i>S/I</i>
IMAGE ENHANCE		NEX	<i>2.00</i>
Filter Choice	<i>None</i>	# of Acq. Before Pause	<i>0</i>
GATING/TRIGGER		Phase FOV	<i>0.50</i>
Auto Trigger Type	<i>Off</i>	Auto Shim	<i>Auto</i>
MULTI-PHASE		Phase Correction	<i>No</i>
Seperate Series	<i>0</i>	FMRI	
Mask Phase	<i>0</i>	PSD Trigger	<i>Internal</i>
Mask Pause	<i>0</i>	View Order	<i>Bottom/Up</i>
DIFFUSION		# of Repetitions REST	<i>0</i>
Recon All Images	<i>On</i>	# of Repetitions ACTIVE	<i>0</i>
CONTRAST		SAT	
Contrast Yes/No	<i>No</i>	Tag Type	<i>None</i>
		Fat/Water Saturation	<i>Fat</i>
		TRICKS	
		Pause On/Off	<i>On</i>
		Auto Subtract	<i>0</i>
		Auto SCIC	<i>Off</i>

SAG GRE T2*

SAG GRE T2*

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Ax T1	PATIENT POSITION		IMAGING PARAMETERS	
	Patient Entry	<i>Feet First</i>	Imaging Mode	<i>2D</i>
	Patient Position	<i>Supine</i>	Pulse Sequence	<i>FSE-XL</i>
	Coil Configuration	<i>GEM Flex Medium Array</i>	Imaging Options	<i>EDR, TRF, Fast, ZIP512</i>
	Plane	<i>OBLIQUE</i>	SCAN RANGE	
	Series Description	<i>Ax T1</i>	FOV	<i>12.0</i>
	SCAN TIMING		Slice Thickness	<i>3.0</i>
	Flip Angle	<i>160</i>	Slice Spacing	<i>1.0</i>
	TE	<i>Min Full</i>	ACQ TIMING	
	Number of Echoes	<i>1</i>	Freq	<i>320</i>
	TR	<i>497.0</i>	Phase	<i>224</i>
	Echo Train Length	<i>3</i>	Freq DIR	<i>R/L</i>
	Receiver Bandwidth	<i>41.67</i>	Fat Shift DIR	<i>Normal (L)</i>
	IMAGE ENHANCE		NEX	<i>4.00</i>
	Filter Choice	<i>None</i>	# of Acq. Before Pause	<i>0</i>
	GATING/TRIGGER		Phase FOV	<i>0.50</i>
	Auto Trigger Type	<i>Off</i>	Auto Shim	<i>Auto</i>
	FMRI		Phase Correction	<i>Yes</i>
	PSD Trigger	<i>Internal</i>	USER CVS	
	View Order	<i>Bottom/Up</i>	User CV8	<i>2.00</i>
	# of Repetitions REST	<i>0</i>	User CV9	<i>1.00</i>
	# of Repetitions ACTIVE	<i>0</i>	TR Min	<i>350.0</i>
	SAT		TR Max	<i>800.0</i>
	Tag Type	<i>None</i>	MULTI-PHASE	
	TRICKS		Seperate Series	<i>0</i>
Pause On/Off	<i>On</i>	Mask Phase	<i>0</i>	
Auto Subtract	<i>0</i>	Mask Pause	<i>0</i>	
Auto SCIC	<i>Off</i>	DIFFUSION		
		Recon All Images	<i>On</i>	
		CONTRAST		
		Contrast Yes/No	<i>No</i>	

Ax T1

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PATIENT POSITION		IMAGING PARAMETERS	
Patient Entry	<i>Feet First</i>	Imaging Mode	<i>2D</i>
Patient Position	<i>Supine</i>	Pulse Sequence	<i>FSE-XL</i>
Coil Configuration	<i>GEM Flex Medium Array</i>	Imaging Options	<i>EDR, TRF, Fast, ZIP512, FR</i>
Plane	<i>OBLIQUE</i>	SCAN RANGE	
Series Description	<i>AX T2 Fat Sat</i>	FOV	<i>12.0</i>
SCAN TIMING		Slice Thickness	<i>3.0</i>
Flip Angle	<i>160</i>	Slice Spacing	<i>1.0</i>
TE	<i>60.0</i>	ACQ TIMING	
Number of Echoes	<i>1</i>	Freq	<i>288</i>
TR	<i>4846.0</i>	Phase	<i>224</i>
Echo Train Length	<i>17</i>	Freq DIR	<i>R/L</i>
Receiver Bandwidth	<i>41.67</i>	Fat Shift DIR	<i>Normal (L)</i>
IMAGE ENHANCE		NEX	<i>5.00</i>
Filter Choice	<i>None</i>	Phase FOV	<i>0.50</i>
GATING/TRIGGER		Auto Shim	<i>Auto</i>
Auto Trigger Type	<i>Off</i>	Phase Correction	<i>Yes</i>
FMRI		USER CVS	
PSD Trigger	<i>Internal</i>	User CV8	<i>1.00</i>
View Order	<i>Bottom/Up</i>	User CV19	<i>1.00</i>
# of Repetitions REST	<i>0</i>	TR Min	<i>2500.0</i>
# of Repetitions ACTIVE	<i>0</i>	TR Max	<i>8000.0</i>
SAT		MULTI-PHASE	
Tag Type	<i>None</i>	Seperate Series	<i>0</i>
Fat/Water Saturation	<i>Fat Classic</i>	Mask Phase	<i>0</i>
TRICKS		Mask Pause	<i>0</i>
Pause On/Off	<i>On</i>	DIFFUSION	
Auto Subtract	<i>0</i>	Recon All Images	<i>On</i>
Auto SCIC	<i>Off</i>	CONTRAST	
		Contrast Yes/No	<i>No</i>

AX T2 Fat Sat

AX T2 Fat Sat

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PATIENT POSITION		IMAGING PARAMETERS	
Patient Entry	<i>Feet First</i>	Imaging Mode	<i>2D</i>
Patient Position	<i>Supine</i>	Pulse Sequence	<i>FSE-XL</i>
Coil Configuration	<i>GEM Flex Medium Array</i>	Imaging Options	<i>EDR, TRF, Fast, ZIP512, FR</i>
Plane	<i>OBLIQUE</i>	SCAN RANGE	
Series Description	<i>AX T2</i>	FOV	<i>12.0</i>
SCAN TIMING		Slice Thickness	<i>3.0</i>
Flip Angle	<i>160</i>	Slice Spacing	<i>1.0</i>
TE	<i>100.0</i>	ACQ TIMING	
Number of Echoes	<i>1</i>	Freq	<i>288</i>
TR	<i>6037.0</i>	Phase	<i>224</i>
Echo Train Length	<i>22</i>	Freq DIR	<i>R/L</i>
Receiver Bandwidth	<i>41.67</i>	Fat Shift DIR	<i>Normal (L)</i>
IMAGE ENHANCE		NEX	<i>4.00</i>
Filter Choice	<i>None</i>	Phase FOV	<i>0.50</i>
GATING/TRIGGER		Auto Shim	<i>Auto</i>
Auto Trigger Type	<i>Off</i>	Phase Correction	<i>Yes</i>
FMRI		USER CVS	
PSD Trigger	<i>Internal</i>	User CV8	<i>1.00</i>
View Order	<i>Bottom/Up</i>	TR Min	<i>2500.0</i>
# of Repetitions REST	<i>0</i>	TR Max	<i>8000.0</i>
# of Repetitions ACTIVE	<i>0</i>	MULTI-PHASE	
SAT		Seperate Series	<i>0</i>
Tag Type	<i>None</i>	Mask Phase	<i>0</i>
TRICKS		Mask Pause	<i>0</i>
Pause On/Off	<i>On</i>	DIFFUSION	
Auto Subtract	<i>0</i>	Recon All Images	<i>On</i>
Auto SCIC	<i>Off</i>	CONTRAST	
		Contrast Yes/No	<i>No</i>

AX T2

AX T2