


McLeod Pavilion

Protocol: adult\_chest\_CARDIAC VIABILITY

3Plane Loc FIESTA	<b>PATIENT POSITION</b>		<b>IMAGING PARAMETERS</b>		3Plane Loc FIESTA
	Patient Entry	<i>Feet First</i>	Imaging Mode	<i>2D</i>	
	Patient Position	<i>Supine</i>	Pulse Sequence	<i>Fiesta</i>	
	Coil Configuration	<i>Body</i>	Imaging Options	<i>Seq, Fast</i>	
	Plane	<i>3-PLANE</i>	<b>SCAN RANGE</b>		
	Series Description	<i>3Plane Loc FIESTA</i>	FOV	<i>48.0</i>	
	<b>SCAN TIMING</b>		Slice Thickness	<i>10.0</i>	
	Flip Angle	<i>45</i>	Slice Spacing	<i>5.0</i>	
	TE	<i>Minimum</i>	<b>ACQ TIMING</b>		
	Number of Echoes	<i>1</i>	Freq	<i>160</i>	
	Receiver Bandwidth	<i>100.00</i>	Phase	<i>140</i>	
	<b>IMAGE ENHANCE</b>		Freq DIR	<i>Unswap</i>	
	Filter Choice	<i>None</i>	NEX	<i>1.00</i>	
	<b>GATING/TRIGGER</b>		# of Acq. Before Pause	<i>0</i>	
	Auto Trigger Type	<i>Off</i>	Phase FOV	<i>1.00</i>	
	<b>MULTI-PHASE</b>		Auto Shim	<i>Auto</i>	
	Seperate Series	<i>0</i>	Phase Correction	<i>No</i>	
	Mask Phase	<i>0</i>	<b>FMRI</b>		
	Mask Pause	<i>0</i>	PSD Trigger	<i>Internal</i>	
	<b>DIFFUSION</b>		View Order	<i>Bottom/Up</i>	
Recon All Images	<i>On</i>	# of Repetitions REST	<i>0</i>		
<b>CONTRAST</b>		# of Repetitions ACTIVE	<i>0</i>		
Contrast Yes/No	<i>No</i>	<b>SAT</b>			
		Tag Type	<i>None</i>		
		<b>TRICKS</b>			
		Pause On/Off	<i>On</i>		
		Auto Subtract	<i>0</i>		
		Auto SCIC	<i>Off</i>		
		<b>OTHERS</b>			
		Protocol Notes	<i>USE LARGE AA COIL AND USE BODY 36 2</i>		

McLeod Pavilion

Protocol: adult\_chest\_CARDIAC VIABILITY

<b>PATIENT POSITION</b>		<b>IMAGING PARAMETERS</b>	
Patient Entry	<i>Feet First</i>	Imaging Mode	<i>2D</i>
Patient Position	<i>Supine</i>	Pulse Sequence	<i>Fiesta</i>
Coil Configuration	<i>Body</i>	Imaging Options	<i>Seq, EDR, Fast, ZIP512, Asset</i>
Plane	<i>AXIAL</i>	<b>SCAN RANGE</b>	
Series Description	<i>Ax FIESTA BH Loc</i>	FOV	<i>36.0</i>
<b>SCAN TIMING</b>		Slice Thickness	<i>8.0</i>
Flip Angle	<i>45</i>	Slice Spacing	<i>0.0</i>
TE	<i>Min Full</i>	<b>ACQ TIMING</b>	
Number of Echoes	<i>1</i>	Freq	<i>132</i>
Receiver Bandwidth	<i>100.00</i>	Phase	<i>132</i>
<b>IMAGE ENHANCE</b>		Freq DIR	<i>R/L</i>
Filter Choice	<i>A</i>	NEX	<i>1.00</i>
<b>GATING/TRIGGER</b>		# of Acq. Before Pause	<i>0</i>
Auto Trigger Type	<i>Off</i>	Phase FOV	<i>1.00</i>
<b>FMRI</b>		Auto Shim	<i>Auto</i>
PSD Trigger	<i>Internal</i>	Phase Correction	<i>No</i>
View Order	<i>Bottom/Up</i>	<b>USER CVS</b>	
# of Repetitions REST	<i>0</i>	User CV20	<i>1.00</i>
# of Repetitions ACTIVE	<i>0</i>	<b>MULTI-PHASE</b>	
<b>SAT</b>		Seperate Series	<i>0</i>
Tag Type	<i>None</i>	Mask Phase	<i>0</i>
<b>TRICKS</b>		Mask Pause	<i>0</i>
Pause On/Off	<i>On</i>	<b>DIFFUSION</b>	
Auto Subtract	<i>0</i>	Optimized TE	<i>Yes</i>
Auto SCIC	<i>2</i>	Recon All Images	<i>On</i>
<b>OTHERS</b>		<b>CONTRAST</b>	
Protocol Notes	<i>cover above the arch to below heart</i>	Contrast Yes/No	<i>No</i>
			
TAKE OFF AUTO CAL			

Ax FIESTA BH Loc

Ax FIESTA BH Loc

Protocol: adult\_chest\_CARDIAC VIABILITY

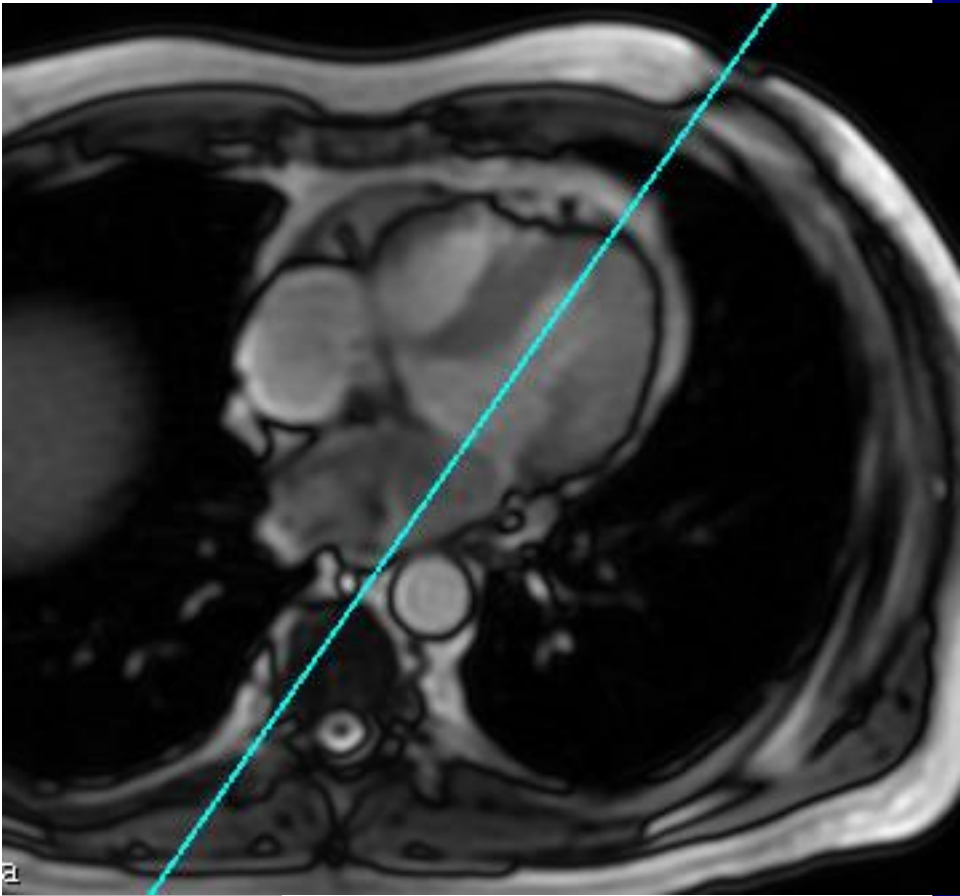
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Patient Entry	<i>Feet First</i>	Imaging Mode	<i>2D</i>
Patient Position	<i>Supine</i>	Pulse Sequence	<i>Fiesta</i>
Coil Configuration	<i>Body</i>	Imaging Options	<i>Gat, Seq, Fast, Asset</i>
Plane	<i>OBLIQUE</i>	<b>SCAN RANGE</b>	
Series Description	<i>2Ch LOC BH</i>	FOV	<i>41.0</i>
<b>SCAN TIMING</b>		Slice Thickness	<i>8.0</i>
Flip Angle	<i>50</i>	Slice Spacing	<i>0.0</i>
TE	<i>Minimum</i>	<b>ACQ TIMING</b>	
Number of Echoes	<i>1</i>	Freq	<i>192</i>
Receiver Bandwidth	<i>100.00</i>	Phase	<i>224</i>
<b>IMAGE ENHANCE</b>		Freq DIR	<i>Unswap</i>
Filter Choice	<i>None</i>	NEX	<i>1.00</i>
<b>GATING/TRIGGER</b>		Phase FOV	<i>1.00</i>
Auto Trigger Type	<i>On</i>	Auto Shim	<i>On</i>
Trigger Type	<i>0</i>	Phase Correction	<i>No</i>
Views per Segment	<i>20</i>	<b>FMRI</b>	
<b>MULTI-PHASE</b>		PSD Trigger	<i>Internal</i>
Seperate Series	<i>0</i>	Slice Order	<i>Interleaved</i>
Mask Phase	<i>0</i>	View Order	<i>Bottom/Up</i>
Mask Pause	<i>0</i>	# of Repetitions REST	<i>0</i>
<b>DIFFUSION</b>		# of Repetitions ACTIVE	<i>0</i>
Recon All Images	<i>On</i>	<b>SAT</b>	
<b>CINE</b>		Tag Type	<i>None</i>
# of Cardiac Phases to Reconstruct	<i>20</i>	<b>TRICKS</b>	
		Pause On/Off	<i>On</i>
		Auto Subtract	<i>0</i>
		Auto SCIC	<i>Off</i>
		<b>CONTRAST</b>	
		Contrast Yes/No	<i>No</i>

2Ch LOC BH

2Ch LOC BH

**OTHERS**

Protocol Notes



2 CHAMBER LOC  
PRESCRIPTION

Protocol: adult\_chest\_CARDIAC VIABILITY

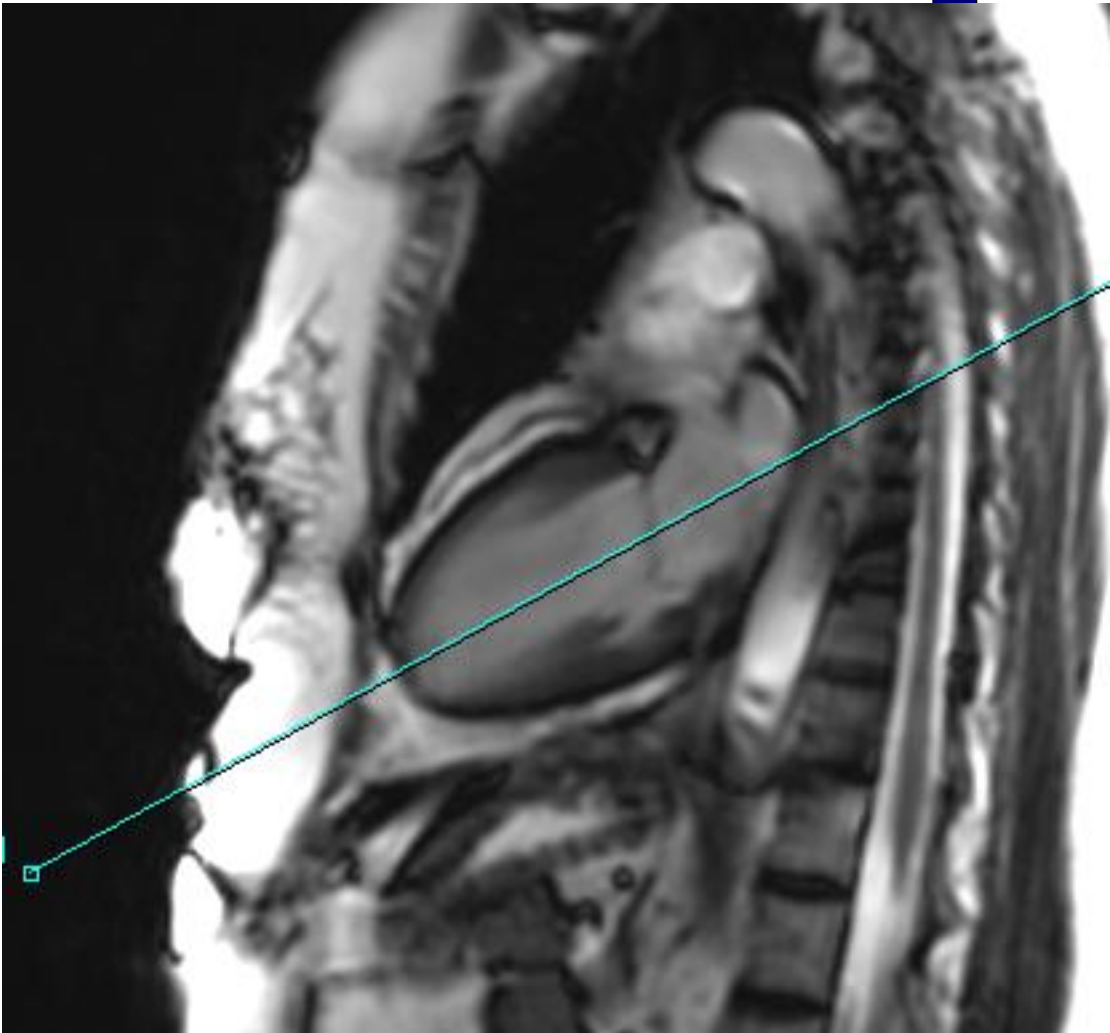
PATIENT POSITION		IMAGING PARAMETERS	
Patient Entry	<i>Feet First</i>	Imaging Mode	<i>2D</i>
Patient Position	<i>Supine</i>	Pulse Sequence	<i>Fiesta</i>
Coil Configuration	<i>Body</i>	Imaging Options	<i>Gat, Seq, Fast, Asset</i>
Plane	<i>OBLIQUE</i>	<b>SCAN RANGE</b>	
Series Description	<i>SEMI 4CH LOC BH</i>	FOV	<i>41.0</i>
<b>SCAN TIMING</b>		Slice Thickness	<i>7.0</i>
Flip Angle	<i>50</i>	Slice Spacing	<i>0.0</i>
TE	<i>Minimum</i>	<b>ACQ TIMING</b>	
Number of Echoes	<i>1</i>	Freq	<i>192</i>
Receiver Bandwidth	<i>100.00</i>	Phase	<i>224</i>
<b>IMAGE ENHANCE</b>		Freq DIR	<i>Unswap</i>
Filter Choice	<i>None</i>	NEX	<i>1.00</i>
<b>GATING/TRIGGER</b>		Phase FOV	<i>0.90</i>
Auto Trigger Type	<i>On</i>	Auto Shim	<i>On</i>
Trigger Type	<i>0</i>	Phase Correction	<i>No</i>
Views per Segment	<i>20</i>	<b>FMRI</b>	
<b>MULTI-PHASE</b>		PSD Trigger	<i>Internal</i>
Seperate Series	<i>0</i>	View Order	<i>Bottom/Up</i>
Mask Phase	<i>0</i>	# of Repetitions REST	<i>0</i>
Mask Pause	<i>0</i>	# of Repetitions ACTIVE	<i>0</i>
<b>DIFFUSION</b>		<b>SAT</b>	
Recon All Images	<i>On</i>	Tag Type	<i>None</i>
<b>CINE</b>		<b>TRICKS</b>	
# of Cardiac Phases to Reconstruct	<i>20</i>	Pause On/Off	<i>On</i>
		Auto Subtract	<i>0</i>
		Auto SCIC	<i>Off</i>
		<b>CONTRAST</b>	
		Contrast Yes/No	<i>No</i>

SEMI 4CH LOC BH

SEMI 4CH LOC BH

OTHERS

Protocol Notes



Protocol: adult\_chest\_CARDIAC VIABILITY

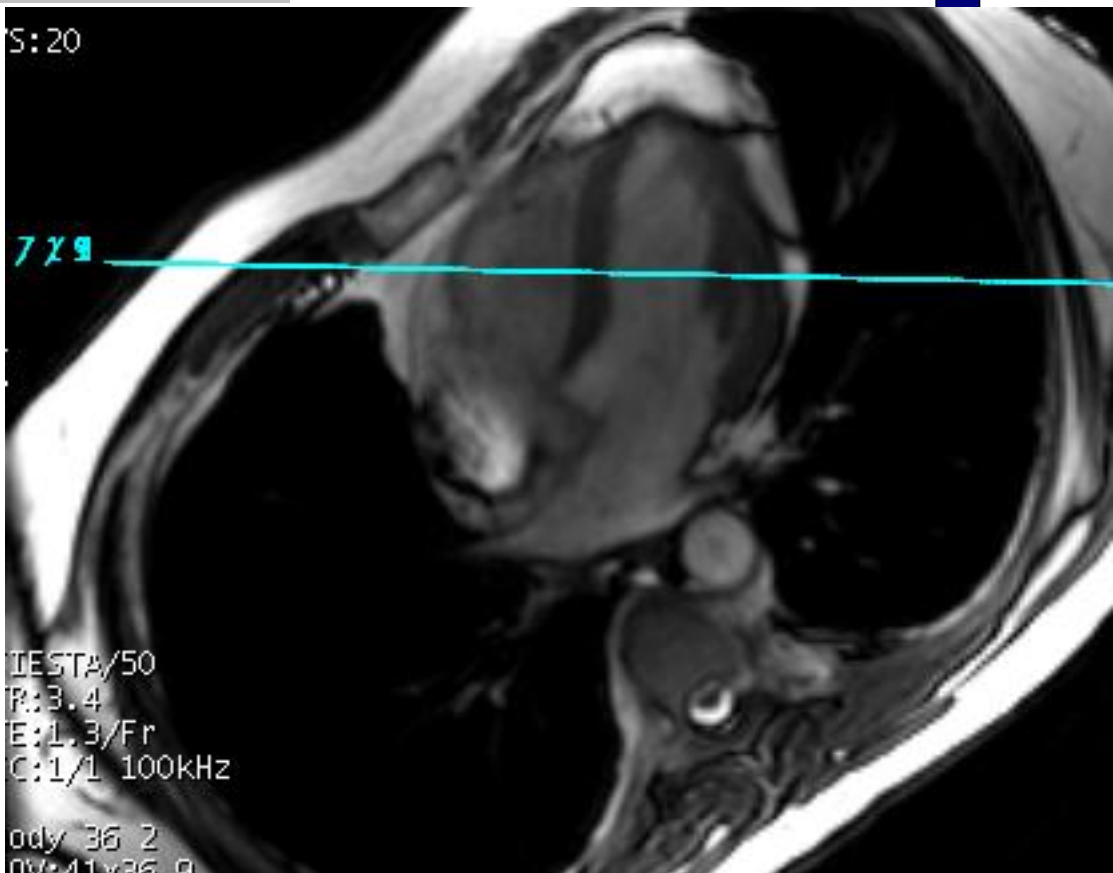
PATIENT POSITION		IMAGING PARAMETERS	
Patient Entry	<i>Feet First</i>	Imaging Mode	<i>2D</i>
Patient Position	<i>Supine</i>	Pulse Sequence	<i>Fiesta</i>
Coil Configuration	<i>Body</i>	Imaging Options	<i>Gat, Seq, EDR, Fast, Asset</i>
Plane	<i>OBLIQUE</i>	SCAN RANGE	
Series Description	<i>SA LOC BH</i>	FOV	<i>41.0</i>
SCAN TIMING		Slice Thickness	<i>8.0</i>
Flip Angle	<i>50</i>	Slice Spacing	<i>0.0</i>
TE	<i>Minimum</i>	ACQ TIMING	
Number of Echoes	<i>1</i>	Freq	<i>160</i>
Receiver Bandwidth	<i>100.00</i>	Phase	<i>160</i>
IMAGE ENHANCE		Freq DIR	<i>Unswap</i>
Filter Choice	<i>None</i>	NEX	<i>1.00</i>
GATING/TRIGGER		Phase FOV	<i>0.80</i>
Auto Trigger Type	<i>On</i>	Auto Shim	<i>On</i>
Trigger Type	<i>0</i>	Phase Correction	<i>No</i>
Views per Segment	<i>20</i>	FMRI	
MULTI-PHASE		PSD Trigger	<i>Internal</i>
Seperate Series	<i>0</i>	Slice Order	<i>Interleaved</i>
Mask Phase	<i>0</i>	View Order	<i>Bottom/Up</i>
Mask Pause	<i>0</i>	# of Repetitions REST	<i>0</i>
DIFFUSION		# of Repetitions ACTIVE	<i>0</i>
Recon All Images	<i>On</i>	SAT	
CINE		Tag Type	<i>None</i>
# of Cardiac Phases to Reconstruct	<i>20</i>	TRICKS	
		Pause On/Off	<i>On</i>
		Auto Subtract	<i>0</i>
		Auto SCIC	<i>Off</i>
		CONTRAST	
		Contrast Yes/No	<i>No</i>

SA LOC BH

SA LOC BH

OTHERS

Protocol Notes



RX SLICE OFF OF PEAK  
DIASTOLIC



Protocol: adult\_chest\_CARDIAC VIABILITY

PATIENT POSITION		IMAGING PARAMETERS	
Patient Entry	<i>Feet First</i>	Imaging Mode	<i>2D</i>
Patient Position	<i>Supine</i>	Pulse Sequence	<i>Fiesta</i>
Coil Configuration	<i>Body</i>	Imaging Options	<i>Gat, Seq, Fast, Asset</i>
Plane	<i>OBLIQUE</i>	<b>SCAN RANGE</b>	
Series Description	<i>4CH LOC BH</i>	FOV	<i>41.0</i>
<b>SCAN TIMING</b>		Slice Thickness	<i>7.0</i>
Flip Angle	<i>50</i>	Slice Spacing	<i>0.0</i>
TE	<i>Minimum</i>	<b>ACQ TIMING</b>	
Number of Echoes	<i>1</i>	Freq	<i>192</i>
Receiver Bandwidth	<i>100.00</i>	Phase	<i>224</i>
<b>IMAGE ENHANCE</b>		Freq DIR	<i>Unswap</i>
Filter Choice	<i>None</i>	NEX	<i>1.00</i>
<b>GATING/TRIGGER</b>		Phase FOV	<i>0.90</i>
Auto Trigger Type	<i>On</i>	Auto Shim	<i>On</i>
Trigger Type	<i>0</i>	Phase Correction	<i>No</i>
Views per Segment	<i>20</i>	<b>FMRI</b>	
<b>MULTI-PHASE</b>		PSD Trigger	<i>Internal</i>
Seperate Series	<i>0</i>	View Order	<i>Bottom/Up</i>
Mask Phase	<i>0</i>	# of Repetitions REST	<i>0</i>
Mask Pause	<i>0</i>	# of Repetitions ACTIVE	<i>0</i>
<b>DIFFUSION</b>		<b>SAT</b>	
Recon All Images	<i>On</i>	Tag Type	<i>None</i>
<b>CINE</b>		<b>TRICKS</b>	
# of Cardiac Phases to Reconstruct	<i>20</i>	Pause On/Off	<i>On</i>
		Auto Subtract	<i>0</i>
		Auto SCIC	<i>Off</i>
		<b>CONTRAST</b>	
		Contrast Yes/No	<i>No</i>

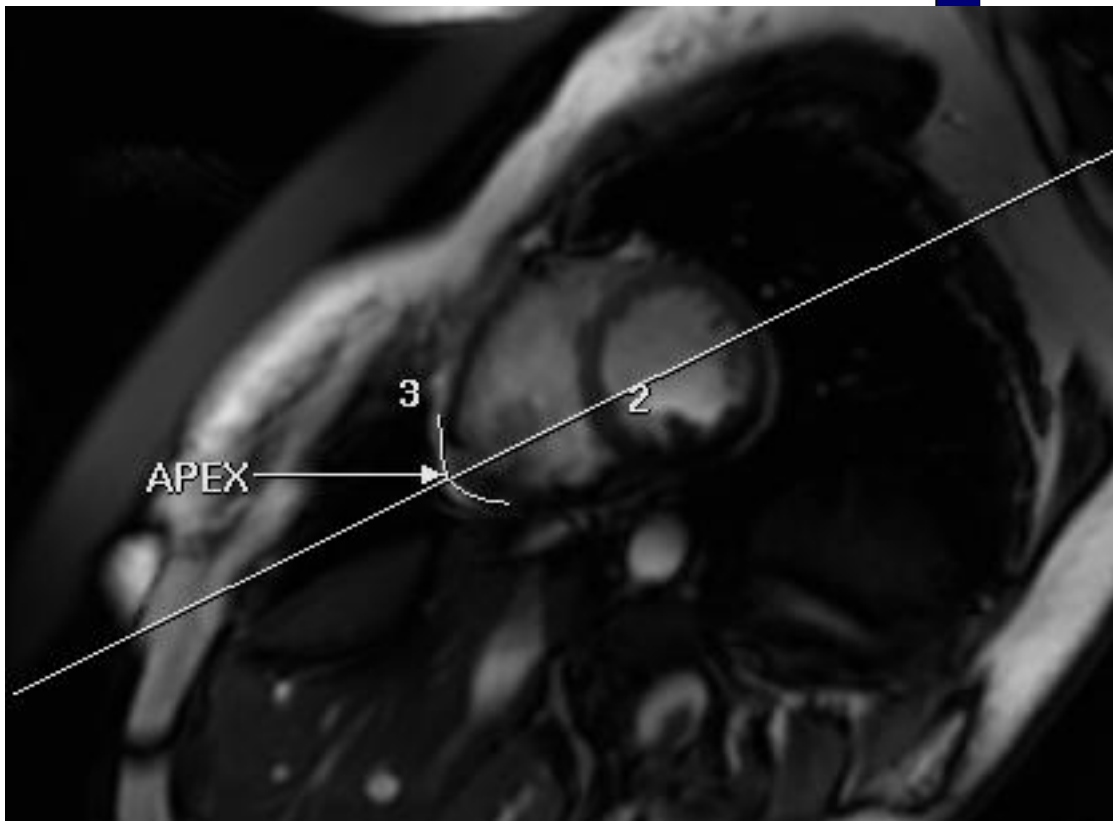
4CH LOC BH

4CH LOC BH

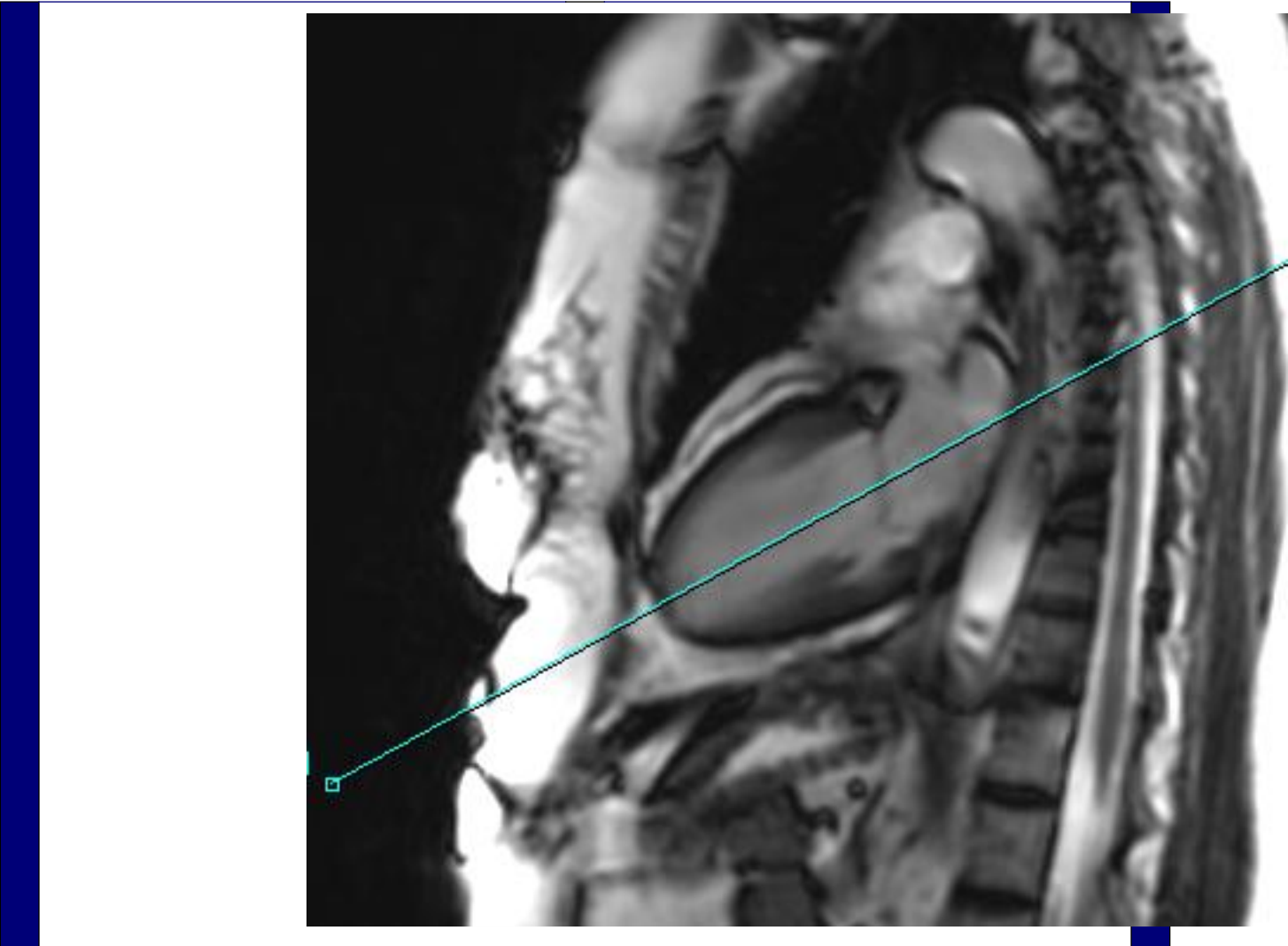
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<p>OTHERS</p>	
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Protocol Notes



*4 CHAMBER LOC. ANGLE  
THROUGH APEX  
SPLITTING THE APEX IN  
HALF*



Protocol: adult\_chest\_CARDIAC VIABILITY

PATIENT POSITION		IMAGING PARAMETERS	
Patient Entry	<i>Feet First</i>	Imaging Mode	<i>2D</i>
Patient Position	<i>Supine</i>	Pulse Sequence	<i>Fiesta</i>
Coil Configuration	<i>Body</i>	Imaging Options	<i>Seq, Fast, Asset</i>
Plane	<i>OBLIQUE</i>	<b>SCAN RANGE</b>	
Series Description	<i>SA LOC FREE BREATH</i>	FOV	<i>41.0</i>
<b>SCAN TIMING</b>		Slice Thickness	<i>8.0</i>
Flip Angle	<i>50</i>	Slice Spacing	<i>0.0</i>
TE	<i>Minimum</i>	<b>ACQ TIMING</b>	
Number of Echoes	<i>1</i>	Freq	<i>160</i>
Receiver Bandwidth	<i>100.00</i>	Phase	<i>160</i>
<b>IMAGE ENHANCE</b>		Freq DIR	<i>Unswap</i>
Filter Choice	<i>None</i>	NEX	<i>1.00</i>
<b>GATING/TRIGGER</b>		Phase FOV	<i>0.80</i>
Auto Trigger Type	<i>Off</i>	Auto Shim	<i>On</i>
<b>MULTI-PHASE</b>		Phase Correction	<i>No</i>
Seperate Series	<i>0</i>	<b>FMRI</b>	
Mask Phase	<i>0</i>	PSD Trigger	<i>Internal</i>
Mask Pause	<i>0</i>	View Order	<i>Bottom/Up</i>
<b>DIFFUSION</b>		# of Repetitions REST	<i>0</i>
Recon All Images	<i>On</i>	# of Repetitions ACTIVE	<i>0</i>
<b>CONTRAST</b>		<b>SAT</b>	
Contrast Yes/No	<i>No</i>	Tag Type	<i>None</i>
		<b>TRICKS</b>	
		Pause On/Off	<i>On</i>
		Auto Subtract	<i>0</i>
		Auto SCIC	<i>Off</i>

SA LOC FREE BREATH

SA LOC FREE BREATH

OTHERS

Protocol Notes

h: 2/20

S: 20

/ 1 5

/ 1 3

/ 1 1

9 / 9

9 / 7

9 / 5

9 / 3

9 / 1

IESTA/50

R: 3.5

E: 1.3/Fr

C: 1/1 100kHz

*RX OFF 4 CH  
This is done so we can  
angle our FOV box*

Protocol: adult\_chest\_CARDIAC VIABILITY

<b>PATIENT POSITION</b>		<b>IMAGING PARAMETERS</b>	
Patient Entry	<i>Feet First</i>	Imaging Mode	<i>2D</i>
Patient Position	<i>Supine</i>	Pulse Sequence	<i>Fiesta</i>
Coil Configuration	<i>Body</i>	Imaging Options	<i>Gat, Seq, EDR, Fast, Asset</i>
Plane	<i>OBLIQUE</i>	<b>SCAN RANGE</b>	
Series Description	<i>SA FIESTA CINE BH</i>	FOV	<i>44.0</i>
<b>SCAN TIMING</b>		Slice Thickness	<i>8.0</i>
Flip Angle	<i>45</i>	Slice Spacing	<i>1.0</i>
TE	<i>Minimum</i>	<b>ACQ TIMING</b>	
Number of Echoes	<i>1</i>	Freq	<i>192</i>
Receiver Bandwidth	<i>142.86</i>	Phase	<i>256</i>
<b>IMAGE ENHANCE</b>		Freq DIR	<i>Unswap</i>
Filter Choice	<i>None</i>	NEX	<i>1.00</i>
<b>GATING/TRIGGER</b>		Phase FOV	<i>0.80</i>
Auto Trigger Type	<i>On</i>	Auto Shim	<i>On</i>
Trigger Type	<i>0</i>	Phase Correction	<i>No</i>
Views per Segment	<i>20</i>	<b>FMRI</b>	
<b>MULTI-PHASE</b>		PSD Trigger	<i>Internal</i>
Seperate Series	<i>0</i>	View Order	<i>Bottom/Up</i>
Mask Phase	<i>0</i>	# of Repetitions REST	<i>0</i>
Mask Pause	<i>0</i>	# of Repetitions ACTIVE	<i>0</i>
<b>DIFFUSION</b>		<b>SAT</b>	
Recon All Images	<i>On</i>	Tag Type	<i>None</i>
<b>CINE</b>		<b>TRICKS</b>	
# of Cardiac Phases to Reconstruct	<i>20</i>	Pause On/Off	<i>On</i>
		Auto Subtract	<i>0</i>
		Auto SCIC	<i>Off</i>
		<b>CONTRAST</b>	
		Contrast Yes/No	<i>No</i>

SA FIESTA CINE BH

SA FIESTA CINE BH

OTHERS



Protocol Notes

scan from base to apex RX  
OFF 4 CH

Im: 2  
QA: 59.6  
67 bpm  
TD: 54  
Ph: 2/20

VS: 20

9 / 15  
9 / 13  
9 / 11  
9 / 9  
I 9 / 7  
R 9 / 5  
A 9 / 3  
9 / 1

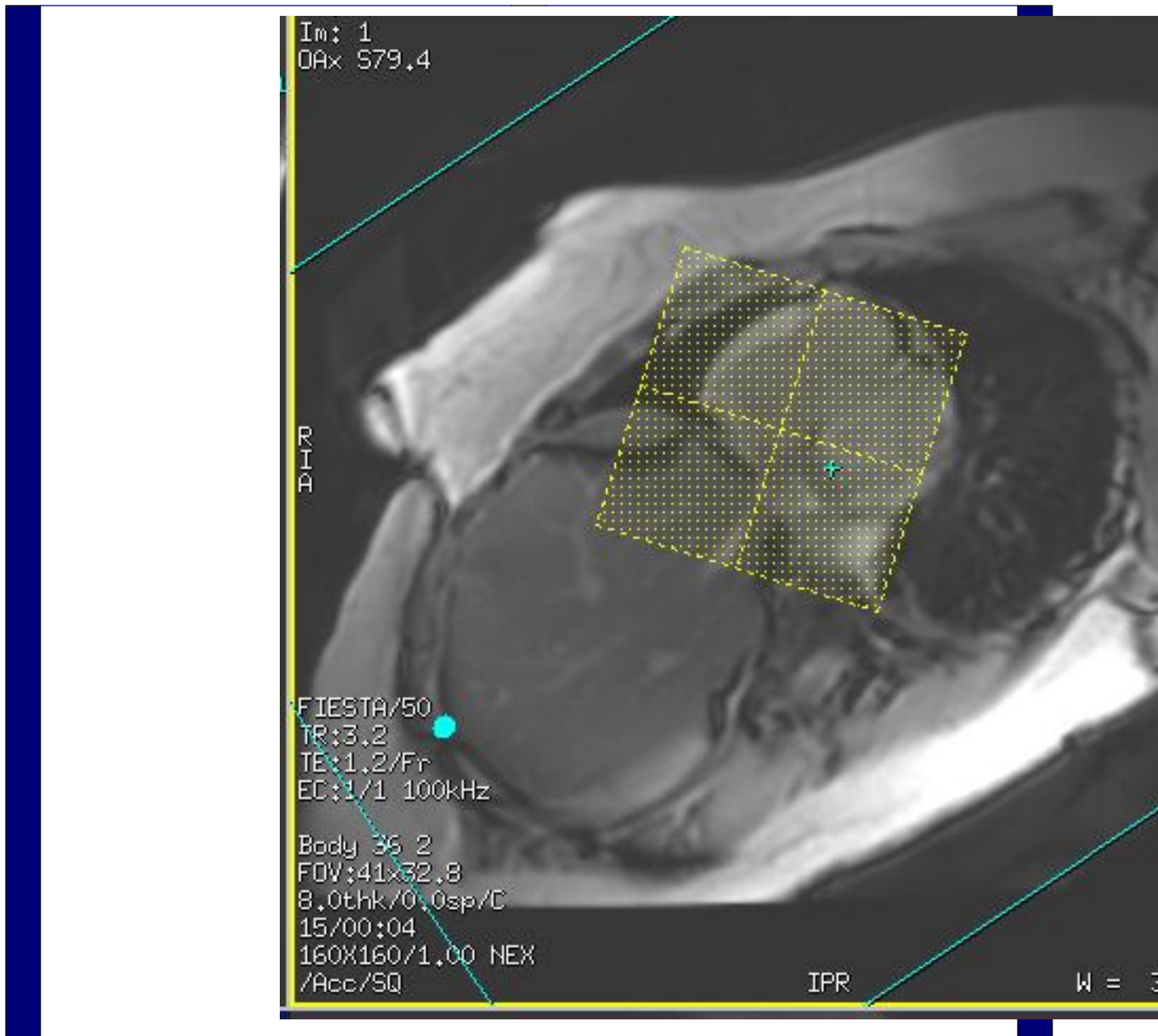
FIESTA/50  
TR: 3.5  
TE: 1.3/Fr  
EC: 1/1 100kHz

Body 36 2  
FOV: 45x40.5  
7.0thk/0.0sp/C  
20/00:12  
192X224/1.00 NEX  
EG/ACC/ED/SQ

SPR

W =

*rx 2-3 slices posterior to  
mitral valve. extend 3-4  
slices beyond apex of heart.  
Stop scan when you are  
through the heart.*



Protocol: adult\_chest\_CARDIAC VIABILITY

<b>PATIENT POSITION</b>		<b>IMAGING PARAMETERS</b>	
Patient Entry	<i>Feet First</i>	Imaging Mode	<i>2D</i>
Patient Position	<i>Supine</i>	Pulse Sequence	<i>Fiesta</i>
Coil Configuration	<i>Body</i>	Imaging Options	<i>Gat, Seq, EDR, Fast, Asset</i>
Plane	<i>OBLIQUE</i>	<b>SCAN RANGE</b>	
Series Description	<i>4CH FIESTA BH</i>	FOV	<i>42.0</i>
<b>SCAN TIMING</b>		Slice Thickness	<i>8.0</i>
Flip Angle	<i>45</i>	Slice Spacing	<i>0.0</i>
TE	<i>Minimum</i>	<b>ACQ TIMING</b>	
Number of Echoes	<i>1</i>	Freq	<i>192</i>
Receiver Bandwidth	<i>142.86</i>	Phase	<i>192</i>
<b>IMAGE ENHANCE</b>		Freq DIR	<i>Unswap</i>
Filter Choice	<i>None</i>	NEX	<i>1.00</i>
<b>GATING/TRIGGER</b>		Phase FOV	<i>0.90</i>
Auto Trigger Type	<i>On</i>	Auto Shim	<i>On</i>
Trigger Type	<i>0</i>	Phase Correction	<i>No</i>
Views per Segment	<i>20</i>	<b>FMRI</b>	
<b>MULTI-PHASE</b>		PSD Trigger	<i>Internal</i>
Seperate Series	<i>0</i>	View Order	<i>Bottom/Up</i>
Mask Phase	<i>0</i>	# of Repetitions REST	<i>0</i>
Mask Pause	<i>0</i>	# of Repetitions ACTIVE	<i>0</i>
<b>DIFFUSION</b>		<b>SAT</b>	
Recon All Images	<i>On</i>	Tag Type	<i>None</i>
<b>CINE</b>		<b>TRICKS</b>	
# of Cardiac Phases to Reconstruct	<i>20</i>	Pause On/Off	<i>On</i>
		Auto Subtract	<i>0</i>
		Auto SCIC	<i>Off</i>
		<b>CONTRAST</b>	
		Contrast Yes/No	<i>No</i>

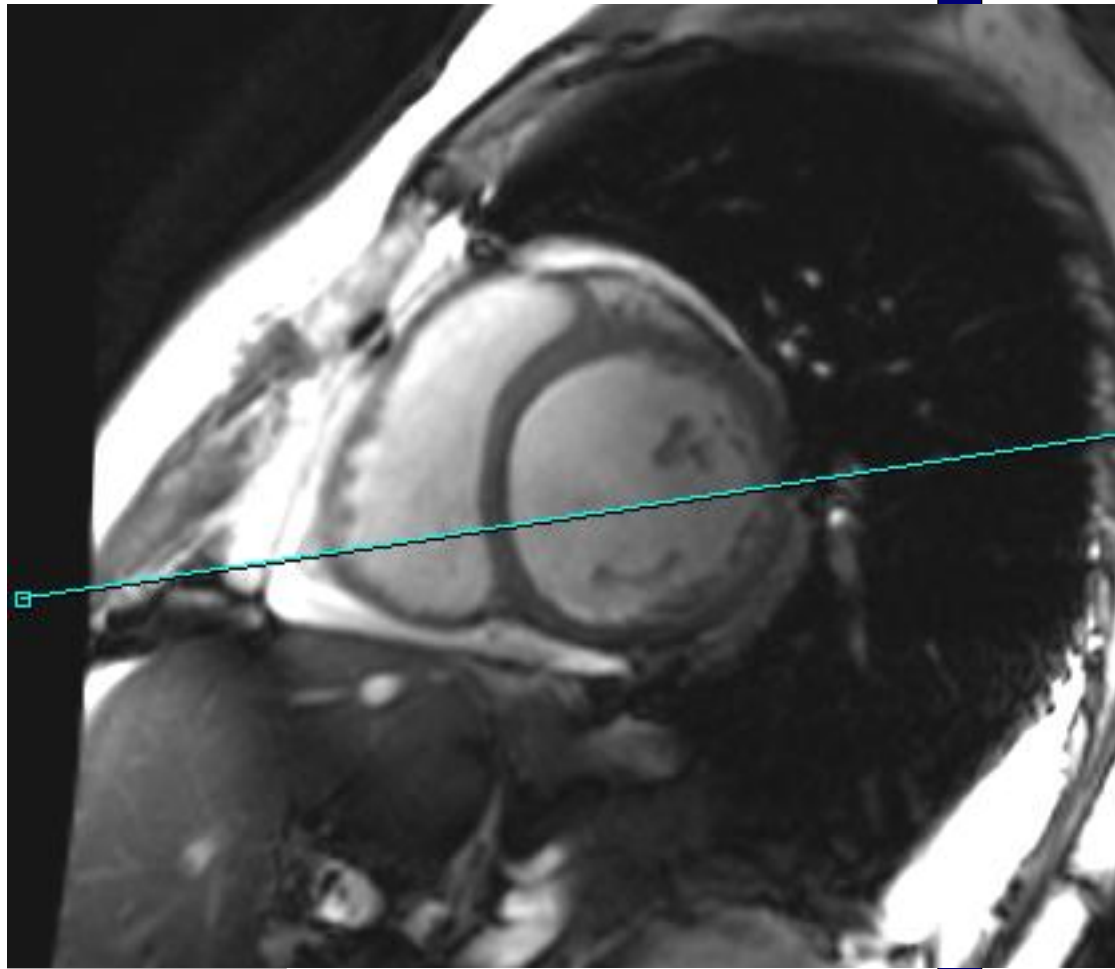
4CH FIESTA BH

4CH FIESTA BH

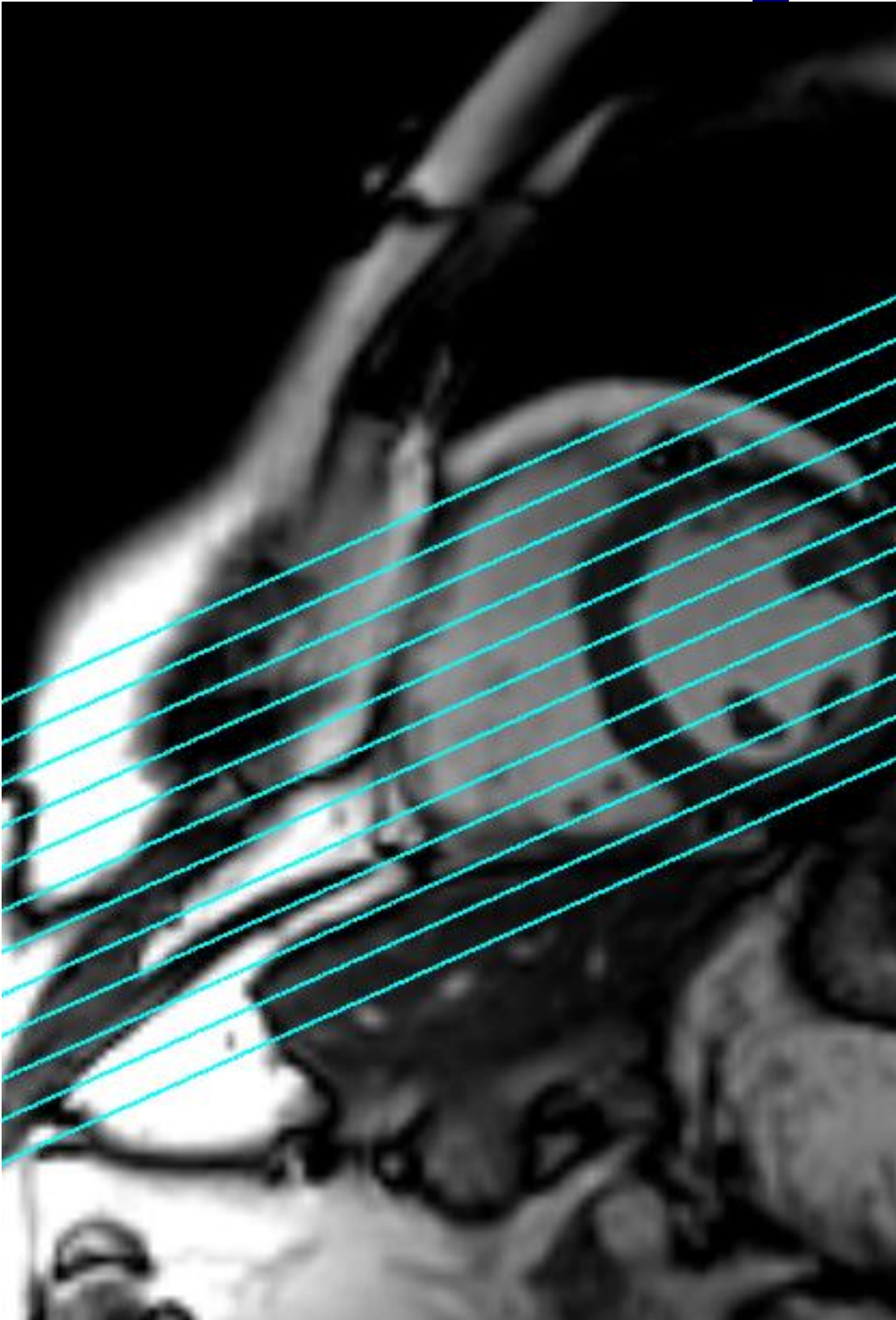
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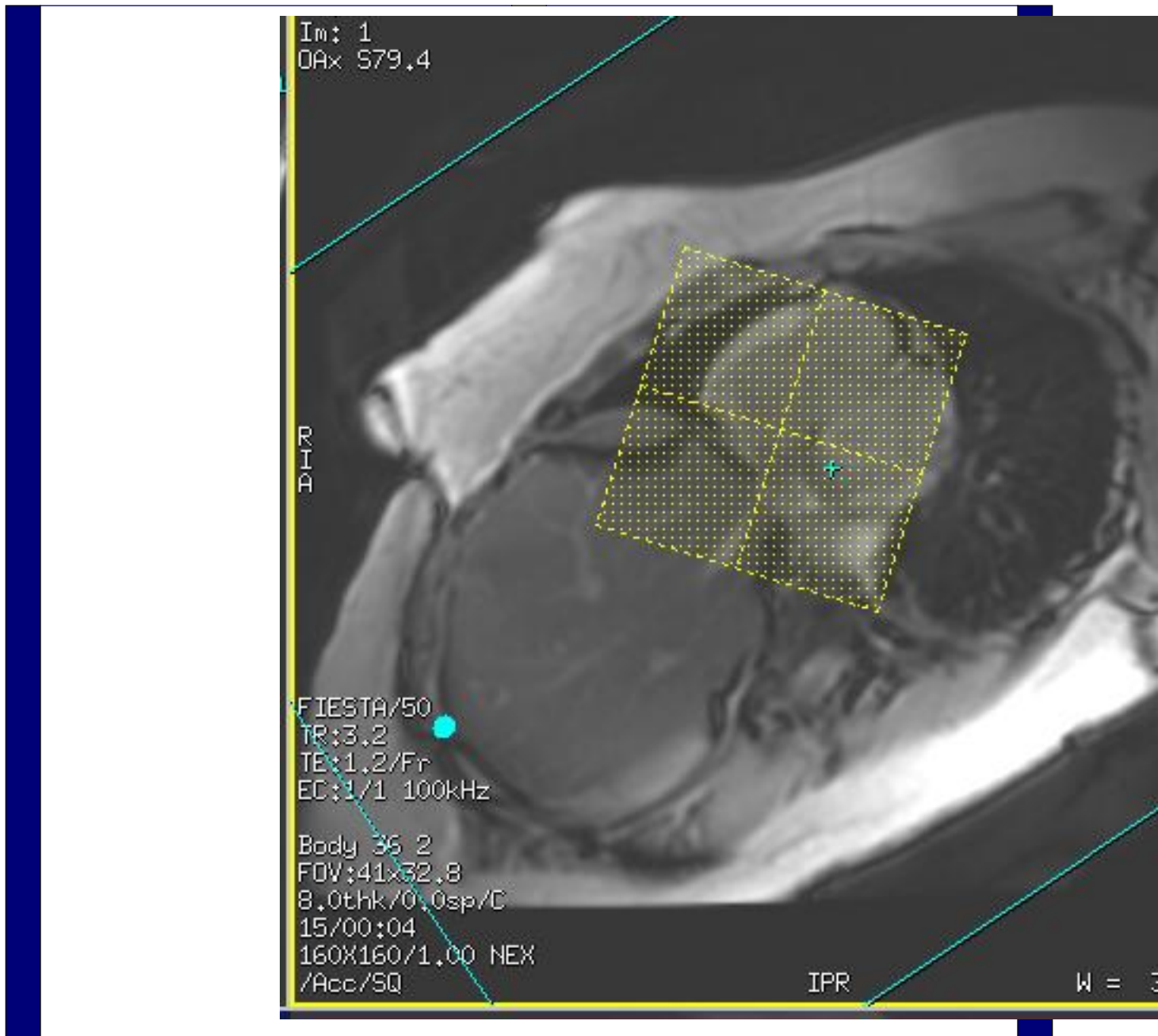
<p>OTHERS</p>	
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Protocol Notes



*Scan through entire heart  
RX OFF SA FIESTA*





Protocol: adult\_chest\_CARDIAC VIABILITY

PATIENT POSITION		IMAGING PARAMETERS	
Patient Entry	<i>Feet First</i>	Imaging Mode	<i>2D</i>
Patient Position	<i>Supine</i>	Pulse Sequence	<i>Fiesta</i>
Coil Configuration	<i>Body</i>	Imaging Options	<i>Gat, Seq, EDR, Fast, Asset</i>
Plane	<i>OBLIQUE</i>	<b>SCAN RANGE</b>	
Series Description	<i>3CH FIESTA BH</i>	FOV	<i>38.0</i>
<b>SCAN TIMING</b>		Slice Thickness	<i>8.0</i>
Flip Angle	<i>45</i>	Slice Spacing	<i>0.0</i>
TE	<i>Minimum</i>	<b>ACQ TIMING</b>	
Number of Echoes	<i>1</i>	Freq	<i>192</i>
Receiver Bandwidth	<i>142.86</i>	Phase	<i>192</i>
<b>IMAGE ENHANCE</b>		Freq DIR	<i>Unswap</i>
Filter Choice	<i>None</i>	NEX	<i>1.00</i>
<b>GATING/TRIGGER</b>		Phase FOV	<i>1.00</i>
Auto Trigger Type	<i>On</i>	Auto Shim	<i>On</i>
Trigger Type	<i>0</i>	Phase Correction	<i>No</i>
Views per Segment	<i>30</i>	<b>FMRI</b>	
<b>MULTI-PHASE</b>		PSD Trigger	<i>Internal</i>
Seperate Series	<i>0</i>	View Order	<i>Bottom/Up</i>
Mask Phase	<i>0</i>	# of Repetitions REST	<i>0</i>
Mask Pause	<i>0</i>	# of Repetitions ACTIVE	<i>0</i>
<b>DIFFUSION</b>		<b>SAT</b>	
Recon All Images	<i>On</i>	Tag Type	<i>None</i>
<b>CINE</b>		<b>TRICKS</b>	
# of Cardiac Phases to Reconstruct	<i>20</i>	Pause On/Off	<i>On</i>
		Auto Subtract	<i>0</i>
		Auto SCIC	<i>Off</i>
		<b>CONTRAST</b>	
		Contrast Yes/No	<i>No</i>

3CH FIESTA BH

3CH FIESTA BH



OTHERS

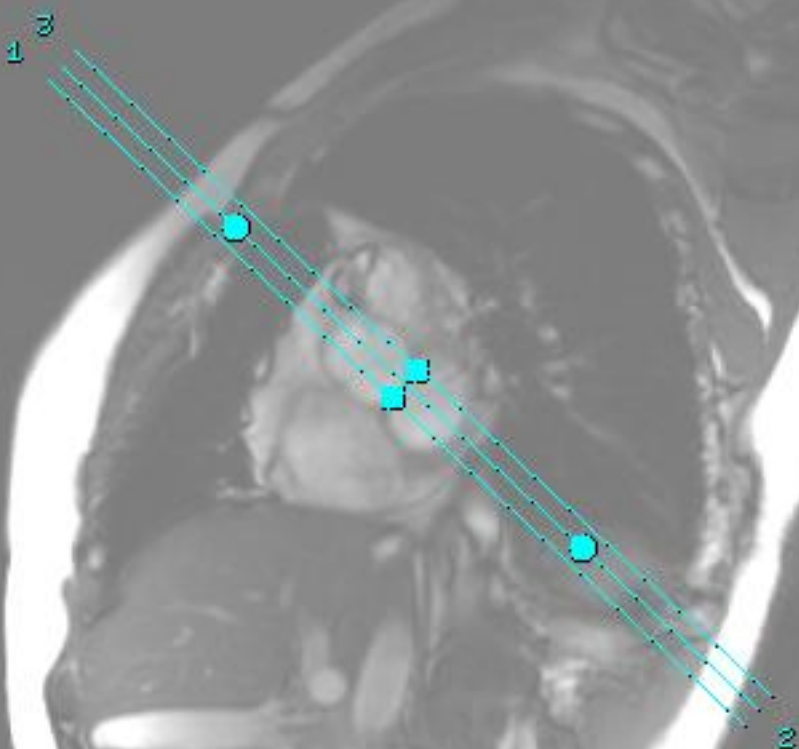
Protocol Notes

314  
7/20

20

BTA/45  
3.3  
1.3/Fr  
1/1 100kHz

38 2  
:44x35.2  
thk/1.0sp  
07-01-10-17



RX 1 SLICE THROUGH  
SNOWMAN USING  
SHORT AXIS VIEW, THEN  
ENTER 3 IN THE # OF  
SLICES BOX

Protocol: adult\_chest\_CARDIAC VIABILITY

<b>PATIENT POSITION</b>		<b>IMAGING PARAMETERS</b>	
Patient Entry	<i>Feet First</i>	Imaging Mode	<i>2D</i>
Patient Position	<i>Supine</i>	Pulse Sequence	<i>Fiesta</i>
Coil Configuration	<i>Body</i>	Imaging Options	<i>Gat, Seq, EDR, Fast, Asset</i>
Plane	<i>OBLIQUE</i>	<b>SCAN RANGE</b>	
Series Description	<i>2CH LA FIESTA BH</i>	FOV	<i>42.0</i>
<b>SCAN TIMING</b>		Slice Thickness	<i>8.0</i>
Flip Angle	<i>45</i>	Slice Spacing	<i>0.0</i>
TE	<i>Minimum</i>	<b>ACQ TIMING</b>	
Number of Echoes	<i>1</i>	Freq	<i>192</i>
Receiver Bandwidth	<i>142.86</i>	Phase	<i>192</i>
<b>IMAGE ENHANCE</b>		Freq DIR	<i>Unswap</i>
Filter Choice	<i>None</i>	NEX	<i>1.00</i>
<b>GATING/TRIGGER</b>		Phase FOV	<i>0.90</i>
Auto Trigger Type	<i>On</i>	Auto Shim	<i>On</i>
Trigger Type	<i>0</i>	Phase Correction	<i>No</i>
Views per Segment	<i>30</i>	<b>FMRI</b>	
<b>MULTI-PHASE</b>		PSD Trigger	<i>Internal</i>
Seperate Series	<i>0</i>	Slice Order	<i>Interleaved</i>
Mask Phase	<i>0</i>	View Order	<i>Bottom/Up</i>
Mask Pause	<i>0</i>	# of Repetitions REST	<i>0</i>
<b>DIFFUSION</b>		# of Repetitions ACTIVE	<i>0</i>
Recon All Images	<i>On</i>	<b>SAT</b>	
<b>CINE</b>		Tag Type	<i>None</i>
# of Cardiac Phases to Reconstruct	<i>20</i>	<b>TRICKS</b>	
		Pause On/Off	<i>On</i>
		Auto Subtract	<i>0</i>
		Auto SCIC	<i>Off</i>
		<b>CONTRAST</b>	
		Contrast Yes/No	<i>No</i>

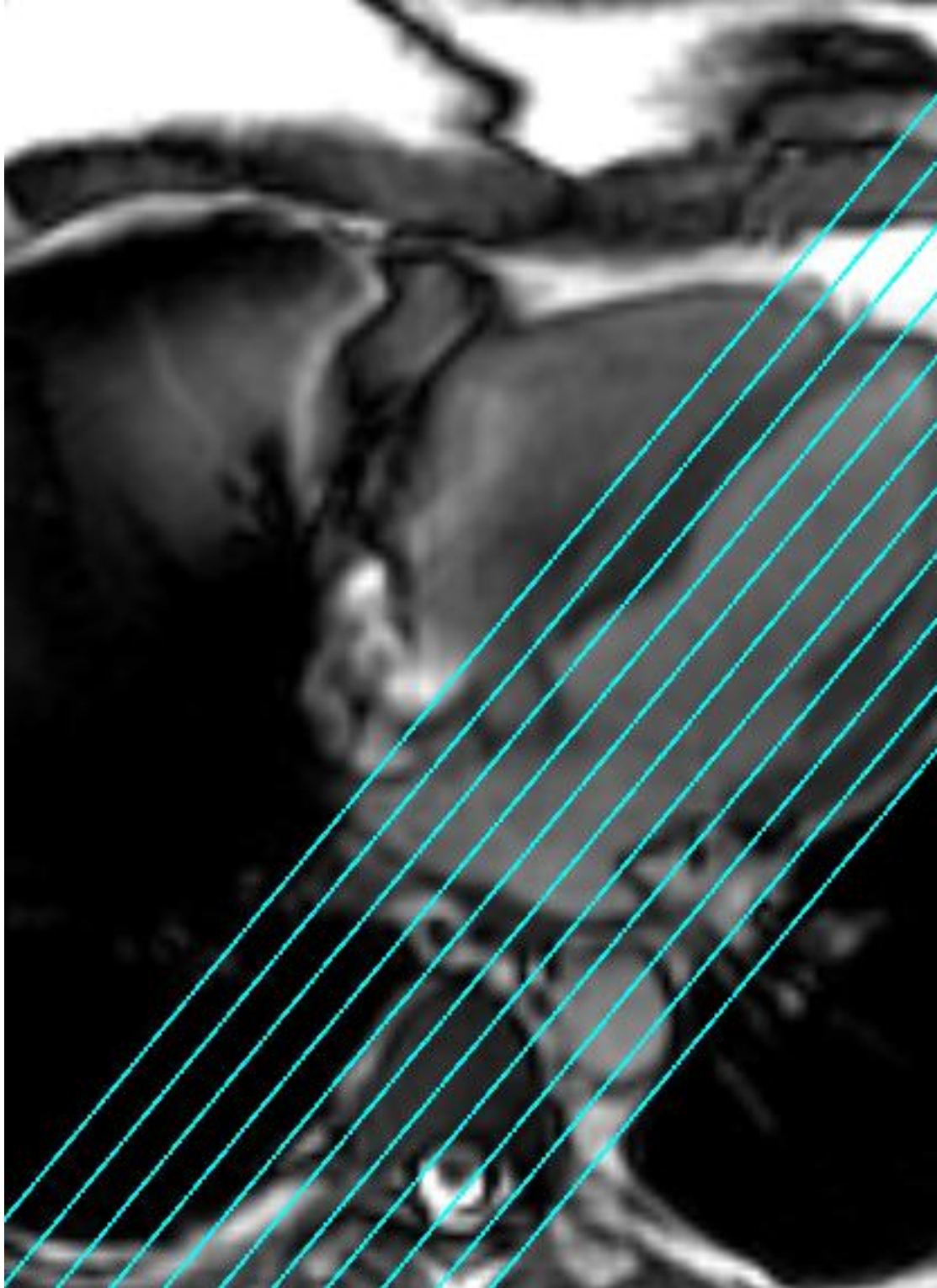
2CH LA FIESTA BH

2CH LA FIESTA BH

**OTHERS**

Protocol Notes

*RX OFF 4 CH VIEW*



Protocol: adult\_chest\_CARDIAC VIABILITY

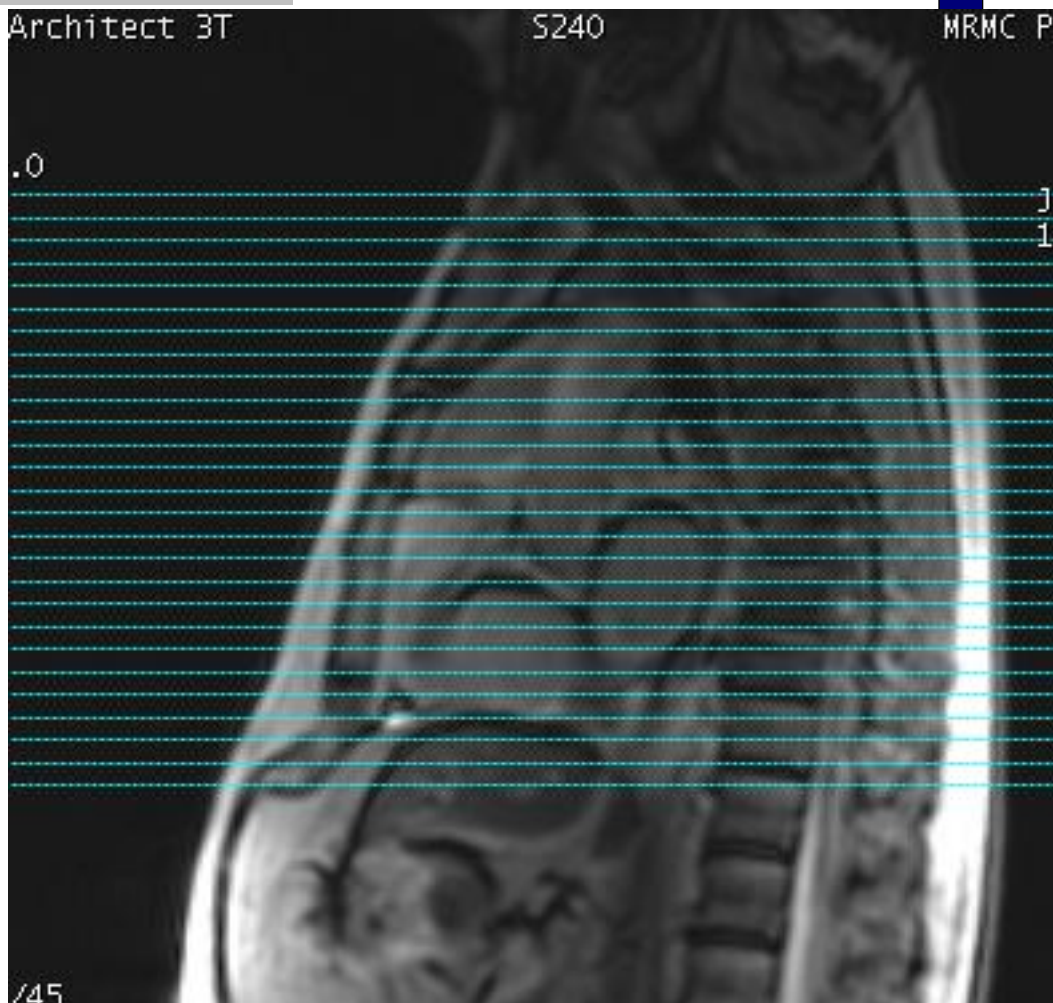
<b>PATIENT POSITION</b>		<b>IMAGING PARAMETERS</b>	
Patient Entry	<i>Feet First</i>	Imaging Mode	<i>2D</i>
Patient Position	<i>Supine</i>	Pulse Sequence	<i>Spin Echo</i>
Coil Configuration	<i>Body</i>	Imaging Options	<i>Gat, Seq, EDR, Fast, ZIP512, SS, BSP, Asset</i>
Plane	<i>AXIAL</i>	<b>SCAN RANGE</b>	
Series Description	<i>AX T2 FB BLACK BLOOD SSFSE</i>	FOV	<i>36.0</i>
<b>SCAN TIMING</b>		Slice Thickness	<i>8.0</i>
TE	<i>50.0</i>	Slice Spacing	<i>0.0</i>
Number of Echoes	<i>1</i>	<b>ACQ TIMING</b>	
Blood Suppression TI	<i>737</i>	Freq	<i>212</i>
Receiver Bandwidth	<i>83.33</i>	Phase	<i>150</i>
<b>IMAGE ENHANCE</b>		Freq DIR	<i>R/L</i>
Filter Choice	<i>A</i>	# of Acq. Before Pause	<i>0</i>
<b>GATING/TRIGGER</b>		Phase FOV	<i>0.90</i>
Auto Trigger Type	<i>On</i>	Auto Shim	<i>Auto</i>
Trigger Type	<i>0</i>	Phase Correction	<i>No</i>
Minimum Trigger Delay	<i>2</i>	<b>USER CVS</b>	
Cardiac Phase	<i>1</i>	User CV2	<i>240.00</i>
Cardiac Slices	<i>1</i>	User CV13	<i>1.00</i>
<b>FMRI</b>		<b>MULTI-PHASE</b>	
PSD Trigger	<i>Internal</i>	Seperate Series	<i>0</i>
View Order	<i>Bottom/Up</i>	Mask Phase	<i>0</i>
# of Repetitions REST	<i>0</i>	Mask Pause	<i>0</i>
# of Repetitions ACTIVE	<i>0</i>	<b>DIFFUSION</b>	
<b>SAT</b>		Recon All Images	<i>On</i>
Tag Type	<i>None</i>	<b>CONTRAST</b>	
<b>TRICKS</b>		Contrast Yes/No	<i>No</i>
# of RR Intervals	<i>2</i>		
Trigger Delay	<i>748</i>		
Pause On/Off	<i>On</i>		
Auto Subtract	<i>0</i>		
Auto SCIC	<i>2</i>		

AX T2 FB BLACK BLOOD SSFSE

AX T2 FB BLACK BLOOD SSFSE

OTHERS

Protocol Notes



*RX OFF SAG 3 PLANE  
LOC.  
SCAN FROM ABOVE  
ARCH TO BELOW HEART*

Protocol: adult\_chest\_CARDIAC VIABILITY

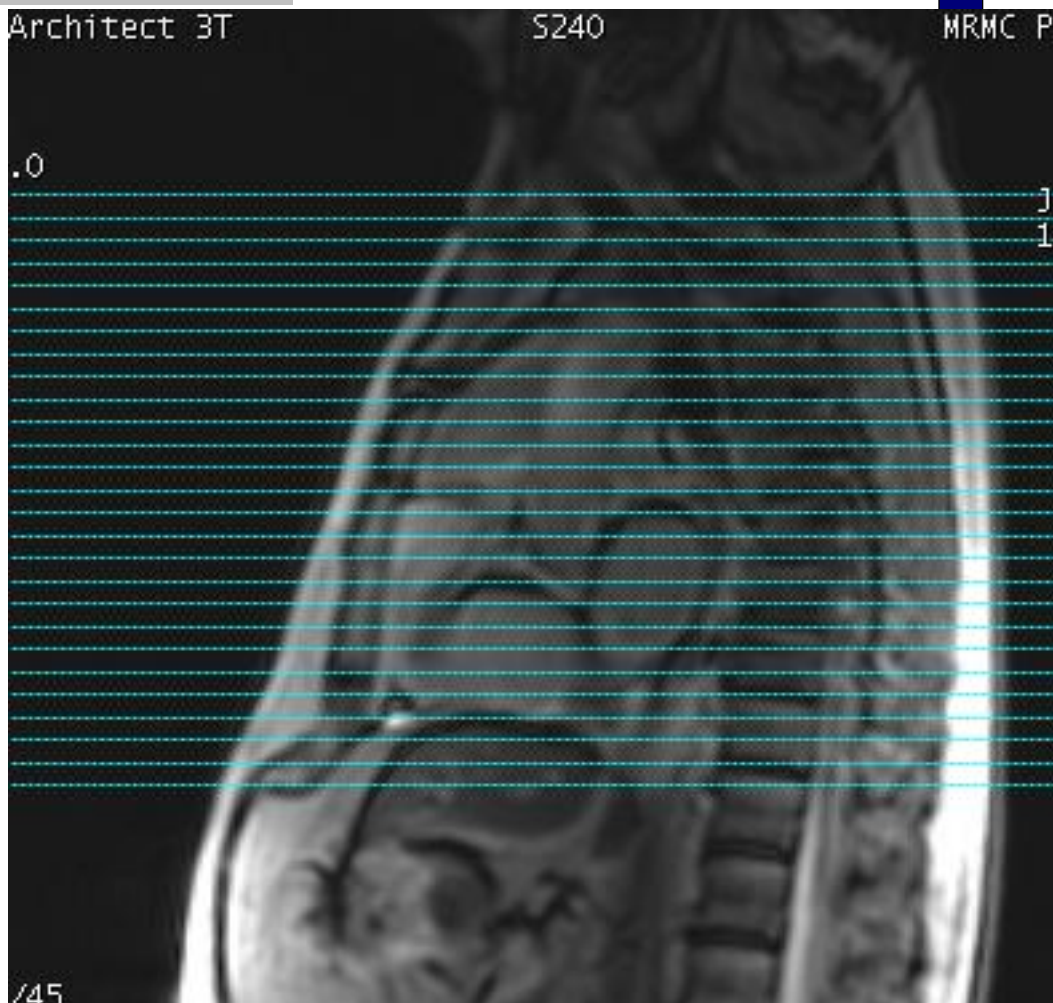
PATIENT POSITION		IMAGING PARAMETERS	
Patient Entry	<i>Feet First</i>	Imaging Mode	<i>2D</i>
Patient Position	<i>Supine</i>	Pulse Sequence	<i>FSE-XL</i>
Coil Configuration	<i>Body</i>	Imaging Options	<i>Gat, Seq, EDR, Fast, ZIP512, BSP, Asset, IrP</i>
Plane	<i>AXIAL</i>	PSD Name	<i>FSE-XL</i>
Series Description	<i>AX Triple IR FB BLACK BLOOD</i>	<b>SCAN RANGE</b>	
<b>SCAN TIMING</b>		FOV	<i>36.0</i>
Flip Angle	<i>107</i>	Slice Thickness	<i>8.0</i>
TE	<i>65.0</i>	Slice Spacing	<i>0.0</i>
Number of Echoes	<i>1</i>	<b>ACQ TIMING</b>	
TI	<i>220</i>	Freq	<i>224</i>
Echo Train Length	<i>23</i>	Phase	<i>192</i>
Blood Suppression TI	<i>1053</i>	Freq DIR	<i>R/L</i>
Receiver Bandwidth	<i>50.00</i>	Fat Shift DIR	<i>Normal (L)</i>
<b>IMAGE ENHANCE</b>		NEX	<i>1.00</i>
Filter Choice	<i>A</i>	Phase FOV	<i>1.00</i>
<b>GATING/TRIGGER</b>		Auto Shim	<i>Auto</i>
Auto Trigger Type	<i>On</i>	Phase Correction	<i>No</i>
Trigger Type	<i>0</i>	<b>USER CVS</b>	
Minimum Trigger Delay	<i>2</i>	User CV14	<i>3.33</i>
Cardiac Phase	<i>1</i>	User CV22	<i>1.00</i>
Cardiac Slices	<i>1</i>	<b>MULTI-PHASE</b>	
<b>FMRI</b>		Seperate Series	<i>0</i>
PSD Trigger	<i>Internal</i>	Mask Phase	<i>0</i>
View Order	<i>Bottom/Up</i>	Mask Pause	<i>0</i>
# of Repetitions REST	<i>0</i>	<b>DIFFUSION</b>	
# of Repetitions ACTIVE	<i>0</i>	Recon All Images	<i>On</i>
<b>SAT</b>		<b>CONTRAST</b>	
Tag Type	<i>None</i>	Contrast Yes/No	<i>No</i>
<b>TRICKS</b>			
# of RR Intervals	<i>2</i>		
Trigger Delay	<i>1065</i>		
Pause On/Off	<i>On</i>		
Auto Subtract	<i>0</i>		
Auto SCIC	<i>2</i>		

AX Triple IR FB BLACK BLOOD

AX Triple IR FB BLACK BLOOD

OTHERS

Protocol Notes



RX OFF SAG 3 PLANE  
LOC.  
SCAN FROM ABOVE  
ARCH TO BELOW HEART

McLeod Pavilion

Protocol: adult\_chest\_CARDIAC VIABILITY

<b>PATIENT POSITION</b>		<b>IMAGING PARAMETERS</b>	
Patient Entry	<i>Feet First</i>	Imaging Mode	<i>2D</i>
Patient Position	<i>Supine</i>	Pulse Sequence	<i>Fiesta</i>
Coil Configuration	<i>Body</i>	Imaging Options	<i>Seq, Fast</i>
Plane	<i>3-PLANE</i>	<b>SCAN RANGE</b>	
Series Description	<b>***INJECT***</b>	FOV	<i>48.0</i>
<b>SCAN TIMING</b>		Slice Thickness	<i>10.0</i>
Flip Angle	<i>45</i>	Slice Spacing	<i>5.0</i>
TE	<i>Minimum</i>	<b>ACQ TIMING</b>	
Number of Echoes	<i>1</i>	Freq	<i>160</i>
Receiver Bandwidth	<i>100.00</i>	Phase	<i>140</i>
<b>IMAGE ENHANCE</b>		Freq DIR	<i>Unswap</i>
Filter Choice	<i>None</i>	NEX	<i>1.00</i>
<b>GATING/TRIGGER</b>		# of Acq. Before Pause	<i>0</i>
Auto Trigger Type	<i>Off</i>	Phase FOV	<i>1.00</i>
<b>MULTI-PHASE</b>		Auto Shim	<i>Auto</i>
Seperate Series	<i>0</i>	Phase Correction	<i>No</i>
Mask Phase	<i>0</i>	<b>FMRI</b>	
Mask Pause	<i>0</i>	PSD Trigger	<i>Internal</i>
<b>DIFFUSION</b>		View Order	<i>Bottom/Up</i>
Recon All Images	<i>On</i>	# of Repetitions REST	<i>0</i>
<b>CONTRAST</b>		# of Repetitions ACTIVE	<i>0</i>
Contrast Yes/No	<i>No</i>	<b>SAT</b>	
		Tag Type	<i>None</i>
		<b>TRICKS</b>	
		Pause On/Off	<i>On</i>
		Auto Subtract	<i>0</i>
		Auto SCIC	<i>Off</i>
		<b>OTHERS</b>	
		Protocol Notes	<i>USE LARGE AA COIL AND USE BODY 36 2</i>

\*\*\*INJECT\*\*\*

\*\*\*INJECT\*\*\*



McLeod Pavilion

Protocol: adult\_chest\_CARDIAC VIABILITY

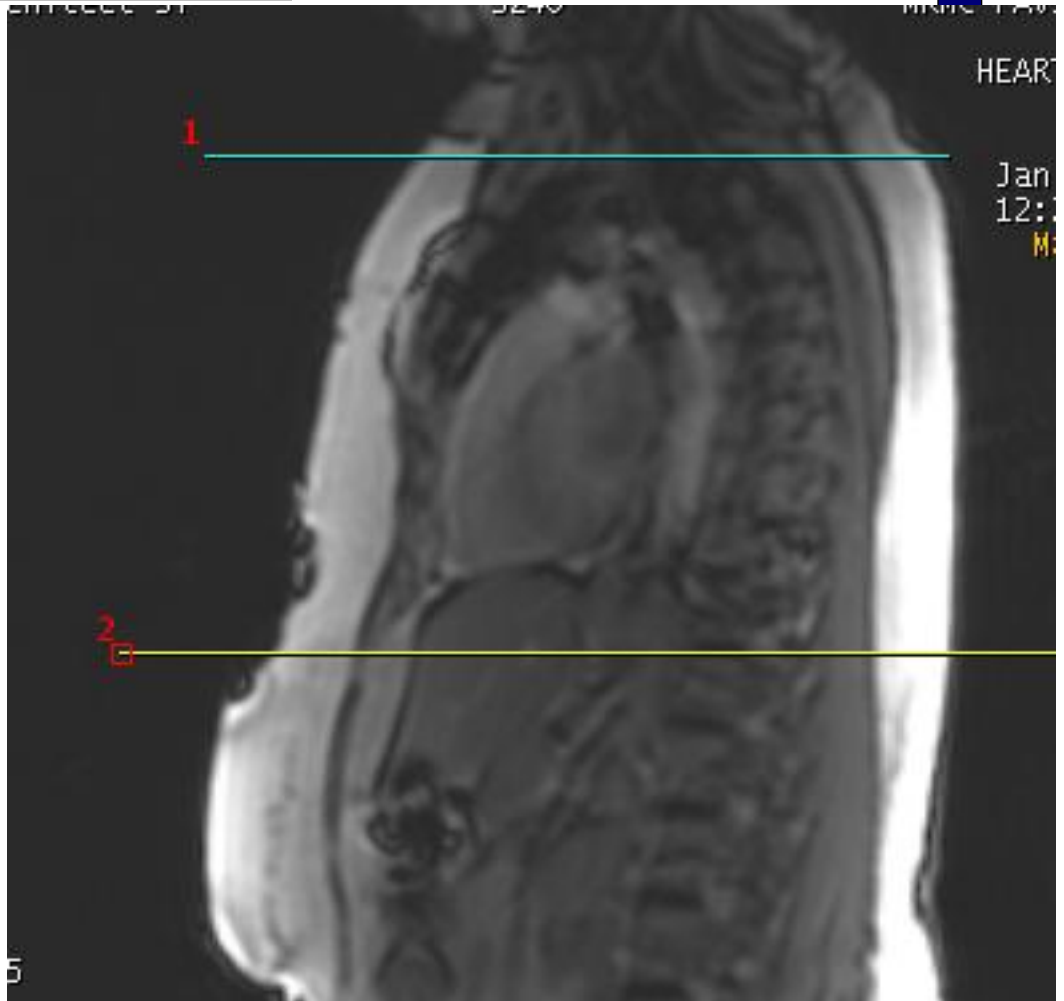
<b>PATIENT POSITION</b>		<b>IMAGING PARAMETERS</b>	
Patient Entry	<i>Feet First</i>	Imaging Mode	<i>3D</i>
Patient Position	<i>Supine</i>	Pulse Sequence	<i>4DFLOW</i>
Coil Configuration	<i>Body</i>	Imaging Options	<i>Gat, EDR, Fast, ZIP2, ARC</i>
Plane	<i>AXIAL</i>	<b>SCAN RANGE</b>	
Series Description	<i>Ax 4DFLOW postCE FB TRY</i>	FOV	<i>44.0</i>
<b>SCAN TIMING</b>		Slice Thickness	<i>2.8</i>
Flip Angle	<i>15</i>	Location per Slab	<i>72</i>
TE	<i>Min Full</i>	Overlap Locations	<i>0</i>
Number of Echoes	<i>1</i>	<b>ACQ TIMING</b>	
Receiver Bandwidth	<i>62.50</i>	Freq	<i>200</i>
<b>IMAGE ENHANCE</b>		Phase	<i>200</i>
Filter Choice	<i>None</i>	Freq DIR	<i>R/L</i>
<b>GATING/TRIGGER</b>		NEX	<i>4.00</i>
Auto Trigger Type	<i>On</i>	Phase FOV	<i>0.75</i>
Trigger Type	<i>0</i>	Auto Shim	<i>Auto</i>
Views per Segment	<i>3</i>	Phase Correction	<i>No</i>
# of Acq Phases	<i>16</i>	<b>USER CVS</b>	
<b>FMRI</b>		User CV3	<i>1.00</i>
PSD Trigger	<i>Internal</i>	User CV5	<i>65.00</i>
View Order	<i>Bottom/Up</i>	User CV6	<i>2.00</i>
# of Repetitions REST	<i>0</i>	User CV16	<i>10.00</i>
# of Repetitions ACTIVE	<i>0</i>	<b>MULTI-PHASE</b>	
<b>VASCULAR</b>		Seperate Series	<i>0</i>
Flow Analysis	<i>All</i>	Mask Phase	<i>0</i>
Velocity Encoding	<i>300.0</i>	Mask Pause	<i>0</i>
<b>ASSET</b>		<b>DIFFUSION</b>	
Hyperkat Value	<i>8</i>	Recon All Images	<i>On</i>
<b>CINE</b>		<b>TRICKS</b>	
# of Cardiac Phases to Reconstruct	<i>20</i>	Pause On/Off	<i>On</i>
		Auto Subtract	<i>0</i>
		Auto SCIC	<i>Off</i>
		<b>CONTRAST</b>	
		Contrast Yes/No	<i>No</i>

Ax 4DFLOW postCE FB TRY

Ax 4DFLOW postCE FB TRY

OTHERS

Protocol Notes



3D SLAB SCAN FROM  
ABOVE ARCH TO BELOW  
HEART.  
KEEP SCAN TIME  
AROUND 10 MINUTES.  
TO REDUCE SCAN TIME  
REDUCE PHASE FOV.  
YOU MAY HAVE TO  
INCREASE FREQUENCY  
FOV IF REDUCING PHASE  
FOV CUTS OFF  
ANATOMY

Protocol: adult\_chest\_CARDIAC VIABILITY

<b>PATIENT POSITION</b>		<b>IMAGING PARAMETERS</b>	
Patient Entry	<i>Feet First</i>	Imaging Mode	<i>2D</i>
Patient Position	<i>Supine</i>	Pulse Sequence	<i>CINE IR</i>
Coil Configuration	<i>Body</i>	Imaging Options	<i>Gat, Seq, Fast, IrP</i>
Plane	<i>OBLIQUE</i>	<b>SCAN RANGE</b>	
Series Description	<i>CINE IR 2RR BH</i>	FOV	<i>40.0</i>
<b>SCAN TIMING</b>		Slice Thickness	<i>8.0</i>
Flip Angle	<i>5</i>	Slice Spacing	<i>0.0</i>
TE	<i>Min Full</i>	<b>ACQ TIMING</b>	
Number of Echoes	<i>1</i>	Freq	<i>128</i>
Receiver Bandwidth	<i>50.00</i>	Phase	<i>128</i>
<b>IMAGE ENHANCE</b>		Freq DIR	<i>Unswap</i>
Filter Choice	<i>None</i>	NEX	<i>1.00</i>
<b>GATING/TRIGGER</b>		Phase FOV	<i>0.80</i>
Auto Trigger Type	<i>On</i>	Auto Shim	<i>Auto</i>
Trigger Type	<i>0</i>	Phase Correction	<i>No</i>
Cardiac Phase	<i>1</i>	<b>FMRI</b>	
Cardiac Slices	<i>1</i>	PSD Trigger	<i>Internal</i>
Views per Segment	<i>14</i>	View Order	<i>Bottom/Up</i>
<b>MULTI-PHASE</b>		# of Repetitions REST	<i>0</i>
Seperate Series	<i>0</i>	# of Repetitions ACTIVE	<i>0</i>
Mask Phase	<i>0</i>	<b>DIFFUSION</b>	
Mask Pause	<i>0</i>	Recon All Images	<i>On</i>
<b>TRICKS</b>		<b>CINE</b>	
# of RR Intervals	<i>2</i>	# of Cardiac Phases to Reconstruct	<i>30</i>
Pause On/Off	<i>On</i>		
Auto Subtract	<i>0</i>		
Auto SCIC	<i>Off</i>		
<b>CONTRAST</b>			
Contrast Yes/No	<i>Yes</i>		

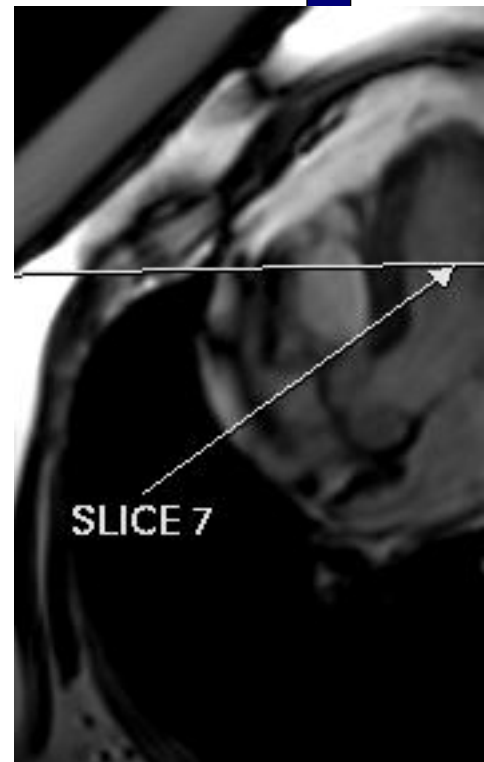
CINE IR 2RR BH

CINE IR 2RR BH

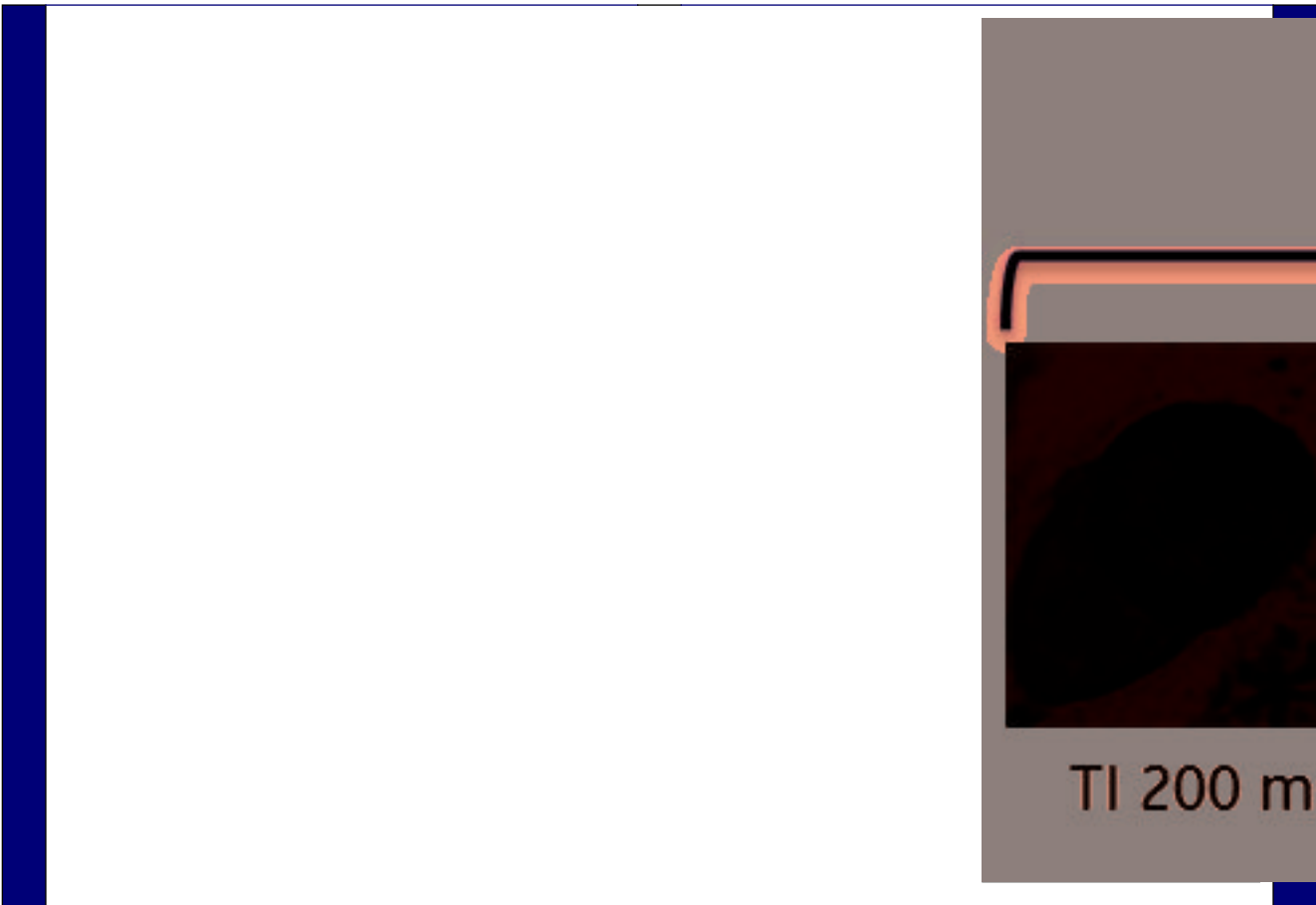
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OTHERS

Protocol Notes



*RX 1 SLICE OFF 4 CH TO DETERMINE PROPER PREP TIME. CHOOSE THE BEST T1 TIME OFF THE VIEWER(LOOKING FOR DARKEST MYOCARDIUM)*



Protocol: adult\_chest\_CARDIAC VIABILITY

PATIENT POSITION		IMAGING PARAMETERS	
Patient Entry	<i>Feet First</i>	Imaging Mode	<i>2D</i>
Patient Position	<i>Supine</i>	Pulse Sequence	<i>SPGR</i>
Coil Configuration	<i>Body</i>	Imaging Options	<i>Gat, EDR, Fast, PS, Asset, IrP</i>
Plane	<i>OBLIQUE</i>	<b>SCAN RANGE</b>	
Series Description	<i>SA SS PS MDE BH</i>	FOV	<i>40.0</i>
<b>SCAN TIMING</b>		Slice Thickness	<i>8.0</i>
Flip Angle	<i>20</i>	Slice Spacing	<i>0.0</i>
Number of Echoes	<i>1</i>	<b>ACQ TIMING</b>	
Receiver Bandwidth	<i>62.50</i>	Freq	<i>200</i>
<b>IMAGE ENHANCE</b>		Phase	<i>200</i>
Filter Choice	<i>A</i>	Freq DIR	<i>Unswap</i>
<b>GATING/TRIGGER</b>		NEX	<i>1.00</i>
Auto Trigger Type	<i>On</i>	Phase FOV	<i>0.80</i>
Trigger Type	<i>0</i>	Auto Shim	<i>Auto</i>
Minimum Trigger Delay	<i>2</i>	Phase Correction	<i>No</i>
Cardiac Phase	<i>1</i>	<b>FMRI</b>	
Cardiac Slices	<i>1</i>	PSD Trigger	<i>Internal</i>
<b>MULTI-PHASE</b>		View Order	<i>Bottom/Up</i>
Seperate Series	<i>0</i>	# of Repetitions REST	<i>0</i>
Mask Phase	<i>0</i>	# of Repetitions ACTIVE	<i>0</i>
Mask Pause	<i>0</i>	<b>SAT</b>	
<b>DIFFUSION</b>		Tag Type	<i>None</i>
Recon All Images	<i>On</i>	<b>TRICKS</b>	
<b>CINE</b>		# of RR Intervals	<i>2</i>
# of Cardiac Phases to Reconstruct	<i>20</i>	Trigger Delay	<i>10</i>
<b>OTHERS</b>		Pause On/Off	<i>On</i>
Protocol Notes	<i>SCAN IS LINKED TO SHORT AXIS. REMOVE SLICES FROM THE BASE OF HEART. ONLY NEED TO INCLUDE MYOCARDIUM. START FIRST SLICE AT MITRAL VALVE</i>	Auto Subtract	<i>0</i>
		Auto SCIC	<i>Off</i>
		<b>CONTRAST</b>	
		Contrast Yes/No	<i>No</i>

SA SS PS MDE BH

SA SS PS MDE BH

Protocol: adult\_chest\_CARDIAC VIABILITY

2 CH SS PS MDE SPGR	<b>PATIENT POSITION</b>		<b>IMAGING PARAMETERS</b>	
	Patient Entry	<i>Feet First</i>	Imaging Mode	<i>2D</i>
	Patient Position	<i>Supine</i>	Pulse Sequence	<i>SPGR</i>
	Coil Configuration	<i>Body</i>	Imaging Options	<i>Gat, EDR, Fast, PS, Asset, IrP</i>
	Plane	<i>OBLIQUE</i>	<b>SCAN RANGE</b>	
	Series Description	<i>2 CH SS PS MDE SPGR</i>	FOV	<i>36.0</i>
	<b>SCAN TIMING</b>		Slice Thickness	<i>8.0</i>
	Flip Angle	<i>20</i>	Slice Spacing	<i>0.0</i>
	Number of Echoes	<i>1</i>	<b>ACQ TIMING</b>	
	Receiver Bandwidth	<i>62.50</i>	Freq	<i>156</i>
	<b>IMAGE ENHANCE</b>		Phase	<i>140</i>
	Filter Choice	<i>A</i>	Freq DIR	<i>Unswap</i>
	<b>GATING/TRIGGER</b>		NEX	<i>1.00</i>
	Auto Trigger Type	<i>On</i>	Phase FOV	<i>0.80</i>
	Trigger Type	<i>0</i>	Auto Shim	<i>Auto</i>
	Minimum Trigger Delay	<i>2</i>	Phase Correction	<i>No</i>
	Cardiac Phase	<i>1</i>	<b>FMRI</b>	
	Cardiac Slices	<i>1</i>	PSD Trigger	<i>Internal</i>
	<b>MULTI-PHASE</b>		View Order	<i>Bottom/Up</i>
	Seperate Series	<i>0</i>	# of Repetitions REST	<i>0</i>
Mask Phase	<i>0</i>	# of Repetitions ACTIVE	<i>0</i>	
Mask Pause	<i>0</i>	<b>SAT</b>		
<b>DIFFUSION</b>		Tag Type	<i>None</i>	
Recon All Images	<i>On</i>	<b>TRICKS</b>		
<b>CINE</b>		# of RR Intervals	<i>2</i>	
# of Cardiac Phases to Reconstruct	<i>20</i>	Trigger Delay	<i>10</i>	
		Pause On/Off	<i>On</i>	
		Auto Subtract	<i>0</i>	
		Auto SCIC	<i>Off</i>	
		<b>CONTRAST</b>		
		Contrast Yes/No	<i>No</i>	

2 CH SS PS MDE SPGR



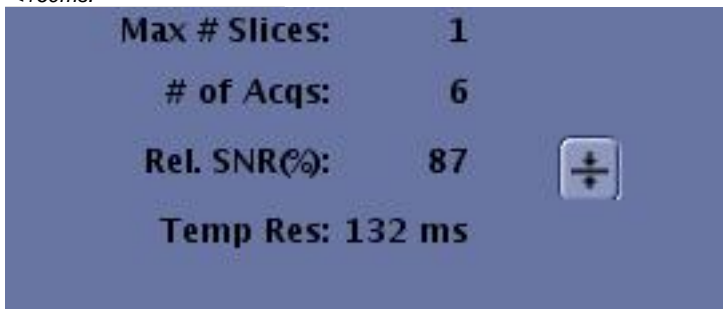
**OTHERS**

**Protocol Notes**

*IMPORTANT TIPS:*  
*- When scanning PSMDE, # RR interval for CINE IR must match #RR interval for PSMDE.*  
*- For optimal image quality, set the Trigger Delay to Diastolic or type in a value manually.*



*- Increase T1 by 20-25ms after every 5min to account for wash-out over time.*  
*- Ensure Temp Res is <200ms. For HR>100BPM, Temp Res should be <160ms.*



Protocol: adult\_chest\_CARDIAC VIABILITY

<b>PATIENT POSITION</b>		<b>IMAGING PARAMETERS</b>	
Patient Entry	<i>Feet First</i>	Imaging Mode	<i>2D</i>
Patient Position	<i>Supine</i>	Pulse Sequence	<i>SPGR</i>
Coil Configuration	<i>Body</i>	Imaging Options	<i>Gat, EDR, Fast, PS, Asset, IrP</i>
Plane	<i>OBLIQUE</i>	<b>SCAN RANGE</b>	
Series Description	<i>4CH SS PS MDE SPGR</i>	FOV	<i>36.0</i>
<b>SCAN TIMING</b>		Slice Thickness	<i>8.0</i>
Flip Angle	<i>20</i>	Slice Spacing	<i>0.0</i>
Number of Echoes	<i>1</i>	<b>ACQ TIMING</b>	
Receiver Bandwidth	<i>62.50</i>	Freq	<i>156</i>
<b>IMAGE ENHANCE</b>		Phase	<i>140</i>
Filter Choice	<i>A</i>	Freq DIR	<i>Unswap</i>
<b>GATING/TRIGGER</b>		NEX	<i>1.00</i>
Auto Trigger Type	<i>On</i>	Phase FOV	<i>0.80</i>
Trigger Type	<i>0</i>	Auto Shim	<i>Auto</i>
Minimum Trigger Delay	<i>2</i>	Phase Correction	<i>No</i>
Cardiac Phase	<i>1</i>	<b>FMRI</b>	
Cardiac Slices	<i>1</i>	PSD Trigger	<i>Internal</i>
<b>MULTI-PHASE</b>		View Order	<i>Bottom/Up</i>
Seperate Series	<i>0</i>	# of Repetitions REST	<i>0</i>
Mask Phase	<i>0</i>	# of Repetitions ACTIVE	<i>0</i>
Mask Pause	<i>0</i>	<b>DIFFUSION</b>	
<b>TRICKS</b>		Recon All Images	<i>On</i>
# of RR Intervals	<i>2</i>	<b>CINE</b>	
Trigger Delay	<i>10</i>	# of Cardiac Phases to Reconstruct	<i>20</i>
Pause On/Off	<i>On</i>		
Auto Subtract	<i>0</i>		
Auto SCIC	<i>Off</i>		
<b>CONTRAST</b>			
Contrast Yes/No	<i>No</i>		

4CH SS PS MDE SPGR

4CH SS PS MDE SPGR

**OTHERS**

**Protocol Notes**

**IMPORTANT TIPS:**  
- When scanning PSMDE, # RR interval for CINE IR must match #RR interval for PSMDE.  
- For optimal image quality, set the Trigger Delay to Diastolic or type in a value manually.

**Trigger Delay:** Diastoli

**Inter-Seq. Delay:**

- Increase TI by 20-25ms after every 5min to account for wash-out over time.  
- Ensure Temp Res is <200ms. For HR>100BPM, Temp Res should be <160ms.

**Max # Slices:** 1

**# of Acqs:** 6

**Rel. SNR(%):** 87

**Temp Res: 132 ms**

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Protocol: adult\_chest\_CARDIAC VIABILITY

<b>PATIENT POSITION</b>		<b>IMAGING PARAMETERS</b>	
Patient Entry	<i>Feet First</i>	Imaging Mode	<i>2D</i>
Patient Position	<i>Supine</i>	Pulse Sequence	<i>CINE IR</i>
Coil Configuration	<i>Body</i>	Imaging Options	<i>Gat, Seq, Fast, IrP</i>
Plane	<i>OBLIQUE</i>	<b>SCAN RANGE</b>	
Series Description	<b>**ARYTHMIA**</b>	FOV	<i>35.0</i>
<b>SCAN TIMING</b>		Slice Thickness	<i>10.0</i>
Flip Angle	<i>5</i>	Slice Spacing	<i>0.0</i>
TE	<i>Min Full</i>	<b>ACQ TIMING</b>	
Receiver Bandwidth	<i>31.25</i>	Freq DIR	<i>Unswap</i>
<b>IMAGE ENHANCE</b>		Phase FOV	<i>0.70</i>
Filter Choice	<i>None</i>	Auto Shim	<i>Auto</i>
<b>GATING/TRIGGER</b>		Phase Correction	<i>No</i>
Auto Trigger Type	<i>On</i>	<b>USER CVS</b>	
Trigger Type	<i>0</i>	User CV22	<i>1.00</i>
Minimum Trigger Delay	<i>1</i>	User CV23	<i>1.00</i>
Cardiac Phase	<i>1</i>	<b>MULTI-PHASE</b>	
Cardiac Slices	<i>1</i>	Seperate Series	<i>0</i>
Views per Segment	<i>10</i>	Mask Phase	<i>0</i>
<b>FMRI</b>		Mask Pause	<i>0</i>
PSD Trigger	<i>Internal</i>	<b>DIFFUSION</b>	
Slice Order	<i>Interleaved</i>	Recon All Images	<i>On</i>
View Order	<i>Bottom/Up</i>	<b>CINE</b>	
# of Repetitions REST	<i>0</i>	# of Cardiac Phases to Reconstruct	<i>30</i>
# of Repetitions ACTIVE	<i>0</i>	<b>OTHERS</b>	
<b>SAT</b>		Protocol Notes	<i>Use this for setting up the single shot MDE's. Use for patients unable to hold breath or you are fearful won't make it through the rest of the exam. Tips: -When scanning 2D MDE, use the same number of RR for both the Cine IR and the 2DMDE scans. -When scanning 2D PSMDE, use 2 RR for both the CINE IR and the 2D PSMDE scans. -When scanning 3D MDE, irrespective of number of RR selected in 3DMDE, always use a 1 RR for the CineIR scan.</i>
Tag Type	<i>None</i>		
<b>TRICKS</b>			
# of RR Intervals	<i>2</i>		
Trigger Delay	<i>10</i>		
Pause On/Off	<i>On</i>		
Auto Subtract	<i>0</i>		
Auto SCIC	<i>Off</i>		
<b>CONTRAST</b>			
Contrast Yes/No	<i>No</i>		

\*\*ARYTHMIA\*\*

\*\*ARYTHMIA\*\*

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Protocol: adult\_chest\_CARDIAC VIABILITY

PATIENT POSITION		IMAGING PARAMETERS	
Patient Entry	<i>Feet First</i>	Imaging Mode	<i>2D</i>
Patient Position	<i>Supine</i>	Pulse Sequence	<i>SPGR</i>
Coil Configuration	<i>Body</i>	Imaging Options	<i>Gat, EDR, Fast, Asset, IrP</i>
Plane	<i>OBLIQUE</i>	<b>SCAN RANGE</b>	
Series Description	<i>SS MDE BH</i>	FOV	<i>36.0</i>
<b>SCAN TIMING</b>		Slice Thickness	<i>8.0</i>
Flip Angle	<i>20</i>	Slice Spacing	<i>0.0</i>
Number of Echoes	<i>1</i>	<b>ACQ TIMING</b>	
Receiver Bandwidth	<i>50.00</i>	Freq	<i>152</i>
<b>IMAGE ENHANCE</b>		Phase	<i>140</i>
Filter Choice	<i>A</i>	Freq DIR	<i>Unswap</i>
<b>GATING/TRIGGER</b>		NEX	<i>1.00</i>
Auto Trigger Type	<i>On</i>	Phase FOV	<i>0.75</i>
Trigger Type	<i>0</i>	Auto Shim	<i>Auto</i>
Minimum Trigger Delay	<i>4</i>	Phase Correction	<i>No</i>
Cardiac Phase	<i>1</i>	<b>FMRI</b>	
Cardiac Slices	<i>1</i>	PSD Trigger	<i>Internal</i>
<b>MULTI-PHASE</b>		Slice Order	<i>Interleaved</i>
Seperate Series	<i>0</i>	View Order	<i>Bottom/Up</i>
Mask Phase	<i>0</i>	# of Repetitions REST	<i>0</i>
Mask Pause	<i>0</i>	# of Repetitions ACTIVE	<i>0</i>
<b>DIFFUSION</b>		<b>SAT</b>	
Recon All Images	<i>On</i>	Tag Type	<i>None</i>
<b>CONTRAST</b>		<b>TRICKS</b>	
Contrast Yes/No	<i>No</i>	# of RR Intervals	<i>2</i>
		Trigger Delay	<i>1201</i>
		Pause On/Off	<i>On</i>
		Auto Subtract	<i>0</i>
		Auto SCIC	<i>2</i>

SS MDE BH

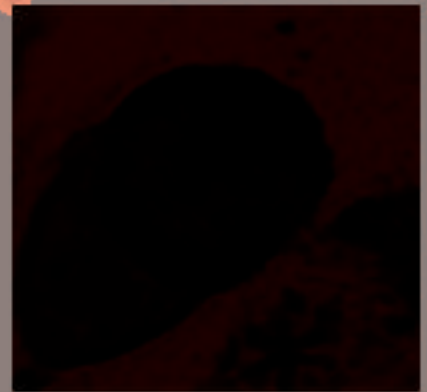
SS MDE BH

**OTHERS**

**Protocol Notes**

**USE FOR ARYTHMIC PATIENTS**

**IMPORTANT TIPS:**  
- Use CINE IR to get the optimal Prep Time (aka TI) that nulls the healthy myocardium without any evidence of bounce point artifact. Bounce point artifact looks like a black outline at the endo/epicardial borders and indicates that TI is too short.



TI 200 ms

- For arrhythmic patients or HR > 100 BPM, use #RR=4 for better image quality. Increase TI value accordingly.  
- For optimal image quality, set the Trigger Delay to Diastolic or type in a value manually.

Trigger Delay: Diastolic

Inter-Seq. Delay:

- Increase TI by 20-25ms after every 5min to account for wash-out over time.

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Protocol: adult\_chest\_CARDIAC VIABILITY

optional seq's below	<b>PATIENT POSITION</b>		<b>IMAGING PARAMETERS</b>	
	Patient Entry	<i>Feet First</i>	Imaging Mode	<i>2D</i>
	Patient Position	<i>Supine</i>	Pulse Sequence	<i>CINE IR</i>
	Coil Configuration	<i>Body</i>	Imaging Options	<i>Gat, Seq, Fast, IrP</i>
	Plane	<i>OBLIQUE</i>	<b>SCAN RANGE</b>	
	Series Description	<i>optional seq's below</i>	FOV	<i>35.0</i>
	<b>SCAN TIMING</b>		Slice Thickness	<i>10.0</i>
	Flip Angle	<i>5</i>	Slice Spacing	<i>0.0</i>
	TE	<i>Min Full</i>	<b>ACQ TIMING</b>	
	Receiver Bandwidth	<i>31.25</i>	Freq DIR	<i>Unswap</i>
	<b>IMAGE ENHANCE</b>		Phase FOV	<i>0.70</i>
	Filter Choice	<i>None</i>	Auto Shim	<i>Auto</i>
	<b>GATING/TRIGGER</b>		Phase Correction	<i>No</i>
	Auto Trigger Type	<i>On</i>	<b>USER CVS</b>	
	Trigger Type	<i>0</i>	User CV22	<i>1.00</i>
	Minimum Trigger Delay	<i>1</i>	User CV23	<i>1.00</i>
	Cardiac Phase	<i>1</i>	<b>MULTI-PHASE</b>	
	Cardiac Slices	<i>1</i>	Seperate Series	<i>0</i>
	Views per Segment	<i>10</i>	Mask Phase	<i>0</i>
	<b>FMRI</b>		Mask Pause	<i>0</i>
	PSD Trigger	<i>Internal</i>	<b>DIFFUSION</b>	
	Slice Order	<i>Interleaved</i>	Recon All Images	<i>On</i>
	View Order	<i>Bottom/Up</i>	<b>CINE</b>	
	# of Repetitions REST	<i>0</i>	# of Cardiac Phases to Reconstruct	<i>30</i>
	# of Repetitions ACTIVE	<i>0</i>	<b>OTHERS</b>	
<b>SAT</b>		Protocol Notes	<p><i>Use this for setting up the single shot MDE's. Use for patients unable to hold breath or you are fearful won't make it through the rest of the exam.</i></p> <p><i>Tips:</i></p> <ul style="list-style-type: none"> <li><i>-When scanning 2D MDE, use the same number of RR for both the Cine IR and the 2DMDE scans.</i></li> <li><i>-When scanning 2D PSMDE, use 2 RR for both the CINE IR and the 2D PSMDE scans.</i></li> <li><i>-When scanning 3D MDE, irrespective of number of RR selected in 3DMDE, always use a 1 RR for the CineIR scan.</i></li> </ul>	
Tag Type	<i>None</i>			
<b>TRICKS</b>				
# of RR Intervals	<i>2</i>			
Trigger Delay	<i>10</i>			
Pause On/Off	<i>On</i>			
Auto Subtract	<i>0</i>			
Auto SCIC	<i>Off</i>			
<b>CONTRAST</b>				
Contrast Yes/No	<i>No</i>			

optional seq's below

Protocol: adult\_chest\_CARDIAC VIABILITY

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>Body</i>	Imaging Options	<i>Gat, Seq, EDR, Fast, ZIP512, BSP, ARC</i>
Plane	<i>OBLIQUE</i>	<b>SCAN RANGE</b>	
Series Description	<i>SA T1 2IR</i>	FOV	<i>36.0</i>
<b>SCAN TIMING</b>		Slice Thickness	<i>8.0</i>
Flip Angle	<i>107</i>	Slice Spacing	<i>0.0</i>
TE	<i>21.0</i>	<b>ACQ TIMING</b>	
Number of Echoes	<i>1</i>	Freq	<i>224</i>
Echo Train Length	<i>9</i>	Phase	<i>224</i>
Blood Suppression TI	<i>418</i>	Freq DIR	<i>Unswap</i>
Receiver Bandwidth	<i>62.50</i>	Fat Shift DIR	<i>Normal</i>
<b>IMAGE ENHANCE</b>		NEX	<i>1.00</i>
Filter Choice	<i>None</i>	Phase FOV	<i>0.90</i>
<b>GATING/TRIGGER</b>		Auto Shim	<i>Auto</i>
Auto Trigger Type	<i>On</i>	Phase Correction	<i>No</i>
Trigger Type	<i>0</i>	<b>USER CVS</b>	
Minimum Trigger Delay	<i>2</i>	User CV14	<i>3.33</i>
Cardiac Phase	<i>1</i>	User CV22	<i>1.00</i>
Cardiac Slices	<i>1</i>	<b>MULTI-PHASE</b>	
<b>FMRI</b>		Seperate Series	<i>0</i>
PSD Trigger	<i>Internal</i>	Mask Phase	<i>0</i>
View Order	<i>Bottom/Up</i>	Mask Pause	<i>0</i>
# of Repetitions REST	<i>0</i>	<b>DIFFUSION</b>	
# of Repetitions ACTIVE	<i>0</i>	Recon All Images	<i>On</i>
<b>SAT</b>		<b>CONTRAST</b>	
Tag Type	<i>None</i>	Contrast Yes/No	<i>No</i>
<b>TRICKS</b>			
# of RR Intervals	<i>1</i>		
Trigger Delay	<i>429</i>		
Pause On/Off	<i>On</i>		
Auto Subtract	<i>0</i>		
Auto SCIC	<i>Off</i>		

SA T1 2IR

SA T1 2IR



**OTHERS**

**Protocol Notes**

*IMPORTANT TIPS:*  
*-Make sure that Trigger Delay is set to Diastolic from the pull down menu, as cardiac motion is reduced.*  
*- change CV14 from 3.33 (default) to 5 if MYOCARDIUM is saturated*  
*- if Black Blood imaging is performed after contrast injection, BSP TI needs to be adjusted manually.*  
*- Use always Shim Volume box to cover only the heart.*  
*- Use Localized TG under Shim Volume to improve IQ.*

Protocol: adult\_chest\_CARDIAC VIABILITY

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>Body</i>	Imaging Options	<i>Gat, Seq, EDR, Fast, ZIP512, BSP, ARC</i>
Plane	<i>OBLIQUE</i>		
Series Description	<i>SA T2 2IR FS</i>		
SCAN TIMING		SCAN RANGE	
Flip Angle	<i>107</i>	FOV	<i>42.0</i>
TE	<i>90.0</i>	Slice Thickness	<i>8.0</i>
Number of Echoes	<i>1</i>	Slice Spacing	<i>0.0</i>
TI	<i>156</i>		
Echo Train Length	<i>9</i>	ACQ TIMING	
Blood Suppression TI	<i>418</i>	Freq	<i>224</i>
Receiver Bandwidth	<i>62.50</i>	Phase	<i>224</i>
		Freq DIR	<i>Unswap</i>
		Fat Shift DIR	<i>Normal</i>
		NEX	<i>1.00</i>
		Phase FOV	<i>0.90</i>
		Auto Shim	<i>Auto</i>
		Phase Correction	<i>No</i>
IMAGE ENHANCE		USER CVS	
Filter Choice	<i>None</i>	User CV14	<i>3.33</i>
		User CV19	<i>1.00</i>
		User CV22	<i>1.00</i>
GATING/TRIGGER		MULTI-PHASE	
Auto Trigger Type	<i>On</i>	Seperate Series	<i>0</i>
Trigger Type	<i>0</i>	Mask Phase	<i>0</i>
Minimum Trigger Delay	<i>4</i>	Mask Pause	<i>0</i>
Cardiac Phase	<i>1</i>		
Cardiac Slices	<i>1</i>	DIFFUSION	
		Recon All Images	<i>On</i>
FMRI		CONTRAST	
PSD Trigger	<i>Internal</i>	Contrast Yes/No	<i>No</i>
View Order	<i>Bottom/Up</i>		
# of Repetitions REST	<i>0</i>		
# of Repetitions ACTIVE	<i>0</i>		
SAT			
Tag Type	<i>None</i>		
Fat/Water Saturation	<i>Fat Special</i>		
TRICKS			
# of RR Intervals	<i>1</i>		
Trigger Delay	<i>674</i>		
Pause On/Off	<i>On</i>		
Auto Subtract	<i>0</i>		
Auto SCIC	<i>Off</i>		

SA T2 2IR FS

SA T2 2IR FS

**OTHERS**

**Protocol Notes**

*IMPORTANT TIPS:*  
*-Make sure that Trigger Delay is set to Diastolic from the pull down menu, as cardiac motion is reduced.*  
*- FOR LA, change CV14 from 3.33 (default) to 1.25-1.5 if blood signal is not properly nulled.*  
*- if Black Blood imaging is performed after contrast injection, BSP TI needs to be adjusted manually.*  
*- Use always Shim Volume box to cover only the heart.*  
*- Use Localized TG under Shim Volume to improve IQ.*

Protocol: adult\_chest\_CARDIAC VIABILITY

PATIENT POSITION		IMAGING PARAMETERS	
Patient Entry	Feet First	Imaging Mode	2D
Patient Position	Supine	Pulse Sequence	Multi-Echo FGRE
Coil Configuration	Body	Imaging Options	FC, Gat, EDR, Fast, Asset
Plane	OBLIQUE	<b>SCAN RANGE</b>	
Series Description	SA StarMap	FOV	36.0
<b>SCAN TIMING</b>		Slice Thickness	8.0
Flip Angle	20	Slice Spacing	0.0
TE	Minimum	<b>ACQ TIMING</b>	
Number of Echoes	8	Freq	144
Receiver Bandwidth	62.50	Phase	144
<b>IMAGE ENHANCE</b>		Freq DIR	Unswap
Filter Choice	None	NEX	1.00
<b>GATING/TRIGGER</b>		Phase FOV	0.75
Auto Trigger Type	On	Auto Shim	Auto
Trigger Type	0	Phase Correction	No
Minimum Trigger Delay	0	<b>USER CVS</b>	
Cardiac Phase	1	User CV17	1.00
Cardiac Slices	1	<b>MULTI-PHASE</b>	
Views per Segment	8	Seperate Series	0
<b>FMRI</b>		Mask Phase	0
PSD Trigger	Internal	Mask Pause	0
Slice Order	Interleaved	<b>DIFFUSION</b>	
View Order	Bottom/Up	Recon All Images	On
# of Repetitions REST	0	<b>CONTRAST</b>	
# of Repetitions ACTIVE	0	Contrast Yes/No	No
<b>SAT</b>			
Tag Type	None		
Fat/Water Saturation	Fat		
<b>TRICKS</b>			
# of RR Intervals	1		
Trigger Delay	400		
Pause On/Off	On		
Auto Subtract	0		
Auto SCIC	Off		
<b>OTHERS</b>			
Protocol Notes	<p><b>IMPORTANT TIPS:</b>                      - Prescribe only 1 location per series.                      - Use Shim Volume and cover the heart only.                      - Select a Trigger Delay to acquire the images during a quite phase of cardial cycle (normally in diastole) so cardiac motion is minimal.                      - Use READYView to generate T2* maps.</p>		

SA StarMap

SA StarMap

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Protocol: adult\_chest\_CARDIAC VIABILITY

SA PS MDE	<b>PATIENT POSITION</b>		<b>IMAGING PARAMETERS</b>		SA PS MDE
	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>Body</i>	Imaging Options	<i>Gat, Fast, PS, Asset, IrP</i>	
	Plane	<i>OBLIQUE</i>	<b>SCAN RANGE</b>		
	Series Description	<i>SA PS MDE</i>	FOV	<i>35.0</i>	
	<b>SCAN TIMING</b>		Slice Thickness	<i>8.0</i>	
	Flip Angle	<i>25</i>	Slice Spacing	<i>2.0</i>	
	Number of Echoes	<i>1</i>	<b>ACQ TIMING</b>		
	Receiver Bandwidth	<i>50.00</i>	Freq	<i>192</i>	
	<b>IMAGE ENHANCE</b>		Phase	<i>192</i>	
	Filter Choice	<i>None</i>	Freq DIR	<i>S/I</i>	
	<b>GATING/TRIGGER</b>		NEX	<i>1.00</i>	
	Auto Trigger Type	<i>On</i>	# of Acq. Before Pause	<i>1</i>	
	Trigger Type	<i>0</i>	Phase FOV	<i>0.80</i>	
	Minimum Trigger Delay	<i>2</i>	Auto Shim	<i>Auto</i>	
	Cardiac Phase	<i>1</i>	Phase Correction	<i>No</i>	
	Cardiac Slices	<i>1</i>	<b>FMRI</b>		
	Views per Segment	<i>24</i>	PSD Trigger	<i>Internal</i>	
	<b>MULTI-PHASE</b>		Slice Order	<i>Interleaved</i>	
	Seperate Series	<i>0</i>	View Order	<i>Bottom/Up</i>	
	Mask Phase	<i>0</i>	# of Repetitions REST	<i>0</i>	
	Mask Pause	<i>0</i>	# of Repetitions ACTIVE	<i>0</i>	
	<b>DIFFUSION</b>		<b>SAT</b>		
Recon All Images	<i>On</i>	Tag Type	<i>None</i>		
<b>CONTRAST</b>		<b>TRICKS</b>			
Contrast Yes/No	<i>Yes</i>	# of RR Intervals	<i>2</i>		
		Trigger Delay	<i>10</i>		
		Pause On/Off	<i>On</i>		
		Auto Subtract	<i>0</i>		
		Auto SCIC	<i>Off</i>		
		<b>OTHERS</b>			
		Protocol Notes	<i>RUN IN DIASTOLIC RUN THIS AT 10 MIN POST INJECTION OR 8 MIN FROM START OF LA FIESTA'S</i>		

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Protocol: adult\_chest\_CARDIAC VIABILITY

LA PS MDE	<b>PATIENT POSITION</b>		<b>IMAGING PARAMETERS</b>		LA PS MDE
	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>Body</i>	Imaging Options	<i>Gat, Fast, PS, Asset, IrP</i>	
	Plane	<i>OBLIQUE</i>	<b>SCAN RANGE</b>		
	Series Description	<i>LA PS MDE</i>	FOV	<i>40.0</i>	
	<b>SCAN TIMING</b>		Slice Thickness	<i>7.0</i>	
	Flip Angle	<i>25</i>	Slice Spacing	<i>0.0</i>	
	Number of Echoes	<i>1</i>	<b>ACQ TIMING</b>		
	Receiver Bandwidth	<i>50.00</i>	Freq	<i>220</i>	
	<b>IMAGE ENHANCE</b>		Phase	<i>192</i>	
	Filter Choice	<i>None</i>	Freq DIR	<i>R/L</i>	
	<b>GATING/TRIGGER</b>		NEX	<i>1.00</i>	
	Auto Trigger Type	<i>On</i>	# of Acq. Before Pause	<i>1</i>	
	Trigger Type	<i>0</i>	Phase FOV	<i>0.80</i>	
	Minimum Trigger Delay	<i>2</i>	Auto Shim	<i>Auto</i>	
	Cardiac Phase	<i>1</i>	Phase Correction	<i>No</i>	
	Cardiac Slices	<i>1</i>	<b>FMRI</b>		
	Views per Segment	<i>24</i>	PSD Trigger	<i>Internal</i>	
	<b>MULTI-PHASE</b>		Slice Order	<i>Interleaved</i>	
	Seperate Series	<i>0</i>	View Order	<i>Bottom/Up</i>	
	Mask Phase	<i>0</i>	# of Repetitions REST	<i>0</i>	
	Mask Pause	<i>0</i>	# of Repetitions ACTIVE	<i>0</i>	
	<b>DIFFUSION</b>		<b>SAT</b>		
Recon All Images	<i>On</i>	Tag Type	<i>None</i>		
<b>CONTRAST</b>		<b>TRICKS</b>			
Contrast Yes/No	<i>Yes</i>	# of RR Intervals	<i>2</i>		
		Trigger Delay	<i>10</i>		
		Pause On/Off	<i>On</i>		
		Auto Subtract	<i>0</i>		
		Auto SCIC	<i>Off</i>		
		<b>OTHERS</b>			
		Protocol Notes	<i>RUN IN DIASTOLIC</i>		

McLeod Pavilion

Protocol: adult\_chest\_CARDIAC VIABILITY

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>Body</i>	Imaging Options	<i>Gat, Seq, EDR, Fast, ZIP512, BSP, ARC</i>
Plane	<i>OBLIQUE</i>		
Series Description	<i>T1 2IR</i>		
SCAN TIMING		SCAN RANGE	
Flip Angle	<i>107</i>	FOV	<i>36.0</i>
TE	<i>21.0</i>	Slice Thickness	<i>8.0</i>
Number of Echoes	<i>1</i>	Slice Spacing	<i>0.0</i>
Echo Train Length	<i>9</i>		
Blood Suppression TI	<i>418</i>	ACQ TIMING	
Receiver Bandwidth	<i>62.50</i>	Freq	<i>224</i>
		Phase	<i>224</i>
		Freq DIR	<i>Unswap</i>
		Fat Shift DIR	<i>Normal</i>
		NEX	<i>1.00</i>
		Phase FOV	<i>0.90</i>
		Auto Shim	<i>Auto</i>
		Phase Correction	<i>No</i>
IMAGE ENHANCE		USER CVS	
Filter Choice	<i>None</i>	User CV14	<i>3.33</i>
		User CV22	<i>1.00</i>
GATING/TRIGGER		MULTI-PHASE	
Auto Trigger Type	<i>On</i>	Seperate Series	<i>0</i>
Trigger Type	<i>0</i>	Mask Phase	<i>0</i>
Minimum Trigger Delay	<i>4</i>	Mask Pause	<i>0</i>
Cardiac Phase	<i>1</i>		
Cardiac Slices	<i>1</i>	DIFFUSION	
		Recon All Images	<i>On</i>
FMRI		CONTRAST	
PSD Trigger	<i>Internal</i>	Contrast Yes/No	<i>No</i>
View Order	<i>Bottom/Up</i>		
# of Repetitions REST	<i>0</i>		
# of Repetitions ACTIVE	<i>0</i>		
SAT			
Tag Type	<i>None</i>		
TRICKS			
# of RR Intervals	<i>1</i>		
Trigger Delay	<i>674</i>		
Pause On/Off	<i>On</i>		
Auto Subtract	<i>0</i>		
Auto SCIC	<i>Off</i>		

T1 2IR

T1 2IR

**OTHERS**

**Protocol Notes**

*IMPORTANT TIPS:*  
*-Make sure that Trigger Delay is set to Diastolic from the pull down menu, as cardiac motion is reduced.*  
*- change CV14 from 3.33 (default) to 3.8 if MYOCARDIUM is saturated*  
*- if Black Blood imaging is performed after contrast injection, BSP TI needs to be adjusted manually.*  
*- Use always Shim Volume box to cover only the heart.*  
*- Use Localized TG under Shim Volume to improve IQ.*



McLeod Pavilion

Protocol: adult\_chest\_CARDIAC VIABILITY

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>Body</i>	Imaging Options	<i>Gat, Seq, EDR, Fast, ZIP512, BSP, ARC</i>
Plane	<i>OBLIQUE</i>		
Series Description	<i>T2 2IR FS</i>		
SCAN TIMING		SCAN RANGE	
Flip Angle	<i>107</i>	FOV	<i>42.0</i>
TE	<i>90.0</i>	Slice Thickness	<i>8.0</i>
Number of Echoes	<i>1</i>	Slice Spacing	<i>0.0</i>
TI	<i>156</i>		
Echo Train Length	<i>9</i>	ACQ TIMING	
Blood Suppression TI	<i>418</i>	Freq	<i>224</i>
Receiver Bandwidth	<i>62.50</i>	Phase	<i>224</i>
		Freq DIR	<i>Unswap</i>
		Fat Shift DIR	<i>Normal</i>
		NEX	<i>1.00</i>
		Phase FOV	<i>0.90</i>
		Auto Shim	<i>Auto</i>
		Phase Correction	<i>No</i>
IMAGE ENHANCE		USER CVS	
Filter Choice	<i>None</i>	User CV14	<i>3.33</i>
		User CV19	<i>1.00</i>
		User CV22	<i>1.00</i>
GATING/TRIGGER		MULTI-PHASE	
Auto Trigger Type	<i>On</i>	Seperate Series	<i>0</i>
Trigger Type	<i>0</i>	Mask Phase	<i>0</i>
Minimum Trigger Delay	<i>4</i>	Mask Pause	<i>0</i>
Cardiac Phase	<i>1</i>		
Cardiac Slices	<i>1</i>	DIFFUSION	
		Recon All Images	<i>On</i>
FMRI		CONTRAST	
PSD Trigger	<i>Internal</i>	Contrast Yes/No	<i>No</i>
View Order	<i>Bottom/Up</i>		
# of Repetitions REST	<i>0</i>		
# of Repetitions ACTIVE	<i>0</i>		
SAT			
Tag Type	<i>None</i>		
Fat/Water Saturation	<i>Fat Special</i>		
TRICKS			
# of RR Intervals	<i>1</i>		
Trigger Delay	<i>674</i>		
Pause On/Off	<i>On</i>		
Auto Subtract	<i>0</i>		
Auto SCIC	<i>Off</i>		

T2 2IR FS

T2 2IR FS

**OTHERS**

**Protocol Notes**

*IMPORTANT TIPS:*  
*-Make sure that Trigger Delay is set to Diastolic from the pull down menu, as cardiac motion is reduced.*  
*- FOR LA, change CV14 from 3.33 (default) to 1.25-1.5 if blood signal is not properly nulled.*  
*- if Black Blood imaging is performed after contrast injection, BSP TI needs to be adjusted manually.*  
*- Use always Shim Volume box to cover only the heart.*  
*- Use Localized TG under Shim Volume to improve IQ.*

Protocol: adult\_chest\_CARDIAC VIABILITY

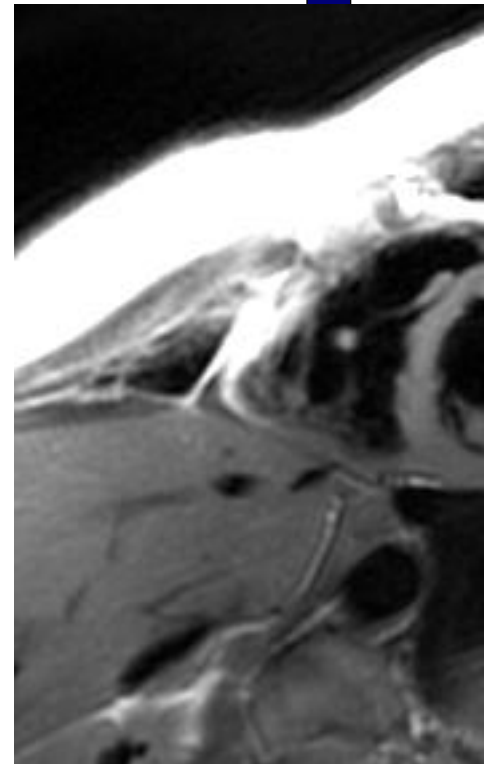
CINE IR for 3D	<b>PATIENT POSITION</b>		<b>IMAGING PARAMETERS</b>	
	Patient Entry	<i>Feet First</i>	Imaging Mode	<i>2D</i>
	Patient Position	<i>Supine</i>	Pulse Sequence	<i>CINE IR</i>
	Coil Configuration	<i>Body</i>	Imaging Options	<i>Gat, Seq, Fast, IrP</i>
	Plane	<i>OBLIQUE</i>	<b>SCAN RANGE</b>	
	Series Description	<i>CINE IR for 3D</i>	FOV	<i>40.0</i>
	<b>SCAN TIMING</b>		Slice Thickness	<i>8.0</i>
	Flip Angle	<i>5</i>	Slice Spacing	<i>0.0</i>
	TE	<i>Min Full</i>	<b>ACQ TIMING</b>	
	Receiver Bandwidth	<i>50.00</i>	Freq	<i>128</i>
	<b>IMAGE ENHANCE</b>		Phase	<i>128</i>
	Filter Choice	<i>None</i>	Freq DIR	<i>Unswap</i>
	<b>GATING/TRIGGER</b>		NEX	<i>1.00</i>
	Auto Trigger Type	<i>On</i>	Phase FOV	<i>0.80</i>
	Trigger Type	<i>0</i>	Auto Shim	<i>Auto</i>
	Minimum Trigger Delay	<i>1</i>	Phase Correction	<i>No</i>
	Cardiac Phase	<i>1</i>	<b>USER CVS</b>	
	Cardiac Slices	<i>1</i>	User CV22	<i>1.00</i>
	Views per Segment	<i>14</i>	<b>MULTI-PHASE</b>	
	<b>FMRI</b>		Seperate Series	<i>0</i>
	PSD Trigger	<i>Internal</i>	Mask Phase	<i>0</i>
	Slice Order	<i>Interleaved</i>	Mask Pause	<i>0</i>
	View Order	<i>Bottom/Up</i>	<b>DIFFUSION</b>	
	# of Repetitions REST	<i>0</i>	Recon All Images	<i>On</i>
	# of Repetitions ACTIVE	<i>0</i>	<b>CINE</b>	
<b>SAT</b>		# of Cardiac Phases to Reconstruct	<i>30</i>	
Tag Type	<i>None</i>			
<b>TRICKS</b>				
# of RR Intervals	<i>1</i>			
Trigger Delay	<i>10</i>			
Pause On/Off	<i>On</i>			
Auto Subtract	<i>0</i>			
Auto SCIC	<i>Off</i>			
<b>CONTRAST</b>				
Contrast Yes/No	<i>Yes</i>			

CINE IR for 3D

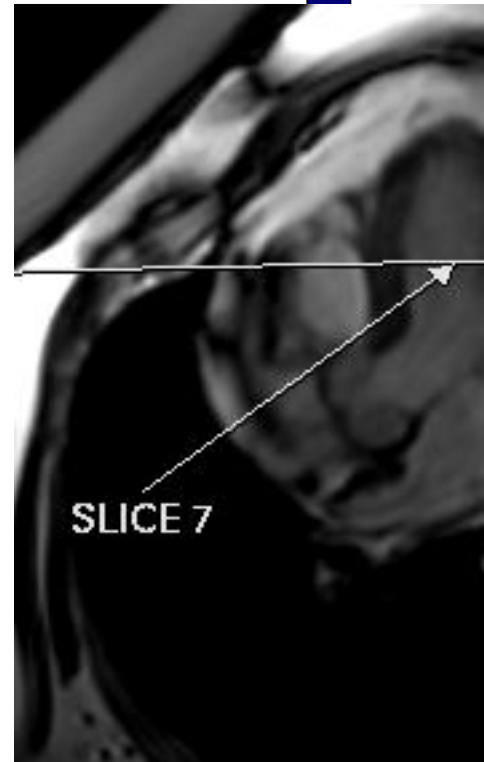
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	<p>OTHERS</p>
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Protocol Notes



LOCATE SA VIEW THAT SHOWS LV THE BEST AND PRESCRIBE THE CINE IR AT THAT LOC. IE: SLICE 7 FROM IR'S.



*RUN AT 8MIN POST  
INJECTION (ASSUME 2  
MIN TO GIVE INJECTION  
AND 6 MIN FROM  
STARTING LA FIESTA'S)*

Protocol: adult\_chest\_CARDIAC VIABILITY

PATIENT POSITION		IMAGING PARAMETERS	
Patient Entry	Feet First	Imaging Mode	3D
Patient Position	Supine	Pulse Sequence	Gradient Echo
Coil Configuration	Body	Imaging Options	Gat, EDR, Fast, IrP, ZIP512, ZIP2, Asset
Plane	OBLIQUE	<b>SCAN RANGE</b>	
Series Description	3DMDE_bh	FOV	35.0
<b>SCAN TIMING</b>		Slice Thickness	8.0
Flip Angle	20	Location per Slab	12
TE	Min Full	Overlap Locations	2
TI	300	<b>ACQ TIMING</b>	
Receiver Bandwidth	90.91	Freq	200
<b>IMAGE ENHANCE</b>		Phase	160
Filter Choice	None	Freq DIR	Unswap
<b>GATING/TRIGGER</b>		Phase FOV	0.80
Auto Trigger Type	On	Auto Shim	Auto
Trigger Type	0	Phase Correction	No
Minimum Trigger Delay	2	<b>FMRI</b>	
Cardiac Phase	1	PSD Trigger	Internal
Cardiac Slices	1	Slice Order	Interleaved
<b>MULTI-PHASE</b>		View Order	Bottom/Up
Seperate Series	0	# of Repetitions REST	0
Mask Phase	0	# of Repetitions ACTIVE	0
Mask Pause	0	<b>SAT</b>	
<b>DIFFUSION</b>		Tag Type	None
Recon All Images	On	<b>TRICKS</b>	
<b>CONTRAST</b>		# of RR Intervals	2
Contrast Yes/No	No	Trigger Delay	625
		Pause On/Off	On
		Auto Subtract	0
		Auto SCIC	Off
		<b>OTHERS</b>	
		Protocol Notes	<p>Tips:</p> <ul style="list-style-type: none"> <li>-Use Cine IR with 1 RR</li> <li>- To reduce acquisition window, ASSET can be used</li> <li>-For optimal image quality, set the right trigger delay to acquire images during the desired cardiac phase based on the heart rate. Trigger Delay Chart for End Systolic and Mid Diastolic phase acquisitions</li> </ul> <p>Heart Rate ----End-Systole-- Mid-Diastole</p> <p>50-----366-----783 60-----348-----674 70-----330-----594 80-----312-----531 90-----294-----480 100-----276-----438</p>

3DMDE\_bh

3DMDE\_bh

McLeod Pavilion

Protocol: adult\_chest\_CARDIAC VIABILITY

SA 2IR FS T2 SSFSE	<b>PATIENT POSITION</b>		<b>IMAGING PARAMETERS</b>		SA 2IR FS T2 SSFSE
	Patient Entry	<i>Feet First</i>	Imaging Mode	<i>2D</i>	
	Patient Position	<i>Supine</i>	Pulse Sequence	<i>Spin Echo</i>	
	Coil Configuration	<i>Body</i>	Imaging Options	<i>Gat, Seq, EDR, Fast, ZIP512, SS, BSP, Asset</i>	
	Plane	<i>OBLIQUE</i>	<b>SCAN RANGE</b>		
	Series Description	<i>SA 2IR FS T2 SSFSE</i>	FOV	<i>37.0</i>	
	<b>SCAN TIMING</b>		Slice Thickness	<i>8.0</i>	
	TE	<i>90.0</i>	Slice Spacing	<i>1.0</i>	
	Blood Suppression TI	<i>849</i>	<b>ACQ TIMING</b>		
	Receiver Bandwidth	<i>83.33</i>	Freq	<i>224</i>	
	<b>IMAGE ENHANCE</b>		Phase	<i>192</i>	
	Filter Choice	<i>None</i>	Freq DIR	<i>Unswap</i>	
	<b>GATING/TRIGGER</b>		NEX	<i>1.0</i>	
	Auto Trigger Type	<i>On</i>	# of Acq. Before Pause	<i>0</i>	
	Trigger Type	<i>0</i>	Phase FOV	<i>1.00</i>	
	Minimum Trigger Delay	<i>3</i>	Auto Shim	<i>Auto</i>	
	Cardiac Phase	<i>1</i>	Phase Correction	<i>No</i>	
	Cardiac Slices	<i>1</i>	<b>USER CVS</b>		
	<b>FMRI</b>		User CV2	<i>240.00</i>	
	PSD Trigger	<i>Internal</i>	User CV13	<i>1.00</i>	
	Slice Order	<i>Interleaved</i>	<b>MULTI-PHASE</b>		
	View Order	<i>Bottom/Up</i>	Seperate Series	<i>0</i>	
	# of Repetitions REST	<i>0</i>	Mask Phase	<i>0</i>	
	# of Repetitions ACTIVE	<i>0</i>	Mask Pause	<i>0</i>	
	<b>SAT</b>		<b>DIFFUSION</b>		
Tag Type	<i>None</i>	Recon All Images	<i>On</i>		
Fat/Water Saturation	<i>Fat</i>	<b>CONTRAST</b>			
<b>TRICKS</b>		Contrast Yes/No	<i>No</i>		
# of RR Intervals	<i>3</i>				
Trigger Delay	<i>1347</i>				
Pause On/Off	<i>On</i>				
Auto Subtract	<i>0</i>				
Auto SCIC	<i>On</i>				



Protocol: adult\_chest\_CARDIAC VIABILITY

Real Time Fiesta ungated	<b>PATIENT POSITION</b>		<b>IMAGING PARAMETERS</b>	
	Patient Entry	<i>Feet First</i>	Imaging Mode	<i>2D</i>
	Patient Position	<i>Supine</i>	Pulse Sequence	<i>Fiesta</i>
	Coil Configuration	<i>Body</i>	Imaging Options	<i>Seq, EDR, Fast, MPh, ARC</i>
	Plane	<i>OBLIQUE</i>	<b>SCAN RANGE</b>	
	Series Description	<i>Real Time Fiesta ungated</i>	FOV	<i>35.0</i>
	<b>SCAN TIMING</b>		Slice Thickness	<i>8.0</i>
	Flip Angle	<i>55</i>	Slice Spacing	<i>0.0</i>
	TE	<i>Minimum</i>	<b>ACQ TIMING</b>	
	Receiver Bandwidth	<i>111.11</i>	Freq	<i>160</i>
	<b>IMAGE ENHANCE</b>		Phase	<i>100</i>
	Filter Choice	<i>None</i>	Freq DIR	<i>Unswap</i>
	<b>GATING/TRIGGER</b>		NEX	<i>1.00</i>
	Auto Trigger Type	<i>Off</i>	# of Acq. Before Pause	<i>0</i>
	<b>FMRI</b>		Phase FOV	<i>0.75</i>
	PSD Trigger	<i>Internal</i>	Auto Shim	<i>Auto</i>
	Slice Order	<i>Interleaved</i>	Phase Correction	<i>No</i>
	View Order	<i>Bottom/Up</i>	<b>USER CVS</b>	
	# of Repetitions REST	<i>0</i>	User CV20	<i>1.00</i>
	# of Repetitions ACTIVE	<i>0</i>	<b>MULTI-PHASE</b>	
	<b>SAT</b>		Slice per Location	<i>30</i>
	Tag Type	<i>None</i>	Seperate Series	<i>0</i>
	<b>TRICKS</b>		Mask Phase	<i>0</i>
	Pause On/Off	<i>On</i>	Mask Pause	<i>0</i>
	Auto Subtract	<i>0</i>	<b>DIFFUSION</b>	
Auto SCIC	<i>On</i>	Recon All Images	<i>On</i>	
		<b>CONTRAST</b>		
		Contrast Yes/No	<i>No</i>	

Real Time Fiesta ungated

Protocol: adult\_chest\_CARDIAC VIABILITY

<b>PATIENT POSITION</b>		<b>IMAGING PARAMETERS</b>	
Patient Entry	<i>Feet First</i>	Imaging Mode	<i>3D</i>
Patient Position	<i>Supine</i>	Pulse Sequence	<i>4DFLOW</i>
Coil Configuration	<i>Body</i>	Imaging Options	<i>Gat, EDR, Fast, ZIP2, ARC</i>
Plane	<i>AXIAL</i>	<b>SCAN RANGE</b>	
Series Description	<i>Ax 4DFLOW postCE FB</i>	FOV	<i>44.0</i>
<b>SCAN TIMING</b>		Slice Thickness	<i>2.4</i>
Flip Angle	<i>15</i>	Location per Slab	<i>72</i>
TE	<i>Min Full</i>	Overlap Locations	<i>0</i>
Number of Echoes	<i>1</i>	<b>ACQ TIMING</b>	
Receiver Bandwidth	<i>62.50</i>	Freq	<i>256</i>
<b>IMAGE ENHANCE</b>		Phase	<i>256</i>
Filter Choice	<i>None</i>	Freq DIR	<i>R/L</i>
<b>GATING/TRIGGER</b>		NEX	<i>4.00</i>
Auto Trigger Type	<i>On</i>	Phase FOV	<i>0.75</i>
Trigger Type	<i>0</i>	Auto Shim	<i>Auto</i>
Views per Segment	<i>3</i>	Phase Correction	<i>No</i>
# of Acq Phases	<i>16</i>	<b>USER CVS</b>	
<b>FMRI</b>		User CV3	<i>1.00</i>
PSD Trigger	<i>Internal</i>	User CV5	<i>65.00</i>
View Order	<i>Bottom/Up</i>	User CV6	<i>2.00</i>
# of Repetitions REST	<i>0</i>	User CV16	<i>10.00</i>
# of Repetitions ACTIVE	<i>0</i>	<b>MULTI-PHASE</b>	
<b>SAT</b>		Seperate Series	<i>0</i>
Tag Type	<i>None</i>	Mask Phase	<i>0</i>
<b>DIFFUSION</b>		Mask Pause	<i>0</i>
Recon All Images	<i>On</i>	<b>VASCULAR</b>	
<b>TRICKS</b>		Flow Analysis	<i>All</i>
Pause On/Off	<i>On</i>	Velocity Encoding	<i>300.0</i>
Auto Subtract	<i>0</i>	<b>ASSET</b>	
Auto SCIC	<i>Off</i>	Hyperkat Value	<i>8</i>
<b>CONTRAST</b>		<b>CINE</b>	
Contrast Yes/No	<i>No</i>	# of Cardiac Phases to Reconstruct	<i>20</i>

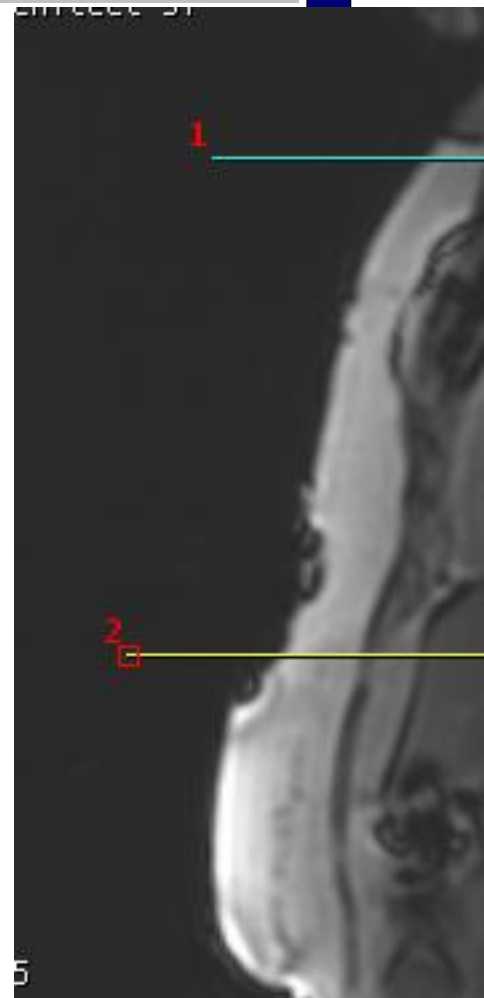
Ax 4DFLOW postCE FB

Ax 4DFLOW postCE FB

Protocol: adult\_chest\_CARDIAC VIABILITY

OTHERS

Protocol Notes



3D SLAB SCAN FROM ABOVE ARCH TO BELOW HEART.  
KEEP SCAN TIME AROUND 10 MINUTES.  
TO REDUCE SCAN TIME REDUCE PHASE FOV.  
YOU MAY HAVE TO INCREASE FREQUENCY FOV IF REDUCING PHASE FOV CUTS OFF ANATOMY