

loc tumor mets	<b>PATIENT POSITION</b>		<b>IMAGING PARAMETERS</b>		loc tumor mets
	Patient Entry	Head First	Imaging Mode	2D	
	Patient Position	Supine	Pulse Sequence	Gradient Echo	
	Coil Configuration	GEM Head	Imaging Options	Seq, Fast	
	Plane	3-PLANE	<b>IMAGE ENHANCE</b>		
	Series Description	loc tumor mets	Filter Choice	None	
	<b>SCAN RANGE</b>		<b>GATING/TRIGGER</b>		
	FOV	30.0	Auto Trigger Type	Off	
	Slice Thickness	10.0	<b>MULTI-PHASE</b>		
	Slice Spacing	0.0	Seperate Series	0	
	<b>ACQ TIMING</b>		Mask Phase	0	
	Freq	256	Mask Pause	0	
	Phase	128	<b>DIFFUSION</b>		
	Freq DIR	Unswap	Recon All Images	On	
	NEX	1.00	<b>CONTRAST</b>		
	Phase FOV	1.00	Contrast Yes/No	No	
	Auto Shim	Auto	<b>FMRI</b>		
	Phase Correction	No	PSD Trigger	Internal	
	<b>SAT</b>		Slice Order	Interleaved	
	Tag Type	None	View Order	Bottom/Up	
<b>TRICKS</b>		# of Repetitions REST	0		
Pause On/Off	On	# of Repetitions ACTIVE	0		
Auto Subtract	0	<b>SAT</b>			
Auto SCIC	Off	Tag Type	None		

sag t2	<b>PATIENT POSITION</b>		<b>IMAGING PARAMETERS</b>	
	Patient Entry	Head First	Imaging Mode	2D
	Patient Position	Supine	Pulse Sequence	FRFSE-XL
	Coil Configuration	0	Imaging Options	FC, EDR, TRF, Fast, Asset, FR
	Plane	OBLIQUE	<b>SCAN RANGE</b>	
	Series Description	sag t2	FOV	23.0
	<b>SCAN TIMING</b>		Slice Thickness	4.0
	Flip Angle	160	Slice Spacing	1.0
	TE	102.0	<b>ACQ TIMING</b>	
	Number of Echoes	1	Freq	384
	TR	3500.0	Phase	224
	Echo Train Length	13	Freq DIR	Unswap
	Receiver Bandwidth	41.67	NEX	1.00
	<b>IMAGE ENHANCE</b>		# of Acq. Before Pause	0
	Filter Choice	None	Phase FOV	1.00
	<b>GATING/TRIGGER</b>		Auto Shim	Auto
	Auto Trigger Type	Off	Phase Correction	Yes
	<b>FMRI</b>		Flow Direction Compensation	Freq
	PSD Trigger	Internal	<b>USER CVS</b>	
	Slice Order	Interleaved	User CV21	1.00
	View Order	Bottom/Up	TR Min	3500.0
	# of Repetitions REST	0	TR Max	5000.0
	# of Repetitions ACTIVE	0	<b>MULTI-PHASE</b>	
	<b>SAT</b>		Seperate Series	0
	SAT Location	I	Mask Phase	0
Tag Type	None	Mask Pause	0	
<b>TRICKS</b>		<b>DIFFUSION</b>		
Pause On/Off	On	Recon All Images	On	
Auto Subtract	0	<b>CONTRAST</b>		
Auto SCIC	On	Contrast Yes/No	No	

sag t2

ax spgr	<b>PATIENT POSITION</b>		<b>IMAGING PARAMETERS</b>		ax spgr
	Patient Entry	Head First	Imaging Mode	3D	
	Patient Position	Supine	Pulse Sequence	SPGR	
	Coil Configuration	0	Imaging Options	EDR, Fast, IrP, Asset	
	Plane	OBLIQUE	<b>SCAN RANGE</b>		
	Series Description	ax spgr	FOV	25.6	
	<b>SCAN TIMING</b>		Slice Thickness	1.0	
	Flip Angle	14	Location per Slab	200	
	TE	Minimum	Overlap Locations	0	
	TI	400	<b>ACQ TIMING</b>		
	Receiver Bandwidth	31.25	Freq	256	
	<b>IMAGE ENHANCE</b>		Phase	256	
	Filter Choice	None	Freq DIR	Unswap	
	<b>GATING/TRIGGER</b>		NEX	0.75	
	Auto Trigger Type	Off	Phase FOV	0.90	
	<b>FMRI</b>		Auto Shim	Auto	
	Initial State	Control	Phase Correction	No	
	PSD Trigger	Internal	<b>USER CVS</b>		
	Slice Order	Interleaved	User CV23	100.00	
	View Order	Bottom/Up	<b>MULTI-PHASE</b>		
	# of Repetitions REST	0	Seperate Series	0	
	# of Repetitions ACTIVE	0	Mask Phase	0	
	<b>SAT</b>		Mask Pause	0	
	Tag Type	None	<b>DIFFUSION</b>		
	<b>TRICKS</b>		Recon All Images	On	
	Pause On/Off	On	<b>CONTRAST</b>		
	Auto Subtract	0	Contrast Yes/No	No	
	Auto SCIC	On			

PATIENT POSITION		IMAGING PARAMETERS	
Patient Entry	Head First	Imaging Mode	2D
Patient Position	Supine	Pulse Sequence	T2flair
Coil Configuration	GEM Head;GEM Neck	Imaging Options	EDR, TRF, Fast, ARC
Plane	OBLIQUE	<b>SCAN RANGE</b>	
Series Description	ax flair	FOV	24.0
<b>SCAN TIMING</b>		Slice Thickness	4.0
Flip Angle	160	Slice Spacing	0.0
TE	95.0	<b>ACQ TIMING</b>	
TR	10000.0	Freq	320
TI	2689	Phase	256
Echo Train Length	14	Freq DIR	A/P
Receiver Bandwidth	31.25	Fat Shift DIR	Normal (A)
<b>IMAGE ENHANCE</b>		NEX	1.00
Filter Choice	None	Phase FOV	0.75
<b>GATING/TRIGGER</b>		Auto Shim	Auto
Auto Trigger Type	Off	Phase Correction	No
<b>FMRI</b>		<b>USER CVS</b>	
PSD Trigger	Internal	User CV5	1.00
Slice Order	Interleaved	TR Min	8000.0
View Order	Bottom/Up	TR Max	16000.0
# of Repetitions REST	0	<b>MULTI-PHASE</b>	
# of Repetitions ACTIVE	0	Seperate Series	0
<b>SAT</b>		Mask Phase	0
Tag Type	None	Mask Pause	0
<b>TRICKS</b>		<b>DIFFUSION</b>	
Pause On/Off	On	Recon All Images	On
Auto Subtract	0	<b>CONTRAST</b>	
Auto SCIC	On	Contrast Yes/No	No
<b>OTHERS</b>			
Protocol Notes	DO NOT TAKE TR BELOW 10,000!		

PATIENT POSITION		IMAGING PARAMETERS	
Patient Entry	Head First	Imaging Mode	2D
Patient Position	Supine	Pulse Sequence	Spin Echo
Coil Configuration	GEM Head	Imaging Options	EPI, DIFF, Asset
Plane	OBLIQUE	<b>SCAN RANGE</b>	
Series Description	ax diff	FOV	24.0
<b>SCAN TIMING</b>		Slice Thickness	4.0
TE	Minimum	Slice Spacing	0.0
TR	9390.0	<b>ACQ TIMING</b>	
Number of Shots	1	Freq	128
<b>IMAGE ENHANCE</b>		Phase	128
Filter Choice	None	Freq DIR	R/L
<b>GATING/TRIGGER</b>		Phase FOV	1.00
Auto Trigger Type	Off	Auto Shim	Auto
<b>FMRI</b>		Phase Correction	Yes
PSD Trigger	Internal	<b>USER CVS</b>	
Slice Order	Interleaved	User CV0	1.00
View Order	Bottom/Up	User CV5	1.00
# of Repetitions REST	0	User CV17	1.00
# of Repetitions ACTIVE	0	TR Min	6000.0
<b>SAT</b>		TR Max	10000.0
Tag Type	None	<b>MULTI-PHASE</b>	
<b>TRICKS</b>		Seperate Series	0
Pause On/Off	On	Mask Phase	0
Auto Subtract	0	Mask Pause	0
Auto SCIC	Off	<b>DIFFUSION</b>	
		Optimized TE	Yes
		Diffusion Directions	All
		Number of Diffusion Directions	3
		Number of T2 Images	1
		Dual Spin Echo	On
		Recon All Images	On
		<b>CONTRAST</b>	
		Contrast Yes/No	No

CONTRAST	<b>PATIENT POSITION</b>		<b>IMAGING PARAMETERS</b>	
	Patient Entry	Head First	Imaging Mode	2D
	Patient Position	Supine	Pulse Sequence	Gradient Echo
	Coil Configuration	T/R Standard Head coil by GE	Imaging Options	Seq, Fast
	Plane	3-PLANE	Acceleration Factor	1.00
	Series Description	CONTRAST	<b>IMAGE ENHANCE</b>	
	<b>SCAN RANGE</b>		Filter Choice	None
	FOV	25.0	<b>GATING/TRIGGER</b>	
	Slice Thickness	5.0	Auto Trigger Type	Off
	Slice Spacing	5.0	<b>MULTI-PHASE</b>	
	<b>ACQ TIMING</b>		Seperate Series	0
	Freq	256	Mask Phase	0
	Phase	128	Mask Pause	0
	Freq DIR	Unswap	<b>TRICKS</b>	
	NEX	1.00	Pause On/Off	On
	Phase FOV	1.00	Auto Subtract	0
	Auto Shim	Auto	Auto SCIC	Off
	Phase Correction	No		
	<b>FMRI</b>			
	PSD Trigger	Internal		
	Slice Order	Interleaved		
	View Order	Bottom/Up		
	# of Repetitions REST	0		
	# of Repetitions ACTIVE	0		
	<b>ASSET</b>			
Slice Acceleration Factor	1.00			
Phase Acceleration Factor	1.00			
<b>CONTRAST</b>				
Contrast Yes/No	No			

CONTRAST

ax t2 +c	<b>PATIENT POSITION</b>		<b>IMAGING PARAMETERS</b>	
	Patient Entry	Head First	Imaging Mode	2D
	Patient Position	Supine	Pulse Sequence	FRFSE-XL
	Coil Configuration	0	Imaging Options	FC, EDR, TRF, Fast, FR
	Plane	OBLIQUE	<b>SCAN RANGE</b>	
	Series Description	ax t2 +c	FOV	24.0
	<b>SCAN TIMING</b>		Slice Thickness	4.0
	Flip Angle	160	Slice Spacing	0.0
	TE	102.0	<b>ACQ TIMING</b>	
	Number of Echoes	1	Freq	320
	TR	3257.0	Phase	256
	Echo Train Length	18	Freq DIR	Unswap
	Receiver Bandwidth	35.71	NEX	1.00
	<b>IMAGE ENHANCE</b>		# of Acq. Before Pause	0
	Filter Choice	None	Phase FOV	1.00
	<b>GATING/TRIGGER</b>		Auto Shim	Auto
	Auto Trigger Type	Off	Phase Correction	Yes
	<b>FMRI</b>		Flow Direction Compensation	Slice
	PSD Trigger	Internal	<b>USER CVS</b>	
	Slice Order	Interleaved	TR Min	3000.0
	View Order	Bottom/Up	TR Max	5000.0
	# of Repetitions REST	0	<b>MULTI-PHASE</b>	
	# of Repetitions ACTIVE	0	Seperate Series	0
	<b>SAT</b>		Mask Phase	0
	Tag Type	None	Mask Pause	0
<b>TRICKS</b>		<b>DIFFUSION</b>		
Pause On/Off	On	Recon All Images	On	
Auto Subtract	0	<b>CONTRAST</b>		
Auto SCIC	2	Contrast Yes/No	Yes	

ax t2 +c

ax spgr +c	<b>PATIENT POSITION</b>		<b>IMAGING PARAMETERS</b>	
	Patient Entry	Head First	Imaging Mode	3D
	Patient Position	Supine	Pulse Sequence	SPGR
	Coil Configuration	0	Imaging Options	EDR, Fast, IrP, Asset
	Plane	OBLIQUE	<b>SCAN RANGE</b>	
	Series Description	ax spgr +c	FOV	25.6
	<b>SCAN TIMING</b>		Slice Thickness	1.0
	Flip Angle	14	Location per Slab	200
	TE	Minimum	Overlap Locations	0
	TI	400	<b>ACQ TIMING</b>	
	Receiver Bandwidth	31.25	Freq	256
	<b>IMAGE ENHANCE</b>		Phase	256
	Filter Choice	None	Freq DIR	Unswap
	<b>GATING/TRIGGER</b>		NEX	0.75
	Auto Trigger Type	Off	Phase FOV	0.90
	<b>FMRI</b>		Auto Shim	Auto
	Initial State	Control	Phase Correction	No
	PSD Trigger	Internal	<b>USER CVS</b>	
	Slice Order	Interleaved	User CV23	100.00
	View Order	Bottom/Up	<b>MULTI-PHASE</b>	
	# of Repetitions REST	0	Seperate Series	0
	# of Repetitions ACTIVE	0	Mask Phase	0
	<b>SAT</b>		Mask Pause	0
	Tag Type	None	<b>DIFFUSION</b>	
	<b>TRICKS</b>		Recon All Images	On
	Pause On/Off	On	<b>CONTRAST</b>	
	Auto Subtract	0	Contrast Yes/No	No
	Auto SCIC	On		

ax spgr +c



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PATIENT POSITION		IMAGING PARAMETERS	
Patient Entry	Head First	Imaging Mode	2D
Patient Position	Supine	Pulse Sequence	Spin Echo
Coil Configuration	0	Imaging Options	EDR
Plane	OBLIQUE	<b>SCAN RANGE</b>	
Series Description	ax t1 +c	FOV	24.0
<b>SCAN TIMING</b>		Slice Thickness	4.0
TE	Min Full	Slice Spacing	0.0
Number of Echoes	1	<b>ACQ TIMING</b>	
TR	500.0	Freq	448
Receiver Bandwidth	31.25	Phase	192
<b>IMAGE ENHANCE</b>		Freq DIR	A/P
Filter Choice	None	NEX	1.00
<b>GATING/TRIGGER</b>		Phase FOV	0.80
Auto Trigger Type	Off	Auto Shim	Auto
<b>FMRI</b>		Phase Correction	No
PSD Trigger	Internal	<b>USER CVS</b>	
Slice Order	Interleaved	User CV4	1.00
View Order	Bottom/Up	TR Min	500.0
# of Repetitions REST	0	TR Max	700.0
# of Repetitions ACTIVE	0	<b>MULTI-PHASE</b>	
<b>SAT</b>		Seperate Series	0
Tag Type	None	Mask Phase	0
<b>TRICKS</b>		Mask Pause	0
Pause On/Off	On	<b>DIFFUSION</b>	
Auto Subtract	0	Recon All Images	On
Auto SCIC	2	<b>CONTRAST</b>	
		Contrast Yes/No	No

ax t1 +c

ax t1 +c