

Protocol: adult_spine_Spine survey for CSF LEAK-WIP 10-10-19

3-Plane Localizer	PATIENT POSITION		IMAGING PARAMETERS	
	Patient Entry	Head First	Imaging Mode	2D
	Patient Position	Supine	Pulse Sequence	Spin Echo
	Coil Configuration	GEM Spine	Imaging Options	Seq, EDR, Fast, SS, ARC
	Plane	3-PLANE	SCAN RANGE	
	Series Description	3-Plane Localizer	FOV	32.0
	SCAN TIMING		Slice Thickness	7.0
	TE	80.0	Slice Spacing	7.0
	Number of Echoes	1	ACQ TIMING	
	TR	Minimum	Freq	256
	Receiver Bandwidth	83.33	Phase	160
	IMAGE ENHANCE		Freq DIR	Unswap
	Filter Choice	None	# of Acq. Before Pause	0
	GATING/TRIGGER		Phase FOV	1.00
	Auto Trigger Type	Off	Auto Shim	Auto
	FMRI		Phase Correction	No
	PSD Trigger	Internal	USER CVS	
	View Order	Bottom/Up	User CV1	1.00
	# of Repetitions REST	0	User CV2	240.00
	# of Repetitions ACTIVE	0	User CV13	1.00
	SAT		MULTI-PHASE	
	Tag Type	None	Seperate Series	0
	TRICKS		Mask Phase	0
	Pause On/Off	On	Mask Pause	0
	Auto Subtract	0	DIFFUSION	
Auto SCIC	Off	Recon All Images	On	
		CONTRAST		
		Contrast Yes/No	No	

3-Plane Localizer

Protocol: adult_spine_Spine survey for CSF LEAK-WIP 10-10-19

PATIENT POSITION		IMAGING PARAMETERS	
Patient Entry	Head First	Imaging Mode	2D
Patient Position	Supine	Pulse Sequence	FSE-XL
Coil Configuration	GEM Spine	Imaging Options	FC, NPW, EDR, TRF, Fast, FR
Plane	OBLIQUE		
Series Description	SAGITTAL T2W CSP		
SCAN TIMING		SCAN RANGE	
Flip Angle	160	FOV	24.0
TE	102.0	Slice Thickness	3.0
Number of Echoes	1	Slice Spacing	1.0
TR	3292.0		
Echo Train Length	21	ACQ TIMING	
Receiver Bandwidth	41.67	Freq	352
		Phase	256
		Freq DIR	A/P
		Fat Shift DIR	Normal (P)
		NEX	4.00
		Auto Shim	Auto
		Phase Correction	No
		Flow Direction Compensation	Freq
IMAGE ENHANCE		USER CVS	
Filter Choice	None	User CV15	2.00
		TR Min	2500.0
		TR Max	6000.0
GATING/TRIGGER		MULTI-PHASE	
Auto Trigger Type	Off	Seperate Series	0
		Mask Phase	0
		Mask Pause	0
FMRI		DIFFUSION	
PSD Trigger	Internal	Recon All Images	On
View Order	Bottom/Up		
# of Repetitions REST	0	CONTRAST	
# of Repetitions ACTIVE	0	Contrast Yes/No	No
SAT			
Tag Type	None		
TRICKS			
Pause On/Off	On		
Auto Subtract	0		
Auto SCIC	Off		

SAGITTAL T2W CSP

SAGITTAL T2W CSP

Protocol: adult_spine_Spine survey for CSF LEAK-WIP 10-10-19

PATIENT POSITION		IMAGING PARAMETERS	
Patient Entry	Head First	Imaging Mode	2D
Patient Position	Supine	Pulse Sequence	FSE-XL
Coil Configuration	GEM Spine	Imaging Options	NPW, EDR, TRF, Fast, ZIP512
Plane	OBLIQUE		
Series Description	SAGITTAL T1W CSP		
SCAN TIMING		SCAN RANGE	
Flip Angle	160	FOV	24.0
TE	Min Full	Slice Thickness	3.0
Number of Echoes	1	Slice Spacing	1.0
TR	441.0		
Echo Train Length	4	ACQ TIMING	
Receiver Bandwidth	41.67	Freq	352
		Phase	256
		Freq DIR	A/P
		Fat Shift DIR	Normal (P)
		NEX	4.00
		# of Acq. Before Pause	0
		Auto Shim	Auto
		Phase Correction	No
IMAGE ENHANCE		USER CVS	
Filter Choice	None	User CV16	1.00
		User CV22	1.00
		TR Min	400.0
		TR Max	650.0
GATING/TRIGGER		MULTI-PHASE	
Auto Trigger Type	Off	Seperate Series	0
		Mask Phase	0
		Mask Pause	0
FMRI		DIFFUSION	
PSD Trigger	Internal	Recon All Images	On
View Order	Bottom/Up		
# of Repetitions REST	0		
# of Repetitions ACTIVE	0		
SAT		CONTRAST	
Tag Type	None	Contrast Yes/No	No
TRICKS			
Pause On/Off	On		
Auto Subtract	0		
Auto SCIC	Off		

SAGITTAL T1W CSP

SAGITTAL T1W CSP

Protocol: adult_spine_Spine survey for CSF LEAK-WIP 10-10-19

PATIENT POSITION		IMAGING PARAMETERS	
Patient Entry	Head First	Imaging Mode	2D
Patient Position	Supine	Pulse Sequence	FSE-XL
Coil Configuration	GEM Spine	Imaging Options	FC, NPW, Seq, EDR, TRF, Fast, ZIP512, ARC, IrP
Plane	OBLIQUE	PSD Name	frfse-xl
Series Description	SAGITTAL STIR CSP		
SCAN TIMING		SCAN RANGE	
Flip Angle	160	FOV	24.0
TE	49.0	Slice Thickness	3.0
Number of Echoes	1	Slice Spacing	1.0
TR	4432.0		
TI	160	ACQ TIMING	
Echo Train Length	13	Freq	256
Receiver Bandwidth	41.67	Phase	192
		Freq DIR	A/P
		Fat Shift DIR	Normal (P)
		NEX	4.00
		Auto Shim	Auto
		Phase Correction	No
		Flow Direction Compensation	Freq
IMAGE ENHANCE		USER CVS	
Filter Choice	None	User CV22	1.00
		TR Min	2000.0
		TR Max	15000.0
GATING/TRIGGER		MULTI-PHASE	
Auto Trigger Type	Off	Seperate Series	0
		Mask Phase	0
		Mask Pause	0
FMRI		DIFFUSION	
PSD Trigger	Internal	Recon All Images	On
View Order	Bottom/Up		
# of Repetitions REST	0	CONTRAST	
# of Repetitions ACTIVE	0	Contrast Yes/No	No
SAT			
Tag Type	None		
TRICKS			
Pause On/Off	On		
Auto Subtract	0		
Auto SCIC	Off		

SAGITTAL STIR CSP

SAGITTAL STIR CSP

Protocol: adult_spine_Spine survey for CSF LEAK-WIP 10-10-19

PATIENT POSITION		IMAGING PARAMETERS	
Patient Entry	Head First	Imaging Mode	2D
Patient Position	Supine	Pulse Sequence	FSE-XL
Coil Configuration	GEM Spine	Imaging Options	FC, NPW, EDR, TRF, Fast, FR
Plane	OBLIQUE		
Series Description	COR T2W CSP		
SCAN TIMING		SCAN RANGE	
Flip Angle	160	FOV	24.0
TE	102.0	Slice Thickness	3.0
Number of Echoes	1	Slice Spacing	1.0
TR	2518.0		
Echo Train Length	21	ACQ TIMING	
Receiver Bandwidth	41.67	Freq	352
		Phase	256
		Freq DIR	A/P
		Fat Shift DIR	Normal (P)
		NEX	4.00
		Auto Shim	Auto
		Phase Correction	No
		Flow Direction Compensation	Freq
IMAGE ENHANCE		USER CVS	
Filter Choice	None	User CV15	2.00
		TR Min	2500.0
		TR Max	6000.0
GATING/TRIGGER		MULTI-PHASE	
Auto Trigger Type	Off	Seperate Series	0
		Mask Phase	0
		Mask Pause	0
FMRI		DIFFUSION	
PSD Trigger	Internal	Recon All Images	On
View Order	Bottom/Up		
# of Repetitions REST	0		
# of Repetitions ACTIVE	0		
SAT		CONTRAST	
Tag Type	None	Contrast Yes/No	No
TRICKS			
Pause On/Off	On		
Auto Subtract	0		
Auto SCIC	Off		

COR T2W CSP

COR T2W CSP

Protocol: adult_spine_Spine survey for CSF LEAK-WIP 10-10-19

PATIENT POSITION		IMAGING PARAMETERS	
Patient Entry	Head First	Imaging Mode	2D
Patient Position	Supine	Pulse Sequence	FSE-XL
Coil Configuration	GEM Spine	Imaging Options	FC, NPW, EDR, TRF, Fast, ZIP512, FR
Plane	OBLIQUE		
Series Description	AXIAL T2W CSP		
SCAN TIMING		SCAN RANGE	
Flip Angle	160	FOV	16.0
TE	102.0	Slice Thickness	3.0
Number of Echoes	1	Slice Spacing	1.0
TR	5269.0		
Echo Train Length	22	ACQ TIMING	
Receiver Bandwidth	41.67	Freq	256
		Phase	192
		Freq DIR	A/P
		Fat Shift DIR	Normal (A)
		NEX	4.00
		Auto Shim	Auto
		Phase Correction	No
		Flow Direction	Slice
		Compensation	
IMAGE ENHANCE		USER CVS	
Filter Choice	None	User CV15	2.00
		TR Min	2500.0
		TR Max	11000.0
GATING/TRIGGER		MULTI-PHASE	
Auto Trigger Type	Off	Seperate Series	0
		Mask Phase	0
		Mask Pause	0
FMRI		DIFFUSION	
PSD Trigger	Internal	Recon All Images	On
View Order	Bottom/Up		
# of Repetitions REST	0	CONTRAST	
# of Repetitions ACTIVE	0	Contrast Yes/No	No
SAT			
SAT Location	A		
Tag Type	None		
TRICKS			
Pause On/Off	On		
Auto Subtract	0		
Auto SCIC	Off		

AXIAL T2W CSP

AXIAL T2W CSP

Protocol: adult_spine_Spine survey for CSF LEAK-WIP 10-10-19

PATIENT POSITION		IMAGING PARAMETERS	
Patient Entry	Head First	Imaging Mode	2D
Patient Position	Supine	Pulse Sequence	Spin Echo
Coil Configuration	GEM Body	Imaging Options	EDR, Fast, SS, Asset
Plane	CORONAL	SCAN RANGE	
Series Description	COR SSFSE Thick CSP	FOV	32.0
SCAN TIMING		Slice Thickness	40.0
TE	1000.0	Slice Spacing	1.0
Number of Echoes	1	ACQ TIMING	
TR	Minimum	Freq	288
Receiver Bandwidth	41.67	Phase	256
IMAGE ENHANCE		Freq DIR	S/I
Filter Choice	None	NEX	1.00
GATING/TRIGGER		# of Acq. Before Pause	0
Auto Trigger Type	Off	Phase FOV	1.00
FMRI		Auto Shim	Auto
PSD Trigger	Internal	Phase Correction	No
View Order	Bottom/Up	USER CVS	
# of Repetitions REST	0	User CV1	1.00
# of Repetitions ACTIVE	0	User CV2	264.00
SAT		User CV13	1.00
Tag Type	None	MULTI-PHASE	
Fat/Water Saturation	Fat	Seperate Series	0
TRICKS		Mask Phase	0
Pause On/Off	On	Mask Pause	0
Auto Subtract	0	DIFFUSION	
Auto SCIC	2	Recon All Images	On
OTHERS		CONTRAST	
Protocol Notes	The MRCP type SSFSE done in Coronal plane.	Contrast Yes/No	No

COR SSFSE Thick CSP

COR SSFSE Thick CSP

Protocol: adult_spine_Spine survey for CSF LEAK-WIP 10-10-19

PATIENT POSITION		IMAGING PARAMETERS	
Patient Entry	Head First	Imaging Mode	2D
Patient Position	Supine	Pulse Sequence	Spin Echo
Coil Configuration	GEM Spine	Imaging Options	Seq, EDR, Fast, SS, ARC
Plane	3-PLANE	SCAN RANGE	
Series Description	3-Plane Localizer	FOV	50.0
SCAN TIMING		Slice Thickness	4.0
TE	80.0	Slice Spacing	5.0
Number of Echoes	1	ACQ TIMING	
TR	Minimum	Freq	384
Receiver Bandwidth	83.33	Phase	160
IMAGE ENHANCE		Freq DIR	Unswap
Filter Choice	None	# of Acq. Before Pause	0
GATING/TRIGGER		Phase FOV	1.00
Auto Trigger Type	Off	Auto Shim	Auto
FMRI		Phase Correction	No
PSD Trigger	Internal	USER CVS	
View Order	Bottom/Up	User CV1	1.00
# of Repetitions REST	0	User CV2	240.00
# of Repetitions ACTIVE	0	User CV13	1.00
SAT		MULTI-PHASE	
Tag Type	None	Seperate Series	0
TRICKS		Mask Phase	0
Pause On/Off	On	Mask Pause	0
Auto Subtract	0	DIFFUSION	
Auto SCIC	Off	Recon All Images	On
		CONTRAST	
		Contrast Yes/No	No

3-Plane Localizer

3-Plane Localizer

Protocol: adult_spine_Spine survey for CSF LEAK-WIP 10-10-19

PATIENT POSITION		IMAGING PARAMETERS	
Patient Entry	Head First	Imaging Mode	2D
Patient Position	Supine	Pulse Sequence	FSE-XL
Coil Configuration	GEM Spine	Imaging Options	FC, NPW, EDR, TRF, Fast, FR
Plane	OBLIQUE		
Series Description	SAGITTAL T2W TSP		
SCAN TIMING		SCAN RANGE	
Flip Angle	160	FOV	32.0
TE	102.0	Slice Thickness	3.0
Number of Echoes	1	Slice Spacing	1.0
TR	2668.0		
Echo Train Length	21	ACQ TIMING	
Receiver Bandwidth	41.67	Freq	416
		Phase	256
		Freq DIR	A/P
		Fat Shift DIR	Normal (P)
		NEX	4.00
		Auto Shim	Auto
		Phase Correction	No
		Flow Direction Compensation	Freq
IMAGE ENHANCE		USER CVS	
Filter Choice	None	User CV15	2.00
		TR Min	2500.0
		TR Max	6000.0
GATING/TRIGGER		MULTI-PHASE	
Auto Trigger Type	Off	Seperate Series	0
		Mask Phase	0
		Mask Pause	0
FMRI		DIFFUSION	
PSD Trigger	Internal	Recon All Images	On
View Order	Bottom/Up		
# of Repetitions REST	0	CONTRAST	
# of Repetitions ACTIVE	0	Contrast Yes/No	No
SAT			
Tag Type	None		
TRICKS			
Pause On/Off	On		
Auto Subtract	0		
Auto SCIC	2		

SAGITTAL T2W TSP

SAGITTAL T2W TSP

Protocol: adult_spine_Spine survey for CSF LEAK-WIP 10-10-19

PATIENT POSITION		IMAGING PARAMETERS	
Patient Entry	Head First	Imaging Mode	2D
Patient Position	Supine	Pulse Sequence	FSE-XL
Coil Configuration	GEM Spine	Imaging Options	FC, NPW, Seq, EDR, TRF, Fast, ZIP512, ARC, IrP
Plane	OBLIQUE	PSD Name	frfse-xl
Series Description	SAGITTAL STIR		
SCAN TIMING		SCAN RANGE	
Flip Angle	160	FOV	32.0
TE	49.0	Slice Thickness	3.0
Number of Echoes	1	Slice Spacing	1.0
TR	3508.0		
TI	160	ACQ TIMING	
Echo Train Length	13	Freq	320
Receiver Bandwidth	41.67	Phase	224
		Freq DIR	A/P
		Fat Shift DIR	Normal (P)
		NEX	3.00
		Auto Shim	Auto
		Phase Correction	No
		Flow Direction	Freq
		Compensation	
IMAGE ENHANCE		USER CVS	
Filter Choice	None	User CV22	1.00
		TR Min	2000.0
		TR Max	15000.0
GATING/TRIGGER		MULTI-PHASE	
Auto Trigger Type	Off	Seperate Series	0
		Mask Phase	0
		Mask Pause	0
FMRI		DIFFUSION	
PSD Trigger	Internal	Recon All Images	On
View Order	Bottom/Up		
# of Repetitions REST	0	CONTRAST	
# of Repetitions ACTIVE	0	Contrast Yes/No	No
SAT			
Tag Type	None		
TRICKS			
Pause On/Off	On		
Auto Subtract	0		
Auto SCIC	Off		

SAGITTAL STIR

SAGITTAL STIR

Protocol: adult_spine_Spine survey for CSF LEAK-WIP 10-10-19

PATIENT POSITION		IMAGING PARAMETERS	
Patient Entry	Head First	Imaging Mode	2D
Patient Position	Supine	Pulse Sequence	FSE-XL
Coil Configuration	GEM Spine	Imaging Options	NPW, EDR, TRF, Fast, ZIP512
Plane	OBLIQUE		
Series Description	SAGITTAL T1W		
SCAN TIMING		SCAN RANGE	
Flip Angle	160	FOV	32.0
TE	Min Full	Slice Thickness	3.0
Number of Echoes	1	Slice Spacing	1.0
TR	637.0		
Echo Train Length	4	ACQ TIMING	
Receiver Bandwidth	41.67	Freq	416
		Phase	256
		Freq DIR	A/P
		Fat Shift DIR	Normal (P)
		NEX	4.00
		Auto Shim	Auto
		Phase Correction	No
IMAGE ENHANCE		USER CVS	
Filter Choice	None	User CV15	2.00
		User CV16	1.00
		User CV22	1.00
		TR Min	400.0
		TR Max	650.0
GATING/TRIGGER		MULTI-PHASE	
Auto Trigger Type	Off	Seperate Series	0
		Mask Phase	0
		Mask Pause	0
FMRI		DIFFUSION	
PSD Trigger	Internal	Recon All Images	On
View Order	Bottom/Up		
# of Repetitions REST	0		
# of Repetitions ACTIVE	0		
SAT		CONTRAST	
Tag Type	None	Contrast Yes/No	No
TRICKS			
Pause On/Off	On		
Auto Subtract	0		
Auto SCIC	2		

SAGITTAL T1W

SAGITTAL T1W

Protocol: adult_spine_Spine survey for CSF LEAK-WIP 10-10-19

PATIENT POSITION		IMAGING PARAMETERS	
Patient Entry	Head First	Imaging Mode	2D
Patient Position	Supine	Pulse Sequence	FSE-XL
Coil Configuration	GEM Spine	Imaging Options	FC, NPW, EDR, TRF, Fast, FR
Plane	OBLIQUE		
Series Description	COR T2W TSP		
SCAN TIMING		SCAN RANGE	
Flip Angle	160	FOV	32.0
TE	102.0	Slice Thickness	3.0
Number of Echoes	1	Slice Spacing	1.0
TR	2668.0		
Echo Train Length	21	ACQ TIMING	
Receiver Bandwidth	41.67	Freq	416
		Phase	256
		Freq DIR	A/P
		Fat Shift DIR	Normal (P)
		NEX	4.00
		Auto Shim	Auto
		Phase Correction	No
		Flow Direction Compensation	Freq
IMAGE ENHANCE		USER CVS	
Filter Choice	None	User CV15	2.00
		TR Min	2500.0
		TR Max	6000.0
GATING/TRIGGER		MULTI-PHASE	
Auto Trigger Type	Off	Seperate Series	0
		Mask Phase	0
		Mask Pause	0
FMRI		DIFFUSION	
PSD Trigger	Internal	Recon All Images	On
View Order	Bottom/Up		
# of Repetitions REST	0		
# of Repetitions ACTIVE	0		
SAT		CONTRAST	
Tag Type	None	Contrast Yes/No	No
TRICKS			
Pause On/Off	On		
Auto Subtract	0		
Auto SCIC	2		

COR T2W TSP

COR T2W TSP

Protocol: adult_spine_Spine survey for CSF LEAK-WIP 10-10-19

PATIENT POSITION		IMAGING PARAMETERS	
Patient Entry	Head First	Imaging Mode	2D
Patient Position	Supine	Pulse Sequence	FSE-XL
Coil Configuration	GEM Spine	Imaging Options	FC, NPW, EDR, TRF, Fast, ZIP512, FR
Plane	OBLIQUE		
Series Description	AXIAL T2W TSP		
SCAN TIMING		SCAN RANGE	
Flip Angle	160	FOV	16.0
TE	102.0	Slice Thickness	4.0
Number of Echoes	1	Slice Spacing	1.0
TR	5162.0		
Echo Train Length	22	ACQ TIMING	
Receiver Bandwidth	41.67	Freq	256
		Phase	192
		Freq DIR	A/P
		Fat Shift DIR	Normal (A)
		NEX	4.00
		Auto Shim	Auto
		Phase Correction	No
		Flow Direction	Slice
		Compensation	
IMAGE ENHANCE		USER CVS	
Filter Choice	None	User CV15	2.00
		TR Min	2500.0
		TR Max	11000.0
GATING/TRIGGER		MULTI-PHASE	
Auto Trigger Type	Off	Seperate Series	0
		Mask Phase	0
		Mask Pause	0
FMRI		DIFFUSION	
PSD Trigger	Internal	Recon All Images	On
View Order	Bottom/Up		
# of Repetitions REST	0		
# of Repetitions ACTIVE	0		
SAT		CONTRAST	
Tag Type	None	Contrast Yes/No	No
TRICKS			
Pause On/Off	On		
Auto Subtract	0		
Auto SCIC	Off		

AXIAL T2W TSP

AXIAL T2W TSP

Protocol: adult_spine_Spine survey for CSF LEAK-WIP 10-10-19

PATIENT POSITION		IMAGING PARAMETERS	
Patient Entry	Head First	Imaging Mode	2D
Patient Position	Supine	Pulse Sequence	Spin Echo
Coil Configuration	GEM Body	Imaging Options	EDR, Fast, SS, Asset
Plane	CORONAL	SCAN RANGE	
Series Description	COR SSFSE Thick TSP	FOV	32.0
SCAN TIMING		Slice Thickness	20.0
TE	1000.0	Slice Spacing	1.0
Number of Echoes	1	ACQ TIMING	
TR	Minimum	Freq	288
Receiver Bandwidth	41.67	Phase	256
IMAGE ENHANCE		Freq DIR	S/I
Filter Choice	None	NEX	1.00
GATING/TRIGGER		# of Acq. Before Pause	0
Auto Trigger Type	Off	Phase FOV	1.00
FMRI		Auto Shim	Auto
PSD Trigger	Internal	Phase Correction	No
View Order	Bottom/Up	USER CVS	
# of Repetitions REST	0	User CV1	1.00
# of Repetitions ACTIVE	0	User CV2	264.00
SAT		User CV13	1.00
Tag Type	None	MULTI-PHASE	
Fat/Water Saturation	Fat	Seperate Series	0
TRICKS		Mask Phase	0
Pause On/Off	On	Mask Pause	0
Auto Subtract	0	DIFFUSION	
Auto SCIC	2	Recon All Images	On
OTHERS		CONTRAST	
Protocol Notes	The MRCP type SSFSE done in Coronal plane.	Contrast Yes/No	No

COR SSFSE Thick TSP

COR SSFSE Thick TSP

Protocol: adult_spine_Spine survey for CSF LEAK-WIP 10-10-19

PATIENT POSITION		IMAGING PARAMETERS	
Patient Entry	Head First	Imaging Mode	2D
Patient Position	Supine	Pulse Sequence	Spin Echo
Coil Configuration	GEM Spine	Imaging Options	Seq, EDR, TRF, Fast, SS, FR, ARC
Plane	3-PLANE		
Series Description	3-Plane Localizer		
SCAN TIMING		SCAN RANGE	
TE	Minimum	FOV	26.0
Number of Echoes	1	Slice Thickness	4.0
TR	Minimum	Slice Spacing	5.0
Receiver Bandwidth	83.33		
IMAGE ENHANCE		ACQ TIMING	
Filter Choice	None	Freq	384
		Phase	160
		Freq DIR	Unswap
		# of Acq. Before Pause	0
		Phase FOV	1.00
		Auto Shim	Auto
		Phase Correction	No
GATING/TRIGGER		USER CVS	
Auto Trigger Type	Off	User CV1	1.00
FMRI		MULTI-PHASE	
PSD Trigger	Internal	Seperate Series	0
View Order	Bottom/Up	Mask Phase	0
# of Repetitions REST	0	Mask Pause	0
# of Repetitions ACTIVE	0		
SAT		DIFFUSION	
Tag Type	None	Recon All Images	On
TRICKS		CONTRAST	
Pause On/Off	On	Contrast Yes/No	No
Auto Subtract	0		
Auto SCIC	Off		

3-Plane Localizer

3-Plane Localizer

Protocol: adult_spine_Spine survey for CSF LEAK-WIP 10-10-19

PATIENT POSITION		IMAGING PARAMETERS	
Patient Entry	Head First	Imaging Mode	2D
Patient Position	Supine	Pulse Sequence	FSE-XL
Coil Configuration	GEM Spine	Imaging Options	NPW, EDR, TRF, Fast, ZIP512
Plane	OBLIQUE		
Series Description	SAGITTAL T1W LSP		
SCAN TIMING		SCAN RANGE	
Flip Angle	160	FOV	28.0
TE	Min Full	Slice Thickness	4.0
Number of Echoes	1	Slice Spacing	1.0
TR	400.0		
Echo Train Length	3	ACQ TIMING	
Receiver Bandwidth	41.67	Freq	384
		Phase	224
		Freq DIR	A/P
		Fat Shift DIR	Normal (P)
		NEX	4.00
		# of Acq. Before Pause	0
		Auto Shim	Auto
		Phase Correction	No
IMAGE ENHANCE		USER CVS	
Filter Choice	None	User CV15	2.00
		User CV16	1.00
		User CV22	1.00
		TR Min	400.0
		TR Max	700.0
GATING/TRIGGER		MULTI-PHASE	
Auto Trigger Type	Off	Seperate Series	0
		Mask Phase	0
		Mask Pause	0
FMRI		DIFFUSION	
PSD Trigger	Internal	Recon All Images	On
View Order	Bottom/Up		
# of Repetitions REST	0	CONTRAST	
# of Repetitions ACTIVE	0	Contrast Yes/No	No
SAT			
Tag Type	None		
TRICKS			
Pause On/Off	On		
Auto Subtract	0		
Auto SCIC	Off		

SAGITTAL T1W LSP

SAGITTAL T1W LSP

Protocol: adult_spine_Spine survey for CSF LEAK-WIP 10-10-19

PATIENT POSITION		IMAGING PARAMETERS	
Patient Entry	Head First	Imaging Mode	2D
Patient Position	Supine	Pulse Sequence	FSE-XL
Coil Configuration	GEM Spine	Imaging Options	FC, NPW, Seq, EDR, TRF, Fast, ZIP512, ARC, IrP
Plane	OBLIQUE	PSD Name	frfse-xl
Series Description	SAGITTAL STIR LSP		
SCAN TIMING		SCAN RANGE	
Flip Angle	160	FOV	28.0
TE	49.0	Slice Thickness	4.0
Number of Echoes	1	Slice Spacing	1.0
TR	4408.0		
TI	160	ACQ TIMING	
Echo Train Length	13	Freq	320
Receiver Bandwidth	41.67	Phase	224
		Freq DIR	A/P
IMAGE ENHANCE		Fat Shift DIR	Normal (P)
Filter Choice	None	NEX	3.00
		Auto Shim	Auto
GATING/TRIGGER		Phase Correction	No
Auto Trigger Type	Off	Flow Direction	Freq
		Compensation	
FMRI		USER CVS	
PSD Trigger	Internal	User CV22	1.00
View Order	Bottom/Up		
# of Repetitions REST	0	MULTI-PHASE	
# of Repetitions ACTIVE	0	Seperate Series	0
		Mask Phase	0
SAT		Mask Pause	0
Tag Type	None	DIFFUSION	
		Recon All Images	On
TRICKS		CONTRAST	
Pause On/Off	On	Contrast Yes/No	No
Auto Subtract	0		
Auto SCIC	Off		

SAGITTAL STIR LSP

SAGITTAL STIR LSP

Protocol: adult_spine_Spine survey for CSF LEAK-WIP 10-10-19

PATIENT POSITION		IMAGING PARAMETERS	
Patient Entry	Head First	Imaging Mode	2D
Patient Position	Supine	Pulse Sequence	FSE-XL
Coil Configuration	GEM Spine	Imaging Options	NPW, EDR, TRF, Fast, ZIP512, FR
Plane	OBLIQUE		
Series Description	SAGITTAL T2W LSP		
SCAN TIMING		SCAN RANGE	
Flip Angle	160	FOV	28.0
TE	100.0	Slice Thickness	4.0
Number of Echoes	1	Slice Spacing	1.0
TR	3063.0		
Echo Train Length	23	ACQ TIMING	
Receiver Bandwidth	41.67	Freq	256
		Phase	192
		Freq DIR	A/P
		Fat Shift DIR	Normal (P)
		NEX	4.00
		Auto Shim	Auto
		Phase Correction	No
IMAGE ENHANCE		USER CVS	
Filter Choice	None	User CV15	2.00
		TR Min	2500.0
		TR Max	8000.0
GATING/TRIGGER		MULTI-PHASE	
Auto Trigger Type	Off	Seperate Series	0
		Mask Phase	0
		Mask Pause	0
FMRI		DIFFUSION	
PSD Trigger	Internal	Recon All Images	On
View Order	Bottom/Up		
# of Repetitions REST	0	CONTRAST	
# of Repetitions ACTIVE	0	Contrast Yes/No	No
SAT			
SAT Location	S		
SAT Location	I		
Tag Type	None		
TRICKS			
Pause On/Off	On		
Auto Subtract	0		
Auto SCIC	Off		

SAGITTAL T2W LSP

SAGITTAL T2W LSP

Protocol: adult_spine_Spine survey for CSF LEAK-WIP 10-10-19

AXIAL T2W LSP	PATIENT POSITION		IMAGING PARAMETERS	
	Patient Entry	Head First	Imaging Mode	2D
	Patient Position	Supine	Pulse Sequence	FSE-XL
	Coil Configuration	GEM Spine	Imaging Options	FC, NPW, EDR, TRF, Fast, ZIP512, FR
	Plane	OBLIQUE	SCAN RANGE	
	Series Description	AXIAL T2W LSP	FOV	16.0
	SCAN TIMING		Slice Thickness	4.0
	Flip Angle	160	Slice Spacing	1.0
	TE	102.0	ACQ TIMING	
	Number of Echoes	1	Freq	256
	TR	7202.0	Phase	224
	Echo Train Length	23	Freq DIR	A/P
	Receiver Bandwidth	41.67	Fat Shift DIR	Normal (A)
	IMAGE ENHANCE		NEX	4.00
	Filter Choice	None	Auto Shim	Auto
	GATING/TRIGGER		Phase Correction	No
	Auto Trigger Type	Off	Flow Direction	Slice
	FMRI		Compensation	
	PSD Trigger	Internal	USER CVS	
	View Order	Bottom/Up	User CV15	2.00
	# of Repetitions REST	0	TR Min	2500.0
	# of Repetitions ACTIVE	0	TR Max	11000.0
	SAT		MULTI-PHASE	
	Tag Type	None	Seperate Series	0
	TRICKS		Mask Phase	0
	Pause On/Off	On	Mask Pause	0
	Auto Subtract	0	DIFFUSION	
	Auto SCIC	Off	Recon All Images	On
		CONTRAST		
		Contrast Yes/No	No	

AXIAL T2W LSP

Protocol: adult_spine_Spine survey for CSF LEAK-WIP 10-10-19

Cor T2W LSP	PATIENT POSITION		IMAGING PARAMETERS		Cor T2W LSP
	Patient Entry	Head First	Imaging Mode	2D	
	Patient Position	Supine	Pulse Sequence	FSE-XL	
	Coil Configuration	GEM Spine	Imaging Options	NPW, EDR, TRF, Fast, ZIP512, FR	
	Plane	OBLIQUE	SCAN RANGE		
	Series Description	Cor T2W LSP	FOV	28.0	
	SCAN TIMING		Slice Thickness	3.0	
	Flip Angle	160	Slice Spacing	1.0	
	TE	100.0	ACQ TIMING		
	Number of Echoes	1	Freq	256	
	TR	3557.0	Phase	192	
	Echo Train Length	23	Freq DIR	A/P	
	Receiver Bandwidth	41.67	Fat Shift DIR	Normal (P)	
	IMAGE ENHANCE		NEX	4.00	
	Filter Choice	None	Auto Shim	Auto	
	GATING/TRIGGER		Phase Correction	No	
	Auto Trigger Type	Off	USER CVS		
	FMRI		User CV15	2.00	
	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		
SAT Location	S	Mask Pause	0		
SAT Location	I	DIFFUSION			
Tag Type	None	Recon All Images	On		
TRICKS		CONTRAST			
Pause On/Off	On	Contrast Yes/No	No		
Auto Subtract	0				
Auto SCIC	Off				

Protocol: adult_spine_Spine survey for CSF LEAK-WIP 10-10-19

PATIENT POSITION		IMAGING PARAMETERS	
Patient Entry	Head First	Imaging Mode	2D
Patient Position	Supine	Pulse Sequence	Spin Echo
Coil Configuration	GEM Body	Imaging Options	EDR, Fast, SS, Asset
Plane	CORONAL	SCAN RANGE	
Series Description	COR SSFSE Thick LSP	FOV	32.0
SCAN TIMING		Slice Thickness	20.0
TE	1000.0	Slice Spacing	1.0
Number of Echoes	1	ACQ TIMING	
TR	Minimum	Freq	288
Receiver Bandwidth	41.67	Phase	256
IMAGE ENHANCE		Freq DIR	S/I
Filter Choice	None	NEX	1.00
GATING/TRIGGER		# of Acq. Before Pause	0
Auto Trigger Type	Off	Phase FOV	1.00
FMRI		Auto Shim	Auto
PSD Trigger	Internal	Phase Correction	No
View Order	Bottom/Up	USER CVS	
# of Repetitions REST	0	User CV1	1.00
# of Repetitions ACTIVE	0	User CV2	264.00
SAT		User CV13	1.00
Tag Type	None	MULTI-PHASE	
Fat/Water Saturation	Fat	Seperate Series	0
TRICKS		Mask Phase	0
Pause On/Off	On	Mask Pause	0
Auto Subtract	0	DIFFUSION	
Auto SCIC	2	Recon All Images	On
OTHERS		CONTRAST	
Protocol Notes	The MRCP type SSFSE done in Coronal plane.	Contrast Yes/No	No

COR SSFSE Thick LSP

COR SSFSE Thick LSP