

Protocol: adult_head_BRAIN MRV

LOC	PATIENT POSITION		IMAGING PARAMETERS		LOC
	Patient Entry	Head First	Imaging Mode	2D	
	Patient Position	Supine	Pulse Sequence	Gradient Echo	
	Coil Configuration	HNS by GE (PosteriorHead, Face)	Imaging Options	Seq, Fast	
	SCAN TIMING		SCAN RANGE		
	Plane	3-PLANE	FOV	30.0	
	Series Description	LOC	Slice Thickness	5.0	
	Number of Echoes	1	Slice Spacing	5.0	
	IMAGE ENHANCE		ACQ TIMING		
	Filter Choice	None	Freq	256	
	GATING/TRIGGER		Phase	128	
	Auto Trigger Type	Off	Freq DIR	Unswap	
	MULTI-PHASE		NEX	1.00	
	Seperate Series	0	Phase FOV	1.00	
	Mask Phase	0	Auto Shim	Auto	
	Mask Pause	0	Phase Correction	No	
	DIFFUSION		FMRI		
	Recon All Images	On	PSD Trigger	Internal	
	CONTRAST		Slice Order	Interleaved	
	Contrast Yes/No	No	View Order	Bottom/Up	
		# of Repetitions REST	0		
		# of Repetitions ACTIVE	0		
		SAT			
		Tag Type	None		
		TRICKS			
		Pause On/Off	On		
		Auto Subtract	0		
		Auto SCIC	Off		
		OTHERS			
		Protocol Notes	This protocol is built based on Express coil suite. Please select the appropriate coil which is available in your site and optimize the parameters accordingly.		

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PATIENT POSITION		IMAGING PARAMETERS	
Patient Entry	Head First	Imaging Mode	3D
Patient Position	Supine	Pulse Sequence	Inhance Velocity
Coil Configuration	HNS by GE (PosteriorHead, Face)	Imaging Options	ZIP512, ZIP2, Asset
Plane	OBLIQUE	SCAN RANGE	
Series Description	3D Sag Velocity Venous	FOV	24.0
SCAN TIMING		Slice Thickness	1.4
Flip Angle	10	ACQ TIMING	
TE	Minimum	Freq	288
Number of Echoes	1	Phase	160
TR	Minimum	Freq DIR	Unswap
Receiver Bandwidth	20.83	Phase FOV	0.90
IMAGE ENHANCE		Auto Shim	Auto
Filter Choice	None	Phase Correction	No
GATING/TRIGGER		USER CVS	
Auto Trigger Type	Off	User CV23	80.00
FMRI		MULTI-PHASE	
PSD Trigger	Internal	Seperate Series	0
Slice Order	Interleaved	Mask Phase	0
View Order	Bottom/Up	Mask Pause	0
# of Repetitions REST	0	VASCULAR	
# of Repetitions ACTIVE	0	# of Collapse Images	On
SAT		# of Projection Images	0
SAT Location	I	Flow Analysis	All
Tag Type	None	Additional Flow Images	8
DIFFUSION		Flow Recon Type	Complex Diff.
Recon All Images	On	Velocity Encoding	20.0
CONTRAST		TRICKS	
Contrast Yes/No	No	Pause On/Off	On
		Auto Subtract	0
		Auto SCIC	Off

3D Sag Velocity Venous

3D Sag Velocity Venous

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PATIENT POSITION		IMAGING PARAMETERS	
Patient Entry	Head First	Imaging Mode	2D
Patient Position	Supine	Pulse Sequence	Spin Echo
Coil Configuration	HNS by GE (PosteriorHead, Face)	Imaging Options	Fast, SS
Plane	OBLIQUE	SCAN RANGE	
Series Description	---OPTIONS---	FOV	22.0
SCAN TIMING		Slice Thickness	5.0
TE	Minimum	Slice Spacing	1.0
TR	Minimum	ACQ TIMING	
Receiver Bandwidth	83.33	Freq	128
IMAGE ENHANCE		Phase	128
Filter Choice	None	Freq DIR	A/P
GATING/TRIGGER		NEX	1.0
Auto Trigger Type	Off	# of Acq. Before Pause	0
FMRI		Phase FOV	1.00
PSD Trigger	Internal	Auto Shim	Auto
Slice Order	Interleaved	Phase Correction	No
View Order	Bottom/Up	USER CVS	
# of Repetitions REST	0	User CV2	240.00
# of Repetitions ACTIVE	0	User CV13	1.00
SAT		TR Min	0.0
Tag Type	None	TR Max	0.0
TRICKS		MULTI-PHASE	
Pause On/Off	On	Seperate Series	0
Auto Subtract	0	Mask Phase	0
Auto SCIC	Off	Mask Pause	0
		DIFFUSION	
		Recon All Images	On
		CONTRAST	
		Contrast Yes/No	No

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PATIENT POSITION		IMAGING PARAMETERS	
Patient Entry	Head First	Imaging Mode	3D
Patient Position	Supine	Pulse Sequence	BRAVO
Coil Configuration	HNS by GE (PosteriorHead, Face)	Imaging Options	EDR, Fast, IrP, ZIP2, ARC
Plane	AXIAL	SCAN RANGE	
Series Description	AX 3D BRAVO	FOV	25.6
SCAN TIMING		Slice Thickness	2.0
Flip Angle	12	Location per Slab	90
Number of Echoes	1	Overlap Locations	0
TI	450	ACQ TIMING	
Receiver Bandwidth	31.25	Freq	256
IMAGE ENHANCE		Phase	256
Filter Choice	None	Freq DIR	A/P
GATING/TRIGGER		NEX	1.00
Auto Trigger Type	Off	Phase FOV	1.00
MULTI-PHASE		Auto Shim	Auto
Seperate Series	0	Phase Correction	No
Trigger Delay without AV	0	FMRI	
Mask Phase	0	PSD Trigger	Internal
Mask Pause	0	Slice Order	Interleaved
TRICKS		View Order	Bottom/Up
Pause On/Off	On	# of Repetitions REST	0
Auto Subtract	0	# of Repetitions ACTIVE	0
Auto SCIC	Off	DIFFUSION	
OTHERS		Recon All Images	On
Protocol Notes	<i>Do not use IR prepared with post contrast series. IR Prepared defaults to an on state. For optimum image quality, it is critical that IR prep remain on for non-contrast enhanced series.</i>	CONTRAST	
		Contrast Yes/No	No

AX 3D BRAVO

AX 3D BRAVO

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PATIENT POSITION		IMAGING PARAMETERS	
Patient Entry	Head First	Imaging Mode	2D
Patient Position	Supine	Pulse Sequence	FSE-XL
Coil Configuration	HNS by GE (PosteriorHead, Face)	Imaging Options	FC, EDR, TRF, Fast, MRF
Plane	OBLIQUE	SCAN RANGE	
Series Description	Ax T1 FSE	FOV	24.0
SCAN TIMING		Slice Thickness	5.0
Flip Angle	160	Slice Spacing	1.0
TE	Min Full	ACQ TIMING	
Number of Echoes	1	Freq	288
TR	445.0	Phase	192
Echo Train Length	2	Freq DIR	A/P
Receiver Bandwidth	31.25	Fat Shift DIR	Normal (A)
IMAGE ENHANCE		NEX	1.00
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	Flow Direction Compensation	Slice
Slice Order	Interleaved	USER CVS	
View Order	Bottom/Up	TR Min	350.0
# of Repetitions REST	0	TR Max	750.0
# of Repetitions ACTIVE	0	MULTI-PHASE	
SAT		Seperate Series	0
SAT Location	I	Mask Phase	0
Tag Type	None	Mask Pause	0
TRICKS		DIFFUSION	
Pause On/Off	On	Recon All Images	On
Auto Subtract	0	CONTRAST	
Auto SCIC	2	Contrast Yes/No	No

Ax T1 FSE

Ax T1 FSE

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PATIENT POSITION		IMAGING PARAMETERS	
Patient Entry	Head First	Imaging Mode	2D
Patient Position	Supine	Pulse Sequence	Vasc TOF SPGR
Coil Configuration	HNS by GE (PosteriorHead, Face)	Imaging Options	Seq, EDR
Plane	OBLIQUE	SCAN RANGE	
Series Description	AX 2D TOF	FOV	24.0
SCAN TIMING		Slice Thickness	2.0
Flip Angle	45	Slice Spacing	0.0
TE	5.9	ACQ TIMING	
Number of Echoes	1	Freq	224
TR	18.0	Phase	160
Receiver Bandwidth	31.25	Freq DIR	A/P
IMAGE ENHANCE		NEX	2.00
Filter Choice	None	# of Acq. Before Pause	0
GATING/TRIGGER		Phase FOV	0.75
Auto Trigger Type	Off	Auto Shim	Auto
MULTI-PHASE		Phase Correction	No
Seperate Series	0	FMRI	
Mask Phase	0	PSD Trigger	Internal
Mask Pause	0	Slice Order	Interleaved
VASCULAR		View Order	Bottom/Up
# of Collapse Images	On	# of Repetitions REST	0
# of Projection Images	19	# of Repetitions ACTIVE	0
TRICKS		SAT	
Pause On/Off	On	SAT Location	I
Auto Subtract	0	Tag Type	None
Auto SCIC	Off	DIFFUSION	
		Recon All Images	On
		CONTRAST	
		Contrast Yes/No	No

AX 2D TOF

AX 2D TOF

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Patient Entry	Head First	Imaging Mode	2D
Patient Position	Supine	Pulse Sequence	Vasc TOF SPGR
Coil Configuration	HNS by GE (PosteriorHead, Face)	Imaging Options	Seq, EDR
Plane	OBLIQUE	SCAN RANGE	
Series Description	COR 2D TOF	FOV	24.0
SCAN TIMING		Slice Thickness	2.0
Flip Angle	45	Slice Spacing	0.0
TE	5.9	ACQ TIMING	
Number of Echoes	1	Freq	224
TR	18.0	Phase	160
Receiver Bandwidth	31.25	Freq DIR	S/I
IMAGE ENHANCE		NEX	1.00
Filter Choice	None	# of Acq. Before Pause	0
GATING/TRIGGER		Phase FOV	0.75
Auto Trigger Type	Off	Auto Shim	Auto
MULTI-PHASE		Phase Correction	No
Seperate Series	0	FMRI	
Mask Phase	0	PSD Trigger	Internal
Mask Pause	0	Slice Order	Interleaved
VASCULAR		View Order	Bottom/Up
# of Collapse Images	On	# of Repetitions REST	0
# of Projection Images	19	# of Repetitions ACTIVE	0
TRICKS		SAT	
Pause On/Off	On	SAT Location	I
Auto Subtract	0	Tag Type	None
Auto SCIC	Off	DIFFUSION	
		Recon All Images	On
		CONTRAST	
		Contrast Yes/No	No

COR 2D TOF

COR 2D TOF