 University Health™								Policy #: Rad Proc 14. 14. 19				
SUBJECT: PSYCHAITRY FORENSIC/LEGAL BRAIN								Effective: 10/1/2013				
APPROVED BY: Eduardo Gonzalez-Toledo, MD PhD								Reviewed: 2/2015: 2/2017				
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Purpose: To provide MRI staff with approved protocol for performing Psychiatry forensic/legal brain MR.

ORIENTATION: HEAD FIRST/SUPINE

Coil: HNS HEAD/STANDARD HEAD

EXAM: PSYCHAITRY FORENSIC/LEGAL BRAIN

PLANE	3 PLN LOC	CALI B.	(AX) NON BRAIN WAVE (30 SLICES)	(AX) TENSO R NO ASSET	AX FSPGR BRAVO	AX 3D SWAN	SAG FLAIR CUBE	SAG T2 CUBE	AX PD/T2	CORE T2 THIN	PROBE-SV 35	AX FSPGR BRAVO
SEQ	GRE	GRE	GRE	SE	BRAVO	SWAN	CUBE 2	T2 CUBE	FSE XL	FSE XL	PROBE P	BRAVO
MODE	2D	2D	2D	2D	3D	3D	3D	3D	2D	2D	MRS	3D
								EDR/FAST/Z2/FR/ARC			EDR	
IMAGING OPTIONS	SEQ/FAST	FAST / CALI B	Mph/Epi	EPI/DIFF	FAST/Ir p/ASSET	FC/FAST/ZIP2 ASSET	EDR/F AST/Ir p/z51 2/72/ arc		FC/TRF/FAS T	FC/TR F/ FAST/ ASSET	EDR	FAST/I rp/ASS ET
TE			60 ms	MIN		50 MS	MIN		MIN FULL/90MS	MIN1 02 NS	MIN	
TR				6000 ms		78.3	8000 MS	3000 ms	2850 ms	4800 MS	1500 ms	
TI			3000 ms		450 MS							450 MS
FLIP ANGLE					13	15					13	13
ETL			90				130	100	12 - 18	23		
BW					25	41.67	25	62.5	31.25	35.71	24	25
FOV	24	30		28	24	24	24	24	24	24	24	24
SLICE THICKNESS	10	6	24	5	1.2	3	1.8	1.8	4	3	20	1.2
SLICE SPACING	5	0	5	1	LOCS/SL 154	LOCS/SL 48	LOCS/SL 120	LOCS/SL 120	1.56	0.3		LOCS/SL 154
Frequency	256		1	132	256	288	224	288	320	320	1	256
Phase	128		64	160	256	224	224	288	224	320	1	256
NEX	1		64		1				2		8	1
PHASE FOV	1		1	1	1	1	1	1	0.75	1		1
FREQ DIR	UNSWAP	R/L	R/L	R/L	UNSWAP	UNSWAP	S/I	S/I	A/P	A/P	UNSWAP	UNSWAP
FLOW COMP DIR									FREQ	SLICE		

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SHIM	AUTO	AUTO	AUTO	AUTO	AUTO	AUTO	AUTO	AUTO	AUTO	AUTO	AUTO	AUTO
PHASE CORRECTION	OFF	OFF	ON	OFF	OFF	ON	OFF	OFF	OFF	ON	OFF	OFF

NOTES: The SAG T2 FALIR CUBE is acquired in the sagittal plane and reconstructed into the axial and coronal planes.
 **Note, the AX FSPGR BRAVO PRE/POST cannot be acquired when utilizing the standard head coil. If this coil must be utilized, the **AX FSPGR 3DPRE/POST must be included in place of the BRAVO. The BRAVO/FSPGR 3D is acquired in the axial plane and reconstructed into the sagittal and coronal planes.

NON-BRAIN WAVE: Prescribe 30 slices. Dr. GT indicated that the mathematician needs 30 slices to analyze the data. This will be an 8 minute scan. Do not increase the TR to more than 3000. The slices can be prescribed to the corpus callosum, as other axial slice prescriptions in the brain.

MULTIPHASE SCREEN:

170 phases per location.

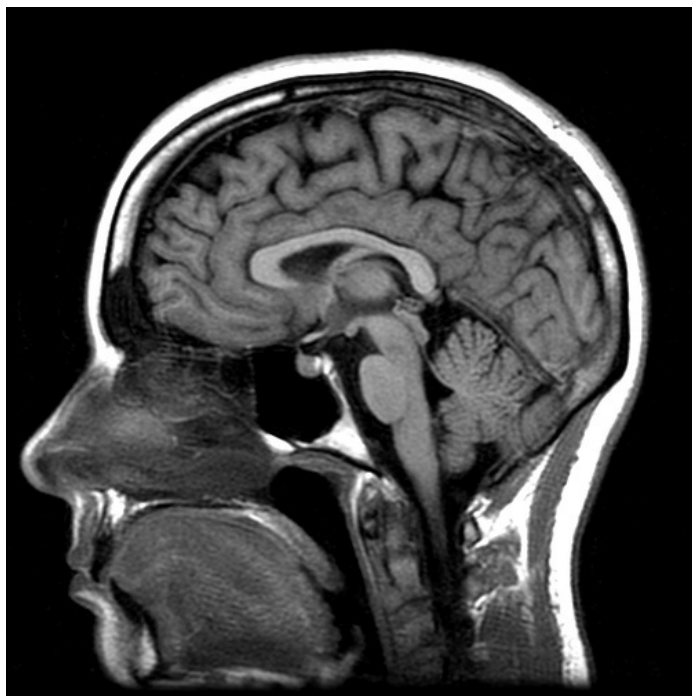
Delay after acquisition: 0


Phase Acquisition order: interleaved.

TENSOR: 36 DIFFUSION DIRECTIONS. Do NOT placed ASSET on the tensor sequence in this protocol, per Dr. GT. He does not have any normal(s) for the tensor asset. We can use tensor asset for all other pt's except the psych-forensic protocol pt's, per Dr. GT.

SPECTROSCOPY LOCATIONS ARE DISPLAYED BELOW:

MRS: 2 ROIs if there is no visible lesion. If there is a visible lesion, 1 ROI over the lesion.



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Include the spectroscopy on psych patients, as per Dr. GT. For the forensic/legal cases, call Dr. GT for a location if he is here. If he is not here, include the two areas designated above, as per Dr. GT. If there is a visible lesion 1 ROI over the lesion, as per Dr. GT.

NOTES:

If the patient is unable hold still for the sag flair cube and sag t2 cube, the optional t2 flair propeller and ax t2 propeller sequences are included in the protocol on the MR system (not displayed on page 1) if needed.

If the pt is for a legal case, have pt complete changes after trauma questionnaire, per Dr. GT. Please submit the completed questionnaire to Dr. GT. If pt is for a legal case, notify Dr. GT of the case. Track your name as well as Dr. GT's name on the exam.


Note: Additional sequences may be requested at the discretion of the Radiologist monitoring the exam.

Name
Change After Trauma

SLEEP

MOOD

BEHAVIOR/ANGER

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MEMORY

DEPRESSION

HEADACHE

COORDINATION/MOTION/SKILLS

PLANNING SKILLS

PERFORMANCE AT WORK

OTHER: