
 University Health™	Policy #: RAD PROC 14. 14. 4
SUBJECT: Pediatric seizure brain	Effective: 10/1/2013 Reviewed: 02/2015; 02/2017
APPROVED BY: EDUARDO GONZALEX-TOLEDO, MD PhD	Page 1 of 2

1. Purpose: To provide MRI staff with approved protocol for performing an pediatric seizure brain MR
EXAM: PEDS SEIZURE BRAIN ORIENTATION: HEAD FIRST/SUPINE COIL: HNS HEAD/STANDARD HEAD

PLANE	3 PLN LOC	CALIB.	SAG T1	AX DWI ASSET	TENSOR ASSET (AX)	SAG FLAIR CUBE	AX 3D SWAN	AX FSPGR BRAVO	AX PD/T2	COR PD/T2 THIN	AX FSPGR BRAVO C+	**AX FSPGR 3D PRE/POST
SEQ	GRE	GRE	FSE XL	SE	SE	CUBE T2 FLAIR	SWAN	BRAVO	FSE XL	FSE XL	BRAVO	FSPGR
MODE	2D	2D	2D	2D	2D	3D	3D	3D	2D	2D	3D	3D
IMAGING OPTIONS	SEQ/FAST	FAST/CALIB	NONE	EPI/DIFF/ASSET	EPI/DIFF/ASSET	EDR/FAST/Irp/Z512/Z2/ARC	FC/FAST/ZIP2/ASSET	FAST/Irp/ASSET	FC/TRF/FAST	FC/TRF/FAST/ASSET	FAST/Irp/ASSET	EDR/FAST/Irp/ZIP2
TE			MIN FULL	MIN	MIN	MIN	50 ms		MIN FULL/90 ms+	MIN FULL		MIN FULL
TR			400-600 ms	6000 ms	6000 ms	8000 ms	78.3 ms		2850 ms	3167 ms		
TI								450 ms			450 ms	
FLIP ANGLE							15	13			13	12
ETL			2			130			12-18	12-18		
BW			31.25			25.00	41.67	25.00	31.25	15.63	25.00	31.25
FOV	24	30	20	28	28	20	20	24	20	20	20	20
SLICE THICKNESS	10	6	4	4	4	1.8	3	1.2	4	2	1.2	1.2
SLICE SPACING	5	0	1	0	0	LOCS/SL 120	LOCS/SL 32	LOCS/SL 154	1.5	0.2	LOCS/SL 154	LOCS/SL 128
Frequency	256		320	128	132	224	288	256	320	320	256	256

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Phase	128		224	128	160	224	224	256	224	224	256	128
NEX	1		2					1	2		1	1
PHASE FOV	1		1	1	1	0.9	1	1	0.75	1	1	0.75
FREQ DIR	UNSWAP	R/L	UNSWAP	UNSWAP	R/L	S/I	UNSWAP	UNSWAP	A/P	UNSWAP	UNSW AP	A/P
FLOW COMP DIR									FREQ	FREQ		
SHIM	AUTO	AUTO	AUTO	AUTO	AUTO	AUTO	AUTO	AUTO	AUTO	AUTO	AUTO	AUTO
PHASE CORREC T	OFF	OFF	OFF	ON	ON	OFF	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.

BRAVO: Keep 154 locs/sl to result in 150 images. This allows Dr. GT to perform cortex reconstructions if desired.

If the patient is unable hold still for the sag flair cube and ax pd/t2, 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.

Use Dotarem for this exam, Use 0.2 mL/kg body weight for age 2 and older per Dr. Gonzalez Toledo; under age 2 consult Radiologist

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