University Health™	Policy #: Rad Proc 14. 14. 8
SUBJECT: GAMMA	Effective: 10/1/2013 Reviewed: 2/2015; 2/2017
APPROVED BY: Eduardo Gonzalez-Toledo	Page 1 of 2

1. Purpose: To provide MRI staff with approved protocol for performing GMMA brain MR.

ORIENTATION: HEAD FIRST/SUPINE Coil: HNS HEAD/STANDARD HEAD

**EXAM: GAMMA** 

PLANE	3 PLN LOC	SAG T1	OP AX T2	OP AX T2 FS	AX 3D FSPGR C+
SEQ	GRE	FSE XL	FSE XL	FSE XL	FSPGR
MODE	2D	2D	2D	2D	3D
IMAGING	SEQ/FAST	FAST	FAST	FAST	FAST
OPTIONS					
TE		MIN FULL	90 ms +	90 ms +	MIN FULL
TR		400-600 ms	3800 ms+	3800 ms+	
TI					
FLIP					35
ANGLE					
ETL		3	12-18	12-18	
BW		15.63	15.63	15.63	62.50

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FOV	30	30	25	25	25
SLICE	10	4	3	3	1.3
THICKNESS					
SLICE	5	1	0.5	0.5	LOCS/SL 128
SPACING					
Frequency	256	256	256	256	256
Phase	128	192	192	192	224
NEX	1	1	2	2	1
PHASE FOV	1	1	1	1	1
FREQ DIR	UNSWAP	S/I	A/P	A/P	A/P
FLOW					
COMP DIR					
SHIM	AUTO	AUTO	AUTO	AUTO	AUTO
PHASE	OFF	ON	ON	ON	OFF
CORRECT					

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

NOTES: Include the AX T2 and AX T2 FS when requested by the neurosurgery resident and physicist.

For a trigeminal nerve, the thinnest cuts possible are preferred. (slice thickness 0.3 on 3D FSPGR). The AX T2 FS is needed when the patient has had a transphenoidal pituitary resection. The surgeon often places a fat pack within the surgical site. This fat pack can resemble a tumor. Include the AX T2 FS to differentiate between the tumor and the fat pack. Do not inject immediately for the following: Metabolically active pituitary tumors and AVMS. For these indications, localize first, then inject. For all other indications, you may inject and then localize.