RIH – STEREOTACTIC GAMMA KNIFE
GE LIGHTSPEED 16 / OPTIMA CT580 PROTOCOL

Indications: A gamma knife is a neurosurgical device used to treat brain tumors with radiation therapy.

Position/Landmark	Supine head first, in stereotactic headholder. Neuro team will position.
Topogram Direction	Craniocaudal
Respiratory Phase	Any
Scan Type	Helical
KV / mA / Rotation time (sec) **Pitch / Speed (mm/rotation)** **Noise Index**	120kv / smart mA (50-250) / 0.8 sec .562:1 , 5.62mm 5.00
Detector width x Rows = Beam Collimation	0.625mm x 16 = 10mm
Average Tube Output	ctdi – 51.1 mGy dlp – 872 mGy.cm
Helical Set Slice Thickness/ Spacing Algorithm Recon Destination	recon / body part / thickness/ spacing / algorithm / recon destination 1 thin gamma knife 0.6mm x 0.6mm bone gamma knife 2 brain 5mm x 5mm standard pacs 3 skull 5mm x 5mm bone pacs
Scan Start / End Locations **DFOV**	Prescribed by gamma knife. 25cm decrease appropriately
IV Contrast Volume / Type / Rate	The gamma knife team will prescribe iv contrast only if necessary. Typical iv contrast dosage for this protocol is 200cc omni 350, hand injected.
Scan Delay	Prescribed by gamma knife.
2D/3D Technique Used	
Comments: Recon 1 is a bone algorithm, thin data set sent to gamma knife. Recon 2 is a standard algorithm brain, Recon 3 is for the skull.	
Images required in PACS	Scouts, 5mmx 5mm standard brain, 5mm x 5mm skull, Dose Report