

MR Brain Routine w/ & w/o
Last Updated: 02/07/2020

Name	Plane	Sequence	Slice	Gap	FOV	Scan Range
3-Plane Localizer	Ax, Sag, Cor				21-25 cm	
SAG T1	Sagittal	T1 FLAIR	4 mm	0.4 mm	21-25 cm	Scalp to Scalp
AX DWI AX ADC	Axial	Epi DWI	4 mm	0.4 mm	21-25 cm	Vertex to Odontoid
AX T1	Axial	T1 FLAIR or FSE	4 mm	0.4 mm	21-25 cm	Vertex to Odontoid
AX T2	Axial	T2 FSE	4 mm	0.4 mm	21-25 cm	Vertex to Odontoid
AX FLAIR	Axial	T2 FLAIR	4 mm	0.4 mm	21-25 cm	Vertex to Odontoid
AX GRE/SWI	Axial	T2* FGRE or SWAN	4 mm	0.4 mm	21-25 cm	Vertex to Odontoid
INJECT CONTRAST						
AX T1 POST	Axial	T1 FLAIR or FSE	4 mm	0.4 mm	21-25 cm	Vertex to Odontoid
COR T1FS POST	Coronal	T1 FS FSE	4 mm	0.4 mm	21-25 cm	Frontal Sinus through Occiput

Notes:

- 3 min delay between injection of contrast and scanning. May acquire T2 axial after contrast injection during delay before acquiring post-contrast sequences.
- Contrast type –per site. Dose- 0.2ml/kg.
- For Open magnets, use slice/gap - 5mm/5mm
- Use Propeller if excessive motion
- T1 FLAIR preferred over T1 FSE especially at 3T and when using Propeller.
- Orient DWI axial slices parallel to glabella and foramen magnum to reduce air-bone interface artifacts from sinuses and temporal bones. In cases of excessive susceptibility artifact, use coronal or propeller DWI.
- Use SWI instead of GRE when available. Include filtered phase and mIP SWI.
- Use ARC/GRAPPA if available for parallel imaging to reduced scan times.

Images:

- AXIAL- Plan on sagittal plane, angle parallel to genu and splenium of corpus callosum, cover from odontoid to vertex (**see Figures 1,2,3**).
- SAGITTAL- Plan on axial plane, angle parallel to midline, cover temporal bone to temporal bone (**see Figures 4,5,6**).
- CORONAL- Plan on sagittal plane, angle parallel to brainstem, cover from frontal sinus to occiput (**see Figures 7,8,9**).
- AX for DWI- Plan on sagittal plane, angle parallel to line from glabella to the foramen magnum (**see Figure 10**).

Figure 1:

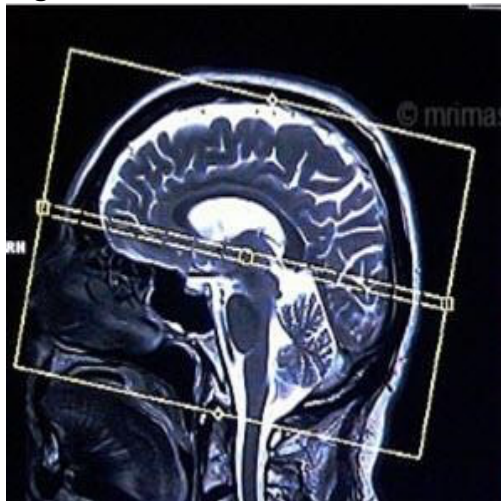


Figure 3:

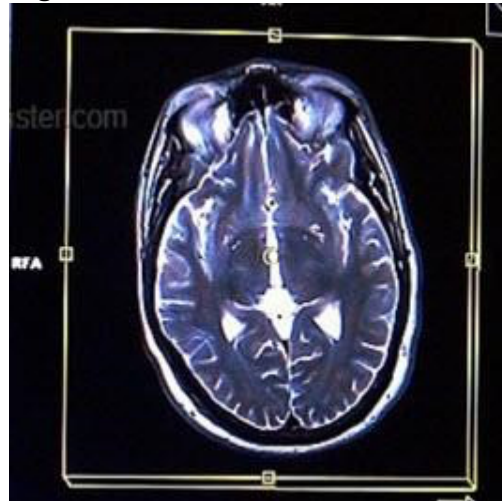


Figure 2:

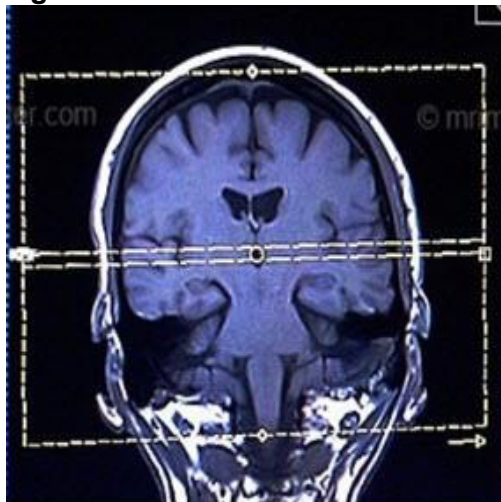


Figure 4:

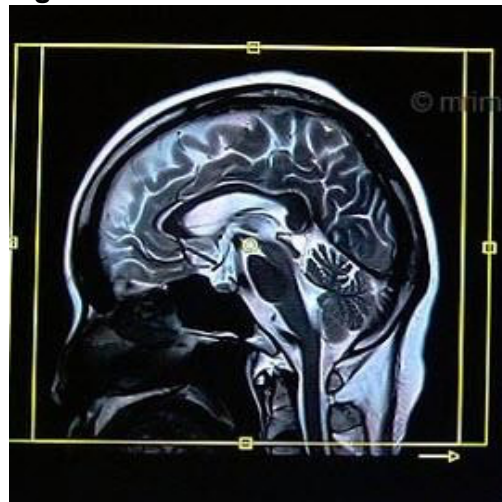


Figure 5:

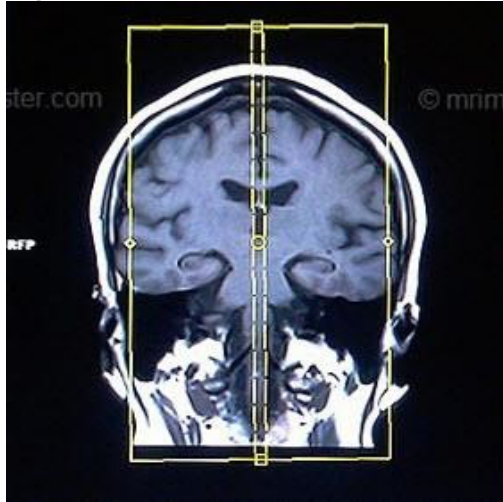


Figure 7:

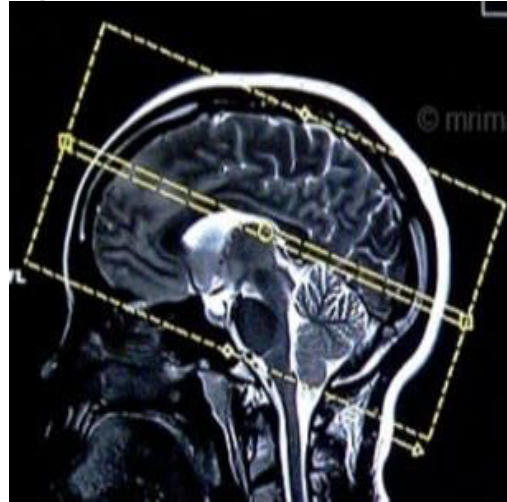


Figure 6:

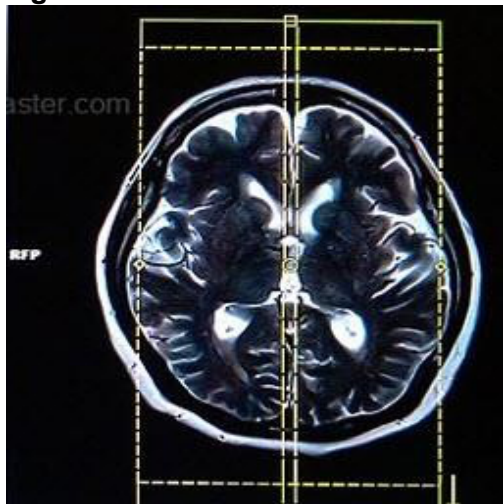


Figure 8:



Figure 9:

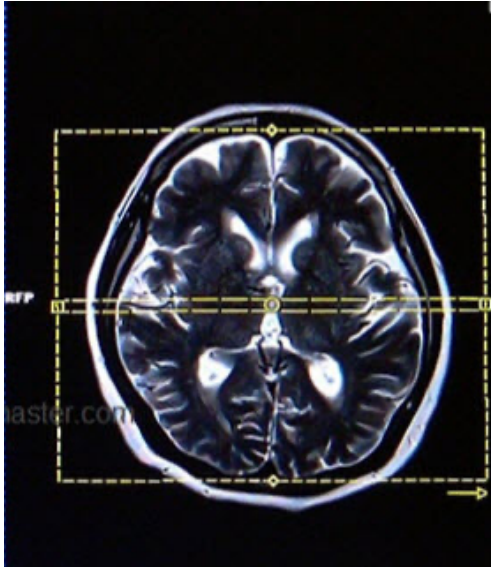


Figure 10:

