

MR SIM: Brain
3/25/2017 EP

Patient Preparation:

- Confirm GFR > 60 within 45 days

Equipment (Coils, Immobilization Devices, etc):

- (2) Large flex (surface) coils
- (2) Nylon (locking) straps
- G9 fiberglass flat table insert
- Patient-specific immobilization devices (thermoformed mask and headrest)

Setup and Landmark:

1. Remove everything from MR table except spine array coil.
2. Secure G9 fiberglass table insert in place over spine array.
3. If patient consented for research place IV into patient arm and fill injector.
4. Setup patient head-first supine, with the thermoformed mask and head rest. **Verify mask is completely dry.**
5. Call radiation therapists (x53809) to verify patient setup.
6. Wrap two body flex coils around patient's head and secure with two Nylon straps.
7. Confirm that the coils **overlap** anteriorly, are positioned as inferiorly as possible, and are **symmetric**.
8. Landmark over patient's eyes.

Notes:

- Do not oblique axial slices.

Protocol:

- USER → MR SIM → HEAD → BRAIN

Scans:

- LOC
- B AX DWI (5:00)
 - Confirm both body flex coils are ON.
- B AX T2 FLAIR (3:00):
- B AX T2 (1:30)
- B AX T2 STIR (Option – Ocular/Nasal) (~5:15):
 - Run only if ocular or nasal lesion (check order in EPIC).
Copy B AX T2 FLAIR prescription.
- B AX 3D T1 (4:00):
 - Do not reduce phase encode FOV (matrix must be square)
 - Do not clip top of head (increased coverage if necessary)
- B AX 3D T1+C (4:00):
 - Copy B AX 3D T1 prescription.
 - Do not reduce phase encode FOV (matrix must be square).
- B COR T1+ FC (~2:00)
- B SAG T1+ (~2:30)

Post-Scanning:

- **Distortion-correct all images** (in the Browser window, select a series and then go to Evaluation → 3D Distortion Correction. Note: After correction the corrected images will have a “_DIS3D” suffix).
- Send the distortion-corrected images (i.e., those with a “_DIS3D” suffix) to **MIM Clinical** and **PACS**.
- **If advanced imaging performed**, transfer raw k-space data with Yarra client (Ctrl+Esc → Transfer Raw Data).

