

MR Sim: Daily QA

3/25/2017 EP

Equipment (Coils, Phantoms, etc):

- Spine array
- G9 flat table overlay
- LAP phantom and leveling platform
- (2) large body flex coils
- (2) coil bridges
- (1) locking Nylon strap

Setup and Landmark:

1. Load patient DailyQA^Verio
2. Zero LAP lasers
3. Place LAP phantom and platform on G9 fiberglass table overlay
4. Level phantom platform (make note of dome)
5. Align phantom using LAP lasers (if lasers appear off, notify physics)
6. Landmark at LAP lasers (do not shift to bore lasers)
7. Position coil bridges over phantom and adjust to number 3
8. Place large flex coils over bridges and secure with Nylon strap
9. Advance table to isocenter
10. Turn off LAP lasers

Protocol:

- USER → MR SIM → QA → Daily QA

Scans:

- Ax 3D T1 (2:00)
 - Confirm Body coil selected
- Ax Noise Scan (0:03)
 - Confirm flex coils and spine coils are selected
 - Confirm magnitude/phase images reconstructed

Post-Scanning:

1. Distortion correct the 3D T1 images (Browser, Evaluation → 3D Distortion Correction)
2. Send distortion corrected 3D T1 images (“_DIS3D”) and Noise Scan images to **MIM QA**.
3. Launch MIM and log in, select the “MIM QA Database” list and find patient DailyQA^Verio. Select the daily images and run the “FH MR Sim Daily QA” workflow.
4. Place isocenter point at center of fiducial marker on phantom. Export isocenter text file to LAP lasers.
5. At LAP lasers, import isocenter text file and drive LAP lasers to isocenter coordinates.
6. Move MR Sim couch by offset reported on LAP display.
7. Verify LAP lasers are within 1mm of fiducial marker center.
8. If noise covariance test fails, run Siemens Customer QA to determine which RF coil is failing.

