

**Seattle Cancer Care Alliance
Breast MRI Protocol
Updated March 2009**

MR System-

- GE 1.5T Excite 15x HD Software (as of Feb 2009)

Coil-

- Sentinelle Vanguard 8 channel breast coil/table (as of Sept 2008)

Patient Preparation

- Patient screened for MRI contraindications
- Patient properly attired for MRI exam
- Explain exam and emphasize importance of remaining still.
- Position patient in coil. (Feet first, prone, with arms at side)
- IV in place (22-23g)

MRI Sequences (see spread sheet for full MRI parameters)

- Localizer
- Asset calibration (This is a prerequisite for running the VIBRANT sequence)
- Bilat Axial T2 2d FSE
- Bilat Axial T1 VIBRANT PRE without fat sat for fat necrosis, fatty lymph n.
- Bilat Axial T1 VIBRANT PRE with fat sat (This is used as a mask for subtractions)
- Power inject Omniscan (0.1mmol/kg) at rate of 2cc/sec. Flush with 20cc saline
- *NOTE: Start injection and first post-contrast scan simultaneously*
- Bilat Axial T1 VIBRANT ...(scan 0–180 seconds post injection)
- Bilat Axial T1 VIBRANT ...(scan 180–360 seconds post injection)
- Bilat Axial T1 VIBRANT ...(scan 360–540 seconds post injection)

Thus, post contrast scans are centered on 90 seconds, 270 seconds, and 450 seconds, with the post contrast scanning completed by 8 minutes 25 seconds in most patients (allowing for differences in breast size).

- Bilateral Axial DTI (6 directions)

Post-processing

- Technologists network the Bilat T2, Bilat T1pre and Bilat T2 posts to CADSTREAM. CADSTREAM will process exam and network the Bilat T2 and Bilat T1 post studies, as well as processed series to PACS. Note: This will take approximately 20 minutes.