Monitoring Response to Neoadjuvant Systemic Therapy for Breast Cancer

Neoadjuvant chemotherapy (NAC) is treatment given before surgery to help shrink tumors and reduce the chances of the cancer spreading (metastasis). The tests and procedures discussed here apply to adult female, male, transfeminine (male-to-female), and transmasculine (female-to-male) patients with known breast cancer.

Before NAC, ultrasound (US) breast (http://www.radiologyinfo.orgbreastus) , digital breast tomosynthesis (DBT) (http://www.radiologyinfo.orgtomosynthesis) diagnostic, mammography (http://www.radiologyinfo.orgmammo) diagnostic, and MRI breast (http://www.radiologyinfo.orgbreastmr) without and with intravenous (IV) contrast are usually appropriate.

After initiation or completion of NAC, US breast, DBT diagnostic, mammography diagnostic, and MRI breast without and with IV contrast are usually appropriate.

For people with known clinically node-negative breast cancer (http://www.radiologyinfo.orgbreast-cancer) (cancer has not spread to the lymph nodes), US axilla (US underarm or armpit) is usually appropriate before NAC.

For people with known clinically node-positive breast cancer (cancer has spread to the lymph nodes), US axilla is usually appropriate. MRI breast without and with IV contrast and fluorine-18-2-fluoro-2-deoxy-Dglucose (FDG)-PET/CT (http://www.radiologyinfo.orgpet) skull base to mid-thigh may be appropriate.

After NAC completion, for people with known clinically node-negative breast cancer, there are no imaging tests recommended.

For assessment of response to NAC, for people with known breast cancer and suspicion of metastasis, bone scan (http://www.radiologyinfo.orgbone-scan) whole body, CT chest abdomen pelvis (http://www.radiologyinfo.orgabdominct) with IV contrast, and FDG-PET/CT skull base to mid-thigh are usually appropriate.

For people with known axillary lymph node-positive breast cancer, US axilla are usually appropriate after NAC.

For people with known breast cancer and axillary imaging suspicious for metastasis, US-guided core biopsy (http://www.radiologyinfo.orgbreastbius) axillary node and US-guided fine needle aspiration biopsy axillary node are usually appropriate.

For more information, see the Breast Cancer page (http://www.radiologyinfo.orgbreast-cancer) .

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