



SHARSHERET®

BREAST CANCER CHEAT SHEET

Breast cancer staging is complex, and depends on many factors, including: invasive or non-invasive, size, and presence of tumor cells in the lymph nodes or other places in the body.

Ductal carcinoma in situ (DCIS): A presence of abnormal cells inside a milk duct in the breast. It is considered the earliest form of breast cancer, and is noninvasive (the cancer hasn't spread). It is sometimes called stage 0. Generally, DCIS is removed surgically.

Lobular carcinoma in situ (LCIS): Lobular carcinoma in situ (LCIS) indicates non-cancerous abnormal cell growth that may be associated with a risk of developing invasive breast cancer.

Stage I Invasive Breast Cancer: The tumor is small and confined to the breast. There may be evidence of microscopic tumor cells in the lymph nodes (micro metastasis).

Stage II and III Invasive Breast Cancer: The tumor is larger, and there is more likely to be spread to the lymph nodes, skin or chest wall.

Inflammatory breast cancer (IBC): The breast appears red and swollen and feels warm to the touch. Occasionally, a lump may also be found in the breast. IBC tends to grow and spread quickly, with symptoms worsening within days or even hours.

Stage IV Advanced (Metastatic) Breast Cancer: Invasive breast cancer that has spread beyond the breast and nearby lymph nodes to other organs of the body, such as lungs, distant lymph nodes, skin, bones, liver, or brain.

Status of Margins: The edges of the tissue surrounding the tumor are tested. Negative margins indicate normal surrounding tissue. Positive margins suggest the possibility of more tumor cells and may require further surgery (re-excision) to obtain clear (negative) margins.

Lymph Nodes: Lymph node involvement determines that tumor cells have moved out of breast tissue into the lymphatic system. A negative status implies that there is no evidence of cancer cells in lymph nodes and a positive status implies that cancer cells are detected in lymph nodes.

Lymphedema: Lymphedema is swelling due to compromised lymphatic fluid. The lymphatic system collects excess fluid from the extracellular space and returns it to the circulatory system. It is usually treatable if handled quickly with lymphedema sleeves (must be fitted by Physical Therapist), massage, taping, and adjustment of activities.

Hormone Receptors: All normal breast cells have receptors for estrogen and progesterone. In tumor development, some cancer loses these receptors. In cancer cells that still express these receptors, anti-estrogen treatments, like Tamoxifen or Aromatase inhibitors, can be used to slow the growth of the cancer cells.

Her2Neu protein expression: Normally, breast cells express Her2Neu, which responds to growth factors in the body that help manage cell growth. If Her2neu is overexpressed in the cancer cell, that can drive more cell division. Herceptin, and other medications, block the receptor to inhibit cell division and growth of the tumor.

Surgery

Bilateral mastectomy: Surgical removal of both breasts.

Unilateral mastectomy: Surgical removal of one breast.

Prophylactic unilateral or bilateral mastectomy: Surgery to remove one or both breasts to reduce the risk of developing breast cancer, by surgically removing either one breast or both breasts, respectively. Some prefer the use of the term “risk reducing mastectomy” since surgery significantly reduces, but does not prevent breast cancer.

Lumpectomy: Surgery in which only the tumor and some surrounding tissue is removed. Lumpectomy is a form of “breast- conserving” or “breast preservation” surgery.

Sentinel lymph node biopsy: Using a dye, or radioactive markers, to identify the nodes to which any travelling cancer cells would arrive first. This technique helps avoid the side effects of a full lymph node dissection.

Lymph node dissection: Surgical removal of more groups of lymph nodes than just a sentinel lymph node biopsy.

Nipple-sparing mastectomy: Removal of all the breast tissue, without removal of any of the skin, nipple, or areola.

Reconstruction Surgery

Latissimus flap: A type of breast reconstruction, in which, an oval flap of skin, fat, muscle, and blood vessels from your upper back is moved under your skin around to your chest to rebuild the breast.

TRAM flap: a form of breast reconstruction surgery, in which, the flap, consisting of the skin, fat, and muscle with its blood supply from the lower abdomen between the waist and pubic bone is tunneled beneath the skin to the chest, creating a pocket for an implant- or in some cases, created the breast mound itself.

Free Flap surgery: In this type of reconstruction, a detached flap of tissue is attached to the chest wall using microsurgery to connect it to the local blood supply. There are several different types of this surgery done, and they are named for the location in the body from where the flap originates. Names include DIEP flap (named for the deep inferior epigastric perforator, a blood vessel in the abdomen), free TRAM flap (like above, but with blood supply detached then reattached to the chest wall) PAP flap (named for the profunda artery perforator of the thigh) TUG flap (named for the transverse upper gracilis muscle in the thigh) SIEA flap, (named for the superficial inferior epigastric artery in the abdomen), GAP flap (gluteal artery perforator) and others.

Saline Implants: Using an implant containing sterile saline to rebuild the breast

Silicone Implants: Using an implant containing silicone to rebuild the breast.

Nipple and areola tattooing: The nipple and areola are tattooed onto the newly constructed breasts.

Nipple reconstruction: Reconstructing the nipple using surrounding skin following implant reconstruction

Treatment

Systemic vs. Local therapy: Systemic therapy works throughout the body, and can impact cancer in the breast or metastatic cancer elsewhere in the body. It includes chemotherapy and hormonal therapy. Local therapy works only locally at the breast or where the treatment is targeted. It includes surgery and radiation therapy.

Hormonal therapy: Used to treat hormone-receptor-positive breast cancers by lowering the amount of the hormone estrogen in the body and by blocking the action of estrogen on breast cancer cells. Hormonal therapy may include selective estrogen receptor modulators, estrogen receptor down regulators and aromatase inhibitors. Selective estrogen receptor modulators include Tamoxifen, Evista (chemical name raloxifene), and Fareston (chemical name: toremifene); they can be used before or after menopause. Estrogen receptor down regulators include Faslodex (chemical name: fulvestrant). Aromatase inhibitors only work in women who are menopausal, or are having their ovarian function suppressed. They include: Arimidex (chemical name: anastrozole), Aromasin (chemical name: exemestane), and Femara (chemical name: letrozole).

Chemotherapy (chemo): Treatment to weaken and destroy cancer cells in the body, including cells at the original cancer site and any cancer cells that may have spread to another part of the body. Sometimes chemotherapy is generalized to impact all cancer cells, and other times it is targeted to something specific in the tumor. An example of this is Herceptin (and others) for HER2neu positive breast cancer.

Radiation Therapy: Uses X- rays or similar forms of radiation to treat the disease.

Ovarian Suppression: Preventing the ovaries from producing estrogen, either temporarily or permanently.

Genomic Analysis Tests: predict the recurrence risk and whether the tumor will do well with hormonal therapy or chemotherapy. These tests can includes Oncotype or Mammaprint.