ii) Chemotherapy - It uses drugs to kill cancer cells throughout the body. They affect all of the cells of the body and not just the cancer cells in your breast. Chemotherapy can be given before or after surgery. Most chemotherapy is given in the veins. These treatments are usually given in an outpatient clinic such as a cancer center. Your doctor will use information about the stage and type of your cancer to decide which chemotherapy drugs are best for you.

iii) Radiation Therapy - Radiation may be given before or after surgery. Radiation therapy uses high energy X-Rays to kill cancer cells. The amount of radiation therapy and how often you get it depends on:

• The size of your tumor
• The type of surgery that you have had
• Your pathology report
• Your age and general health

iv) Hormone Therapy - It is another form of systemic therapy. It is most often used as an adjuvant therapy to help reduce the risk of the cancer coming back after surgery, but it can be used as neoadjuvant treatment, as well. It is also used to treat cancer that has come back after treatment or has spread.

V) Targeted Therapy - As researchers have learned more about the gene changes in cells that cause cancer, they have been able to develop newer drugs that specifically target these changes. These targeted drugs work differently from standard chemotherapy (chemo) drugs.

Some facts about breast Cancer - Breast Cancer is the most common form of cancer in women. More and more number of women are diagnosed with breast cancer each year and almost everyone knows at least one person who has been treated for it. Three-fourths of the cases of breast cancer occur in women ages 50 and older, but it also affects younger women as well.

More women are getting breast cancer, but no one yet knows all the reasons why. Some of the increase can be traced to better ways of recognizing and detecting cancer in early stage. The increase also may be the result of changes in the way we live—postponing childbirth, taking replacement hormones and oral contraceptives, eating high-fat foods, or drinking more alcohol. However, even though the incidence of breast cancer is increasing, the death rate is decreasing due to medical and surgical intervention.

The encouraging news is that breast cancer is being detected earlier while tumour is very small and limited to the breast. Currently, two-thirds of newly diagnosed breast cancers show no signs that cancer has spread beyond the breast.
What is Breast Cancer?

Cancer is a disease in which cells in the body grow out of control. When cancer starts in the breast, it is called breast cancer.

Following risk factors increase chances of Breast Cancer

**Reproductive risk factors**
- Being younger when you had your first menstrual period
- Never giving birth, or being older at the birth of your first child
- Starting menopause at a later age
- Using hormone replacement therapy for a long time

**Symptoms**
Some warning signs of breast cancer are -
- A lump or pain in the breast
- Thickening or swelling of part of the breast
- Irritation or dimpling of breast skin
- Redness or flaky skin on the breast
- Pulling in of the nipple or pain in the nipple area
- Fluid other than breast milk from the nipple, especially blood
- A change in the size or the shape of the breast

**Other risk factors**
- A personal history of breast cancer, dense breasts, or some other breast problems
- A family history of breast cancer (parent, sibling, or child)
- Being overweight, especially after menopause

How is Breast Cancer Detected?

- **Breast Self-Examination (BSE)** is the most common way in which breast cancer can be detected. It is the simplest and primary way of assessment. Breast cancer screening means checking a woman's breast for cancer before she has symptoms.

- **Clinical breast exam** - The doctor can tell a lot about a lump by carefully feeling it and the tissue around it. Benign lumps often feel different from cancerous ones. The doctor can examine the size and texture of the lump and determine whether the lump moves easily. A clinical breast exam should be performed by a trained health care professional annually beginning at age 20 as a part of an annual wellness examination.

- **Mammography** - A mammogram is a safe low-dose X-ray picture of the breast. A screening mammogram is a quick, easy way to detect breast cancer early when treatment is more effective and survival rates high. Usually two X-ray pictures are taken of each breast.

- **Ultrasoundography** - Using high-frequency sound waves, ultrasonography can often show whether a lump is a fluid-filled cyst (not cancer) or a solid mass (which may or may not be cancer). This exam may be used along with mammography.

Based on these exams, the doctor may decide that no further tests are needed and no treatment is required.

**Treatment of Breast Cancer**

Your treatment plan may include one or more of the following, depending on the stage and type of your cancer: surgery with or without radiation, chemotherapy, other cancer drugs, and/or reconstructive surgery.

**i) Surgery**

**Lumpectomy** During a lumpectomy, a surgeon removes the cancer including some normal breast tissue around the tumor.

**Mastectomy** A mastectomy is the surgical removal of the breast. A mastectomy is most often recommended when:
- There are multiple areas of cancer in your breast.
- Your breast is small or shaped in such a way that removal of the cancer will leave little breast tissue.

**Removal of Lymph Nodes** Sentinel lymph nodes are the first lymph nodes to which cancer is likely to spread.

If the sentinel nodes show no cancer cells, then it is very likely that the other axillary nodes will also be cancer free and the nodes will require no further treatment. If the sentinel nodes do show cancer cells, depending on your circumstances, the surgeon may remove more lymph nodes in the armpit. The remaining nodes may be treated with chemotherapy, radiation, or hormonal therapy to control any remaining disease.