Staging and prognosis of breast cancer

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Staging breast cancer

Working out how far the cancer has spread is called staging. Stages of breast cancer are numbered from 1–4. Early cancers are classified in the stages below:

<table>
<thead>
<tr>
<th>Stage 1</th>
<th>The tumour is less than 2 cm in diameter and has not spread to the lymph nodes in the armpit.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stage 2A</td>
<td>The tumour is less than 2 cm in diameter and has spread to the lymph nodes in the armpit</td>
</tr>
<tr>
<td></td>
<td>or</td>
</tr>
<tr>
<td></td>
<td>it is larger (2–5 cm) and has not spread to the lymph nodes in the armpit.</td>
</tr>
<tr>
<td>Stage 2B (early)</td>
<td>The tumour is 2–5 cm in diameter and has spread to the lymph nodes.</td>
</tr>
</tbody>
</table>

Stages 2B (advanced), 3 and 4 refer to advanced breast cancer.

For information about these stages call 13 11 20 or visit the Cancer Australia website.

Grading breast cancer

The cancer will also be given a grade. The grade shows how fast the cancer is growing.

<table>
<thead>
<tr>
<th>Grade 1</th>
<th>Cancer cells look a little different from normal cells. They are usually slow growing.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Low grade)</td>
<td></td>
</tr>
</tbody>
</table>
Cancer cells do not look like normal cells. They are growing faster than grade 1 but not as fast as grade 3.

The cancer cells look very different to normal cells. They are fast growing.

**Testing the tumour cells for hormone receptors and genes**

A pathologist will examine the breast tissue. The sample comes from a biopsy or tissue removed during surgery. The findings of these tests will be outlined in a pathology report, which will include the size and location of the tumour, the grade of the cancer, whether there are cancer cells close to the edge of the breast tissue and whether there are cancer cells in your lymph nodes. The pathology report will help your doctor decide what treatments are best for you. Additional tests will be done to show if the cancer has receptors for hormones or growth factors.

**Hormone receptors**

Hormones affect some types of breast cancer. Hormones are chemical messengers in the body that transfer information. Before menopause, the ovaries produce the hormones oestrogen and progesterone. These hormones can cause cancer to grow.

A hormone receptor is a protein in a cell. In breast cancer, hormone receptors receive signals from oestrogen and progesterone to promote cancer cell growth. There are two types of hormone receptors: oestrogen receptors and progesterone receptors. About two out of every three breast cancers contain hormone receptors.

- Cancer cells that have oestrogen receptors are called oestrogen receptor positive (ER+).
- Cancer cells that have progesterone receptors are called progesterone receptor positive (PR+).
- Cells without receptors are hormone receptor negative.

A cancer that is ER+ or PR+ is more likely to respond to hormone treatments.

**HER2 status**

The HER2 (human epidermal growth factor receptor 2) test looks for a protein that is found on the surface of cells. This protein causes the cell to grow and divide in an uncontrolled way. Tumours that have high levels of these receptors are referred to as HER2-positive (HER2+).

About one in five women have HER2+ cancer cells. Treatment with targeted therapies, such as Herceptin® is usually recommended.

**Genomic assays**

The use of the Oncotype DX Breast Cancer Assay or Oncotype DX test is still new in Australia, but it is widely used in the United States. In Australia, this test costs $4500, and is not currently covered by either Medicare or private health funds.

The Oncotype DX test uses a sample of breast tissue to analyse a group of 21 genes. These genes help predict the risk of breast cancer coming back after treatment and if you are likely to benefit from chemotherapy after surgery (adjuvant chemotherapy).

Women who are suitable for this test include:

- those with ER+ or PR+ tumours


• those who have 0–3 positive lymph nodes.

Talk to your doctor if you would like to know more about this test. A pathologist will take a portion of the tumour tissue, which will be sent to America, where all Oncotype DX testing is currently done. Your doctor will usually receive the results within 2–3 weeks.

**Prognosis**

Prognosis means the expected outcome of a disease.

Most people with early breast cancer can be treated successfully. Survival rates have increased significantly over time due to better diagnostic tests and scans, earlier detection, and improvements in treatment methods. According to recent statistics, the five-year survival rate for women with Invasive Ductal Carcinoma (the most common type of breast cancer) is 90%.

A cure may still be possible for people with other types of breast cancer. For many, treatment can improve quality of life.

**Assessing prognosis**

You will need to discuss your prognosis with your doctor, but it is not possible for any doctor to predict the exact course of your disease. Test results, the growth rate and size of the tumour, how well you respond to treatment, and other factors such as age, fitness and your medical history are all important considerations in assessing your prognosis.

*This website page was last reviewed and updated February 2016.*

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