Stage at diagnosis and breast cancer survival

This is the first scientific study to compare breast cancer survival by stage internationally. It was published in the multi-disciplinary cancer research journal, ‘British Journal of Cancer’. Six countries – Australia, Canada, Denmark, Norway, Sweden and the UK – took part in this in depth comparison. The study looked at the proportion of women who were still alive one year and three years after their breast cancer diagnosis (one-year and three-year survival) in each country and also compared at which stage women’s cancers had been diagnosed.

The number of UK breast cancer patients diagnosed in the early stages of the disease was similar to the number in Canada, Norway and Sweden (countries with higher cancer survival than the UK). Denmark had the lowest proportion of patients diagnosed at the earliest stage, three out of ten women, compared to four out of ten women in Canada (a country with higher survival). This could partly explain why Denmark’s breast cancer survival is lower than in some other countries, as finding breast cancers at an early stage improves the chances of survival. More than 99% of women when diagnosed at the earliest stage of the disease (stages 1 and 2) survived their disease for at least 3 years in all the countries included in the study. This finding suggests that all of the countries in the study are good at treating early stage breast cancer. However survival rates for all stages combined for women diagnosed in the UK were lower when compared to other countries in the study.

UK survival figures for women diagnosed with late stage breast cancer were significantly lower than for other countries in the study. For women diagnosed at a late stage, five out of ten women in the UK survived their disease for at least one year after diagnosis compared to seven out of ten women in Sweden (the country with the highest survival). Three out of ten women in the UK survived their disease for at least three years after diagnosis compared to four out of ten women in Sweden. This suggests that treatment or access to treatment is poorer in the UK for women diagnosed at later stages, than in other countries.

Treatment and late diagnosis may partially explain the differences between countries in the number of women who survive breast cancer. Survival differences could also be impacted by inaccurate or incomplete recording of stage information which may lead to the patient receiving inappropriate treatment.

This study found that there were large differences in the number of records missing information on stage at diagnosis for breast cancer. The UK was the worst at recording stage. One out of four breast cancers reported in the UK had no information on stage at diagnosis recorded. It isn’t clear if this is
because fewer women are have their stage recorded by doctors in the UK or because the transfer process of stage data to the cancer registries is less complete in the UK than in the other countries.

If you are interested in reading the abstract of this paper, ‘Breast cancer survival and stage at diagnosis in Australia, Canada, Denmark, Norway, Sweden and the United Kingdom: a population-based study, 2000-2007’, you can find it on the London School of Hygiene and Tropical Medicine’s web page. If you are interested in reading a more in-depth analysis of the research, you can find it on Cancer Research UK’s Science Update Blog.