

Elective Report: St Bartholomew’s Hospital Oncology Department

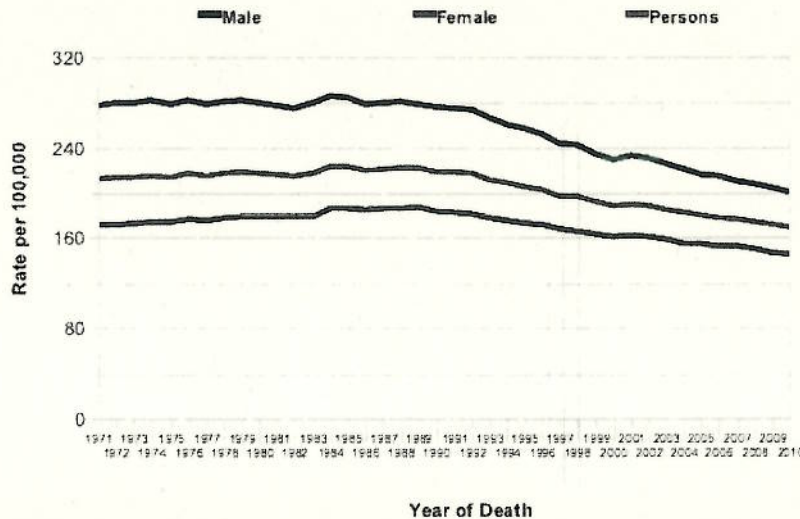
I had the privilege of shadowing different teams within the oncology department, one of the largest tertiary specialist centres in Europe.

1. Describe the pattern of disease in cancer in the population with which you were working and discuss this in the context of global health.

All cancers combined were responsible for 28% of deaths in 2010 of those one year old and over, making cancer the commonest cause of death in the UK for that age group<sup>1</sup>(1). Therefore understanding the management of cancer and the effects of cancer on patients is of the utmost important for a physician in the UK.

When considering the mortality rates due to cancer in the UK it is important to notice a trend with

**All Cancers (C00-C97): 1971-2010**  
**European Age-Standardised Mortality Rates per 100,000 Population, UK**



Please include the citation provided in our Frequently Asked Questions when reproducing this chart: <http://info.cancerresearchuk.org/cancerstats/faqs/#How>  
 Prepared by Cancer Research UK  
 Original data sources:  
 1. Office for National Statistics, Mortality Statistics: Deaths registered in England and Wales  
<http://www.ons.gov.uk/ons/search/index.html?newquery=series+dr>  
 2. General Register Office for Scotland, Deaths Time Series Data, Deaths in Scotland  
<http://www.gro-scotland.gov.uk/statistics/theme/vital-events/deaths/time-series.html>  
 3. Northern Ireland Statistics and Research Agency, Deaths by cause  
<http://www.nisra.gov.uk/demography/default.asp14.htm>



Figure 1 The difference between the AS rates of the sexes has decreased by 40%, this is probably mostly due to increase in incidence for both sexes, greater in females than males over this period (1).

<sup>1</sup> For infants the mortality is 0.3% from cancer, for this population congenital disease is the commonest cause of death and since cancers require time to grow it makes sense to exclude this age group.



increasingly sophisticated understanding and treatment of cancer, patients are more frequently able to reach remission. I was privileged during my 5 week placement to see patients receiving some cutting edge research, for example I saw the first patient being enrolled in the GDC 0941 Peggy trial, which compares two treatment arms, paclitaxel + placebo and paclitaxel + GDC 0941 a new chemotherapeutic agent. Better treatments are leading to increased remission rates which are reflected by the EU age-standardised mortality rates (AS rates) which fell by 27.6% in males and 14.9% in females between 1971 and 2010, and the difference between the sexes mortality rates decreased by 40% (2), please see Figure 1

I will move on to colon cancer as this relates to the case study that I have prepared during this placement. The mortality rate was 1 in 3 in 2010 for the developed world. (3) In terms of the global population, colorectal cancer is more common in developed countries, this was thought to be due to increased lifestyle risk factors such as fatty diet, increased red meat consumption, leading to slower transit of food in the bowel and therefore higher exposure to carcinogens when compared to diets in developing countries which have higher levels of dietary fibre, however this theory has been largely discounted, but there is no current explanation to replace it (4). Furthermore according to the Lancet 75% of patients have no risk factors bar old age at the time of diagnosis, despite there being a lot of information about risk factors available, this suggests there is a lot more to be learnt about aetiology, and for colorectal cancer screening the population has the most promise for reduction in mortality rate. (3)

It is estimated that 90% of bowel cancer could be cured if detected early (5), therefore with the introduction of faecal occult blood (FOB) testing since 2006 could change the current standing of colorectal cancer as the third commonest cancer in men and women in 2010. (1)

## 2. How are oncology services organised and delivered in the UK?

Patients can be referred to the oncology services via screening, GP or other specialties. Currently the NHS screens for 3 different cancer areas, bowel, cervical and breast. All women between the ages of 25 and 64 are eligible for a free cervical screening test every 3 to 5 years. Women aged 50 - 70 receive mammography every 3 years (from 2016 the age range will be extended to 47 and 73). Faecal occult blood (FOB) tests are offered every two years to people aged 60 - 69 (the age range is being extended to 75 by 2015). The purpose of the screening services is to detect cancer in patients before symptoms occur, being able to treat cancers at an earlier stage when metastatic disease is less likely improves the prognosis with treatment. (3) Screening results are available at two weeks, the speed at which screening results are turned around is important in alleviating anxiety. For FOB screening, introduced in 2006 by the NHS, it has been estimated by a Cochrane review to help avoid 1 in 6 colorectal cancer deaths. (6)

Screening services have had mixed results, with services being criticised in the past for causing anxiety in young women who have a higher rate of false positive results, hence the services are constantly evolving, a lot has been learnt since the NHS introduced them in 1988. Screening is the major contributing factor when the decrease in the rate of mortality was greatest in the early 90's. Once a patient has been identified either through national screening, or after being referred by their GP for suspicious symptoms, such as haematochezia, change in bowel habit and weight loss. Visualisation of the bowel and biopsy of any lesions is the next step. For colorectal cancer the gold standard is a colonoscopy with biopsy of any lesion, for every 1,000 FOB tests on average 16 people



will undergo a colonoscopy (7). If a lesion is found and the biopsy is a cancer, the most likely type is adenocarcinoma (95% (8) ), this is the case for 2 out of every 1,000 people undergoing the FOB test. 50% of people undergoing colonoscopy will have no abnormal findings, and the remainder have precancerous polyps on colonoscopy.

It is after a positive biopsy that the patient is likely to be referred to the oncology team. A scan will be performed to identify any metastatic disease, and the extent of the primary tumour which may have extraluminal extension, this allows full staging of the tumour according to the TNM criteria. A management plan will be devised with the oncology team working closely with colorectal surgeons. Treatment options include; surgery to resect the bowel, chemotherapy can be used as an adjuvant to surgery, it is usually only considered when there is metastatic disease demonstrated by positive lymph node biopsies. Radiotherapy is not used for the treatment of bowel cancers as the exposure to radiation leads to inflammation of the bowel wall, it is only acceptable to use radiotherapy on lesions in the rectum.

Oncology services at specialist centres like Bart's generally deal more with the extremes of oncological treatment, rapid diagnosis or treatment of complex cases with complications related to chemotherapy complications or advanced tumour growth complications and palliative care. Patients can be treated at Bart's alongside hospice management where palliating chemotherapy is involved for example. One stop clinics for breast cancer are the most striking as the commonest cancer amongst women it also has a high media profile.

### 3. A brief account of my clinical experience

During my time at St Bart's I saw many different departments, I saw daily ward rounds and clinics for breast, respiratory and GI patients. I saw consultant ward rounds for breast cancer and I scrubbed in for breast surgery and I spent a day in the radiotherapy department. I also spent time talking to patients receiving chemotherapy treatment on the day ward. I was fortunate to be allowed to stay during very personal moments when bad news is being broken, or during examinations of mastectomy scars for example. Oncology patients are perhaps the best informed and seem to me to dictate far more of their consultations than patient's in other specialities.

## **Bibliography**

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