Background

The International Cancer Benchmarking Partnership (ICBP) showed that England, and other UK countries, has poor one-year survival for ovarian cancer.

Other studies have consistently shown the same result.
Background

England’s five-year survival among patients who survive the first year is as good as any other country.

Who are the women who die in the first year?

Is there a period of high mortality?

Can we identify any possible explanations?

Analysis

Linked datasets: National Cancer Data Repository, Hospital Episode Statistics, and Routes to Diagnosis.

Descriptive statistics on 16,943 women diagnosed with ovarian cancer (ICD10: C56-C57) between 2006 and 2008.

Cases identified from death certificates alone were excluded.
Factors of Interest

In this analysis:
- Age
- Stage
- Comorbidity (Charlson Score)
- Morphological Group (Tumour Cell Type)
- Route to Diagnosis
- Deprivation
- Descriptive statistics

Future work:
- Regional variation
- Treatment
- Case-mix adjusted

Results

31% of women diagnosed with ovarian cancer died in the first year.

15% of women diagnosed with ovarian cancer died in the first two months.

Cumulative mortality among ovarian cancer patients in the first year after diagnosis, England 2006-2008
Results – Age

Women aged over 70 and, particularly, over 80 have much higher mortality.

42% of women diagnosed aged 80+ died within two months of diagnosis.

Results – Morphology

Women with ‘unclassified epithelial’ and ‘miscellaneous and unspecified’ tumour morphologies had worse mortality.

Many of these women will have been very ill at diagnosis.
Results – Route to Diagnosis

Patients diagnosed via an emergency presentation route have much worse mortality.

![Graph showing cumulative mortality among ovarian cancer patients](image)

Results – Other Factors

Stage had a large effect. However, we know from the results of the ICBP that most women diagnosed with ovarian cancer both in England and in other countries have advanced stage disease.

There were also serious issues with the completeness of stage data. Of the women who died in the first year, 71% did not have a recorded stage, while 26% had advanced stage disease (stage 3 or stage 4).

Because of the completeness issue and the fact that most women are diagnosed with advanced stage disease, stage was not considered to be a major factor.
Results – Other Factors

Comorbidity had a noticeable impact, but nowhere near as strong as age, morphology or route to diagnosis. Additionally, most patients had no comorbidities.

There was a significant, but small, deprivation gradient. This may be due to case mix.

Very poor mortality was primarily among the over 70s, those diagnosed via emergency presentation, and those with nonspecific morphologies.

Results – Combining Factors

Patients with multiple risk factors have much worse mortality.
Conclusion

There is a period of high mortality in the first 8 weeks after diagnosis with ovarian cancer.

Mortality is worse among the elderly, those diagnosed after an emergency presentation, those with a nonspecific tumour morphology, and particularly those with multiple factors.

It is important to reduce the number of patients being diagnosed after an emergency presentation.

**but**

England has a stage profile which isn’t consistent with later diagnosis than other ICBP countries.

Conclusion

Late diagnosis after emergency presentation is unlikely to explain our worse survival rates.

Alternative possibilities:

1. England is worse at treating ovarian cancer in elderly and frail women than the other ICBP countries.

2. England is better at diagnosing ovarian cancer in elderly and frail women than the other ICBP countries.

3. Both 1. and 2.

4. Something else.
Next Steps

Repeat the analyses on the 2008-2010 data. There has been a general downward trend in mortality from ovarian cancer for the past decade, so the results of more up-to-date analysis might be very different.

Include more factors – particularly treatment, although this is unlikely to be a major factor in the first 2 months after diagnosis.

Investigate regional variation:
- Are there places in the country where mortality is better than average?
- Are there places where it is worse?
References


