



Trends and variation in endometrial cancer surgery and 30-day post-operative mortality

National Cancer Registration and Analysis Service Data Briefing

Introduction

Uterine cancer is the fourth most common cancer for women, and there has been a large increase in the incidence rate over the last 20 years. Survival rates have also increased. Endometrial carcinoma accounts for the majority of uterine cancers and obesity is a key risk factor.

As endometrial carcinoma is often diagnosed at an early stage, the majority of patients are treated surgically. This analysis considered trends in surgery rates for endometrial carcinoma in England; trends in 30-day mortality following surgery; variations in these rates by age, deprivation quintile, diagnosis year, FIGO stage, grade and surgical approach; and hospital-level variations in post-operative mortality.

Results

From 2000 to 2009, 46,589 women were diagnosed with an endometrial carcinoma, and 82% (38,332) of these were treated surgically. From 2000-01 to 2008-09, there was a 49% increase in the number of women treated surgically for endometrial carcinoma, resulting from a 34% increase in the number of diagnosed patients and an increase in the percentage of patients receiving surgery, from 77% to 86%. There was also a substantial increase in the percentage of surgery performed laparoscopically, from 2% to 20%.

The percentage of women dying within 30 days of surgery for endometrial carcinoma was low at 0.6% (235 deaths), and decreased from 0.7% in 2000-01 to 0.5% in 2008-09.

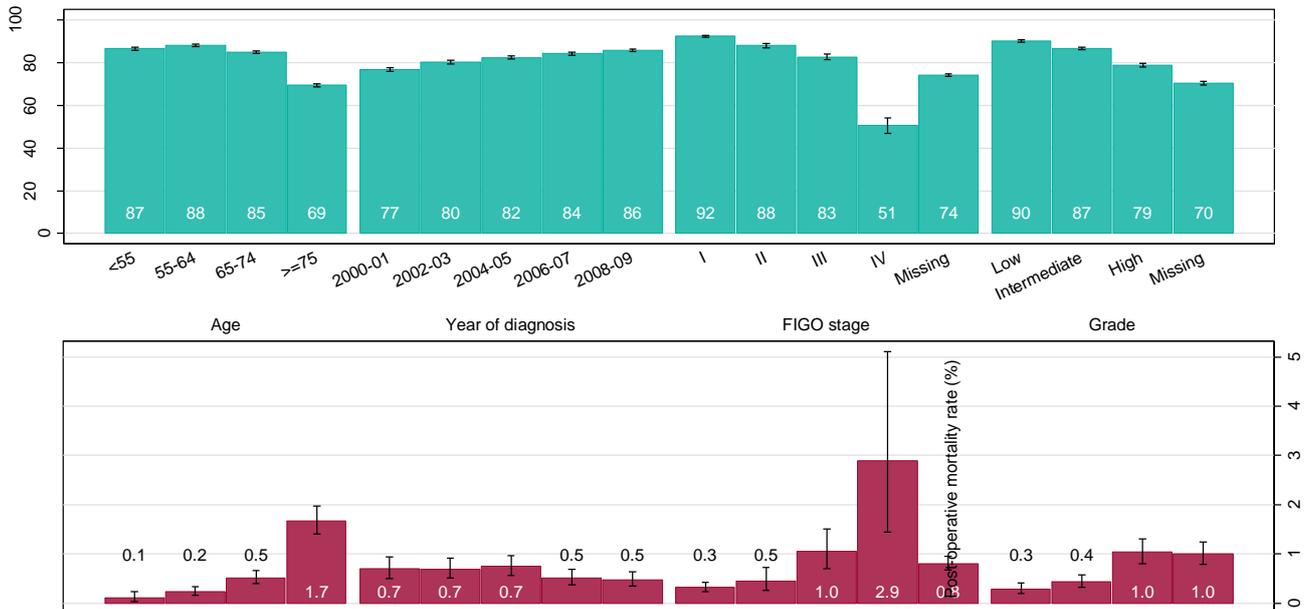
Rates of surgery were lower and post-operative mortality rates higher for elderly women, for those with advanced disease, and for those with high-grade tumours (Figure 1). After case-mix adjustment for the other factors, these differences in post-operative mortality rates remained, although they were generally reduced slightly.

Key messages

From 2000-01 to 2008-09, there was a 49% increase in the number of women treated surgically for endometrial cancer, due to increasing incidence and increasing surgery rates.

The 30-day post-operative mortality rate was low at 0.6%, despite high levels of obesity and co-morbidity for endometrial cancer patients and the associated surgical risks.

Figure 1: Surgery rates and 30-day post-operative mortality rates for endometrial carcinoma, 2000-09, by age, year of diagnosis, FIGO stage and grade



Surgery rates were also lower for those living in more deprived areas (81% for women living in the most deprived fifth of areas, compared to up to 83% for those living in the less deprived areas). Post-operative mortality rates were lower for laparoscopic surgery (0.1%, compared to 0.7% for open procedures).

Crude and case-mix adjusted results indicated that one hospital had a higher post-operative mortality rate than expected.

Conclusions

Between 2000 and 2009, there was a substantial increase in the number of endometrial cancer patients treated surgically in England, along with an increase in the use of laparoscopic surgery. The post-operative mortality rate was low and also reduced over the period. Surgery and post-operative mortality rates differed by patient age, disease stage and tumour grade. Post-operative mortality rates also differed by surgical approach.

Further information

This briefing is based on the analyses reported in the following journal paper; for further information on the data definitions, methods etc., please refer to:

Gildea C, et al, Thirty-day postoperative mortality for endometrial carcinoma in England: a population-based study, BJOG (2016), <http://dx.doi.org/10.1111/1471-0528.13917>.

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www.ncin.org.uk/publications/reports/