**Elective hysterectomy: benefits, risks and costs**

*Sandberg S I, Barnes B A, Weinstein M C, Braun P*

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**Record Status**

This is a critical abstract of an economic evaluation that meets the criteria for inclusion on NHS EED. Each abstract contains a brief summary of the methods, the results and conclusions followed by a detailed critical assessment on the reliability of the study and the conclusions drawn.

**Health technology**

Hysterectomy, oophorectomy and oestrogen replacement therapy.

**Type of intervention**

Treatment (elective).

**Economic study type**

Cost-utility analysis.

**Study population**

Patients affected by: Benign neoplasms (age 30, 40 or 50); menstruation disorders (age 30 or 40); abnormal anatomy (age 30, 40, 50 or 60); cervical disease (age 30 or 40); endometriosis (age 30 or 40).

**Setting**

The study was carried out in the USA.

**Dates to which data relate**

Price related to 1983.

**Source of effectiveness data**

Single study.

**Modelling**

Epidemiological cohort model (model of survival and disease).

**Measure of benefits used in the economic analysis**

Quality-adjusted life years (QALYs). The health state description was descriptive. Clinician, and literature values were used to assess the health states.

**Direct costs**

Direct costs were to the health service: surgery, gynaecological cancer, gynaecological symptoms, coronary heart disease, contraception, psychiatric sequelae and oestrogen replacement therapy (oophorectomy only). Price information related to 1983.
Currency
US dollars ($). In the DH Register of Cost-effectiveness Studies, the original results were converted to UK using GDP purchasing power parities, and reflated to 1991, using the NHS pay and prices index.

Sensitivity analysis
Sensitivity analysis was carried out using threshold analysis.

Estimated benefits used in the economic analysis
Incremental QALYs per patient (costs and benefits discounted at 5%) for:

- Hysterectomy for benign neoplasms, age 30 were 0.11;
- Hysterectomy for benign neoplasms, age 40 were 0.08;
- Hysterectomy for benign neoplasms, age 50 were 0.08;
- Hysterectomy for menstruation disorders, age 30 were 0.11;
- Hysterectomy for menstruation disorders, age 40 were 0.08;
- Hysterectomy for abnormal anatomy, age 30 were 0.16;
- Hysterectomy for abnormal anatomy, age 40 were 0.15;
- Hysterectomy for abnormal anatomy, age 50 were 0.17;
- Hysterectomy for abnormal anatomy, age 60 were 0.11;
- Hysterectomy for cervical disease, age 30 were 0.11;
- Hysterectomy for cervical disease, age 40 were 0.08;
- Hysterectomy, oophorectomy and oestrogen replacement therapy for benign neoplasms, age 30 were 0.16;
- Hysterectomy, oophorectomy and oestrogen replacement therapy for benign neoplasms, age 40 were 0.15;
- Hysterectomy, oophorectomy and oestrogen replacement therapy for benign neoplasms, age 50 were 0.10;
- Hysterectomy, oophorectomy and oestrogen replacement therapy for menstruation disorders, age 30 were 0.16;
- Hysterectomy, oophorectomy and oestrogen replacement therapy for menstruation disorders, age 40 were 0.15;
- Hysterectomy, oophorectomy and oestrogen replacement therapy for abnormal anatomy, age 30 were 0.20;
- Hysterectomy, oophorectomy and oestrogen replacement therapy for abnormal anatomy, age 40 were 0.22;
- Hysterectomy, oophorectomy and oestrogen replacement therapy for abnormal anatomy, age 50 were 0.18;
- Hysterectomy, oophorectomy and oestrogen replacement therapy for abnormal anatomy, age 60 were 0.19;
- Hysterectomy, oophorectomy and oestrogen replacement therapy for cervical disease, age 30 were 0.16;
- Hysterectomy, oophorectomy and oestrogen replacement therapy for cervical disease, age 40 were 0.15;
- Hysterectomy, oophorectomy and oestrogen replacement therapy for endometriosis, age 30 were 0.16 and;
hysterectomy, oophorectomy and oestrogen replacement therapy for endometriosis, age 40 were 0.15.

Outcome duration was life long and the inclusion of treatment side-effects was not relevant.

**Synthesis of costs and benefits**

Cost duration was life long. Incremental cost per QALY gained (costs and benefits discounted at 5%) for:

- Hysterectomy for benign neoplasm, age 30 were 10600;
- Hysterectomy for benign neoplasm, age 40 were 28000;
- Hysterectomy for benign neoplasm, age 50 were 38600;
- Hysterectomy for menstruation disorders, age 30 were 14500;
- Hysterectomy for menstruation disorders, age 40 were 27000;
- Hysterectomy for abnormal anatomy, age 30 were 7610;
- Hysterectomy for abnormal anatomy, age 40 were 10600;
- Hysterectomy for abnormal anatomy, age 50 were 12500;
- Hysterectomy for abnormal anatomy, age 60 were 24100;
- Hysterectomy for cervical disease, age 30 were 26000;
- Hysterectomy for cervical disease, age 40 were 41400;
- Hysterectomy, oophorectomy and oestrogen replacement therapy for benign neoplasm, age 30 were 11600;
- Hysterectomy, oophorectomy and oestrogen replacement therapy for benign neoplasm, age 40 were 17300;
- Hysterectomy, oophorectomy and oestrogen replacement therapy for benign neoplasm, age 50 were 31800;
- Hysterectomy, oophorectomy and oestrogen replacement therapy for menstruation disorders, age 30 were 14500;
- Hysterectomy, oophorectomy and oestrogen replacement therapy for menstruation disorders, age 40 were 16400;
- Hysterectomy, oophorectomy and oestrogen replacement therapy for abnormal anatomy, age 30 were 9640;
- Hysterectomy, oophorectomy and oestrogen replacement therapy for abnormal anatomy, age 40 were 8680;
- Hysterectomy, oophorectomy and oestrogen replacement therapy for abnormal anatomy, age 50 were 12500;
- Hysterectomy, oophorectomy and oestrogen replacement therapy for abnormal anatomy, age 60 were 13500;
- Hysterectomy, oophorectomy and oestrogen replacement therapy for cervical disease, age 30 were 22200;
- Hysterectomy, oophorectomy and oestrogen replacement therapy for cervical disease, age 40 were 24100;
- Hysterectomy, oophorectomy and oestrogen replacement therapy for endometriosis, age 30 were 20200;
- Hysterectomy, oophorectomy and oestrogen replacement therapy for endometriosis, age 40 were 22200.
CRD Commentary
(This commentary was not written by CRD, but by the authors of the DH Register).

1) Quality of life was estimated by physicians.

2) The quality of the evidence concerning survival is uncertain.

3) For oophorectomy, 100% compliance with oestrogen replacement therapy was assumed; approximately 50% compliance would result in no net benefit.

4) There were no health omissions.

5) The parameters investigated by the sensitivity analysis were not adequately justified.

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MeSH
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