

# Uterine artery embolisation for the treatment of fibroids

## 1 Guidance

- 1.1 Current evidence on uterine artery embolisation (UAE) suggests that it is safe enough for routine use and that there is symptomatic benefit in the majority of patients in the short term. However, more evidence is required on the degree and duration of the procedure's benefits, and of its effects on fertility.
- 1.2 Clinicians wishing to undertake UAE should take the following actions.
  - Ensure that patients understand the uncertainty about the degree and duration of the procedure's benefits and provide them with clear written information. Use of the Institute's *Information for the Public* is recommended.
  - Audit and review clinical outcomes of all patients having UAE. Data should be submitted to the British Society of Interventional Radiology registry ([www.bsir.org](http://www.bsir.org)).
- 1.3 Patient selection should be made with the involvement of a multidisciplinary team, which should include a gynaecologist and an interventional radiologist.
- 1.4 The Institute may review the procedure upon publication of further evidence.

## 2 The procedure

### 2.1 Indications

- 2.1.1 Uterine artery embolisation (UAE) is used to treat uterine fibroids, also known as uterine leiomyomas or uterine myomas, which are benign tumours of the uterus. Symptoms caused by fibroids include abnormal bleeding, pelvic pressure and pain, and reproductive problems.
- 2.1.2 Fibroids are common and are the most frequent reason for a woman to have a hysterectomy or myomectomy.

### 2.2 Outline of the procedure

- 2.2.1 UAE is normally performed under local anaesthetic with or without sedation, by an interventional radiologist. Both uterine arteries are blocked with particles injected via the femoral and uterine arteries. This causes the fibroids to shrink, but is believed to have no permanent effect on the rest of the uterus. Many women are in hospital for as little as 24–36 hours; they are then advised to rest for 1–2 weeks.

### 2.3 Efficacy

- 2.3.1 This procedure was the subject of a systematic review commissioned by the Institute and completed in March 2004. The evidence from the studies included in the review indicated that after UAE, there was a reduction in mean fibroid volume of between

# Interventional Procedure Guidance 94

## This guidance is written in the following context:

This guidance represents the view of the Institute which was arrived at after careful consideration of the available evidence. Health professionals are expected to take it fully into account when exercising their clinical judgement. This guidance does not, however, override the individual responsibility of health professionals to make appropriate decisions in the circumstances of the individual patient, in consultation with the patient and/or guardian or carer.

40 and 75%. Reductions in fibroid volume, however, did not correlate with changes in symptoms. Improvement in symptoms was reported in 62% (8/13) to 95% (19/20) of women who received UAE. Similar improvement was observed in a case series of 400 women, of which 73–90% reported symptom improvement. However, follow-up was short and, in the majority of studies, was limited to 6 months. For more details, refer to the Sources of evidence (see right).

2.3.2 In three studies totalling 604 women, 24 women (4%) reported pregnancies following UAE. However, it was unclear how many women in these studies wished to become pregnant. For more details, refer to the Sources of evidence (see right).

## 2.4 Safety

2.4.1 There was a large variation in the reported rate of complications in the studies included in the systematic review. The most commonly reported complications were the need for hysterectomy in 0.5% (2/400) to 11.8% (6/51) of women, and the late expulsion of a fibroid in 2.2% (9/400) to 7.7% (2/26) of women. Other complications included infection and fever. One death was reported in a small study of 21 patients. Pain is a normal sequela of UAE, but was reported as a complication in some studies. For more details, refer to the Sources of evidence (see right).

2.4.2 Ovarian dysfunction (characterised by irregular or absent menses and menopausal levels of follicle-stimulating hormone) was reported in five studies and ranged from 2.5% (2/80) to 14% (9/66) of patients. In a further study of 555 patients, amenorrhoea following UAE was reported in 3% of women younger than age 40 years and in 41% of women aged 50 years and older.

## 2.5 Other comments

2.5.1 UAE is an alternative to hysterectomy for fibroids and allows a woman to retain her uterus.

2.5.2 The technique has been used for many years to treat obstetric haemorrhage, before being used to treat fibroids.

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Chief Executive  
October 2004

## Information for the Public

The Institute has produced information describing its guidance on this procedure for patients, carers and those with a wider interest in healthcare. It explains the nature of the procedure and the decision made, and has been written with patient consent in mind. This information is available, in English and Welsh, from [www.nice.org.uk/IPG094publicinfo](http://www.nice.org.uk/IPG094publicinfo)

## Sources of evidence

The evidence considered by the Interventional Procedures Advisory Committee is described in the following documents.

- Coleman P, Ayiku L. *Systematic review of the efficacy and safety of uterine artery embolisation in the treatment of fibroids*. Sheffield: Review Body for Interventional Procedures; 2004. Commissioned by the National Institute for Clinical Excellence.

Available from:  
[www.nice.org.uk/ip020systematicreview](http://www.nice.org.uk/ip020systematicreview)

- *Interventional procedure overview of uterine artery embolisation for fibroids*, November 2002

Available from: [www.nice.org.uk/ip020overview](http://www.nice.org.uk/ip020overview)

### Ordering information

Copies of this guidance can be obtained from the NHS Response Line by telephoning 0870 1555 455 and quoting reference number N0717. *Information for the Public* can be obtained by quoting reference number N0718 for the English version and N0719 for a version in English and Welsh.

The distribution list for this guidance is available on the NICE website at [www.nice.org.uk/IPG094distributionlist](http://www.nice.org.uk/IPG094distributionlist)

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