

Transurethral radiofrequency needle ablation of the prostate

1 Guidance

- 1.1 Current evidence on the safety and short-term efficacy of transurethral radiofrequency needle ablation of the prostate appears adequate to support the use of the procedure, provided that normal arrangements are in place for consent, audit and clinical governance.

2 The procedure

2.1 Indications

- 2.1.1 Transurethral radiofrequency needle ablation of the prostate is used to treat benign prostatic obstruction (BPO). BPO is a non-malignant enlargement of the prostate, which is a common cause of lower urinary tract symptoms (such as difficulty in passing urine) in men aged over 40 years. Needle ablation of the prostate is a minimally invasive alternative to the standard surgical treatment of BPO, transurethral resection of the prostate (TURP).

2.2 Outline of the procedure

- 2.2.1 Transurethral radiofrequency needle ablation of the prostate uses radiofrequency energy delivered to the prostate via two needle electrodes, which are positioned transurethrally using a catheter. Energy is delivered via the electrodes, causing local heating and leading to ablation of prostatic tissue by coagulative necrosis.

2.3 Efficacy

- 2.3.1 The studies reviewed showed that transurethral radiofrequency needle ablation of the prostate is safe and efficacious in the short term. However, long-term efficacy of the procedure has not yet been proven. The evidence suggested that needle ablation may be beneficial for between 3 and 12 months, but that the benefit diminishes beyond 12 months. Re-treatment rates with needle ablation ranged from 4% (2/45) to 30% (3/10) over follow-up periods of up to 2 years. This compared with treatment durability of up to 3 years after TURP.
- 2.3.2 The Specialist Advisors thought that the current data may overestimate the efficacy of the procedure, and they were concerned about the lack of long-term data relating to the effectiveness of the procedure.

2.4 Safety

- 2.4.1 Transurethral radiofrequency needle ablation of the prostate is a relatively safe procedure. Randomised trial data suggested that needle ablation has fewer postoperative complications, such as bleeding, than TURP. Complications of needle ablation included infection, urethral strictures and bleeding. However, side effects were generally not well reported in the case series.

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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.

2.4.2 The Specialist Advisors did not report any particular safety concerns, although infection and urinary retention were noted as potential adverse events following needle ablation. One Advisor also thought it was likely that the literature underestimated the complication rate of this procedure.

Andrew Dillon
Chief Executive
October 2003

Information for the Public

NICE 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 from www.nice.org.uk/IPG015publicinfoenglish and in English and Welsh from www.nice.org.uk/IPG015publicinfowelsh.

Sources of evidence

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

Interventional Procedure Overview of Transurethral Needle Ablation of the Prostate, October 2002.

Available from: www.nice.org.uk/IP113overview

Ordering information

Copies of this guidance can be obtained from the NHS Response Line by telephoning 0870 1555 455 and quoting reference: N0318. *Information for the Public* can be obtained by quoting reference number N0319 for the English version and N0320 for a version in English and Welsh.

The distribution list for this guidance is available on the NICE website at URL www.nice.org.uk/IPG015distributionlist

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