

# Endoscopic transsphenoidal pituitary adenoma resection

## 1 Guidance

- 1.1 Current evidence on the safety and efficacy of endoscopic transsphenoidal pituitary adenoma resection appears adequate to support the use of the procedure, provided that the normal arrangements are in place for consent, audit and clinical governance.
- 1.2 The procedure should be carried out by clinicians with special experience in endoscopic pituitary surgery, and within a multidisciplinary centre.

## 2 The procedure

### 2.1 Indications

- 2.1.1 Endoscopic transsphenoidal pituitary adenoma resection is used to treat pituitary adenomas. Pituitary adenomas are benign slow-growing tumours that arise within the pituitary gland.
- 2.1.2 The symptoms of pituitary adenoma depend on the location, type and size of tumour and any hormone that it may secrete.
- 2.1.3 The treatment options for pituitary adenoma include surgery, pharmacological therapy, and radiotherapy.

### 2.2 Outline of the procedure

- 2.2.1 Under general anaesthetic, an endoscope is inserted into the nose and is directed towards the base of the tumour at the skull base. Surgical instruments are then inserted and the tumour is removed.

### 2.3 Efficacy

- 2.3.1 The evidence indicated that endoscopic transsphenoidal pituitary adenoma resection results in surgical outcomes, such as adequacy of removal and normalisation of hormone levels, comparable with those achieved using conventional surgery.
- 2.3.2 The operating time for endoscopic transsphenoidal resection was shorter compared with conventional surgery. For more details refer to the sources of evidence below.
- 2.3.3 The majority of the Specialist Advisors considered the procedure to be a variation of an existing procedure, and the likely efficacy of resection to be unchanged.

### 2.4 Safety

- 2.4.1 The evidence indicated that major morbidity (cerebrospinal fluid leak, meningitis, stroke, intracranial haemorrhage, or visual loss) occurred in between 1.4% (3/215) and 15% (3/20) of patients. Less serious complications (sinusitis and nasal septal perforations) occurred in less than 7% of patients. The complication rate associated with endoscopic transsphenoidal pituitary adenoma resection was lower than the rates associated with conventional surgery.
- 2.4.2 The most serious reported complication of the procedure was meningitis. This occurred in two patients in the two largest case series, which included 310 patients. For more details refer to the sources of evidence below.

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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.

2.4.3 The Specialist Advisors did not report any particular safety concerns, though bleeding, optic nerve damage, cerebrospinal fluid leakage, and carotid artery injury were noted as potential complications of endoscopic transsphenoidal pituitary adenoma resection.

## 2.5 Other comments

2.5.1 It was noted that there was a lack of long-term follow-up data on this procedure.

Andrew Dillon  
Chief Executive  
December 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/IPG032publicinfoenglish](http://www.nice.org.uk/IPG032publicinfoenglish) and in English and Welsh from [www.nice.org.uk/IPG032publicinfowelsh](http://www.nice.org.uk/IPG032publicinfowelsh).

## Sources of evidence

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

*Interventional procedure overview of transsphenoidal pituitary adenoma resection*, April 2003

Available from: [www.nice.org.uk/IP214overview](http://www.nice.org.uk/IP214overview)

### Ordering information

Copies of this guidance can be obtained from the NHS Response Line by telephoning 0870 1555 455 and quoting reference number N0397. *Information for the Public* can be obtained by quoting reference number N0398 for the English version and N0399 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/IPG032distributionlist](http://www.nice.org.uk/IPG032distributionlist)

Published by the National Institute for Clinical Excellence, December 2003 ISBN: 1-84257-471-X

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N0397 1P 5k Dec 03 (ABA)