

Endoscopic transsphenoidal pituitary adenoma resection

Interventional procedures guidance

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[nice.org.uk/guidance/ipg32](https://www.nice.org.uk/guidance/ipg32)

Your responsibility

This guidance represents the view of NICE, arrived at after careful consideration of the evidence available. When exercising their judgement, healthcare professionals are expected to take this guidance fully into account. However, the guidance does not override the individual responsibility of healthcare professionals to make decisions appropriate to the circumstances of the individual patient, in consultation with the patient and/or guardian or carer.

Commissioners and/or providers have a responsibility to implement the guidance, in their local context, in light of their duties to have due regard to the need to eliminate unlawful discrimination, advance equality of opportunity, and foster good relations. Nothing in this guidance should be interpreted in a way that would be inconsistent with compliance with those duties.

Commissioners and providers have a responsibility to promote an environmentally sustainable health and care system and should assess and reduce the environmental impact of implementing NICE recommendations wherever possible.

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' section.
- 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' section.
- 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

3 Further information

Information for patients

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.

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.

4 About this guidance

NICE interventional procedure guidance makes recommendations on the safety and efficacy of the procedure. It does not cover whether or not the NHS should fund a procedure. Funding decisions are taken by local NHS bodies after considering the clinical effectiveness of the procedure and whether it represents value for money for the NHS. It is for healthcare professionals and people using the NHS in England, Wales, Scotland and Northern Ireland, and is endorsed by Healthcare Improvement Scotland for implementation by NHSScotland.

This guidance was developed using the NICE [interventional procedure guidance](#) process.

We have produced a [summary of this guidance for patients and carers](#). Information about the evidence it is based on is also [available](#).

Changes since publication

30 January 2012: minor maintenance.

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Contact NICE

National Institute for Health and Clinical Excellence
Level 1A, City Tower, Piccadilly Plaza, Manchester M1 4BT

www.nice.org.uk

nice@nice.org.uk

0845 033 7780

Endorsing organisation

This guidance has been endorsed by [Healthcare Improvement Scotland](#).