

Laparoscopic distal pancreatectomy

Interventional procedures guidance

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www.nice.org.uk/guidance/ipg204

1 Guidance

- 1.1 Current evidence on the safety and efficacy of laparoscopic distal pancreatectomy appears adequate to support the use of this procedure provided that normal arrangements are in place for consent, audit and clinical governance.
- 1.2 Laparoscopic distal pancreatectomy should only be performed in centres specialising in pancreatic surgery and with appropriate expertise in advanced laparoscopic techniques, and in the context of a multidisciplinary team, which should usually include a pancreatic surgeon, a gastroenterologist, an endocrinologist and a pathologist.

2 The procedure

2.1 Indications

2.1.1 Laparoscopic pancreatectomy can be used in the treatment of a number of different conditions.

- Pancreatic neuroendocrine tumours (most commonly insulinoma) and cystic tumours (benign or malignant) are usually treated surgically. Small benign insulinomas can be removed by enucleation. Larger tumours in the body or tail of the pancreas or close to the pancreatic duct are conventionally removed by open distal pancreatectomy. Chemotherapy may also be used to treat some malignant tumours.
- Chronic pancreatitis refers to long-term inflammation of the pancreas, which eventually causes irreversible damage to the tissue. Treatment includes medication such as enzyme supplements and analgesics, and avoiding alcohol consumption. Surgery may occasionally be necessary, for patients with chronic pancreatitis complicated by pseudocyst formation.
- Adenocarcinoma seldom presents as a tumour in the tail of the pancreas but may occasionally be found on histological examination following resection of a space-occupying lesion.

2.2 Outline of the procedure

2.2.1 Laparoscopic pancreatectomy is performed under general anaesthesia. The abdomen is insufflated with inert gas and a number of small incisions are made to provide access for the laparoscope and surgical instruments. The pancreas is exposed, dissected to detach the body and tail from the adjacent retroperitoneal tissues, and transected. The resected tissue is usually enclosed in a bag and removed through a small incision in the umbilical area. The spleen may be preserved, or removed along with the pancreas. A drain is often left in the pancreatic bed and is removed a few days after surgery.

2.3 Efficacy

- 2.3.1 The evidence on efficacy comes from one review that included 15 studies describing a total of 282 laparoscopic distal pancreatectomies and 87 enucleations, and one non-randomised controlled trial of 30 patients.
- 2.3.2 The review reported a mean hospital stay of 7.5 days. The non-randomised controlled trial reported a significantly shorter median postoperative hospital stay after laparoscopic distal pancreatectomy than after open surgery (5 days versus 8 days, $p = 0.02$). The non-randomised controlled trial also reported that patients who underwent laparoscopic surgery felt that they had returned to normal activity after 3 weeks (median), compared with 6 weeks for patients who underwent open surgery ($p = 0.03$).
- 2.3.3 The review reported a tumour recurrence rate of 5.7% at a mean follow-up of 27 months. For more details, refer to the 'Sources of evidence' section.
- 2.3.4 The Specialist Advisers stated that this is a novel procedure, with a lack of data on long-term follow-up.

2.4 Safety

- 2.4.1 The evidence on safety relates to one review that included 15 studies describing a total of 282 laparoscopic distal pancreatectomies and 87 enucleations.
- 2.4.2 The rate of conversion to open surgery was approximately 14% (range 0–40%). The mean rate of re-operation to treat complications was 8% (range 0–17%). The mean incidence of pancreatic fistula was 13%.
- 2.4.3 The review reported 30-day mortality as 0.5%. For more details, refer to the 'Sources of evidence' section.
- 2.4.4 The Specialist Advisers stated that potential adverse effects of the procedure include haemorrhage, pancreatic fistula, anastomotic leakage

and inadequate resection margins.

2.5 Other comments

- 2.5.1 It was noted that some of the evidence related to laparoscopic enucleation procedures rather than to laparoscopic distal pancreatectomy.

Andrew Dillon
Chief Executive
January 2007

3 Further information

Sources of evidence

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

'Interventional procedure overview of laparoscopic distal pancreatectomy', May 2006.

Information for patients

NICE has produced [information on this procedure for patients and carers](#) ('Understanding NICE guidance'). It explains the nature of the procedure and the guidance issued by NICE, and has been written with patient consent in mind.

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

17 January 2012: minor maintenance.

Your responsibility

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

Implementation of this guidance is the responsibility of local commissioners and/or providers. Commissioners and providers are reminded that it is their responsibility to implement the guidance, in their local context, in light of their duties to avoid unlawful discrimination and to have regard to promoting equality of opportunity. Nothing in this guidance should be interpreted in a way which would be inconsistent with compliance with those duties.

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Endorsing organisation

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