

Percutaneous endoscopic colostomy

1 Guidance

- 1.1 Current evidence on the safety and efficacy of percutaneous endoscopic colostomy (PEC) appears adequate to support the use of this procedure in elderly and frail patients with recurrent sigmoid volvulus and colonic motility problems provided that the normal arrangements are in place for audit and clinical governance.
- 1.2 Evidence on the use of PEC in children is limited. The care of children with chronic refractory constipation is complex and further evidence on the efficacy of the procedure and its place in the management of children would be useful. Patient selection in children is particularly important and should involve a multidisciplinary team that includes a paediatric gastroenterologist and colorectal surgeon. This procedure should be performed in specialist paediatric units.
- 1.3 Patients and/or their parents should be fully informed about the potential risk of peritonitis. They should be provided with clear written information. In addition, use of the Institute's *Information for the public* is recommended (available from www.nice.org.uk/IPG161publicinfo).

2 The procedure

2.1 Indications

- 2.1.1 Percutaneous endoscopic colostomy is indicated primarily for recurrent sigmoid volvulus (twisting of the section of the bowel above the rectum) and colonic pseudo-obstruction. It may also be indicated in the treatment of children with constipation that is refractory to all medical treatments.

- 2.1.2 Sigmoid volvulus is more common in people older than 60 years, and in those with Hirschsprung's disease. It is also particularly common in people with chronic constipation. Sigmoid volvulus can be life threatening and must be promptly diagnosed and treated. Emergency treatment usually involves untwisting the bowel using a flatus tube or colonoscope. Subsequently, surgery may be considered to prevent recurrence, especially in patients who have suffered repeated episodes of sigmoid volvulus.
- 2.1.3 Existing surgical techniques include sigmoidopexy, sigmoidoplasty, sigmoid colectomy and primary anastomosis. These treatment options have varying success rates and open resection may be contraindicated for elderly and frail patients or severely immunocompromised patients.
- 2.1.4 Percutaneous endoscopic colostomy offers an alternative treatment for patients who have tried conventional treatment options without success or those who are unfit for surgery.

2.2 Outline of the procedure

- 2.2.1 Percutaneous endoscopic colostomy has evolved from percutaneous endoscopic gastrostomy (PEG).
- 2.2.2 Percutaneous endoscopic colostomy (PEC) is a minimally invasive procedure. PEC tubing is placed in position using a colonoscope, which is inserted into the left colon through the rectum. A wire is passed through a small skin incision and pulled back through the anal canal via the colonoscope. The PEC tube is tied to the wire, pulled back through the bowel and abdominal wall, and secured against the abdominal wall. The colonoscope is re-inserted to check the final position of the PEC tube. The tube is then

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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. 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.

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This guidance is endorsed by NHS QIS for implementation by NHSScotland.

attached to a drainage bag, which is usually flushed twice a day. Prophylactic antibiotics are administered for a few days.

2.3 Efficacy

- 2.3.1 The published evidence on this procedure is limited. The largest published case series includes 15 children with refractory constipation, of whom 14 underwent the procedure and 6 were followed up for 12 months. All children evaluated at 12 months were socially clean (mostly clean with occasional accidents, or no soiling) and two children were able to have the tube removed.
- 2.3.2 In another case series of 14 elderly patients with recurrent sigmoid volvulus, 5 patients whose tubes had been left in situ remained recurrence free at a mean follow-up of 12.6 months. For more details, refer to the Sources of evidence.
- 2.3.3 The Specialist Advisors stated that outcomes seemed to be better in patients with sigmoid volvulus than in those with incontinence or constipation.

2.4 Safety

- 2.4.1 The most common complications reported were granuloma formation (6/15 and 4/6 in two case series) and infection (3/15 and 2/6). Other reported complications included pain associated with the administration of an enema (1/15), colonic leakage (5/6) and tube erosion (1/6). Preliminary unpublished data from a multicentre UK audit reported a 12% infection rate (13/105 patients) following the procedure. Two deaths attributed to late tube dislodgement were reported in patients treated for recurrent sigmoid volvulus. For more details, refer to the Sources of evidence.
- 2.4.2 The Specialist Advisors listed the potential complications as infection, perforation leading to peritonitis, and bleeding.

2.5 Other comments

- 2.5.1 It was noted that there was an additional death resulting from peritonitis following a PEC procedure.

Andrew Dillon
Chief Executive
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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/IPG161publicinfo

Sources of evidence

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

'Interventional procedure overview of percutaneous endoscopic colostomy', August 2005.

Available from: www.nice.org.uk/ip074overview

Ordering information

Copies of this guidance can be obtained from the NHS Response Line by telephoning 0870 1555 455 and quoting reference number N1000. *Information for the public* can be obtained by quoting reference number N1001.

The distribution list for this guidance is available at www.nice.org.uk/IPG161distributionlist

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