

Sacral nerve stimulation for faecal incontinence

NOTE: This document replaces previous guidance on sacral nerve stimulation for faecal incontinence (Interventional Procedure Guidance no. 5).

1 Guidance

- 1.1 Current evidence on the safety and efficacy of sacral nerve stimulation for faecal incontinence appears adequate to support the use of this procedure, provided that the normal arrangements are in place for consent, audit and clinical governance.
- 1.2 The procedure should only be performed in specialist units by clinicians with a particular interest in the assessment and treatment of faecal incontinence.

2 The procedure

2.1 Indications

- 2.1.1 Faecal incontinence occurs when a person loses control of their bowel and is unable to retain faeces in the rectum. Faecal incontinence may result from dysfunction of the anal sphincter, which may be due to sphincter damage, spinal injury or a neurological disorder.
- 2.1.2 Faecal incontinence is associated with a high level of physical and social disability.

- 2.1.3 Typically, first-line treatment for faecal incontinence is conservative, such as anti-diarrhoeal medication and pelvic floor muscle training (including biofeedback therapy). In patients for whom conservative treatments have been unsuccessful, surgical alternatives include tightening the sphincter (overlapping sphincteroplasty), creating a new sphincter from the patient's own muscle (for example, dynamic graciloplasty) or implanting an artificial sphincter. Some patients may require colostomy. Sacral nerve stimulation is a surgical treatment option for patients with faecal incontinence.

2.2 Outline of the procedure

- 2.2.1 In patients with a weak but structurally intact sphincter, it may be possible to alter sphincter and bowel behaviour using the surrounding nerves and muscles. It involves applying an electric current to one of the sacral nerves via an electrode placed through the corresponding sacral foramen. Commonly, the procedure is tested in each patient over a 2- to 3-week period, with a temporary percutaneous peripheral nerve electrode attached to an external stimulator. If significant benefit is achieved, then the permanent implantable pulse generator can be implanted.

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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.

2.3 Efficacy

2.3.1 This procedure was subject to a systematic review commissioned by the Institute. The systematic review included six case series studies reporting on 266 patients in total. In patients who had permanent implants, complete continence was achieved in 41–75% (19/46–12/16) of patients, whereas 75–100% (3/4–16/16) of patients experienced a decrease of 50% or more in the number of incontinence episodes. There was also evidence to suggest an improvement in the ability to defer defecation after permanent implantation. Patients also reported improvements in both disease-specific and general quality-of-life scores after the procedure. For more details, refer to the Sources of evidence (see right).

2.4 Safety

2.4.1 Complications were reported both during the test peripheral nerve evaluation phase and after implantation. Evidence from the systematic review indicated that of the 266 patients receiving test evaluation, 4% (10/266) experienced an adverse event. Fifty-six per cent (149/266) went on to receive permanent implantation. Of the patients who had permanent implants, 13% (19/149) reported adverse events. These included three patients who developed infections requiring device removal, seven patients who had lead migration requiring either relocation (five cases) or removal of the device, and six patients who experienced pain after implantation.

2.4.2 Implantation techniques have been modified in recent years, with a view to reducing the occurrence of complications.

Andrew Dillon
Chief Executive
November 2004

Information for the Public

The Institute 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, in English and Welsh, from www.nice.org.uk/IPG099publicinfo

Sources of evidence

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

Fraser C, Glazener C, Grant A et al. *Systematic review of the efficacy and safety of sacral nerve stimulation for faecal incontinence*. Aberdeen: Review Body for Interventional Procedures; 2004. Commissioned by the National Institute for Clinical Excellence.

Available from:
www.nice.org.uk/ip123systematicreview

Ordering information

Copies of this guidance can be obtained from the NHS Response Line by telephoning 0870 1555 455 and quoting reference number N0746. *Information for the Public* can be obtained by quoting reference number N0747 for the English version and N0748 for a version in English and Welsh.

The distribution list for this guidance is available on the NICE website at www.nice.org.uk/IPG099distributionlist

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