NICE National Institute for Health and Care Excellence

NICE guidance

Selective peripheral denervation for cervical dystonia

HealthTech guidance
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www.nice.org.uk/guidance/htg51

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, and specifically any special arrangements relating to the introduction of new interventional procedures. 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.

All problems (adverse events) related to a medicine or medical device used for treatment or in a procedure should be reported to the Medicines and Healthcare products Regulatory Agency using the Yellow Card Scheme.

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. Providers should ensure that governance structures are in place to review, authorise and monitor the introduction of new devices and procedures.

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.

Contents

This guidance replaces IPG80.

1 Recommendations

1.1 Current evidence on the safety and efficacy of selective peripheral denervation for cervical dystonia 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 be performed by a multidisciplinary team in a specialist neurosurgical unit.

1.3 Patient selection for this procedure is important. Patients should be offered the procedure only when their disease has become refractory to best medical treatment.

2 The procedure

2.1 Indications

2.1.1 Cervical dystonia is a condition in which the muscles of the neck contract painfully and cause twisting of the head. The head may be pulled backwards (retrocollis), forwards (anterocollis) or to the side (torticollis), depending on which muscle groups are affected. This muscle spasm may occur intermittently or continuously. The cause of cervical dystonia is not known. In children, it is sometimes associated with congenital abnormalities of the shape of the head or of the spine, but it may occur at any age. Cervical dystonia may persist for several years, or sometimes for life. Some patients recover spontaneously.

2.1.2 Standard treatment for cervical dystonia includes physiotherapy, drugs to reduce spasm, injections of botulinum toxin, and brain surgery. Selective peripheral denervation may be an alternative, especially for people who have not responded to other treatments.

2.2 Outline of the procedure

2.2.1 Selective peripheral denervation is a surgical procedure that varies according to the muscle groups affected. It is performed under general anaesthetic and involves cutting, through a skin incision, the nerves that supply the affected muscles. Sometimes the muscles themselves may be divided.

2.3 Efficacy

2.3.1 The evidence was limited to 1 systematic review and several case series studies. The review found no controlled studies and no reliable evidence to compare the procedure with other treatments. Two of the larger case series studies found 'very good to excellent' results in 88% (228 out of 260, and 182 out of 207) of patients at follow-up. However, the time to follow-up and how these outcomes

were assessed were not specified in either of these 2 studies. For more details, see the overview.

2.3.2 One Specialist Advisor noted that careful patient selection should improve the efficacy of the procedure.

2.4 Safety

2.4.1 The largest case series study identified reported the following complications: occasional tic-like pain (1%, 3 out of 260); tonsillar abscess (0.4%, 1 out of 260); transient swelling of the neck in a few patients (number not specified); and pins and needles or sensation of tightness or fullness in a few patients (number not specified). For more details, see the overview.

2.4.2 The Specialist Advisors listed potential adverse events as difficulty in swallowing, as well as the usual potential complications of surgery, such as infection and haemorrhage.

2.5 Other comments

2.5.1 It was noted from the evidence that almost all patients suffered some sensory loss.

2.5.2 There was good long-term follow-up.

3 Further information

Sources of evidence

The evidence considered by the committee is in the overview.

Information for patients

NICE has produced information for the public on this procedure. It explains the nature of the procedure and the guidance issued by NICE, and has been written with patient consent in mind.

Update information

Minor changes since publication

January 2026: Interventional procedures guidance 80 has been migrated to HealthTech guidance 51. The recommendations and accompanying content remain unchanged.

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Endorsing organisation

This guidance has been endorsed by Healthcare Improvement Scotland.