NICE National Institute for Health and Care Excellence

NICE guidance

Endoscopic axillary lymph node retrieval for breast cancer

HealthTech guidance
Published: 14 December 2005

www.nice.org.uk/guidance/htg93

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 IPG147.

1 Recommendations

1.1 Current evidence on the safety and efficacy of endoscopic axillary lymph node retrieval for breast cancer does not appear adequate for this procedure to be used without special arrangements for consent and for audit or research.

1.2 Clinicians wishing to undertake endoscopic axillary lymph node retrieval should take the following actions.

- Inform the clinical governance leads in their Trusts.
- Ensure that patients understand the uncertainty about the procedure's safety and efficacy and provide them with clear written information. In addition, use of the information for the public is recommended.
- Audit and review clinical outcomes of all patients having endoscopic axillary lymph node retrieval for breast cancer.

1.3 This procedure should only be undertaken by surgeons skilled in endoscopic techniques.

2 The procedure

2.1 Indications

2.1.1 Axillary clearance has been used as part of surgery for breast cancer. Biopsy of lymph node tissue helps in the staging of breast cancer, providing prognostic information and identifying patients who will benefit from systemic therapy.

2.1.2 Traditionally, surgeons remove lymph nodes for staging through an incision in the axillary skin under direct vision. However, this procedure may have side effects, including wound infection and lymphoedema. There are 2 surgical alternatives that are standard practice. The first involves clearance to level 1, 2 or 3 of the axilla, taking up to 20 lymph nodes, which provides very accurate diagnostic information. The second requires sampling of a minimum of 4 lymph nodes, which causes less morbidity but provides only qualitative rather than quantitative information about the status of the axillary basin of lymph nodes. A new procedure is sentinel node mapping, which requires specific training in the use of imaging. Endoscopic techniques, sometimes combined with liposuction, have been developed as a less invasive approach to removing lymph nodes for diagnosis.

2.2 Outline of the procedure

2.2.1 In endoscopic axillary lymph node retrieval, very small incisions are made in the axillary skin and nodes are removed using an endoscope and special instruments. The patient is placed in a supine position under general anaesthesia. Liposuction is used to remove excess axillary fat. An endoscope is inserted through the incision used for liposuction, and trocars are introduced through 2 additional small incisions. Fibrous tracts and small lymph and blood vessels are coagulated and cut, and lymph nodes are freed and removed. Following a saline rinse of the surgical field, the incisions are sutured. Drains are not normally required.

2.3 Efficacy

2.3.1 Conversion to open surgery was reported in 8% of operations (4 of 53) in a historically controlled study. In a large case series, only 2% of operations (2 of 100) were converted to open surgery.

2.3.2 In 1 randomised controlled trial, the operative time for endoscopic axillary lymph node retrieval was found to be significantly longer than for open surgery (mean time 61 and 33 minutes, respectively).

2.3.3 One quasi-randomised study found good shoulder–arm mobility at 7 days postoperatively, with more than 90% mobility being achieved after either endoscopic axillary lymph node retrieval or open surgery. Only 18% of patients (7 of 40) who had endoscopic axillary lymph node retrieval reported pain on the first postoperative day, compared with 33% of patients (13 of 40) who had open surgery. One small randomised controlled trial found that all 10 patients reported no pain at 3 days after endoscopic axillary lymph node retrieval.

2.3.4 Length of hospital stay after endoscopic axillary lymph node retrieval varied from 2.5 days to 9 days, although 1 study reported that most of the later patients in the series were discharged within 24 hours.

2.3.5 Two case series reported no axillary recurrence among 100 patients followed up to 14 months, and 103 patients followed up to 18 months. For more details, see the overview.

2.4 Safety

2.4.1 Data on the safety of the procedure were not reported consistently in the studies. The incidence of seroma reported after endoscopic axillary lymph node retrieval varied from 90% (36 of 40) to 4% (4 of 100). Similarly, rates of haematoma formation ranged from 16% (16 of 100) in 1 case series to 1% (1 of 103) in a second case series.

2.4.2 Other reported adverse events after endoscopic axillary lymph node retrieval included lymphocele in 25% of patients (5 of 20) and wound infection in 5% of

patients (2 of 40). For more details, see the overview.

2.4.3 The specialist advisors noted that theoretical adverse effects include bleeding, damage to nerves or the axillary artery, pneumothorax, lymphoedema and pain or sensory disturbance in the arm and shoulder.

2.5 Other comments

2.5.1 These recommendations refer to the use of endoscopy rather than open surgery for the retrieval of selected axillary lymph nodes. They do not address clinical decisions about the number of lymph nodes that should be removed.

2.5.2 The committee noted that this procedure is seldom carried out in the UK, and that sentinel node retrieval has become common practice.

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 147 has been migrated to HealthTech guidance 93. The recommendations and accompanying content remain unchanged.

ISBN: 978-1-4731-9098-6

Endorsing organisation

This guidance has been endorsed by Healthcare Improvement Scotland.