

General Commissioning Policy

Intervention	Endoscopic Thoracic Sympathectomy (ETS)
For treating	Severe Refractory Primary Hyperhidrosis (in the upper limbs)
Background	<p>Primary hyperhidrosis of the upper limb is characterised by excessive sweating of the palms and/or axillae. It typically begins during childhood or adolescence, but can occur at any age and is usually life-long. In a few people, symptoms can spontaneously improve over time. Excessive sweating can have a profound effect on quality of life, interfering with daily activities and causing anxiety and embarrassment.</p> <p>The aim of ETS is to relieve primary hyperhidrosis from the palms and axillae permanently by dividing (by electrocautery, scissors or surgical clips) the sympathetic nerves that lie along the sympathetic chain beside the spine. The extent of division varies but usually involves the part of the sympathetic chain over the second (R2) or third ribs (R3), or both. The procedure is then usually repeated on the other side of the spine.</p>
Commissioning position	<p>NHS Hull CCG does not routinely commission Thoracic Sympathectomy for severe hyperhidrosis. In view of the risk of side effects this procedure will only be considered in patients suffering from severe and debilitating primary hyperhidrosis that has been refractory to other treatments. Thus, requests for this treatment should be sent to the IFR panel for consideration in patients where the following apply (Ref 1):</p> <ul style="list-style-type: none"> • The patient has severe palmar (with or without an axillary component) hyperhidrosis that is having a debilitating impact on activities of daily living, social functioning and quality of life. • In primary care, all lifestyle measures have been tried but have failed to resolve symptoms: avoiding identified triggers such as crowded rooms, caffeine, or spicy foods; frequent use of commercial antiperspirant (as opposed to a deodorant); avoiding tight clothing and manmade fabrics; wearing white or black clothing to minimize the signs of sweating and using dress shields to absorb excess sweat. • For axillary hyperhidrosis: 20% aluminium chloride hexahydrate (Driclor[®] and Anhydrol Forte[®] roll-ons are licensed) has been tried (applied at night just before sleep and washed off in the morning every 1-2 days and then as required) but has failed to improve symptoms after 2 months. • Cognitive behavioural therapy (CBT) has been used to treat any underlying anxiety (if this has been identified as an exacerbating factor) but has failed to improve symptoms. • In a secondary care setting, further treatment has been tried but has failed to resolve symptoms, including: <ul style="list-style-type: none"> • Modified topical therapy: Emollients, topical corticosteroids, different strengths of aluminium salts (up to 50%), and topical glutaraldehyde or formaldehyde. • Oral medications such as anticholinergics, antimuscarinics, beta-blockers, antihypertensives and anxiolytics.

Notes

1. This Policy will be reviewed in the light of new evidence, or guidance from NICE.

2. General Commissioning Policy Statements are agreed by the Planning and Commissioning Committee on behalf of NHS Hull Clinical Commissioning Group.

	<ul style="list-style-type: none"> • Tap water iontophoresis (usually at home after a positive hospital trial), where the hands / axillae - are immersed in warm water, or a wet contact pad applied, through which a weak electric current is passed. (Treatment usually consists of 2–4 sessions (20-30 mins) per week and improvement usually occurs after 4–10 sessions.) • For axillary hyperhidrosis, Botulinum toxin A [Botox[®]] has been delivered, after IFR Panel approval, by multiple intradermal injections. <p>If these approaches do not work, surgical options include local sweat-gland excision (for small areas of axillary hyperhidrosis) by subcutaneous curettage or tumescent liposuction, or as a last resort, Sympathectomy (ETS)</p> <p>The NICE Guidance (IPG 487, Ref 2) states that ETS should only be undertaken by clinicians trained and experienced in thoracic endoscopy, and there should be the capacity to deal with intraoperative complications. In addition, clinicians wishing to undertake ETS for primary hyperhidrosis of the upper limb should ensure that patients understand the risks of the procedure, in particular that:</p> <ul style="list-style-type: none"> - the procedure sometimes does not reduce upper limb hyperhidrosis; - there is a risk of serious complications; - post surgery hyperhidrosis elsewhere on the body is usual, which can be severe and distressing to the point where some patients regret having had the procedure. <p>Clinicians should provide patients considering the procedure with clear written information.</p> <p>The Expert Consensus Statement (Ref 4) from the Society of Thoracic Surgeons states that only a small percentage of patients should be considered for surgical treatment. From studying the results of all research papers, they consider the 'ideal candidates' for ETS to be those patients who:</p> <ul style="list-style-type: none"> - have onset of hyperhidrosis at an early age (usually before 16 years of age); - are young at the time of surgery (usually less than 25 years old), - have an appropriate body mass index (<28); - report no sweating during sleep; - are relatively healthy (no other significant comorbidities); - and do not have bradycardia (resting heart rate <55 beats per minute). <p>Thus, it would aid decision making if the IFR request includes information on these patient characteristics as well.</p>
Effective from	August 2014
Summary of evidence / rationale	<p>Sympathectomy can be done either by open or endoscopic approaches: endoscopic sympathectomy is now usually the preferred technique because it is associated with less pain, improved cosmesis and more rapid recovery than open sympathectomy.</p> <p>ETS involves video-assisted laparoscopic division of the sympathetic chain (a paired bundle of nerve fibres that run from the base of the skull to the coccyx) over the neck of the ribs under general anaesthesia, usually by a vascular surgeon. ETS is indicated (as a last resort) for</p>

	<p>severe palmar, axillary, and sometimes craniofacial hyperhidrosis. The long term cure rate is higher for palmar than axillary hyperhidrosis. ETS is not used for plantar hyperhidrosis (feet) because of the risk of it also causing sexual dysfunction.</p> <p>There is a lack of RCT evidence on the effectiveness of thoracic sympathectomy, however there are many case series (some quite large with several thousand patients) which tend to agree in their findings that this treatment is safe and effective in curing palmar hyperhidrosis (Ref 2&3). The NICE Guidance does have the caveat that there are risks of serious complications and compensatory hyperhidrosis (CH). Indeed, the main side effect of CH on the trunk and neck is very high (average 75% of patients) and can be so severe and disabling in some people (up to a third of people in some studies) that between 2% and 20% actually regret having had the procedure.</p> <p>For palmar hyperhidrosis, the optimal operation is an R3 interruption (cauterizing or clipping the sympathetic chain on top of the third rib) because it yields the driest hands but it does have a higher risk of CH than with an R4.</p> <p>Complications of ETS include: compensatory hyperhidrosis (very common, up to 100%), sweating after eating (common, up to 50%), rhinitis (quite common, up to 10%), pneumothorax (common, up to 75%, but usually resolves spontaneously), significant bleeding (up to 5%), Horner's syndrome (rare, < 1%), and phrenic nerve damage (extremely rare).</p>
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References:

1. NICE Clinical Knowledge Summary <http://cks.nice.org.uk/hyperhidrosis>
2. NICE IPG 487 (May 2014) Endoscopic thoracic sympathectomy for primary hyperhidrosis of the upper limb: guidance <http://guidance.nice.org.uk/IPG487/Guidance/pdf/English>
3. NICE IPG Overview and Literature Review (Dec 2013) <http://www.nice.org.uk/nicemedia/live/12479/65561/65561.pdf>
4. Cerfolio R J et al 2011. The Society of Thoracic Surgeons Expert Consensus for the Surgical Treatment of Hyperhidrosis. Ann Thorac Surg 2011;91:1642–8 http://www.sts.org/sites/default/files/documents/pdf/expertconsensus/Surgical_Treatment_of_Hyperhidrosis.pdf

Sources of information and support:

Hyperhidrosis Support Group: www.hyperhidrosisuk.org

International Hyperhidrosis Society: www.sweathelp.org