



CIGNA MEDICAL COVERAGE POLICY

The following Coverage Policy applies to all health benefit plans administered by CIGNA Companies including plans formerly administered by Great-West Healthcare, which is now a part of CIGNA.

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Subject Hyperhidrosis Treatments

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Hyperlink to Related Coverage Policies

- Biofeedback
- Complementary and Alternative Medicine
- OnabotulinumtoxinA (Botox® A)
- Physical Therapy

INSTRUCTIONS FOR USE

Coverage Policies are intended to provide guidance in interpreting certain **standard** CIGNA HealthCare benefit plans. Please note, the terms of a customer's particular benefit plan document [Group Service Agreement (GSA), Evidence of Coverage, Certificate of Coverage, Summary Plan Description (SPD) or similar plan document] may differ significantly from the standard benefit plans upon which these Coverage Policies are based. For example, a customer's benefit plan document may contain a specific exclusion related to a topic addressed in a Coverage Policy. In the event of a conflict, a customer's benefit plan document **always supercedes** the information in the Coverage Policies. In the absence of a controlling federal or state coverage mandate, benefits are ultimately determined by the terms of the applicable benefit plan document. Coverage determinations in each specific instance require consideration of 1) the terms of the applicable benefit plan document in effect on the date of service; 2) any applicable laws/regulations; 3) any relevant collateral source materials including Coverage Policies and; 4) the specific facts of the particular situation. Coverage Policies relate exclusively to the administration of health benefit plans. Coverage Policies are not recommendations for treatment and should never be used as treatment guidelines. Proprietary information of CIGNA. Copyright ©2011 CIGNA

Coverage Policy

CIGNA covers endoscopic thoracic sympathectomy (ETS) or video-assisted ETS for the treatment of primary hyperhidrosis (i.e., palmar and axillary) as medically necessary when EITHER

- the individual has medical complications secondary to hyperhidrosis (e.g., skin maceration with secondary infection) **OR**
- the individual is experiencing a significant impact on age-appropriate activities of daily living as a result of hyperhidrosis

and ALL of the following criteria are met:

- Topical prescription aluminum chloride or other extra-strength antiperspirants are contraindicated, poorly tolerated, or ineffective.
- For axillary hyperhidrosis, there is failure, contraindication or intolerance to treatment with onabotulinumtoxinA (Botox® A)
- There is failure, contraindication or intolerance to the use of available oral pharmacotherapy for hyperhidrosis (e.g., anticholinergics, beta-blockers, benzodiazepines).

CIGNA covers the surgical removal of axillary sweat glands for the treatment of hyperhidrosis as medically necessary when ALL of the above medical necessity criteria have been met.

CIGNA does not cover surgical treatment of secondary hyperhidrosis since appropriate therapy involves treatment of the underlying condition (e.g., hyperthyroidism, diabetes mellitus and hyperpituitarism).

CIGNA does not cover any of the following treatments for hyperhidrosis, because each is considered experimental, investigational or unproven (this list may not be all-inclusive):

- alternative therapy methods, including homeopathy, massage, acupuncture and phytotherapeutic (herbal) drugs
- axillary liposuction, including ultrasound-assisted lipoplasty, retrodermal curettage and tumescent suction curettage
- biofeedback
- hypnosis
- iontophoresis (e.g., electrophoresis, Drionic[®] device)
- percutaneous thoracic phenol sympathectomy
- psychotherapy
- repeat/reversal of ETS
- sympathectomy for craniofacial hyperhidrosis
- sympathectomy for plantar hyperhidrosis

Note: Nonprescription drugs are excluded under many medical benefit plans. Please refer to the applicable pharmacy benefit to determine benefit availability and the terms and conditions of coverage related to the treatment of hyperhidrosis.

General Background

Hyperhidrosis, or excessive sweating, is a medical condition that is defined as sweating beyond what is necessary to maintain thermal regulation. Hyperhidrosis can be classified as primary focal or secondary, depending on its cause or origin. Primary focal hyperhidrosis, also known as essential or idiopathic hyperhidrosis, is caused by an overactive sympathetic nervous system. Primary focal hyperhidrosis can lead to intractable and profuse sweating in several locations typically affecting the feet (plantar), armpits (axillae), and hands (palmar). Hyperhidrosis can be accompanied by facial blushing. Secondary hyperhidrosis usually affects the whole body and is due to some underlying cause such as malignancy, infection, spinal cord injury, neurologic and endocrine disorders. Craniofacial hyperhidrosis is uncommon and can be provoked by heat, emotion, or spicy foods (i.e., gustatory hyperhidrosis or Frey's syndrome) (Eisenach, et al., 2005; Haider and Solish, 2005).

Hyperhidrosis symptoms typically begin in adolescence or in the early twenties and may affect one or more anatomic regions. There is some evidence to suggest that there may be genetic and familial elements to hyperhidrosis. Hyperhidrosis may result in multiple complications, including bacterial/fungal overgrowth and eczematous dermatitis. Sweating that interferes with an individual's activities of daily living is generally viewed as abnormal. Individuals may endure functional limitations such as difficulty handling necessary papers or tools, impeding their ability to perform jobs and activities of daily living. The Hyperhidrosis Disease Severity Scale (HDSS) is a diagnostic tool that provides a qualitative measure of the severity of the patient's condition based on how it affects daily activities (Ram, et al., 2007a; Cohen, et al., 2007; Glaser, et al., 2007, Solish, et al., 2007; ECRI, 2006).

Diagnosis of hyperhidrosis is typically made by obtaining a patient history and testing such as the starch iodine test and gravimetric measurement of sweat rates. Treatment for hyperhidrosis is based on the severity of sweating, with consideration given to the risks and benefits associated with the treatment modality. Conservative topical methods (e.g., topical antiperspirant agents) are generally tried initially, followed by oral pharmacotherapy (e.g., anticholinergics or antidepressant agents) and then moderately invasive procedures (e.g., onabotulinumtoxinA (Botox[®] A). Invasive or surgical treatments are generally reserved for those individuals for whom conservative treatment has failed to resolve the condition (e.g., endoscopic thoracic sympathectomy [ETS], local tissue resection, curettage of adipose tissue in the axillae, percutaneous thoracic

phenol sympathectomy [PTPS], liposuction of the axillary glands) (Shellow, 2008; Ram, et al., 2007a; Ram, et al., 2007b; Eisenach, et al., 2005; Haider and Solish, 2005).

Conservative and Noninvasive Treatments

Topical and Systemic Treatments: In the case of secondary hyperhidrosis, treatment focuses on the underlying medical condition. Treating the underlying medical condition may resolve the hyperhidrosis, and no further intervention may be needed. Over-the-counter antiperspirants containing aluminum salts are used to conservatively treat hyperhidrosis. The most effective topical treatment for palmo-plantar hyperhidrosis is 20% aluminum chloride hexahydrate in absolute anhydrous ethyl alcohol (e.g., Drysol). Aluminum chloride obstructs sweat pores and induces atrophy of secretory cells within the sweat glands. Aluminum salts can cause skin irritation and itching, leading to skin infections. Other topical agents have resulted in less satisfactory results (e.g., boric acid, anticholinergics drugs, resorcinol, tannic acid, potassium permanganate, formaldehyde, methenamine, and glutaraldehyde) (Shellow, 2008; Haider and Solish, 2005; Thomas, et al., 2004).

Noninvasive hyperhidrosis treatments include systemic anticholinergics, beta blockers and benzodiazepines. These treatments can have numerous side effects, such as nausea, dizziness, blurred vision, dry mouth, lethargy and drowsiness (Haider and Solish, 2005; Thomas, et al., 2004).

Iontophoresis: Topical iontophoresis has been proposed a treatment for palmar, plantar or axillary hyperhidrosis. Iontophoresis is primarily used for focal palmo-plantar hyperhidrosis, since the hands and feet are the easiest body parts to submerge in water. In an iontophoresis treatment, the patient places his/her hands or feet into a water bath that contains two electrodes. A small electric current is passes through the electrodes. The mechanism of action is not precisely known but is thought to be related to plugging of the sweat gland pores. The limitation of this treatment is that it causes skin irritation, peeling, and drying. This treatment is time-consuming, in that it may require 10–40 minute treatments daily for at least four days a week. Treatments are generally repeated every day or every other day, until the desired effects are seen and treatment frequency can be reduced. The Drionic[®] device (General Medical Co., Los Angeles, CA) is a battery-operated device used to induce tap water iontophoresis (ECRI, 2010; Haider and Solish, 2005; General Medical Co., 2001).

Literature Review: There is limited evidence in the in the published, peer-reviewed scientific literature to support the efficacy of iontophoresis for the treatment of hyperhidrosis. The studies consist of nonrandomized or case series studies (Aydemir, et al., 2006; Karakoc, et al., 2004; Dolianitis, et al., 2004; Karakoc, et al., 2002) that have small sample sizes (n=3–112) and lack data on long-term health outcomes.

Moderately Invasive Procedure

OnabotulinumtoxinA (Botox[®] A): For information on the coverage of Botox A for the treatment of hyperhidrosis, please refer to the CIGNA Coverage Policy, OnabotulinumtoxinA (Botox[®] A).

Invasive Procedures

Endoscopic Thoracic Sympathectomy (ETS): Surgical options for hyperhidrosis are associated with high efficacy rates, but they are typically reserved for patients for whom other treatment options have been ineffective. Although noninvasive treatments are often effective in milder cases, patients with severe hyperhidrosis often remain symptomatic and may require surgical intervention. Referral may be made to a neurosurgeon or vascular surgeon for evaluation. Surgical treatments include ETS, which destroys the sympathetic ganglia by excision, clamping, transection or ablation with cautery or laser. ETS is not designed to treat plantar hyperhidrosis and should not be used primarily if this is the only complaint. The risk of permanent sexual dysfunction limits the usefulness of lumbar sympathectomy for the treatment of plantar hyperhidrosis. Most of the patients who present for surgery have palmar-plantar hyperhidrosis. Of the patients who present for surgery with severe hyperhidrosis, less than 5% have craniofacial hyperhidrosis with no sole therapy of choice for treatment. The procedure, which is performed on an inpatient or outpatient basis, cannot be standardized because of anatomic variation among individuals (Shellow, 2008; Eisenach, et al., 2005; Haider and Solish, 2005; Thomas, et al., 2004).

The most common complication of sympathectomy is compensatory sweating in other areas of the body. Other possible complications include Horner's syndrome, pneumothorax, hemothorax, wound infection and rare cardiac arrest or arrhythmias. Contraindications for ETS include untreated thyroid diseases; pleural adhesions, which can make accurate identification and dissection of the sympathetic ganglia difficult; and any underlying

condition that, would pose a danger to the patient in the presence of pneumothorax (Ram, et al., 2007b; Cohen, et al., 2007).

Literature Review: Several retrospective, uncontrolled and large case series studies have demonstrated that ETS is effective in eliminating axillary and palmar hyperhidrosis in 68%–100% of cases. Definite patient selection criteria for ETS as a treatment for primary hyperhidrosis have not been established. Most studies involved patients who had failed previous nonsurgical therapies (e.g., aluminum chloride, astringents, talcum powders, or oral antihistamines, Botox injections) and have severe hyperhidrosis that is causing social, psychological, or work-related disability. Most of the studies also used various methods of ablation, resection or clipping under direct endoscopic or video guidance (Dewey, et al., 2006; Loscertales, et al., 2004; Doolabh, et al., 2004; Reisfeld, et al., 2002; Chuang and Liu, 2002; Zacherl, et al., 1999; Lin and Fang, 1999).

Technology Assessment: An ECRI emerging evidence report on ETS for the treatment of hyperhidrosis reported that “Endoscopic thoracic sympathectomy leads to short-term and long-term reduction in palmar and axillary hyperhidrosis, with elimination of symptoms in a clinically significant proportion of patients. Insufficient evidence precluded any conclusion for patients with craniofacial hyperhidrosis. Need for retreatment for short-term and long-term recurrence of hyperhidrosis is low. Also, the procedure leads to short-term and long-term patient satisfaction, with a clinically significant proportion of patients reporting complete satisfaction after long-term follow-up. The strength of evidence is moderate for most of the short-term conclusions (except for those concerning reduction/elimination of axillary hyperhidrosis, which are supported by weak evidence) and weak for most of the long-term conclusions. No conclusion could be reached concerning quality of life following sympathectomy” (ECRI, 2006).

Endoscopic Sympathetic Blockade (ESB): ESB is also referred to as endoscopic transthoracic sympathectomy with metallic clips (ETS-C). The ESB method of surgery was developed to interrupt sympathetic nerve conduction by clamping the sympathetic nerves with a titanium clip, instead of utilizing the cautery or cutting methods. Compensatory sweating, which is characterized by a moderate increase in sweating in other parts of the body, occurs in some patients who undergo ETS for axillary, palmar, plantar and/or craniofacial hyperhidrosis. The ESB method is thought to potentially reduce postoperative compensatory sweating. Also, the surgery can be reversed by removing the clips, if the patient still develops and is unable to tolerate postoperative reflex sweating. Although there is limited evidence in the peer-reviewed literature that ESB surgery with titanium clips significantly reduces postoperative compensatory sweating or that removal of the clips will improve side effects, ESB is an accepted surgical method in the treatment of primary hyperhidrosis (Chou, et al., 2006; Reisfeld, et al., 2002).

Percutaneous Thoracic Phenol Sympathicolysis (PTPS): PTPS involves the introduction of small volumes of phenol into multiple sites on each side of the T2–T4 sympathetic trunks and ganglia. This procedure is performed under local or general anesthesia guided by C-arm fluoroscopy. PTPS is not widely used in clinical practice nor frequently referenced in the literature. PTPS as an invasive treatment for hyperhidrosis is not supported at this time due to the lack of clinical data (Ram, et al., 2007b; Wang, et al., 2001).

Reversal/Repeat ETS Surgery: There is a paucity of evidence in the peer-reviewed scientific literature to support that reversal or repeated sympathectomy is safe and effective in reversing compensatory sweating and other complications of ETS.

Surgical Removal of Axillary Sweat Glands: Surgical removal of the axillary sweat glands has been performed in patients with severe isolated axillary hyperhidrosis. Removal may involve excision of the subcutaneous sweat glands without removal of any skin, limited excision of skin and removal of surrounding subcutaneous sweat glands, or a more radical excision of skin and subcutaneous tissue en bloc. Surgical removal of the axillary sweat glands is an accepted treatment for severe axillary hyperhidrosis (Haider and Solish, 2005; Lawrence and Eccles, 2006).

Minimally Invasive Surgery of Axillary Sweat Glands: Minimally invasive techniques (e.g., subcutaneous curettage, liposuction and ultrasound) have been investigated as alternatives to surgical excision of the axillary sweat glands (Commons, et al., 2009). Tumescence suction curettage has emerged as one of the surgical treatment modalities. This is a variant of liposuction. This technique is performed under local anesthesia, and the tumescent fluid containing saline, bicarbonate, epinephrine and lidocaine is used as the only source of pain control. The waterlogged cells are suctioned out via a cannula. The surface of the cannula that is used is rough,

which results in curettage when pressure is applied. Tumescing of the fat protects the blood vessels by compressing them and provides pain control. Injuries are limited, as liposuction beyond the infiltrated areas cannot be performed. There is a reduced infection rate due to open drainage, and there is less hematoma, not only because of pure compression, but also because of the prolonged action of epinephrine (Boni, 2006; Lee and Ryman, 2005). Retrodermal curettage is similar to tumescent suction curettage and a variant of axillary liposuction. Only scattered reports and case studies regarding these procedures are identified in the literature. The efficacy of minimally invasive techniques for the treatment of axillary hyperhidrosis is not well-supported.

Literature Review: A small case series study was conducted by Commons et al. (2009). Thirteen patients with significant axillary hyperhidrosis and/or bromidrosis were treated with a minimally invasive ultrasound-assisted lipoplasty device using the VASER System (Sound Surgical Technologies, Louisville, CO). Follow-up was for six months. Postoperative assessment of changes relative to lifestyle and degree of sweat/odor reduction and patient and surgeon satisfaction were completed. Eleven of 13 patients had significant reduction in sweat/odor and had no recurrence of significant symptoms at six months. Two patients had a reduction in sweat/odor but not to the degree desired by the patients. No significant complications were noted. The author reported that at six months the treatment appears to be long lasting, but further follow-up is required for verification of permanence.

In a comparative study, Wollina et al. (2008) compared the efficacy and risk–benefit ratio of two local surgical procedures (i.e., the minimal skin excision with subcutaneous curettage (Method A) and tumescent liposuction curettage (Method B)). A total of 163 patients with primary axillary hyperhidrosis as assessed by positive iodine starch test were included. The age range of patients was 16–61 years. A total of 125 underwent Method A, and 37 were treated by Method B. Both procedures were performed in tumescent anesthesia. The mean follow-up was 21 months (Method A) and 48 months (Method B). The outcome was evaluated by patient's global assessment and by Minor's starch test. Patient satisfaction was scored as "satisfied," "partially satisfied," or "dissatisfied." Adverse effects, complications, hospitalization time, and time to return to work were recorded and compared for both methods. In patients who underwent Method A, scar formation was assessed only for the first axilla (n=99). In Method A, the rate of residual sweating was 12.0%. The relapse rate was 1.0% of patients or 2% of axillae. In Method B, the relapse rate was 16.2% of patients or 14.5% of axillae within 12 months. If both the relapses and the residual sweating are considered, this modified relapse rate per axilla was 12.8% for Method A and 14.5% for Method B. Patients who underwent Method B had significantly less pain, no atrophic or hypertrophic scars, and no complications such as wound infections, bleeding (with the need of a second operation), or delayed healing. Using Method A, the stay in hospital was on average 5.8 days per patient or 3.2 days per axilla. Mean time to return to work was 8.87 ± 3.5 days. For Method B, the procedure was performed in an outpatient setting. The mean time to return to professional work was 1.370 ± 8 days. The total satisfaction rate was 97% for Method A and 89.2% for Method B, respectively. The authors reported that their data may represent a bias for patients choosing between more invasive and less invasive procedures. They acknowledged that willingness to pay for the less invasive procedure might have been associated with an expectation of a higher health benefit, both aesthetic and functional. There were no long-term outcomes reported in this study.

In a prospective study, the clinical efficacy and postoperative complications of tumescent superficial liposuction with curettage was studied by Seo et al. (2008). A total of 43 patients were enrolled. The duration of axillary bromhidrosis was on average eight years. Twenty patients had family history and 40 patients had personal history of axillary hyperhidrosis. Among the 43 patients, three patients were recurrent cases in spite of conventional surgery 6.3 years ago, on average. The mean follow-up period was 15.8 months, ranging from 3–54 months. A total of 30.2% patients were graded as excellent, 41.9% were good, 18.6% were fair, and 9.3% were poor. Among 43 patients, 31 patients (72.1%) showed excellent to good results. Three of eight fair-resulted patients had reoperations for more improvement. All of them had excellent results afterwards. One of the four poor-resulted patients did not show any improvement even after the re-operation. The most common postoperative complication was transient ecchymosis which spontaneously regressed in 1–2 weeks. Focal skin necrosis, induration, and hematoma were each noted in four, three, and one patients, respectively, but resolved after proper dressing.

Tumescent suction curettage was studied by Boni (2006). Sixty-three patients with axillary hyperhidrosis were included in this case series study. All the patients had repeated injections of Botox A prior to tumescent suction curettage but wanted a permanent solution for their excessive sweating. None of the patients had early postoperative complications such as infection or seroma. Postoperatively, mild bruising and numbness of the

axillary cavity were temporarily present in all of the patients. However, after six months, 15 out of 63 patients asked for repeat surgery. In these 15 patients, a reduction of sweat production was confirmed by the iodine-starch test. The authors stated it is difficult to exactly assess sweat production, as sweating is not always present but is usually triggered by emotional events. Two years after the procedure, 49 patients were satisfied, 11 patients were partially satisfied and three patients were dissatisfied with their results. The authors reported that tumescent suction curettage is a safe and effective treatment for axillary hyperhidrosis but should not be used as the first-line treatment in axillary hyperhidrosis, since other less invasive treatments (e.g., Botox A) are available.

A small case series study was conducted by Lee and Ryman (2006). Ten patients were treated with axillary liposuction under tumescent anesthesia. Of the 10 patients treated, four relapsed with axillary hyperhidrosis and required additional liposuction to the same area. The longest time to relapse was 15 months, with four months being the shortest time. Six patients did not require additional liposuction. The longest remission was seven years. The reported complications were bruising in the axillae of two patients and relapse of hyperhidrosis in four patients.

Lee et al. (2006) studied the efficacy of tumescent liposuction with curettage using a new device, the Fatemi cannula, in the treatment of axillary osmidrosis and hyperhidrosis. Of 50 axillae, in 25 patients, 76% were graded as excellent results, 22% were good, and 2% were fair. Temporary bruising and local infection in minor cases were noted, with no serious complications.

Alternative Treatments

According to the literature, psychotherapy and hypnosis have been used to treat hyperhidrosis, but with poor results. Psychological problems are generally the consequence of hyperhidrosis, not the cause. Therefore, neither psychiatric nor psychopharmacologic therapy can cure the disorder. There is insufficient evidence to support the use of psychotherapy and hypnosis in the treatment of hyperhidrosis.

There is insufficient evidence in the published peer-reviewed scientific literature to support the safety and effectiveness of alternative medical interventions, including homeopathy, massage, acupuncture and phytotherapy (i.e., herbal) drugs. Laser therapy (i.e., direct irradiation to the palms or axillary sweat glands), radiotherapy (i.e., high-dose radiation) and biofeedback for the treatment of hyperhidrosis are also not well-supported in the literature.

Consensus Statement

A multidisciplinary task force reviewed the clinical evidence and developed a consensus statement on the recognition, diagnosis, and treatment of primary focal hyperhidrosis (Hornberger, et al., 2004). The working group recommendations for diagnosing primary focal hyperhidrosis include focal, visible, excessive sweating of at least six months' durations without apparent cause with at least two of the following characteristics:

- bilateral and relatively symmetric
- impairs daily activities
- frequency of at least one episode per week
- age of onset less than 25 years
- positive family history
- cessation of focal sweating during sleep

The recommended treatment algorithm for axillary hyperhidrosis includes:

- education regarding the proper use of over-the-counter antiperspirants versus deodorants
- 10–35% aluminum chloride hexahydrate using proper technique to avoid irritation (i.e., apply to dry axilla at bedtime; wash off in 6–8 hours. Use 3–7 times/week until euhydrotic. Maintenance treatment every 1–3 weeks.)
- intradermal injection of Botox-A
- surgery including local sweat gland resection (i.e., curettage, liposuction, or limited excision) or ETS (patient should be seen by both a surgeon and a dermatologist, and be informed of local success and complication rates)

The recommended treatment algorithm for palmar hyperhidrosis includes:

- 10–35% aluminum chloride hexahydrate or tap water iontophoresis following education regarding proper technique (direct current at 10–20 mA for 20–30 min. Switch current direction midway through treatment. Use every other day until euhidrotic. Maintenance treatment every 1–4 weeks.)
- intradermal injections of Botox A
- ETS

Recommendations for the treatment of plantar hyperhidrosis include:

- education regarding local hygiene
- initiate therapy with topical aluminum chloride hexahydrate
- tap water iontophoresis
- intradermal Botox injections for patients who fail to achieve satisfactory response with aluminum chloride hexahydrate or iontophoresis
- lumbar sympathectomy is not recommended because of associated sexual dysfunction

Recommendations for the treatment of primary craniofacial hyperhidrosis:

- educate the patient to recognize and avoid food triggers and other stimulating factors
- although evidence is lacking, topical aluminum chloride hexahydrate may be tried, taking particular care to avoid the eyes
- intradermal injection of Botulinum toxin is a reasonable option

Summary

Clinical studies in the published, peer-reviewed literature support the safety and efficacy of specific hyperhidrosis treatments for severe, persistent hyperhidrosis (i.e., aluminum chloride, onabotulinumtoxinA (Botox[®] A), endoscopic transthoracic sympathectomy, and surgical excision of sweat glands). There is insufficient evidence in the published, peer-reviewed literature to determine the effectiveness of alternative therapy methods (e.g., axillary liposuction, biofeedback, hypnosis, iontophoresis, and psychotherapy) for the treatment of severe, persistent hyperhidrosis.

Coding/Billing Information

Note: This list of codes may not be all-inclusive.

Covered when medically necessary:

CPT [®] * Codes	Description
11450	Excision of skin and subcutaneous tissue for hidradenitis, axillary; with simple or intermediate repair
11451	Excision of skin and subcutaneous tissue for hidradenitis, axillary: with complex repair
32664	Thoracoscopy, surgical; with thoracic sympathectomy

ICD-9-CM Diagnosis Codes	Description
705.21	Primary focal hyperhidrosis

Experimental/Investigational/Unproven/Not Covered when used to report treatment for hyperhidrosis.

CPT* Codes	Description
15877	Suction assisted lipectomy; trunk

15878	Suction assisted lipectomy; upper extremity
90804-90809	Individual psychotherapy, insight oriented, behavior modifying
90880	Hypnotherapy
90901	Biofeedback training by any modality
97033	Application of a modality to one or more areas; iontophoresis, each 15 minutes
97124	Therapeutic procedure, one or more areas, each 15 minutes; massage, including effleurage, petrissage and/or tapotement (stroking, compression, percussion)
97810	Acupuncture, 1 or more needles; without electrical stimulation, initial 15 minutes of personal one-on-one contact with the patient
97811	Acupuncture, 1 or more needles; without electrical stimulation, each additional 15 minutes of personal one-on-one contact with the patient, with re-insertion of needle(s) (List separately in addition to code for primary procedure)
97813	Acupuncture, 1 or more needles; with electrical stimulation, initial 15 minutes of personal one-on-one contact with the patient
97814	Acupuncture, 1 or more needles; with electrical stimulation, each additional 15 minutes of personal one-on-one contact with the patient, with re-insertion of needle(s) (List separately in addition to code for primary procedure)

ICD-9-CM Diagnosis Codes	Description
705.22	Secondary focal hyperhidrosis
780.8	Generalized hyperhidrosis

*Current Procedural Terminology (CPT®) © 2010 American Medical Association: Chicago, IL.

References

1. American Academy of Dermatology (AAD). Hyperhidrosis. Accessed November 24, 2010. Available at URL address: <http://www.aad.org/public/Publications/pamphlets/Hyperhidrosis.htm>
2. American Osteopathic College of Dermatology. Hyperhidrosis, excessive sweating. Accessed November 24, 2010. Available at URL address: <http://www.aocd.org/>
3. Aydemir EH, Kalkan MT, Karakoç Y. Quantitative effect of anodal current in the treatment of primary hyperhidrosis by direct electrical current. *Int J Dermatol*. 2006 Jul;45(7):862-4.
4. Boni, R. Tumescant suction curettage in the treatment of axillary hyperhidrosis: experience in 63 patients. *Dermatology*. 2006;213(3):215-7.
5. Cedars-Sinai Medical Center. Video-assisted thoracic sympathectomy. November 24, 2010. Available at URL address: <http://www.csmc.edu/2613.html>
6. Center for Hyperhidrosis, The. Details of ETS surgery. Accessed November 24, 2010. Available at URL address: <http://www.sweaty-palms.com/detailsofsurgery.html>
7. Chou SH, Kao EL, Lin CC, Chang YT, Huang MF. The importance of classification in sympathetic surgery and a proposed mechanism for compensatory hyperhidrosis: experience with 464 cases. *Surg Endosc*. 2006 Nov;20(11):1749-53. Epub 2006 Oct 5.
8. Chuang KS, Liu JC. Long-term assessment of percutaneous stereotactic thermocoagulation of upper thoracic ganglionectomy and sympathectomy for palmar and craniofacial hyperhidrosis in 1742 cases. *Neurosurgery*. 2002 Oct;51(4):963-9; discussion 969-70.

9. Cohen JL, Cohen G, Solish N, Murray CA. Diagnosis, impact, and management of focal hyperhidrosis: treatment review including botulinum toxin therapy. *Facial Plast Surg Clin North Am.* 2007 Feb;15(1):17-30, v-vi. Review.
10. Commons GW, Lim AF. Treatment of axillary hyperhidrosis/bromidrosis using VASER ultrasound. *Aesthetic Plast Surg.* 2009 May;33(3):312-23.
11. Connolly M, de Berker D. Management of primary hyperhidrosis: a summary of the different treatment modalities. *Am J Clin Dermatol.* 2003;4(10):681-97.
12. Davarian S, Kalantari KK, Rezasoltani A, Rahimi A. Effect and persistency of botulinum toxin iontophoresis in the treatment of palmar hyperhidrosis. *Australas J Dermatol.* 2008 May;49(2):75-9.
13. Dewey TM, Herbert MA, Hill SL, Prince SL, Mack MJ. One-year follow-up after thoracoscopic sympathectomy for hyperhidrosis: outcomes and consequences. *Ann Thorac Surg.* 2006 Apr;81(4):1227-32; discussion 1232-3.
14. Doolabh N, Horswell S, Williams M, Huber L, Prince S, Meyer DM, et al. Thoracoscopic sympathectomy for hyperhidrosis: indications and results. *Ann Thorac Surg.* 2004 Feb;77(2):410-4; discussion 414.
15. ECRI Institute. Endoscopic Thoracic Sympathectomy for the Treatment of Hyperhidrosis. Plymouth Meeting (PA): ECRI Institute Health Technology Assessment Information Service; 2006 Oct. 132 p. (Evidence Report; no. 136). Available at URL address: <http://www.ecri.org>
16. ECRI Institute. Hotline Response [database online]. Plymouth Meeting (PA): ECRI Institute. Iontophoresis for Hyperhidrosis. 2010 Feb 18. Available at URL address: <http://www.ecri.org>
17. ECRI Institute. Hotline Response [database online]. Plymouth Meeting (PA): ECRI Institute. Endoscopic Thoracic Sympathectomy for Palmar Hyperhidrosis. 2008 February. Available at URL address: <http://www.ecri.org>
18. Eisenach JH, Atkinson JL, Fealey RD. Hyperhidrosis: Evolving therapies for a well-established phenomenon. *Mayo Clin Proc.* 2005;80(5):657-66.
19. General Medical Company. Hyperhidrosis or sweating stopped by Drionic®. 2001. Accessed November 24, 2010. Available at URL address: <http://www.drionic.com/index.htm>
20. Glaser DA, Hebert AA, Pariser DM, Solish N. Primary focal hyperhidrosis: scope of the problem. *Cutis.* 2007 May;79(5 Suppl):5-17.
21. Goldman A, Wollina U. Subdermal Nd-YAG laser for axillary hyperhidrosis. *Dermatol Surg.* 2008;34(6):756-762.
22. Haider A, Solish N. Focal hyperhidrosis: diagnosis and management. *CMAJ.* 2005 Jan 4;172(1):69-75.
23. Hornberger J, Grimes K, Naumann M, Glaser DA, NJ, Naver H, Ahn S, Stolman LP; Multi-Specialty Working Group on the Recognition, Diagnosis, and Treatment of Primary Focal Hyperhidrosis. Recognition, diagnosis, and treatment of primary focal hyperhidrosis. *J Am Acad Dermatol.* 2004 Aug;51(2):274-86.
24. Hyperhidrosis USA. Hyperhidrosis treatment options. Accessed November 24, 2010. Available at URL address: <http://www.hyperhidrosis-usa.com/hyperhidrosis.html>
25. International Hyperhidrosis Society. Hyperhidrosis treatments. Accessed November 24, 2010. Available at URL address: http://www.sweathelp.org/English/PFF_Treatment_Overview.asp
26. Johnson JP, Obasi C, Hahn MS, Glatleider P. Endoscopic thoracic sympathectomy. *Neurosurg Focus.* 1999;6(5):8-16.

27. Kao MC, Lin JY, Chen YL, Hsieh CS, Cheng LC, Huang SJ. Minimally invasive surgery: video endoscopic thoracic sympathectomy for palmar hyperhidrosis. *Ann Acad Med Singapore*. 1996 Sep;25(5):673-8.
28. Karpinski RHS. Surgical treatment of axillary hyperhidrosis. Updated July 17, 2009. Accessed November 24, 2010. Available at URL address: <http://www.emedicine.com/plastic/topic530.htm>
29. Karakoç Y, Aydemir EH, Kalkan MT, Unal G. Safe control of palmoplantar hyperhidrosis with direct electrical current. *Int J Dermatol*. 2002 Sep;41(9):602-5.
30. Karakoc Y, Aydemir EH, Kalkan MT. Placebo-controlled evaluation of direct electrical current administration for palmoplantar hyperhidrosis. *Int J Dermatol*. 2004 Jul;43(7):503-5.
31. Krasna MJ, Jiao X, Sonett J, Gamliel Z, King K. Thoracoscopic sympathectomy. *Surg Laparosc Endosc Percutan Tech*. 2000 Oct;10(5):314-8.
32. Lawrence CM, Lonsdale Eccles AA. Selective sweat gland removal with minimal skin excision in the treatment of axillary hyperhidrosis: a retrospective clinical and histological review of 15 patients. *Br J Dermatol*. 2006 Jul;155(1):115-8.
33. Leao LE, de Oliveira R, Szulc R, Mari J de J, Crotti PL, Goncalves JJ. Role of video-assisted thoracoscopic sympathectomy in the treatment of primary hyperhidrosis. *Sao Paulo Med J*. 2003 Sep 1;121(5):191-7.
34. Lee MR, Ryman WJ. Liposuction for axillary hyperhidrosis. *Australas J Dermatol*. 2005 May;46(2):76-9.
35. Lee D, Cho SH, Kim YC, Park JH, Lee SS, Park SW. Tumescence liposuction with dermal curettage for treatment of axillary osmidrosis and hyperhidrosis. *Dermatol Surg*. 2006 Apr;32(4):505-11; discussion 511.
36. Lin TS, Fang HY, Wu CY. Repeat transthoracic endoscopic sympathectomy for palmar and axillary hyperhidrosis. *Surg Endosc*. 2000 Feb;14(2):134-6.
37. Lin TS, Fang HY. Transthoracic endoscopic sympathectomy in the treatment of palmar hyperhidrosis--with emphasis on perioperative management (1,360 case analyses). *Surg Neurol*. 1999 Nov;52(5):453-7.
38. Loscertales J, Arroyo Tristan A, Congregado Loscertales M, Jimenez Merchan R, Giron Arjona JC, Arenas Linares C, et al. Thoracoscopic sympathectomy for palmar hyperhidrosis. Immediate results and postoperative quality of life. *Arch Bronconeumol*. 2004 Feb;40(2):67-71.
39. Malmivaara A, Kuukasjärvi P, Autti-Ramo I, Kovanen N, Mäkelä M. Effectiveness and safety of endoscopic thoracic sympathectomy for excessive sweating and facial blushing: a systematic review. *Int J Technol Assess Health Care*. 2007 Winter;23(1):54-62.
40. Neumayer C, Panhofer P, Zacherl J, Bischof G. Effect of endoscopic thoracic sympathetic block on plantar hyperhidrosis. *Arch Surg*. 2005 Jul;140(7):676-80; discussion 680.
41. Ong WC, Lim TC, Lim J, Leow M, Lee SJ. Suction-curettage: treatment for axillary hyperhidrosis and hidradenitis. *Plast Reconstr Surg*. 2003 Feb;111(2):958-9.
42. Perng CK, Yeh FL, Ma H, Lin JT, Hwang CH, Shen BH, et al. Is the treatment of axillary osmidrosis with liposuction better than open surgery? *Plast Reconstr Surg*. 2004 Jul;114(1):93-7.
43. Ram R, Lowe NJ, Yamauchi PS. Current and emerging therapeutic modalities for hyperhidrosis, part 1: conservative and noninvasive treatments. *Cutis*. 2007a Mar;79(3):211-7.

44. Ram R, Lowe NJ, Yamauchi PS. Current and emerging therapeutic modalities for hyperhidrosis, part 2: moderately invasive and invasive procedures. *Cutis*. 2007b Apr;79(4):281-8.
45. Reisfeld R, Nguyen R, Pnini A. Endoscopic thoracic sympathectomy for hyperhidrosis: experience with both cauterization and clamping methods. *Surg Laparosc Endosc Percutan Tech*. 2002 Aug;12(4):255-67.
46. Rzany B, Spinner DM. Interventions for localized excessive sweating (Cochrane Review). In: *The Cochrane Library*, Issue 3, 2000. Oxford: Update Software.
47. Seo SH, Jang BS, Oh CK, Kwon KS, Kim MB. Tumescant superficial liposuction with curettage for treatment of axillary bromhidrosis. *J Eur Acad Dermatol Venereol*. 2008 Jan;22(1):30-5.
48. Shellow WV. Disturbances of skin hydration: dry skin and excessive sweating. In: Goroll AH, Mulley AG, editors. *Primary Care Medicine*. 6th ed. Philadelphia, PA; Lippincott Williams and Wilkins; 2008. Ch 183.
49. Solish N, Bertucci V, Dansereau A, Hong HC, Lynde C, Lupin M, et al.; Canadian Hyperhidrosis Advisory Committee. A comprehensive approach to the recognition, diagnosis, and severity-based treatment of focal hyperhidrosis: recommendations of the Canadian Hyperhidrosis Advisory Committee. *Dermatol Surg*. 2007 Aug;33(8):908-23.
50. Thomas I, Brown J, Vafaie J, Schwartz RA. Palmoplantar hyperhidrosis: a therapeutic challenge. *Am Fam Physician*. 2004 Mar 1;69(5):1117-20.
51. Wang YC, Wei SH, Sun MH, Lin CW. A new mode of percutaneous upper thoracic phenol sympathicolysis: report of 50 cases. *Neurosurgery*. 2001 Sep;49(3):628-34; discussion 634-6.
52. Wollina U, Köstler E, Schönlebe J, Haroske G. Tumescant suction curettage versus minimal skin resection with subcutaneous curettage of sweat glands in axillary hyperhidrosis. *Dermatol Surg*. 2008;34(5):709-716.
53. Zacherl J, Imhof M, Huber ER, Plas EG, Herbst F, Jakesz R, Fugger R. Video assistance reduces complication rate of thoracoscopic sympathectomy for hyperhidrosis. *Ann Thorac Surg*. 1999 Oct;68(4):1177-81.

Policy History

Pre-Merger Organizations	Last Review Date	Policy Number	Title
CIGNA HealthCare	1/15/2008	0037	Hyperhidrosis Treatments
Great-West Healthcare	11/20/2006	04.245.03	Hyperhidrosis Treatment

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