Hyperhidrosis:
assessment and management in general practice

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What is hyperhidrosis?

Hyperhidrosis is a chronic condition involving overreactive eccrine sweat glands. Sweating is an autonomic response to regulate body temperature in warm external environments. Depending on severity, impact on quality of life can be significant and some patients may need mental health support.[1]

This clinical practice article describes how GPs can comprehensively assess and manage patients presenting with excessive sweating.

Primary and secondary hyperhidrosis

Localised hyperhidrosis can be primary or secondary. It is focal to one or more areas of the body, commonly affecting the scalp, face, axillae, palms, and soles of the feet. Generalised hyperhidrosis affects the entire body and is predominantly secondary.[2]

Primary hyperhidrosis commonly starts during childhood or adolescence. It is believed to be caused by overactive hypothalamic thermoregulation,[3] is commonly focal, and in 30%–50% of cases a family history is reported.[2] People with primary hyperhidrosis may find that the disease persists or improves as they age.

Secondary hyperhidrosis can start at any age. Causes are listed in Box 1.

Impact on patients

Prevalence of hyperhidrosis in the UK is unknown as it is underreported and underdiagnosed.[2] Hyperhidrosis typically causes visible sweat and wet clothes, which can have an adverse effect on personal and professional relationships. Palmar hyperhidrosis can affect manual tasks, such as writing, using tools, and playing instruments.[4] Plantar hyperhidrosis can ruin footwear and make the feet more prone to pompholyx or secondary bacterial or fungal infection.[3]

Assessment

History taking should explore location, distribution, and symmetry of sweating to ascertain if it is focal or generalised. The GP should ask about associated triggers, age of onset, and frequency and duration of episodes. If patients sweat during the night, infective (tuberculosis) or malignant (liver cancer, myeloma, leukaemia, lymphoma, mesothelioma, and carcinoid tumours) causes should be explored. Associated symptoms such as weight loss or palpitations may indicate a secondary cause. A full drug history and any symptoms associated with medication, drug misuse, or alcohol should be noted. Family history, comorbidities, and psychosocial impact are also important. The hyperhidrosis disease severity scale (HDSS) is a validated tool for assessing severity (Box 2).

On examination, consider body mass index (BMI), signs of underlying disease, and any complications, which include bromhidrosis (odorous sweat), skin maceration, intertrigo, and overlying infection.

Primary localised hyperhidrosis is a clinical diagnosis where sweating is visible, excessive, focal, and has no apparent cause. Further diagnostic criteria include: a duration of more than 6 months and/or occurrence in at least one focal area; bilateral and approximately symmetrical sweat pattern; positive family history; frequency of at least twice a week; interference with daily activities; onset before the age of 25; and cessation during sleep (unlike secondary hyperhidrosis).[1,5]

Box 1. Causes of secondary localised and generalised hyperhidrosis

Causes of secondary localised hyperhidrosis	Causes of secondary generalised hyperhidrosis
• Auriculotemporal syndrome (gustatory hyperhidrosis, triggered by eating and thinking about food) • Spinal and peripheral nerve damage • Surgical trauma • Surgical sympathectomy • Chronic anxiety • Stroke and brain tumour[3]	• Obesity • Diabetes • Infection • Overactive thyroid • Endocrine tumours • Cardiovascular disease • Parkinson's • Hodgkin lymphoma • Menopause • Respiratory failure • Medications such as corticosteroids, cholinesterase inhibitors, opioids, and antidepressants[1,3]

Box 2. The validated hyperhidrosis disease severity scale (HDSS)

My sweating is never noticeable and never interferes with my daily activities (1 point)
My sweating is tolerable but sometimes interferes with my daily activities (2 points)
My sweating is barely tolerable and frequently interferes with my daily activities (3 points)
My sweating is intolerable and always interferes with my daily activities (4 points)
A score of 1–2 points signals mild-to-moderate disease, while 3–4 points is moderate-to-severe[5]

If secondary (localised or generalised) hyperhidrosis is suspected, investigation and/or specialist referral should be made to the appropriate specialty. If symptoms and signs are non-specific, full blood count, C-reactive protein, urea and electrolytes, liver function tests, HbA1c, thyroid function tests, and chest X-ray should be checked to investigate possible causes.[2] The validated HDSS enables patients to rate the severity of their disease on a scale of one to four using four statements (Box 2). If appropriate, blood film should be examined for malarial parasites. Testing for HIV, tuberculosis, phaeochromocytoma, and carcinoid tumours should also be considered.[2]

Management

Where hyperhidrosis is suspected, patients should be helped to identify and avoid likely triggers. If the hyperhidrosis affects the axillae or trunk of the body, the GP should recommend use of loose clothing made of natural fibres, a trial of regular over-the-counter antiperspirants, and underarm pads, which are available for axillary hyperhidrosis. For plantar hyperhidrosis, moisture-wicking socks and insoles can be used. GPs should recommend leather shoes and, where possible, shoes with an open design.[2]

Topical aluminium chloride antiperspirants can be prescribed and used as long-term or 'as-needed' treatment. Studies have shown that aluminium salts can be up to 80% effective in the treatment of mild-to-moderate hyperhidrosis.[6] They can however cause skin irritation and are best used on clean, dry skin at night and then washed off the following morning. Mild topical steroids can be used if irritation occurs.[2]

If there is no improvement after 6 weeks, alternative treatments or advice or referral to dermatology can be considered. Topical and oral antimuscarinics, such as oxybutynin, have been found to reduce eccrine sweating and can be initiated in general practice. Oral propantheline bromide is the only licensed medication for generalised hyperhidrosis in the UK (Table 1). Side effects include blurred vision (due to dry eyes), dry mouth, constipation, and urinary retention.

Dermatology may offer higher-strength aluminium chloride preparations, although at present these may be unavailable in secondary care. Oral beta-blockers, calcium channel blockers, alpha-adrenergic agonists, and anxiolytics have also been used with success in some patients.[3,4,6] Oral glycopyrronium bromide is only available as a British Association of Dermatologists special medication.

Iontophoresis can be used to treat focal hyperhidrosis. Maintenance treatment is required every 1–4 weeks. Side effects include local discomfort and irritation.[2,3] Botulinum A toxin can also be used for focal hyperhidrosis but results are short term and specific funding requests may be necessary in some regions. Surgical (liposuction) or laser removal of sweat glands, primarily in the axillae, can be carried out under local anaesthetic. In extreme cases, endoscopic thoracic sympathectomy (ETS) can be used to treat focal disease. However, complications can include pneumothorax, significant bleeding, pneumonia, compensatory sweating, and persistent pain.[2,3,6]

Emerging treatments

In 2023, topical glycopyrronium bromide cream was approved in various European countries for axillary hyperhidrosis. Other topical treatments currently being trialled worldwide include sofpironium bromide and glycopyrrolate.[5]

Use of targeted alkali thermolysis (TAT) technology, applied using a patch to the axillary area, has been approved in the US as an off-label treatment. The patch is applied for up to 3 minutes and uses thermal energy to temporarily de-activate sweat glands.[5,7]

Summary

Hyperhidrosis substantially impacts on a patient's activities of daily living. Through a detailed assessment and management plan, GPs can help patients control their symptoms and improve quality of life. For further support, patients can be directed to Hyperhidrosis UK[8] and the International Hyperhidrosis Society,[5] both of which offer comprehensive online resources.

Table 1. Oral medications

Oral medication	Dosing	Side effects/special instructions
Oxybutynin	2.5 mg OD. Increase gradually to 5 mg BD as tolerated	Dry eyes and dry mouth common
Propantheline bromide	15 mg TDS and 30 mg before bed. Maximum 120 mg per day	Take 1 hour before food
.	40 mg OD to increase to TDS	

BD = 2 times a day. OD = once a day. TDS = 3 times a day.

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Funding
Faraz Mughal, Doctoral Fellow, is funded by the National Institute for Health and Care Research (NIHR) (reference: 300957). The views in this article are those of the authors, and not necessarily those of the NIHR, NHS, or the Department for Health and Social Care.

Provenance
Freely submitted; externally peer reviewed.

Competing interests
The authors have declared no competing interests.

DOI: https://doi.org/10.3399/bjgp24X737361

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