NEWS, VIEWS, AND REVIEWS

The State of Primary Hyperhidrosis: Therapeutic Advancements and National Representation

Nikkia Zarabian BS, Mina Farah BA, Caroline Clark MD, Emily Nadelmann MD FAAD, Adam Friedman MD FAAD

Department of Dermatology, George Washington University School of Medicine and Health Sciences, Washington, DC

INTRODUCTION

Hyperhidrosis (HH) is defined as excessive sweating beyond the physiologic requirements of thermoregulation.[1] HH is classified as either primary (idiopathic) or secondary to an underlying medical condition or medication.1 Primary hyperhidrosis (PHH), the most common form of HH, affects nearly 93% of patients with HH and 2.8–4.8% of the U.S. population.[1,2] Although the exact pathophysiology of PHH is unknown, it is proposed to result from overstimulation of cholinergic receptors on eccrine sweat glands concentrated in the axilla, face, palms, and soles, as well as an impaired acetylcholine negative feedback loop.[3] A genetic predisposition has also been suggested, as 30–60% of patients with PHH report a positive family history.[1]

The diagnosis of PHH is primarily clinical and relies on a comprehensive history and physical examination. Diagnostic criteria include excessive sweating for at least six months without apparent cause, and at least two of the following criteria: symmetrical bilateral distribution, occurrence at least once a week, age of onset prior to 25 years, positive family history, disruption of daily activities, and absence of nocturnal sweating.[4] PHH can have a profound psychosocial impact, with nearly 48% of patients reporting a poor or very poor quality of life and higher rates of depression and anxiety compared to the general population.1 Disease management is also burdensome, with reports of patients spending approximately 15–60 minutes per day managing symptoms.1

Further complicating the patient experience, HH has historically been underrecognized and undertreated due to limited awareness among the public and within medical communities, which perpetuates its ongoing stigmatization.[5] Delays in care-seeking are common, with nearly half of patients reporting that they waited 10 years or longer before seeking medical attention.[6] In a study of 511 patients with HH, 36.8% reported a diagnostic delay exceeding ten years.[7] In another study of over 8,000 individuals with HH, only 51% reported discussing their condition with a healthcare practitioner, primarily due to a lack of awareness that HH is a medical condition, followed by unfamiliarity with available treatment options.[2]

Given the significant psychosocial burden and longstanding underrecognition of HH, continued advancement in therapeutic options and increased public and professional awareness are essential for improving disease management and reducing stigma. As such, this paper provides an overview of recent updates to the US Food and Drug Administration (FDA)-approved treatments for HH and examines the representation of HH across major national dermatology podiums over the past year.

Updates in FDA-Approved Treatments for PHH

Management strategies for PHH vary based on disease location and severity and may include topical treatments (antiperspirants and anticholinergics), systemic medications (oral anticholinergics, adrenergic modulators), device-based therapies (iontophoresis, microwave thermolysis), injectable options (botulinum toxin), and surgical interventions (sympathectomy, excision, liposuction/curettage).1 Over the past decade, the FDA has approved two new topical pharmacologic treatments for PHH, including glycopyrronium tosylate (GT) and sofpironium bromide (SB) topical gel.

In 2018, the FDA approved topical GT for the treatment of primary axillary hyperhidrosis (PAH) in patients aged 9 years and older.[8] GT is administered once daily using a pre-moistened cloth containing 2.4% glycopyrronium (equivalent to 3.75% GT), which competitively blocks muscarinic acetylcholine receptors on sweat glands, thereby reducing sweat production.[1,8] Two phase III randomized, double blind, vehicle-controlled clinical trials, ATMOS-1 (n=344) and ATMOS-2 (n= 353), evaluated the efficacy and safety of 2.4% glycopyrronium applied once daily to both axillae for four weeks.[8] Both trials demonstrated significant reductions in patient-reported severity of axillary sweating, with improvements observed as early as week one.[8] Treatment-emergent adverse events (TEAEs) were reported in 33.9% of GT-treated patients in ATMOS-1 and 44.0% in ATMOS-2. Most TEAEs were mild to moderate and transient, including dry mouth, mydriasis, blurry vision, urinary hesitancy, and application site reaction.[8]

In 2024, the FDA approved SB 15% (12.45% sofpironium) gel, another topical anticholinergic therapy, for PAH in patients aged 9 years and older.[9] SB was developed using a retro-metabolic drug design, allowing rapid inactivation into non-toxic metabolites after exerting a local therapeutic effect. This strategy aimed to increase localized efficacy and reduce adverse effects.[9] Two multicenter, randomized, vehicle-controlled, phase III clinical trials, CARDIGAN-1 (n=350) and CARDIGAN-2 (n=351), evaluated its efficacy and safety in patients with PAH.[9] At day 43, nearly 49% of SB-treated patients in CARDIGAN-1 and 64% of SB-treated patients in CARDIGAN-2 achieved a ≥2 point reduction in the Hyperhidrosis Disease Severity Measure-Axillary, 7-item scale (HDSM-Ax-7).[9]TEAEs were reported in 35.8% of SB-treated patients in CARDIGAN-1 and 45% in CARDIGAN-2

and included blurred vision, dry mouth, mydriasis, urinary retention, dry eyes, constipation, and local site reaction.[10] Again, the majority of these were mild to moderate and resolved after discontinuation.[9]

Despite promising results demonstrating efficacy in PHH treatment, GT and SB are only approved for PAH. There remains a substantial unmet need for effective treatments of non-axillary sites or severe disease that is not adequately controlled with topical therapy. Additionally, anticholinergic adverse effects may limit tolerability and adherence in some patients.

National Representation

In addition to therapeutic advancements, continuing medical education of board-certified dermatologists and trainees regarding HH and its management is critical. While national dermatology conferences often provide educational sessions on inflammator skin diseases, skin cancer, and aesthetic procedures, HH remains underrepresented. A review of agendas from 10 of the largest U.S. dermatology conferences over the past year demonstrated that only three included dedicated HH sessions (Table 1). Among the three meetings, each offered only a single session, despite the total number of sessions ranging from approximately 90 to over 300 sessions.

HH has a prevalence comparable to that of psoriasis (~3%), a condition consistently represented at national meetings.[11] The relative paucity of HH-focused programming underscores the need for increased representation of HH and highlights an underutilized opportunity for clinicians to gain valuable educational exposure.[11] Given the expanding therapeutic landscape for PHH, including two FDA approvals within the past decade, limited podium representation at national dermatology meetings may reflect the historical underrecognition of HH.[5] With growing evidence affirming HH as a highly prevalent and burdensome disease state, greater inclusion of HH at national meetings is warranted to ensure clinicians remain informed to better validate the patient experience.

Table 1. Representation of hyperhidrosis at major US dermatology conferences within the past year (February 2025 – February 2026).

Meeting	Inclusion of Hyperhidrosis in Agenda	Number of Sessions on Hyperhidrosis
Dermsquared 2025 Winter Clinical Dermatology Conference	No	N/A
American Academy of Dermatology 2025 Annual Meeting	Yes	1
Music City SCALE 2025	Yes	1
Las Vegas Dermatology Seminar 2025	No	N/A
Dermsquared 2025 Fall Clinical Dermatology Conference	No	N/A
Mount Sinai 2025 Winter Symposium	No	N/A
Maui Derm Hawaii 2026	No	N/A
ODAC Dermatology Conference 2026	No	N/A
2026 South Beach Symposium	Yes	1
Masterclasses in Dermatology 2026 Annual Meeting	No	N/A

In efforts to increase knowledge within the medical community, the International Hyperhidrosis Society (IHHS) has expanded its educational and outreach initiatives to provide comprehensive information and resources from leading experts in the field.5 The IHHS provides detailed overviews of treatment options that may be easily referenced by patients and providers to ultimately help address persistent gaps in care.[5]

CONCLUSION

Despite its prevalence and substantial psychosocial impact, HH remains historically underrecognized, undertreated, and stigmatized. Over the past decade, two new FDA-approved topical anticholinergic therapies have emerged for PHH. However, both are limited to approval for axillary disease, highlighting a significant unmet need for patients with multifocal involvement, non-axillary disease, or inadequate response to topical therapies. Additionally, limited focus on HH and its management in the agendas of major U.S. dermatology conferences underscores an important opportunity to enhance clinician education, increase awareness, and expand visibility of HH in academic and professional forums.

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AUTHOR CORRESPONDENCE

Adam Friedman MD FAAD

E-mail:..... ajfriedman@mfa.gwu.edu