Annual Economic Burden of Hidradenitis Suppurativa in Greece: A Cross-Sectional Patient Survey

ISPOR Europe 2026
8 - 11 November
PCR258

Garyfallia Stefanou, MSc[1], Efterpi Zafiriou, PhD[2], Aikaterini Liakou, PhD[3], Soultana Koukopoulou, PhD[4], Eirinaios Vamvakousis, MSc[4], Georgia Kourlaba, PhD[5].
[1]ECONCARE LP, Athens, Greece, [2] Dermatology Department, University of Thessaly, Larissa, Greece, [3] Department of Dermatology – Venereology, Andreas Sygros Hospital of Venereal and Cutaneous Diseases, National and Kapodistrian University of Athens, Athens, Greece, [4] Panhellenic Society of Patients with Psoriasis and Psoriatic Arthritis 'EPIDERMIA', Thessaloniki, Greece, [5] Department of Nursing, Faculty of Health Sciences, National and Kapodistrian University of Athens, Athens, Greece.

Introduction

- Hidradenitis suppurativa (HS) is a chronic inflammatory skin disease associated with substantial healthcare needs, impaired quality of life, and work-productivity losses [1,2].
- Recent European studies have demonstrated considerable economic burden associated with HS, particularly among patients with moderate-to-severe disease [1,3].
- Evaluating costs from public payer, patient, and societal perspectives provides a broader understanding of the economic burden of HS.

Objective

To estimate the annual per-patient economic burden of HS in Greece from public payer, patient, and societal perspectives, overall and by self-reported disease severity.

Methods

Study design & data collection

- A cross-sectional study was conducted between June and October 2025 among 100 adults with HS diagnosed ≥12 months earlier, recruited through the Greek patient association EPIDERMIA.
- Structured interviews were conducted by an EPIDERMIA representative, with responses recorded in Google Forms. Data included sociodemographic and clinical characteristics, self-reported disease severity, and treatment history.
- Cost-related data collection covered outpatient visits, surgeries, hospitalisations, biologic treatment duration and dosing frequency, and out-of-pocket expenditures. Healthcare resource use and expenditures were assessed over the preceding 12 months.

Cost-of-illness assessment

- Annual HS-related costs were estimated in 2025 euros from public payer, patient, and societal perspectives.
- Public payer costs were valued using Greek national health insurance reimbursement tariffs, diagnosis-related group (DRG) tariffs, and biologic treatment costs derived from dosing schedules, treatment duration, and drug prices.
- Patient costs comprised self-reported out-of-pocket healthcare expenditures.
- Societal costs combined direct healthcare costs with productivity losses from absenteeism and presenteeism, estimated using the WPAI-SHP (7-day recall) and annualised over 49 working weeks.

Statistical analysis

- Economic analyses were restricted to 98 participants with available total payer-cost data.
- Mean annual costs and 95% bias-corrected and accelerated (BCa) bootstrap confidence intervals were estimated using 5,000 resamples.
- Costs were compared across disease-severity groups using Kruskal–Wallis tests.

Results

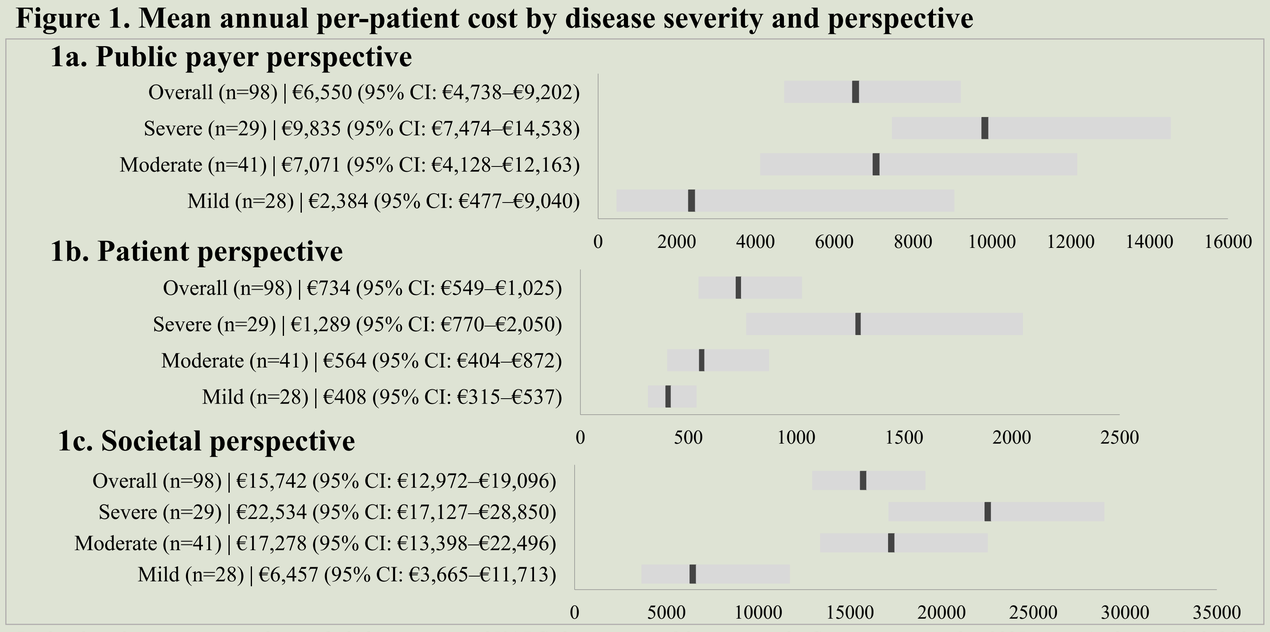
Study population:

- The study included 100 adults with HS: 29% with mild, 41% with moderate, and 30% with severe disease.
- Median age was 43.5 years (Q1–Q3: 37–53), and 56% were male.
- Overall, 61% were classified as obese, 52% were current smokers, 56% had at least a bachelor's degree, and 50% had children.
- Economic analyses included 98 participants (mild: n=28; moderate: n=41; severe: n=29).

Annual economic burden

- Mean annual public payer and societal costs differed significantly across HS severity groups (both $p<0.001$), reaching approximately 4.1-fold and 3.5-fold higher levels, respectively, in severe compared with mild HS.
- Patient out-of-pocket costs were numerically higher in severe disease, although differences across severity groups were not statistically significant (p=0.831).

Figure 1. Mean annual per-patient cost by disease severity and perspective

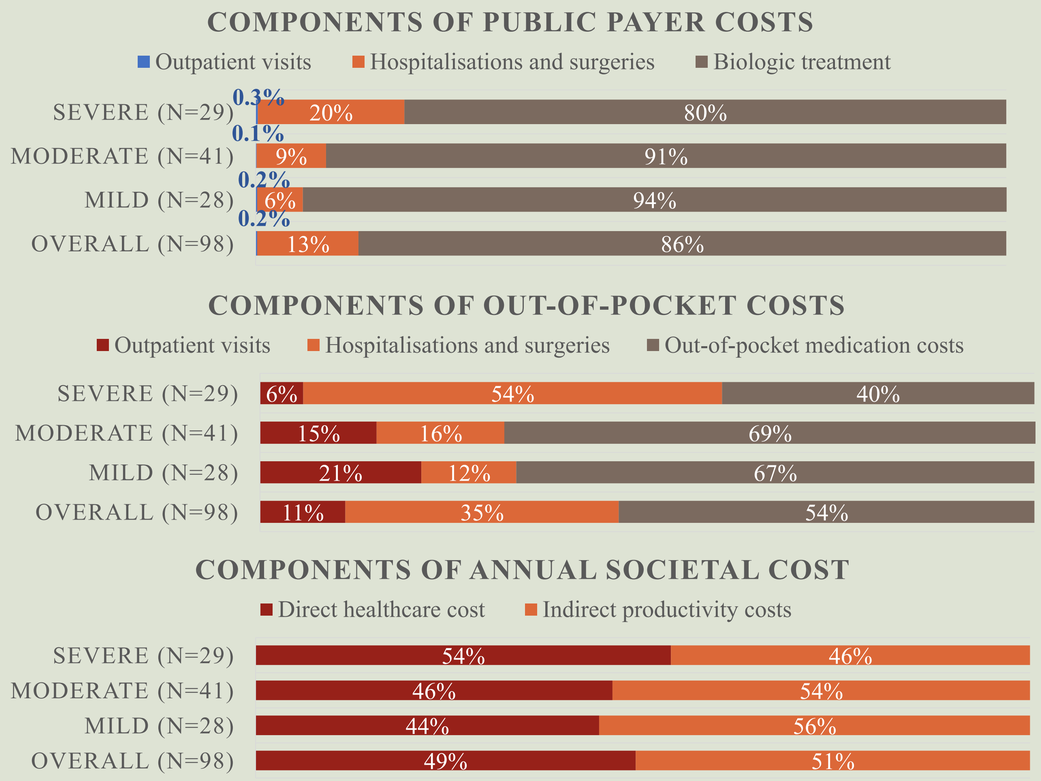


Dark ticks indicate mean annual costs; light bars represent 95% BCa bootstrap confidence intervals. Costs are expressed in 2025 euros. Analyses included 98 patients (mild: n=28; moderate: n=41; severe: n=29).

Contributors to the annual economic burden

- **Public payer costs:** Biologic treatment was the predominant cost component (86% overall). The relative contribution of hospitalisations and surgeries increased with disease severity, from 6% in mild HS to 20% in severe HS.
- **Patient out-of-pocket costs:** Hospitalisations and surgeries accounted for a larger proportion of out-of-pocket costs in severe than mild HS, whereas medication expenditures represented a smaller share. Differences in absolute component costs across severity groups were not statistically significant.
- **Indirect costs:** Productivity losses accounted for 51% of total societal costs. Presenteeism represented approximately 94% of indirect costs and differed significantly across severity groups (p=0.005), whereas absenteeism did not (p=0.089).

Figure 2. Main contributors to the annual economic burden of HS



Stacked bars show the proportional contribution of mean annual cost components within each perspective and disease-severity group. Percentages are rounded and calculated using perspective-specific denominators.

Table 1. Mean annual per-patient cost components

1a. Public payer cost components

Cost component	Overall (N=98)	Mild (n=28)	Moderate (n=41)	Severe (n=29)	p-value
Outpatient visits	€14 (10–23)	€5 (2–11)	€9 (6–15)	€30 (20–61)	<0.001
Hospitalisations and surgeries	€883 (617–1,385)	€145 (42–349)	€654 (395–1,003)	€1,919 (1,192–3,244)	<0.001
Biologic treatment	€5,653 (3,936–8,316)	€2,235 (373–9,363)	€6,408 (3,474–11,510)	€7,886 (5,735–12,882)	<0.001

1b. Direct out-of-pocket healthcare cost

Cost component	Overall (N=98)	Mild (n=28)	Moderate (n=41)	Severe (n=29)	p-value
Outpatient visits	€81 (63–105)	€85 (64–111)	€85 (59–121)	€72 (34–134)	0.052
Hospitalisations and surgeries	€259 (129–526)	€50 (0–193)	€93 (24–327)	€697 (290–1,452)	0.105
Out-of-pocket medication costs	€394 (306–536)	€273 (195–387)	€387 (277–586)	€520 (324–930)	0.799

1c. Indirect cost

Cost component	Overall (N=98)	Mild (n=28)	Moderate (n=41)	Severe (n=29)	p-value
Indirect productivity costs	€8,017 (6,480–9,989)	€3,593 (2,017–7,702)	€9,316 (6,939–11,993)	€10,450 (7,136–14,849)	0.003
Absenteeism	€496 (254–955)	€63 (0–317)	€708 (246–1,749)	€613 (245–1,246)	0.089
Presenteeism	€7,521 (6,058–9,466)	€3,529 (1,972–7,702)	€8,608 (6,354–11,287)	€9,837 (6,630–14,221)	0.005

Values are mean annual costs (95% BCa bootstrap CI), expressed in 2025 euros. Between-group comparisons used Kruskal–Wallis tests. Analyses included 98 participants.

Limitations

- Voluntary recruitment through a patient organisation and the relatively small sample may limit representativeness.
- Disease severity, healthcare utilisation, and out-of-pocket expenditures were self-reported and subject to recall and reporting bias.
- Cost estimates relied partly on reimbursement and treatment assumptions and publicly reimbursed non-biologic medication costs were not included.
- Annual productivity costs were extrapolated from the WPAI 7-day recall period over 49 working weeks, potentially overlooking variation throughout the year.

Conclusions

- HS was associated with a substantial estimated annual economic burden among surveyed patients in Greece, with higher public payer and societal costs in more severe disease.
- Biologic treatment was the principal captured payer-cost component, while productivity losses, particularly presenteeism, represented a substantial proportion of societal costs.
- These findings highlight the importance of considering both healthcare expenditure and work-productivity losses in HS disease-burden assessments and healthcare resource planning.

References: [1] A. Balato et al., Dermatol. Ther. (Heidelb.), vol. 15, no. 7, pp. 1771–1785, Jul. 2025; [2] S. A. Merchant and S. F. H. Shah, Clin. Exp. Dermatol., vol. 49, no. 10, pp. 1156–1163, Oct. 2024; [3] E. Vilarrasa et al., Dermatol. Ther. (Heidelb.), vol. 16, no. 3, pp. 1739–1756, Mar. 2026.

Funding The authors did not receive any external funding for conducting this study.

Acknowledgements
We thank all patients who participated in this study, as well as the staff of EPIDERMIA, for their valuable contributions to this research.

Correspondence

Georgia Kourlaba; kurlaba@nurs.uoa.gr