

The Hidden Societal Burden of Chronic Spontaneous Urticaria in South Korea and Taiwan: A Cost-of-Illness Study

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KEY FINDINGS & CONCLUSIONS

- Reducing the societal burden of CSU requires:
- Earlier CSU diagnosis: Improve early recognition of CSU and support timely.
 - Timely treatment escalation: Use guideline-based escalation to optimise antihistamine up-dosing and escalation to advanced therapy options
 - Improved access to effective treatment options: Expand reimbursement to include advanced CSU therapies where absent, streamline repeat prescription to reduce administrative burden and support timely initiation of treatment

This study is sponsored by Novartis Asia Pacific Pharmaceutical
Poster presented at ISPOR APAC 2026, held on 6-8 September, 2026, in Bangkok, Thailand.

INTRODUCTION

- Chronic Spontaneous Urticaria (CSU) is a chronic inflammatory disease characterized by recurrent hives (wheals) and/or angioedema lasting >6 weeks without an external trigger¹. It is driven by mast-cell hyperreactivity via autoallergic and autoimmune mechanisms, not by food or environmental allergies.¹
- Symptoms range from daily itch and wheals to severe flares and airway-threatening angioedema². Flares are unpredictable, often worse at night, and disrupt sleep, concentration, and daily functioning³.
- CSU disproportionately affects working age adults and women:
 - 64%-78% of CSU patients are aged 18 to 67⁴
 - 56%-64% of CSU patients are women⁵
- Working age CSU patients balance paid employment and unpaid caregiving responsibilities (e.g. caregiving for children, family members)⁶; the burden of disease extends beyond healthcare utilization, yet such impacts are rarely captured in payer / budget impact analyses.

OBJECTIVES

- Estimate the annual socioeconomic burden of CSU in South Korea and Taiwan
- Identify the principal cost drivers in each market, distinguishing between costs that are borne by public healthcare system, out-of-pocket (OOP) costs by patients and households, and on society
- To explore policy implications for how CSU can be recognized and addressed as a chronic condition

METHODS

- Prevalence-based, annual cost-of-illness model adopting a societal perspective and disaggregated by payer and patient perspective. The calculation adheres to ISPOR guidelines for economic evaluation and was informed by the WiFOR Institute's socioeconomic footprint methodology⁷.
- Costs are organized into three categories:
 - **Direct medical:** physician consultations, Emergency Department (ED) visits, hospitalisations, diagnostics, prescription medicines across treatment lines. These costs include patient's co-payment portion as OOP component.
 - **Direct non-medical:** patient/household spending outside formal care such as transportation, childcare, paid domestic help, counselling, traditional medicine and supplements, relevant lifestyle adjustments. These costs are captured as OOP component.
 - **Indirect:** absenteeism (missed workdays), presenteeism (reduced on-the-job productivity), and unpaid caregiving (family time), valued using human-capital approach.
- Inputs to inform cost calculation and disease burden were collected through two phases:
 - Targeted literature review covering epidemiology, treatment patterns, and labour-market parameters;
 - Qualitative interviews with 8 practising specialists (dermatologists, allergist, immunologists, rheumatologists, 4 per market) conducted March-April 2026 to validate real-world treatment patterns, healthcare resource utilization, direct non-medical costs and productivity impacts.
- Costs reported in 2025 USD using exchange rates of 1 United States Dollar (USD) = 1,421 Korean Won (KRW) = 31.17 New Taiwan Dollar (NTD).

RESULTS

Total annual economic burden of CSU (Societal perspective)

Table 1: Summary table of all real-world data source types by country (2025)

Market	Patients (n)	Cost per patient (USD)^	Total annual cost (USD)^	% of GDP^
South Korea	232,502 ^a	4,944	1.15 billion	0.06% ^c
Taiwan	145,700 ^b	6,292	0.92 billion	0.10% ^c
Total	-	-	2.07 billion	—

a. Kim et al (2018)⁸, b. Tang et al (2015)⁹, c. Worldometer (2025)¹⁰

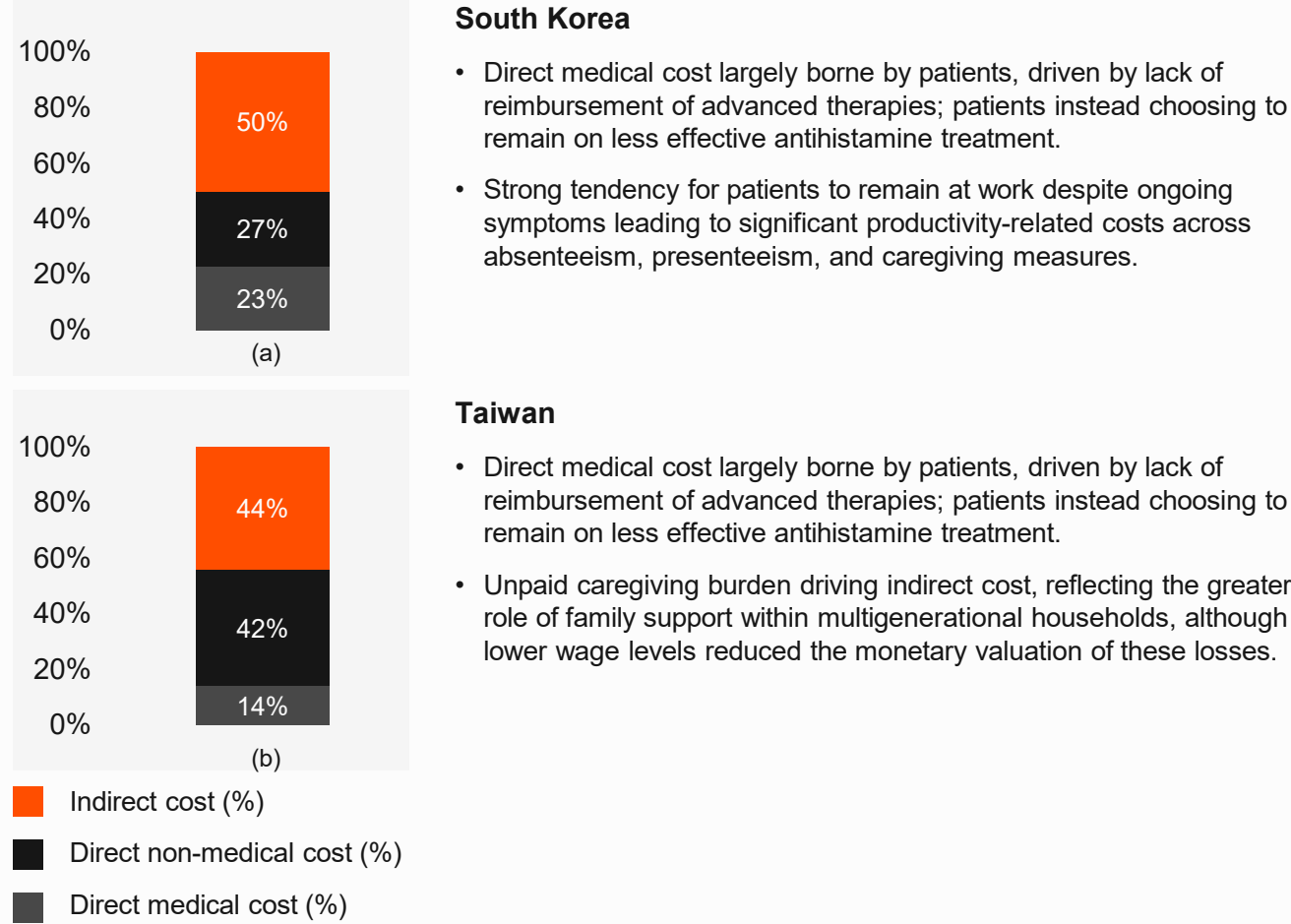
^Derived from economic model calculation

Across both markets, indirect and direct non-medical costs accounted for the majority of the societal burden despite differences in healthcare financing and reimbursement systems.

Cost breakdown

- 77% (South Korea); 86% (Taiwan) of societal costs (comprising of direct non-medical cost and indirect costs) are borne by patients, households and employers rather than payers⁴.

Figure 1: Cost breakdown in (a) South Korea and (b) Taiwan



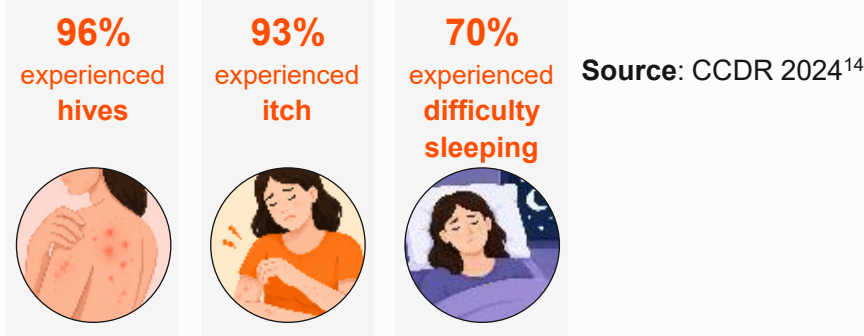
Clinical and Humanistic burden

Across both markets analysed, mental health impact was consistently identified as the most under-recognized dimension of CSU.

- Approximately 1 in 3 CSU patients may experience clinically significant anxiety and/or depression¹³.
- Interviewed specialists reported that the unpredictable nature of CSU contributes substantially to its sleep impairment, driving anxiety and reduced quality of life.
- Despite psychological distress and suicidal ideation being consistently identified as core manifestations of the disease, CSU is often under-recognized and under-captured in claims data.

The costs incurred are absorbed by patients, families, employers and broader healthcare system, resulting in full socioeconomic impact of poorly controlled CSU remaining under-recognized within healthcare policy.

Figure 2: Clinical symptoms and quality of life impact



The interviewed specialists identified key structural problems to effective disease management:

Lack of timely escalation

- In South Korea, patients often remain in primary care for months to years before specialist referral, delaying access to advanced therapies¹⁵.
 - At least 50% of patients remain inadequately controlled with standard-dose antihistamines¹⁴, while biologics cannot typically be initiated in primary care.

Lack of treatment options

- Limited advanced therapy options in both markets
 - Based on specialists' interviews, for CSU patients requiring advanced therapy the treatment ladder narrows to a single biologic (omalizumab), followed by ciclosporin, highlighting the need for additional advanced therapies.
- Lack of effective oral alternative therapy for CSU in both markets
 - According to 50% of interviewed specialists, patient preference for oral alternatives to reduce injection burden, earlier intervention with oral therapy with favourable safety profile and reduced resource cost for injection visits prompted the push for effective oral alternative therapy for CSU.

CONCLUSION

- A majority of costs attributed to CSU management are paid by patients, households and employers rather than payers. The estimation of direct medical costs may not fully capture out-of-pocket spending on non-reimbursed advanced therapies, which could lead to an underestimation of healthcare burden in markets where access relies on self-payment.
- Much of the societal burden arises from productivity loss, household spending and mental health impacts that remain largely invisible within conventional payer perspectives.
- Cost drivers are market specific: Productivity loss and advanced therapy costs paid out of pocket (South Korea), and household/caregiving costs (Taiwan) - each requiring distinct policy levers.
- Policy attention (such as reimbursement of advanced therapy) could redirect inefficient spending towards better patient outcomes, recognising CSU as a serious chronic disease.

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