BACKGROUND

• Atopic dermatitis (AD) is an immune-mediated, inflammatory skin disease characterized by pruritus, xerosis, and eczematous lesions.1
• AD most often presents for the first time in early infancy or childhood; however, in approximately 50% of cases, patients with AD persist into adult life, becoming a chronic, lifelong condition.2
• AD can also present for the first time in adults (adult-onset AD).3,4
• A recent study showed that the prevalence of adult AD is generally within a fairly narrow range across Europe, Canada, and Japan (2.1–4.4%).5

OBJECTIVE

• To analyze the burden of disease in European adult patients with AD (from the UK, Germany, France, and Spain) according to self-reported severity, encompassing comorbidities, mood, and sleep disorders, HCRU, work productivity and activity, and healthcare resource utilization (HCRU).

METHODS

• The National Health and Wellness Survey (NHWS) is an international, self-administered, internet-based healthcare survey administered annually to adults ≥18 years. It has been approved by the Pearl Institute Review Board (Indianapolis, IN, USA).
• The NHWS uses a random, stratified sampling framework (including sex, age, and race/ethnicity) to ensure it is representative of the demographic composition of the adult indigenous population.
• This was a post-analysis of 2016 NHWS data from the UK, Germany, France, and Spain.

Analytic population

• The analysis comprised NHWS adult respondents who indicated that they had ever experienced AD or had experienced AD in the past 12 months and that their AD had been diagnosed by a physician.

• AD patients taking a prescription medication for AD (topical therapy, corticosteroids or calcineurin inhibitors; antihistamines; systemic therapy; corticosteroids or immunosuppressants) were asked to rate their disease severity (“mild”, “moderate”, or “severe”) when using medication, and not using medication. The maximum severity across these two items was used for categorization of AD severity.

Comorbidities and mood disorders

• The self-reported prevalence of the following disorders was evaluated: atopic-related conditions (asthma, hay fever/seasonal allergies, urticaria), arthritis (aggregates of osteoarthritis, rheumatoid arthritis, and psoriatic arthritis), diabetes, hypertension, high cholesterol, osteoporosis/osteopenia, anemia, depression, and sleep disorders.

HDIQoL

• HDIQoL was assessed with the following instruments:
  • 36-Item Short-Form Health Survey (SF-36) to assess health-related quality of life.
  • The Dermatology Life Quality Index (DLQI) to evaluate AD severity.

Work productivity and activity impairment (WPAI)

• The WPAI questionnaire evaluated productivity and activity impairment during the past 7 days across four domains:
  • absenteeism (percentage of work time missed due to your health);
  • presenteeism (percentage of work time impaired due to your health);
  • overall work impairment (absenteeism + presenteeism);
  • activity impairment (percentage of activity impairment due to your health).

HCRU

• HCRU in the past 6 months included the number of traditional healthcare provider visits, emergency room (ER) visits, and hospitalizations.

Statistical analyses

• In inferential analyses, the chi-square test was used to compare categorical variables and the t-test to compare continuous variables between AD severity groups.
• Multivariate analyses (adjusting for demographics, including country) were also conducted to compare continuous variables between AD severity groups.

RESULTS

Analytic population

• The analysis population comprised 1850 European adult patients with AD, including 164 adults from the UK (9.5%), 188 from Germany (10.5%), 341 from France (18.2%), 457 from Italy (24.7%), and 683 from Spain (36.7%) (Table 1).
• Overall, 51.0% of adult AD patients rated their disease as “mild”, 36.7% as “moderate”, and 13.4% as “severe”.

• The age distribution of the adult AD population was 63.4 (SD 14.4) years; 75.5% were female, and 30.8% were full-time employment (Table 1).
• The proportion of females was higher among patients with “severe” AD (81.5%) than among patients with “mild” (68.1%) (P < 0.001) or “moderate” AD (70.5%) (P < 0.001).

• The number of ER visits and hospitalizations was low across the severity groups (adjusted mean, 0.1–0.5).

• In this analysis of NHWS data from European adult patients with AD, “severe” disease was associated with a substantially higher disease prevalence and greater disease burden compared with “mild” and “moderate” AD (all P < 0.001) (Table 2).
• Rates of anxiety, and sleep disorders were similarly high in the entire AD population; unlike depression, they were not significantly different between the severity groups (Figure 1).

• Additional, OLS scores were significantly higher (denoting poorer HDIQoL) for “severe” vs “moderate” and “severe” vs “mild” patients (both P < 0.001) (Table 2).

CONCLUSIONS

• In the analysis of NHWS data from European adult patients with AD, “severe” disease was associated with a substantially higher disease burden relative to “moderate” or “mild” disease.
• This was evidenced by an increased prevalence of atopic comorbidities, reductions in HRQoL, impairments in work productivity and activity, and increased healthcare resource utilization.
• These results suggest an urgent clinical need for more effective disease management strategies among moderate-to-severe AD patients.

WPAI

• Absenteeism was significantly greater in “severe” vs “moderate” and “severe” vs “mild” patients, and “severe” vs “moderate” patients; however, the differences were not statistically significant (Figure 2).
• Presenteeism was also significantly greater for “severe” vs “moderate” patients (P < 0.001) but the difference did not reach statistical significance for “severe” vs “mild” patients.

• Taking absenteeism and presenteeism together, overall work impairment was significantly greater in “severe” compared with “moderate” patients (35.0% vs 25.1%, P < 0.001), and numerically greater in “severe” compared with “mild” patients (20.3% vs 25.1%) (Figure 2).
• Likewise, activity impairment was significantly greater in “severe” patients (38.2%) compared with “moderate” patients (27.8%, P < 0.001) and numerically greater in “severe” patients vs “moderate” patients (34.8%) (Figure 2).

HCRU

• During the past 6 months, “severe” patients reported significantly more healthcare provider visits than “mild” (adjusted mean 9.8 ± 6.0, P < 0.001) and “moderate” (9.8 ± 6.9, P ≥ 0.02) patients.
• The number of ER visits and hospitalizations were low across the severity groups (adjusted mean, 0.1–0.3).
• These results are broadly consistent with a recent analysis of US NHIS data.8

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References

2. 2008;150:593–600.

Atopic comorbidities and mood disorders

• The prevalence of asthma was significantly higher in patients with “severe” AD (34.1%) than in “mild” AD (18.1% (P = 0.031)) and “moderate” AD (34.8%) (P = 0.185).

• Self-reported anxiety was high, and more prevalent in patients with “severe” AD (61.9%) compared with both “mild” AD (44.4% (P = 0.001) and “moderate” AD (48.3%) (P = 0.036). Rates of anxiety, and sleep disorders were similarly high in the entire AD population; unlike depression, they were not significantly different between the severity groups (Figure 1).