(2006–2011: 4·9%, 95% CI 2·8–8·6; 2012–2016: 16·3%, 95% CI 8·7–28·6) (Table 1). In absolute terms, this represented an increase from 726 500 to 2 035 600 psoriasis or PsA visits where an opioid was prescribed. Among visits where an opioid was prescribed, hydrocodone was the most commonly prescribed between 2006 and 2011 (77·7%), while oxycodone was the most common prescription between 2012 and 2016 (39·1%). While more than half (50·6%) of visits were to dermatologists, opioid orders were far less likely at visits to dermatologists (Table 1). Time period was associated with increased rates of opioid prescribing [adjusted odds ratio (aOR) 3·21, 95% CI 1·19–8·60]. Arthritis (aOR 3·69, 95% CI 1·21–11·3) and musculoskeletal diagnoses (aOR 3·15, 95% CI 1·07–9·24) were the only other covariates significantly associated with opioid prescribing. Among visits for adults without psoriasis or PsA, opioid prescribing also increased over time but to a lesser degree (2006–2011: 6·9%, 95% CI 6·4–7·4; 2012–2016: 10·3%, 95% CI 9·7–11·0).

Opioid prescribing at visits for psoriasis or PsA in the USA increased substantially from 2006–2011 to 2012–2016. Most opioid prescriptions were noted to be continued, potentially suggesting long-term utilization of opioids in patients with psoriasis or PsA. While changes in opioid use may have paralleled broader US opioid utilization trends, temporal increases were greater at visits for psoriasis and PsA. Notably, psoriasis is associated with several other painful comorbidities where opioids may be used, as well as mood disorders, which may modulate the perception of pain.[4]

A limitation of the study is that the NAMCS and NHAMCS do not include a specific category for rheumatologists, who are included in the 'other specialty' category. In addition, medications include both newly initiated prescriptions and prescriptions that patients were specifically instructed to continue taking during the visit. Thus, in some instances, opioid orders may be continued for other painful conditions not captured in the surveys, although in our multivariable analyses, associations with psoriasis and PsA persisted after controlling for arthritis and musculoskeletal diagnoses.

If opioid use is related to discomfort from psoriatic disease, better control of disease activity with improving treatment options may lead to reduced pain and opioid use over time. Nonetheless, our findings highlight that opioid utilization is increasingly common among patients with psoriasis and PsA, which is concerning given the chronic nature of these conditions, as well as their association with substance use disorders.[5]

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The use of hydroxychloroquine as a systemic treatment in erosive lichen planus of the vulva and vagina

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Dear Editor, Erosive lichen planus affecting the vulva and vagina (ELPV) is a rare inflammatory skin disease, presenting with painful erosions and severe scarring.[1] The disease course is persistent and often refractory to treatment: up to 45% of patients do not experience remission with topical treatments, and evidence for systemic treatments remains scarce.[2] Hydroxychloroquine (HCQ) is frequently used in daily practice as a first choice systemic therapy.[3] However, little evidence is

Table 1 Treatment characteristics of 15 patients with erosive lichen planus affecting the vulva and vagina

Treatment characteristics (n = 15)	Values
Dosage in mg/day, range	200–800
HCQ duration in months, median (range)	23·8 (4·1–81)
Total follow-up duration in months, median (range)	38 (4–123)
Time until response in months, median (range)	5 (1–18·5)
Responders	9 (60)
3 months	3 (20)
9 months	8 (53)
12 months	7 (47)
24 months	7 (47)
Patients with flare-ups	3 (20)
Flare-up duration in weeks, median (range)	11 (2·8–31·3)
Concomitant topical anti-inflammatory treatment	14 (93)
Topical corticosteroids	10 (67)
HCA 2·5%/estriol vaginal cream	4 (27)
Topical tacrolimus 0,1% ointment	7 (47)
Intralesional steroid injections	1 (7)
Experienced AE	8 (53)
Hearing loss (CTCAE 3)	1 (7)
Nausea (with weight loss) (CTCAE 2)	1 (7)
Infection (CTCAE 2)	3 (20)
Blurry vision (CTCAE 2)	1 (7)
Gastrointestinal disturbances (CTCAE 1)	3 (20)
Dizziness (CTCAE 1)	3 (20)
Infections (CTCAE 1)	2 (13)
Headache (CTCAE 1)	2 (13)
Fatigue (CTCAE 1)	1 (7)
Heart palpitations (CTCAE 1)	1 (7)
Hair loss (CTCAE 1)	1 (7)
Tinnitus (CTCAE 1)	1 (7)
General malaise (CTCAE 1)	1 (7)

Data are n (%) unless otherwise specified. AE adverse event; CTCAE, Common Terminology Criteria for Adverse Events (CTCAE grade 1–5: mild, moderate, severe, life-threatening, death); HCA, hydrocortisone; HCQ hydroxychloroquine.

available on use of HCQ for ELPV.[2] The aim of this study was to analyse the effectiveness and safety of HCQ in ELPV.

Adult patients diagnosed with ELPV and treated with HCQ between 2009 and 2020 were retrospectively analysed. Patients with insufficient clinical data, or patients who made a general objection to the use of their data in research were excluded. Informed consent was not collected, because of anonymous data processing and lack of care regimen interference. Due to this study's noninterventional character, the Medical Research Involving Human Subjects Act did not apply, and official approval by the medical ethics review committee was not required.

Clinical response was analysed using the Physician's Global Assessment score. Clinical response was defined as a decrease in physical signs for at least two consecutive hospital visits. A flare-up was defined as return to baseline disease activity or worsening of physical signs after initial response. Adverse events (AE) were graded in severity with the Common Terminology Criteria for Adverse Events (CTCAE).[4]

A total of 15 patients with ELPV treated with HCQ were analysed. Beforehand, five patients were excluded, because of insufficient clinical data (n = 4, all follow-up in a different hospital) and HCQ being used for another indication (n = 1). The median age was 55 years (range 23–82) and 67% were postmenopausal. The median diagnostic delay was 2 years (range 0–11). Overall, 87% (n = 13) had biopsy-proven lichen planus, nine of which were based on vulval biopsy. Other biopsy sites included the oral mucosa and skin. Oral lichen planus was present in 53% (n = 8).

Fourteen patients used concomitant topical treatment, mainly tacrolimus 0·01% ointment (47%), topical steroids (67%) and hydrocortisone/estriol vaginal creams (27%). HCQ was the first systemic treatment in 11 patients, whereas four had received one or more immunosuppressive drugs before, which were HCQ (n = 2), prednisolone (n = 2), methotrexate (n = 1) and ciclosporin (n = 1).

In this study, HCQ dosage, dependent on disease activity and tolerance, ranged between 200 and 600 mg, with one outlier of 800 mg in a patient who was a 'nonresponder'. In total, 60% (n = 9) responded to HCQ. At 3 months, all patients were still on HCQ, with three patients reporting improvement. At nine months, twelve patients were still on HCQ, with eight reporting improvement. Seven (47%) patients were still successfully on HCQ at 24 months. Reported dosages at initial response were 400 mg (n = 7) and 200 mg (n = 2). Further dose–response correlations could not be evaluated because of individual dosage fluctuations. Patients visited with a median 3-month interval (range 0·6–12·6). The median time to treatment response was 5 months (range 1–18·5). Median treatment duration was 23·8 months (range 4·1–81). Reasons for cessation included ineffectiveness (n = 6), AE (n = 1), development of malignancy (n = 1) and loss to follow-up (n = 2).

Three patients (20%) experienced disease flare-ups during treatment. Flare-ups resolved spontaneously or after dosage increase after a median of 11 weeks (range 2·8–31·3). Eight patients (53%) experienced AEs during treatment, most commonly infections and gastrointestinal complaints. AEs resolved after dosage lowering or additional treatment (Table 1).

Previous research has shown that ELPV is a difficult to treat condition.[2,3] This study suggests that HCQ can be an effective treatment in ELPV. Overall, 60% of the patients responded to HCQ, with almost half experiencing a long-term effect. AEs (53%) were mostly mild or moderate. Flare-ups (20%) resolved either after dosage increase or spontaneously.

Our response rate to HCQ was higher compared with the 36% success rate of a case audit review in ELPV.[3] Unfortunately, no dosages were described, making comparison difficult. Recently, Cline *et al.* reported a clinical improvement of

70% with methotrexate in ELPV,[5] exceeding our response rate. However, HCQ was better tolerated: only one patient stopped because of an AE, compared with 30% from methotrexate use.

Our results suggest that HCQ has a slow onset of action, as only 20% reported improvement at 3 months, but 53% had responded at 9 months. The time taken to respond may be overestimated, as data were collected retrospectively during hospital visits.

Limitations include the retrospective nature, the limited heterogeneous sample size and use of concomitant topical medication.

Although evidence about systemic treatment in ELPV is scarce, this study provides a broad view on treatment characteristics and safety of HCQ in ELPV in a daily care setting.[2] We conclude that HCQ can be an effective and safe treatment in ELPV. Future studies are needed to further assess effective systemic treatments for ELPV.

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Priority research questions in atopic dermatitis: an International Eczema Council eDelphi consensus

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Dear Editor, Recent advances in understanding the complex pathogenesis of atopic dermatitis (AD, also known as eczema or atopic eczema), coupled with the development of new treatments, have led to increased interest from multiple stakeholders. There is a need to prioritize areas for research to inform a coordinated approach to advancing science and patient care. We sought to fill a gap in the literature, specifically from the perspective of clinicians involved in AD patient care and research.

Our objective was to identify and reach consensus on a set of research questions to be prioritized for future work in AD. We conducted a three-round electronic Delphi (eDelphi) process with members of the International Eczema Council (IEC).[1,2] The IEC is a global nonprofit organization that aims to promote the optimal management of AD through research, education and patient/family care.

In the first round, participants provided online consent and submitted up to three research questions they believed were the highest priority in AD. These could include areas of uncertainty (i.e. questions that are not adequately answered by existing evidence) and/or unmet needs (i.e. areas where there is not currently ongoing or adequate research). Participants were asked to align each question to one of the following five domains: (i) epidemiology, including phenotype, disease course, disease/psychological burden and comorbidities; (ii) pathophysiology and molecular mechanisms, including genomics and immunology; (iii) translational research, including stratified/personalized/precision and systems medicine (including models); (iv) therapeutics, including nonpharmacological interventions such as psychological support and educational programmes; and (v) other. These domains were based on a pilot exercise to determine research priorities, carried out with IEC members in 2015, and previous systematic reviews in dermatology.[3] Data were collected using REDCap software, and free-text responses were reviewed independently by two researchers.[4] Duplicate and overlapping submissions were aggregated through discussion with the investigator team.

Round 1 was completed by 68 of 82 invited participants (83%). Respondents were from 22 countries; 96% were physicians and 90% were based at teaching hospitals. Among those caring for patients with AD, 45% cared primarily for adults, 22% primarily for children and 33% for both. After consolidation, 62 of 197 priority research questions were put forward to round 2.

In the second and third rounds, participants were asked to score each of the submitted questions on a scale from one to nine using the COMET Initiative Delphi Manager software.[5]