REAL-WORLD ORAL GLUCOCORTICOID USE IN SYSTEMIC LUPUS ERYTHEMATOSUS: A NATION-WIDE POPULATION-BASED STUDY USING THE FRENCH NATIONAL MEDICO-ADMINISTRATIVE DATABASE (LUPIN-F)

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Abstract EE826

INTRODUCTION

The daily dose of oral glucocorticoids (OCS) is associated with damage in Systemic Lupus Erythematosus (SLE), and OCS reduction is a major goal of SLE care.

- ***Objective 1:*** *to analyze the real-world use of OCS in French patients with SLE, using medico-administrative data from the national health data system (SNDS)*
- ***Objective 2:*** *to quantify healthcare resource utilization and associated costs*

METHODS

Identification of study population (ICD-10 code)

This study used the SNDS (Système National des Données de Santé) , which contains pseudonymized data from over 66 million people. Patients included in the study had SLE, identified by **ICD-10 code M32** (SLE) documented as part of a long-term condition (ALD) whenever it began and/or during hospitalization from 01/01/2008 until 31/12/2019, and alive on January 1, 2020 (index date).

Identification of comorbidities

Specific manifestations of SLE and complications of OCS were identified using validated algorithms.

Identification of treatments

Treatments were identified by pharmacy dispensing data. Daily OCS doses (expressed in prednisone equivalent) were calculated for 2019.

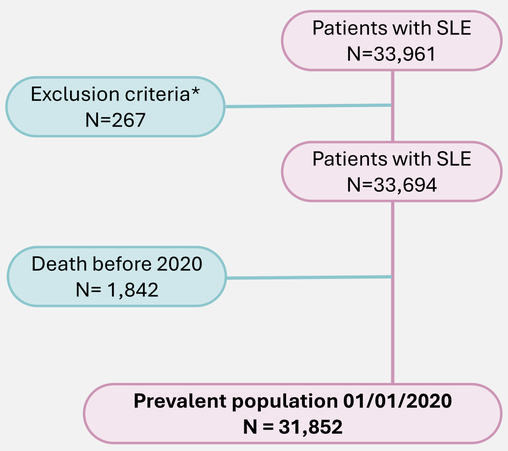
Health care consumption and associated costs

Health care consumption and associated direct costs were estimated from a societal perspective. These data were compared with those of an age- and sex-matched control group from the general population without SLE.

RESULTS

Patient characteristics and real-world use of corticosteroids

Selection of patients

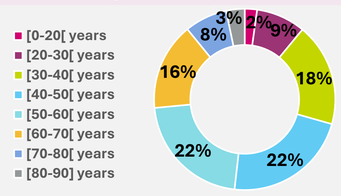


*1) Patients with code M32.0 (N = 57)
2) Other systemic autoimmune diseases:
Inflammatory polyarthropathies (N = 179)
Systemic connective tissue disorders, excluding Sjögren's syndrome (N = 48)
A patient may have more than one reason for exclusion

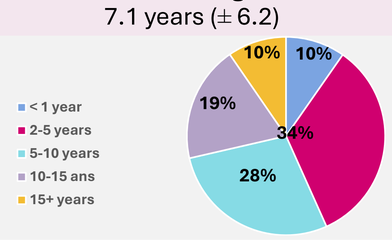
Patient characteristics

27 479 (86.3%)	4 372 (13.7%)

Mean age : 49.7 years (± 15.9)

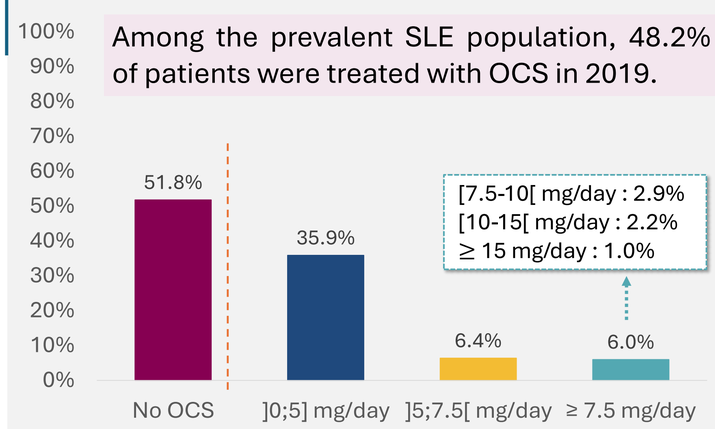


Time since diagnosis :
7.1 years (± 6.2)



Corticosteroids use in 2019

Among the prevalent SLE population, 48.2% of patients were treated with OCS in 2019.



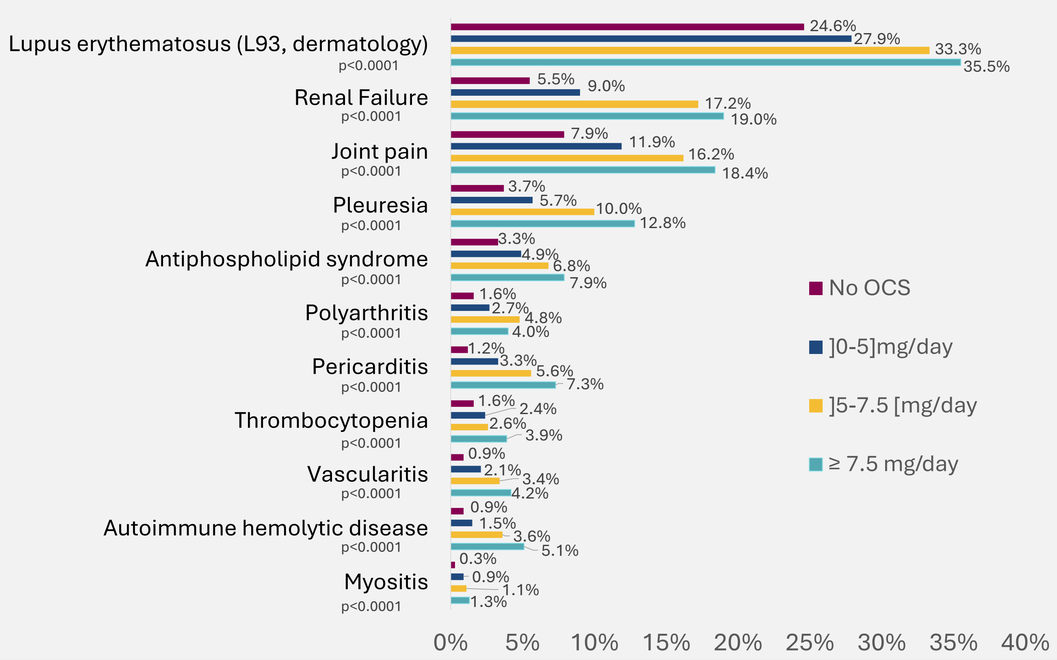
	No OCS	OCS]0-5] mg/day	OCS]5-7.5[mg/day	OCS ≥ 7.5 mg/day	p
Gender, n (%)					p < 0.0001
• Women	13,869 (50.5%)	10,184 (37.1%)	1,789 (6.5%)	1,637 (6.0%)	
• Men	2,618 (59.9%)	1,238 (28.3%)	239 (5.5%)	277 (6.3%)	
Age, mean (SD)	50.8 (15.9)	48.9 (15.5)	48.1 (16.3)	45.9 (16;6)	p < 0.0001

13.2% of patients receiving more than 7.5 mg/day and 14.0% of those receiving 5 to 7.5 mg/day of OCS were not treated with antimalarials, immunosuppressants or biological treatments for their SLE.

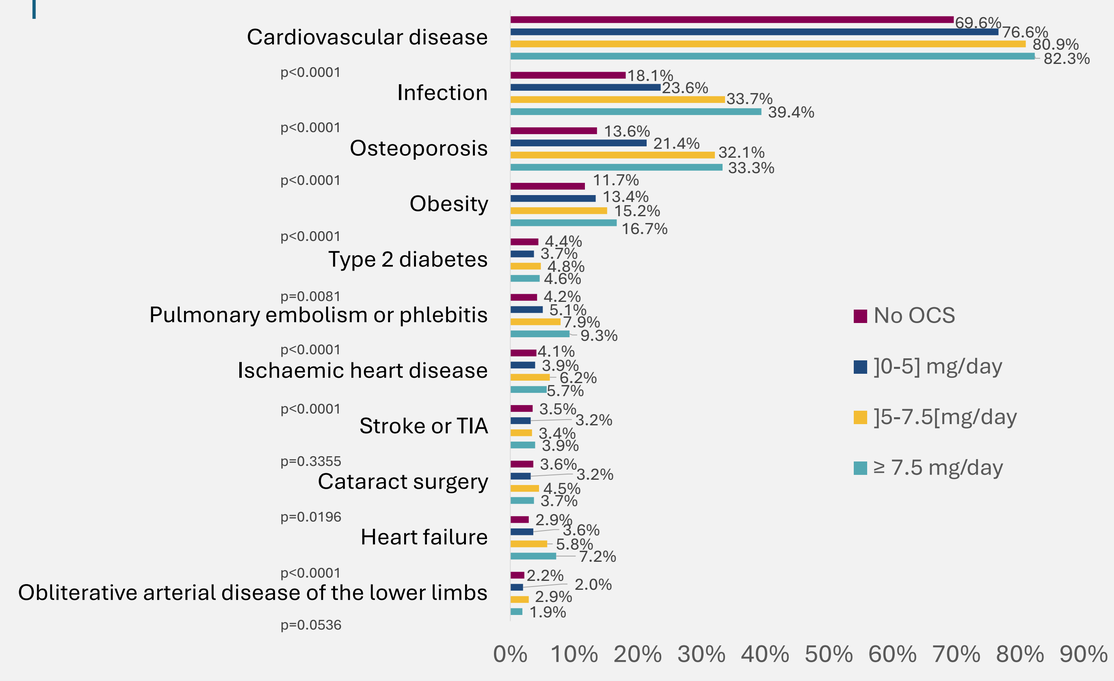
The use of corticosteroids was more frequent in women and decreased with age (p<0.0001).

Comorbidities and OCS related conditions

Specific manifestations of SLE, including kidney damage, skin involvement, polyarthritis and pleurisy, were significantly more frequent in patients who received higher doses of OCS (p<0.0001 for all).



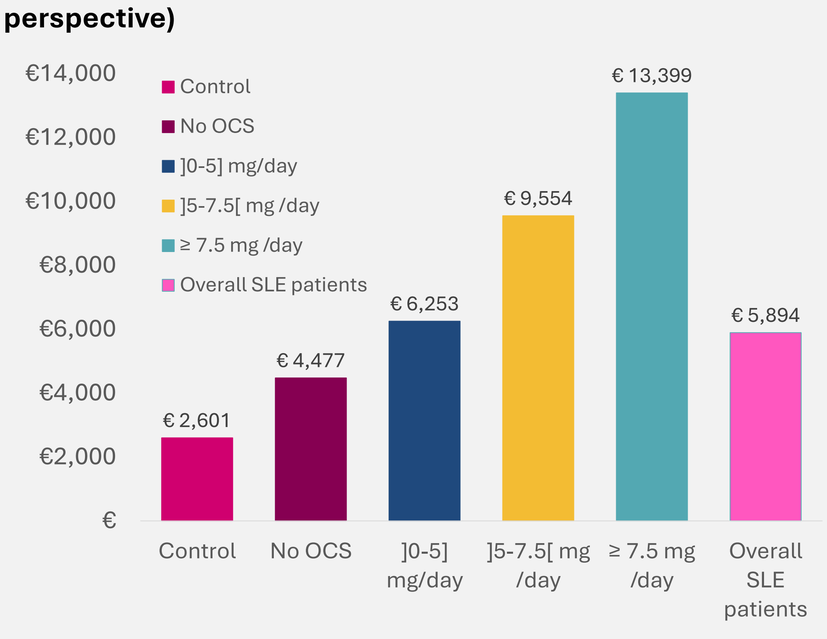
OCS related conditions, including cardiovascular disease, infection, osteoporosis and obesity, were significantly more frequent in patients who received higher doses of OCS.

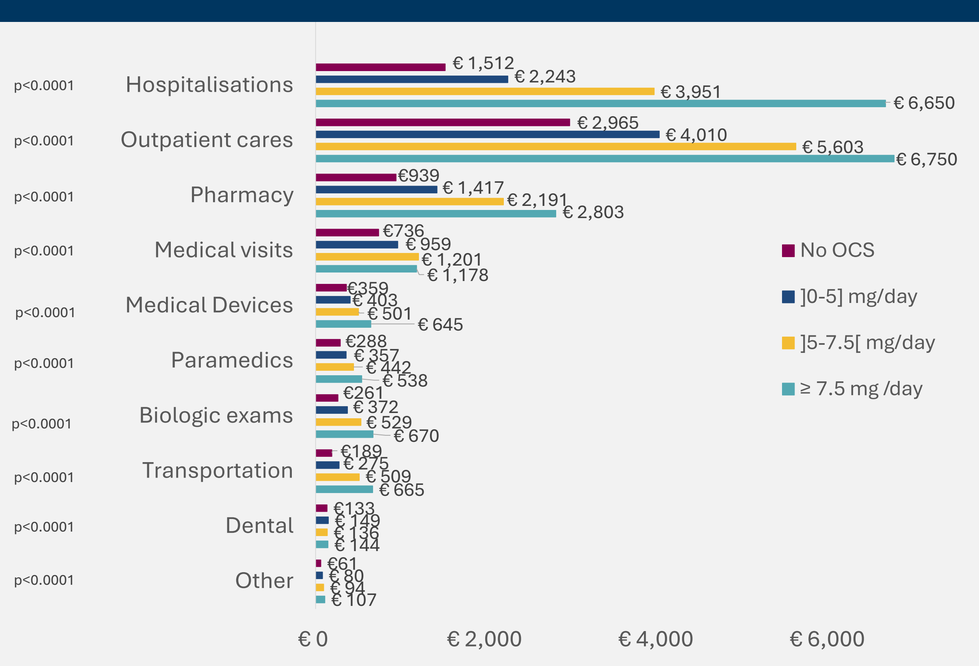


Economic Analysis

Average annual cost per patient (societal perspective)

- Among the prevalent SLE population (N=31,852), a control matched on age and sex was identified for 29,135 patients. The overall average annual cost of healthcare consumption in 2019 was €5,894 for SLE patients and €2,601 for matched controls (p<0.0001).
- Among the entire prevalent SLE population (N = 31,852), the cost increased significantly with the daily dose of OCS (no OCS: €4,477; ≤ 5 mg/day: €6,253;]5-7.5[mg/day: €9,554; ≥ 7.5 mg/day: €13,399).





DISCUSSION

STRENGTHS

- Data relating to the entire French population
- Large cohort (n> 30,000)
- All reimbursed medical expenses identified (no memory bias)

LIMITATIONS

- Average dose of OCS estimated from pharmacy dispensing.
- Clinical information derived solely from long-term diseases leading a 100% reimbursement or hospital stays (no results of biological exams)
- Some diagnoses (purely ambulatory care) may have been omitted.

CONCLUSION

In this study in French patients with SLE reporting on real-life use of OCS, the proportion of patients treated with OCS ≥ 5 mg/day remains unacceptably high and was associated with an increased risk of comorbidities and healthcare expenditures. Strikingly, more than 13.6% of patients receiving glucocorticoid doses >5 mg/day were not treated with antimalarials, immunosuppressive agents or any other biologic treatments for SLE. These results highlight the need for better implementation of robust OCS-sparing strategies in SLE, in line with the latest 2023 EULAR recommendations for SLE.

COI :
L Arnaud declares that he works as a consultant for : Abbvie, Alexion, Alpine, Amgen, AstraZeneca, Biogen, BMS, Boehringer-Ingelheim, GSK, Grifols, Janssen, LFB, Lilly, Kezar, Medac, Novartis, Oséus, Pfizer, Roche-Chugaï, Sêmeia, UCB. C Fabry-Vendrand, R Todea, B Vidal and G Thabut are employees of AstraZeneca, which funded the study. J Cottin, I Bureau and S Bouée are employees of CEMKA, which performed the study analyses.