

Supplementary methods

Patients with systemic lupus erythematosus (SLE) identified in an outpatient setting must have had their claim reported by a rheumatologist or nephrologist; and a dermatologist, neurologist, pulmonologist, gynaecologist/obstetrician or internist; and also required ≥ 1 prescription of SLE-related medication during follow-up.

Presence of one of the following was required to meet the definition of organ damage (OD) using the claims-based algorithm:

- International Classification of Diseases 10th revision (ICD-10) diagnosis code:
 - Presence of at least one ICD-10 code for the following Systemic Lupus International Collaborating Clinics (SLICC)/American

College of Rheumatology Damage Index (SDI) items: cataract, cerebrovascular accident, coronary artery bypass, myocardial infarction, avascular necrosis, significant tissue loss, infarction or resection of bowel below duodenum, spleen, liver or gall bladder, stricture or upper gastrointestinal tract surgery

- For SDI items requiring at least 6 months of persistence, items must have had at least 2 quarters with ICD-10 codes of the same medical condition, 2 or more (up to 6) quarters apart
- For recurrent items in the SDI, a minimum of 6 months was required between two consecutive claims with the same medical condition to be scored as two individual events

- Presence of at least one operation and procedure system code
- Anatomical Therapeutic Chemical (ATC) codes:
 - Seizures: ATC code plus respective ICD-10 code needed to define damage
 - Pancreatitis: ATC code required to define an insufficiency requiring enzyme replacement

Supplementary Table S1. Proportion of patients with OD at baseline* and follow-up†

Organ domain, N (%)	Baseline		Follow-up	
	Comparator (n=6308)	SLE (n=2121)	Comparator (n=6308)	SLE (n=2121)
Any OD	2990 (47.4)	1283 (60.5)	4197 (66.5)	1760 (83.0)
Ocular	1404 (22.3)	570 (26.9)	2429 (38.5)	964 (45.5)
Neuropsychiatric	974 (15.4)	400 (18.9)	1766 (28.0)	744 (35.1)
Cardiovascular	670 (10.6)	308 (14.5)	1217 (19.3)	614 (28.9)
Diabetes	712 (11.3)	241 (11.4)	1174 (18.6)	363 (17.1)
Malignancy	595 (9.43)	194 (9.15)	1011 (16.0)	400 (18.9)
Cutaneous	51 (0.8)	178 (8.4)	123 (1.9)	440 (20.7)
Peripheral vascular	245 (3.9)	173 (8.2)	537 (8.5)	357 (16.8)
Renal	301 (4.8)	139 (6.6)	640 (10.1)	364 (17.2)
Pulmonary	84 (1.3)	99 (4.7)	183 (2.9)	208 (9.8)
Musculoskeletal	148 (2.3)	74 (3.5)	343 (5.4)	211 (9.9)
Gastrointestinal	178 (2.8)	61 (2.9)	481 (7.6)	199 (9.4)
Gonadal	146 (2.3)	52 (2.5)	267 (4.2)	101 (4.8)

*Pre-index; †includes pre-index OD; follow-up period was ≥ 3 years post-index (except in the case of death during follow-up).

OD: organ damage; SLE: systemic lupus erythematosus.