Disease Burden, Fragmented Care, and Healthcare Utilization in Sjögren's Disease Compared With Rheumatoid Arthritis

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Key Takeaways

- **Patients with SjD exhibited a higher pre-diagnosis comorbidity burden and utilized a broader range of specialists compared to matched patients with RA**
- **These findings highlight the complexity of this autoimmune condition even when compared to RA**
- **Overall HRU levels were relatively similar between diseases, although specialty-specific patterns attributable to disease manifestations differed after diagnosis**

Background

Sjögren's disease (SjD) is a chronic, systemic, autoimmune disorder characterized by glandular dysfunction affecting multiple organs
- Patients often present with oral and ocular dryness, musculoskeletal symptoms and/or pain, fatigue, and cognitive impairment[1,2]

Primary SjD has an estimated United States (US) prevalence of <1%[3-5] and half the global incidence of rheumatoid arthritis (RA; 7 versus 13-15 per 100,000)[6,7]

In contrast with RA, real-world data on healthcare resource utilization (HRU) in patients with SjD remain limited

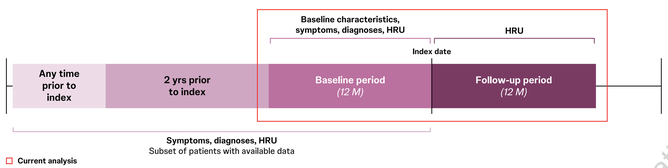
Objective

To compare clinical characteristics, comorbidities, and HRU for patients with SjD and patients with RA in the US

Methods

- Retrospective observational matched cohort study
- Data from National Veterans Affairs (VA) Health Care Network (January 1, 2015, to August 15, 2025)
- Index date: first diagnosis of SjD (SjD cohort) or RA (RA cohort) on or after October 1, 2021
  - A second confirmatory diagnosis was required ≥30 days later
  - Patients with SjD were excluded from the RA cohort, but those with RA were not excluded from the SjD cohort
  - Patients were required to be continuously enrolled in VA benefits for ≥ 12 months (M) prior to and following the index date
- Patient characteristics, comorbidities, and HRU were assessed in the 12 M before index (baseline); HRU was assessed in the 12 M after index (follow-up)

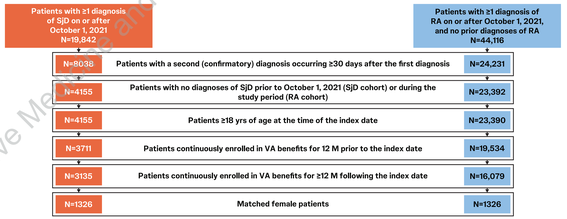
Study Design



- Given that females make up ~90% of patients with SjD,[2] this analysis focused on the female subgroups in both cohorts
- Patients with incident SjD were matched 1:1 to patients with incident RA on age (±2 yrs)

1326 female patients with SjD were identified and matched to patients with RA

Patient Selection



*Patients with SjD and RA were identified using ICD codes. **ICD**=International Classification of Diseases.*

Results

Patient demographics were generally balanced between the cohorts in the 12 M before index, with statistically significantly higher CCI with SjD versus RA

Baseline Characteristics	Matched female patients with SjD (N=1326)	Matched female patients with RA (N=1326)	*P* value[a]
Demographics			
Age at index date, yrs	54.3 (12.0)	54.3 (12.1)	0.332
Race/ethnicity			<0.001
White	45%	48%	
Black or African American	32%	31%	
Hispanic or Latino	9%	7%	
Asian or Pacific Islander	3%	2%	
Other	3%	3%	
Unknown	9%	9%	
Disease Characteristics			
Type of SjD[b]			
Primary SjD	66%	–	
Associated SjD	34%	–	
CCI[c]	0.8 (1.2)	0.6 (1.2)	<0.001
CCI subcomponents[c,d]			
Rheumatologic disease[e]	22%	5%	<0.001
Chronic pulmonary disease	18%	16%	0.075
Mild to moderate diabetes	10%	10%	0.796

*Data shown are mean (SD) unless otherwise noted. [a]Variables were compared between matched samples using McNemar's tests for categorical variables and Wilcoxon signed-rank tests for continuous variables. [b]Associated SjD was defined as SjD with diagnosis codes for any of the autoimmune conditions of interest (ie, autoimmune hepatitis, autoimmune thyroid disease, inflammatory bowel disease, RA, scleroderma/systemic sclerosis, systemic lupus erythematosus, systemic vasculitis, cryoglobulinemia, psoriatic arthritis, Graves' disease, Hashimoto's thyroiditis, or myasthenia gravis) at any time prior to the first diagnosis (index date) of SjD. Primary SjD was defined as SjD without a diagnosis for any of the autoimmune conditions of interest pre-index. [c]The CCI is a method of predicting mortality by classifying or weighting comorbid conditions. The CCI score is calculated among 17 conditions with a maximum score of 24 points and was assessed in the 12 M before index. [d]Most frequent subcomponents ≥10%. [e]The rheumatologic disease component of the CCI includes RA, systemic lupus erythematosus, polymyositis or dermatomyositis, mixed connective tissue disease, polymyalgia rheumatica, sarcoidosis, and systemic vasculitis (eg, SjS). Because patients in the RA cohort were indexed on their first RA diagnosis, only a small proportion of patients were flagged as having rheumatologic disease in the 12 M before index, reflecting conditions other than RA. **CCI**=Charlson Comorbidity Index; **SD**=standard deviation.*

In the 12 M before index, patients with SjD had higher rates of depression, other autoimmune conditions, and fibromyalgia versus patients with RA

- The most frequent other autoimmune conditions included RA (12%) and systemic lupus erythematosus (9%) among patients with SjD and systemic lupus erythematosus (3%), autoimmune thyroid disease (2%), and inflammatory bowel syndrome among patients with RA (2%)

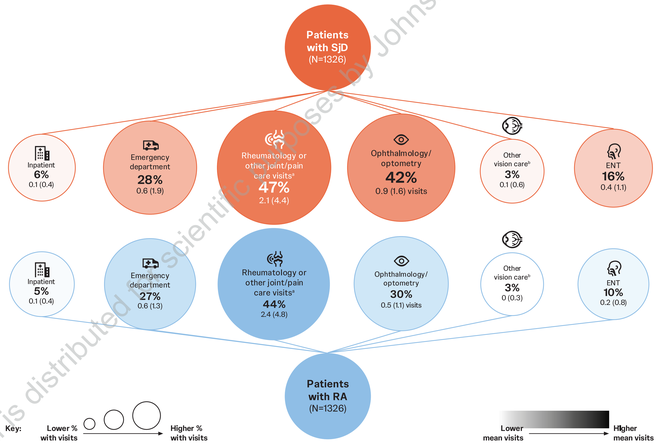
Most Frequent Comorbid Diagnoses and Symptoms	Patients with SjD (N=1326)	Patients with RA (N=1326)
Joint and muscle pain	42%	50%
Depression	41%	37%
Dry eye disease	37%	14%
Hypertension	32%	32%
Other autoimmune conditions[a]	24%	9%
Chronic pain	18%	21%
Fibromyalgia	16%	12%
Insomnia	15%	14%
Other ocular conditions[b]	14%	3%

Key: 0% 50%

[a]Other autoimmune conditions included rheumatoid arthritis, systemic lupus erythematosus, autoimmune thyroid disease (Hashimoto's thyroiditis and Graves' disease), scleroderma/systemic sclerosis, systemic vasculitis, psoriatic arthritis, inflammatory bowel syndrome, autoimmune hepatitis, myasthenia gravis, and cryoglobulinemia. [b]Ocular conditions other than dry eye disease included corneal findings (sterile corneal ulcer/infiltration, corneal haze/scarring, and corneal melt/perforation), uveitis, optic neuropathy/neuritis, episcleritis/scleritis, orbital inflammation, retinal vasculitis, and conjunctival findings (bulbar conjunctivitis/conjunctival chemosis and tarsal conjunctivitis [clostridioides conjunctivitis, follicular conjunctivitis, and papillary conjunctivitis].

In the 12 M before index, greater proportions of patients with SjD had ophthalmology/optometry and rheumatology or other joint/pain care visits versus patients with RA

Proportion of Patients With HRU and Mean (SD) Visits PPPY Among All Patients

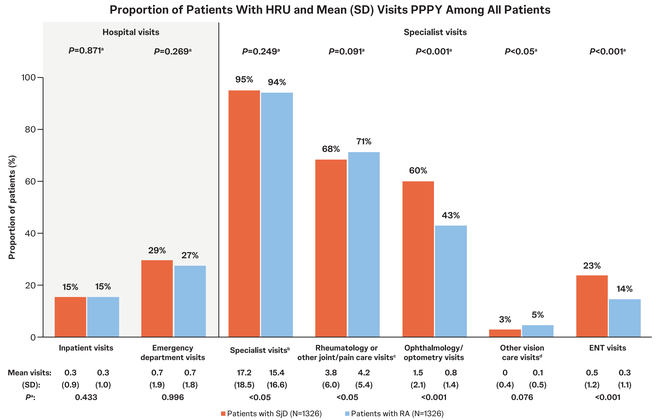


*[a]Other joint/pain care visits include chiropractic care, hand surgery, kinesiotherapy, orthopedic/joint surgery, orthopedics, pain clinic, and physical therapy. [b]Includes specialist visits related to low vision care, blind care, and vision screenings. **ENT**=ear, nose, and throat; **PPPY**=per person per year.*

In the 12 M after index, significantly greater proportions of patients with SjD had ophthalmology/optometry and ENT visits versus patients with RA

- Patients with RA had a significantly higher number of mean visits PPPY for rheumatology or other joint/pain care in the 12 M after index versus patients with SjD

Proportion of Patients With HRU and Mean (SD) Visits PPPY Among All Patients



[a]Categorical variables were compared between matched samples using McNemar's tests. Continuous variables were compared between matched samples using unadjusted generalized linear models with a negative binomial distribution. [b]Includes all types of outpatient care, excluding primary care and emergency departments. [c]Other joint/pain care visits include chiropractic care, hand surgery, kinesiotherapy, orthopedic/joint surgery, orthopedics, pain clinic, and physical therapy. [d]Includes specialist visits related to low vision care, blind care, and vision screenings.

Strengths

- This is one of the first studies to quantify SjD HCRU burden and place it in context relative to RA, a well-researched autoimmune condition
- Because SjD and RA patients were identified from the same healthcare system and were matched on age, relative comparisons between cohorts are less likely to be affected by factors related to access to care

Limitations

- Results may not be generalizable to all patients with SjD
  - Only female patients treated in the VA system were included
  - Access to specialty, dental, and integrated healthcare services within the VA may differ from other settings
- Although SjD and RA patients were matched on age, residual confounding may have remained if there were unobserved differences across cohorts
- Limitations related to use of ICD diagnosis and/or procedure codes to identify clinical characteristics
  - Certain diagnoses and symptoms may be underestimated if not properly coded or included in the database
  - May result in misclassification of disease status, patient characteristics, and study outcomes

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