

# Cardiovascular disease in Patients with Systemic Autoimmune Diseases: the relationship between self-perceived risk and actual risk

Cristiana Sieiro Santos 1,2 , Maria Oliveira 2, Paulo Ney Solari 2, Pedro Mateus 2, Maria José Santos 3, Hector Corominas 4, Carolina Álvarez Castro 1, Elvira Díez Álvarez 1.

1 Complejo Asistencial Universitario de León (España), 2 Faculdade de Medicina de Lisboa (Portugal), 3 Hospital Garcia da Orta (Portugal), 4 Hospital de la Santa Creu i Sant Pau, Barcelona (España)

## Background

- Autoimmune diseases have long been associated with an increased risk of cardiovascular diseases. Despite this knowledge, there is a lack of awareness of that increased risk by patients.

## Objectives

- To evaluate the **prevalence of cardiovascular risk factors and events among different systemic autoimmune diseases**, including Systemic Sclerosis (SSc), Systemic Lupus Erythematosus (SLE), Rheumatoid Arthritis (RA) and Sjogren's syndrome (SS) matched by age, sex, and disease duration
- To evaluate the perceived and actual risk for cardiovascular risk among patients.

## Methods

- A cross-sectional self-reported survey **on the patient's perspective of cardiovascular risk was disseminated between January-June 2023**. Sociodemographic, clinical data and disease activity was collected through medical records and questionnaires.
- Traditional cardiovascular risk factors and events were evaluated, as well as the perceived cardiovascular risk. **Cardiovascular risk assessment was performed using the SCORE calculation and Charlson comorbidity index (CCI) to assess the presence of comorbidities.**

## Results

- 180 patients** (45 patients with SSc, SLE, RA and SS) with systemic autoimmune diseases answered the survey.
- 20% of patients** answered they had a **low risk**, **23%** answered they had **neither lower nor higher** and **56%** answered they had a **higher risk of developing a CVDs in the future in the next ten years**. Only **45% of patients agreed that their autoimmune disease could increase their risk of having a heart attack**, even in the absence of other risk factors and **46.7% did not know that NSAIDs pose a cardiovascular risk factor**.
- An association between cardiovascular risk measured by SCORE, comorbidities and risk perception in RA, SSc and SS patients however, no association was found with SLE patients (p=0.27).

- No association between CCI and disease activity level was found, except for SS patients (p=0.02). When analyzing the influence of age, working status and education in CVD risk perception, an association between CVD risk perception and age (p=0.01). **Patients over 40 years of age exhibited a higher perception of CVD risk perception than younger patients**. Meanwhile, no differences were found regarding working status (p=0.19) nor education level (p=0.06).

## Conclusion

- Patients with SS, RA and SSc exhibited a high perception of their cardiovascular risk**, which was associated with their actual risk and preexisting comorbidities. **Patients are unaware of some of the cardiovascular risk behaviors that could be detrimental to their health**. Tailored education programs regarding cardiovascular risk specific to patients with autoimmune diseases should be developed and implemented in outpatient clinics at the time of diagnosis and during follow-up.

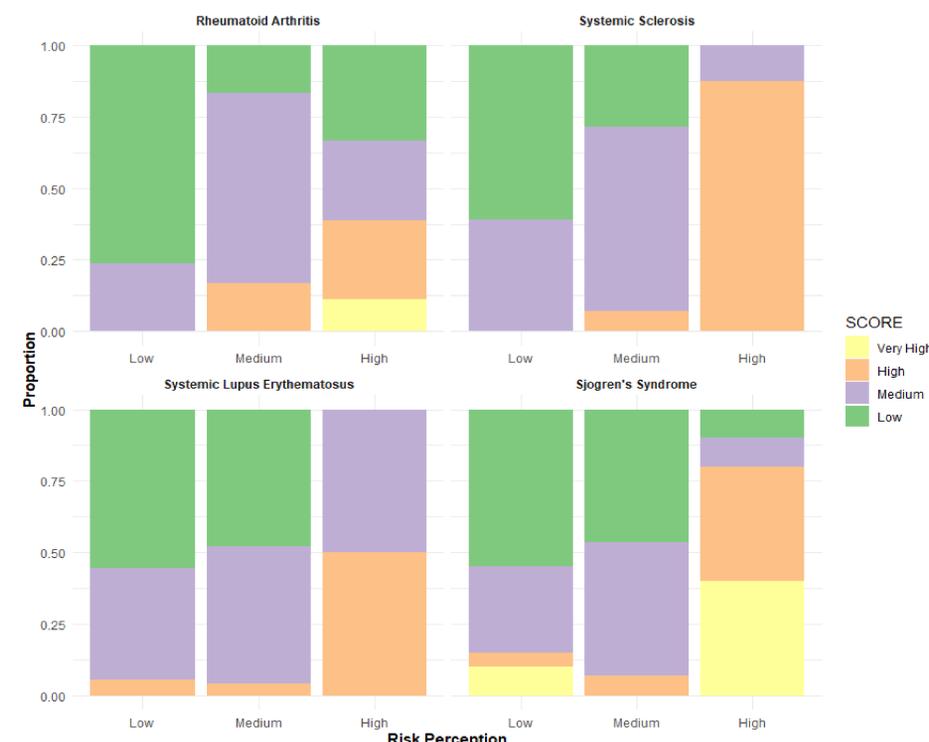


Figure 1 - Association between SCORE index and patient's perception of CV risk stratified by disease

