Background: Individuals diagnosed with rheumatic diseases have shown an increased risk of developing several comorbid conditions, of which cardiovascular (CV) comorbidities are the most common and have the greatest effect on mortality.

Objectives: Our global aim is to assess the impact of Inflammatory Rheumatic Diseases (IRD) in the development of cardiovascular diseases controlling for traditional CV risk factors in a Portuguese national-wide population-based cohort.

Methods: This study used data from a population-based longitudinal cohort study — the EpiDOC cohort. IRD participants were selected according to Rheumatoid Arthritis (RA), Systemic Lupus Erythematosus (SLE), Ankylosing Spondylitis (SpA) and polymyalgia rheumatic (PMR) diagnosis criteria fulfillment. Outcome was defined as a composite of myocardial infraction or angor pectoris (ischaemic heart disease), arrhythmias, valvular disease, stroke or transient ischaemic attack and peripheral artery disease. Multivariate logistic regression models were used to assess predictors of CV events in IRD participants. Calibration and discrimination of a predictive model were assessed by goodness-of-fit and area under receiver operating characteristic curve.

Results: In a national cohort of 10,661 people, patients with RA (n=61), SLE (n=13), SpA (n=92), PMR (n=8) were identified. Patients with IRD had similar age as non-IRD (mean age 55 vs 53 years-old; 72.1% female), with a predominance of dyslipidaemia diagnosis (40.7% vs 31.4%; p=0.033) and sedentary lifestyle (exercise practise 22.7% vs 33%; p=0.016). IRD participants were followed by a median follow-up of 2.6 years compared with 2.4 years in the non-IRD group (p<0.01). Cardiovascular events were proportional in both populations, leading ischaemic heart disease on IRD group (34.6%) and arrhythmias in controls (29.4%). After adjustment for risk factors, the odd of cardiovascular event is high (OR 1.64, 95% CI: 1.04–2.58; p=0.03). A stepwise approach to find the best predictive model attained that gender, age, history of hypertension, body mass index, IRD and follow-up time are the most important predictive variables of CV event, with an area under ROC of 0.80.

Conclusions: We report an increase odd of major CV events in inflammatory rheumatic disease in Portugal adjusting for potential modifiers. This study brings forward a contemporary awareness of physicians and patients with IRD for a premature identification and control of higher risk patients among this population.

Disclosure of Interest: None declared