in 18% of SLE, 13% of DM and 1% of non-SLE, non-DM cohorts, and baseline HF in 6% of SLE, 5% of DM and <1% of non-SLE/non-DM patients. HF hospitalization rates per 1,000-person years were similar in SLE and DM, both higher than the general population (table 1). Adjusted HRs for first HF hospitalizations were higher among DM and SLE patients compared to non-SLE, non-DM patients. When patients with baseline HF were excluded, HRs for first HF hospitalizations were similar in SLE and DM.

Conclusion SLE and DM patients had significantly higher rates of HF hospitalization than age- and sex-matched general Medicaid patients. The risk of HF hospitalization was >2 x higher among both SLE and DM patients, with important implications for improving care for SLE.

Abstract CS-19 Table 1 Rates and multivariable hazard ratios for hospitalizations for HF* among SLE patients and age- and sex-matched DM patients, compared to the general (non-SLE, non-DM) Medicaid population, 2007–2010

Cohort†	Events	Person-years	Rate‡ (95% CI)	HR§ (95% CI)	
				Including all patients	Excluding patients with baseline HF
General Medicaid	620	2 50 281	2.5 (2.3–2.7)	1.0 (ref)	1.0 (ref)
SLE	837	73 299	11.4 (10.7–12.2)	2.4 (2.2–2.7)	2.5 (2.3–2.8)
Diabetes Mellitus	1675	1 45 692	11.5 (11.0–12.1)	4.0 (3.6–4.3)	2.7 (2.4–2.9)

*HF: Heart failure events by hospitalization ICD-9 diagnosis codes 402.01, 402.11, 402.91, 404.01, 404.11, 404.91, 404.03, 404.13, 404.93, and 428.xx, but excluding 398.91 rheumatic heart disease (Chen J, *Circulation*, 2013).

†Cohort: SLE cohort defined as >3 SLE ICD-9 codes (710.0), each separated by >30 days; DM cohort defined as >3 ICD-9 codes (249.XX, 250.XX, 357.2, 362.01–362.06, 366.41), 1:2 matched by age, sex to SLE cohort; General Medicaid cohort defined as any non-SLE, non-DM ICD-9 code on same date as SLE index date, 1:4 matched by age, and sex to SLE cohort

‡Rate: Rate of first HF hospitalization events per 1000 person-years of follow up

§HR: Hazard ratio for first HF hospitalization event adjusted for age, sex, race/ethnicity, US region of residence, zip-code level socioeconomic status, Charlson comorbidity index; Two separate models: 1) including all patients, 2) excluding patients who had baseline HF diagnosis

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CS-20 A SYSTEMATIC REVIEW OF EMPLOYMENT OUTCOMES OF ADULTS WITH CHILDHOOD-ONSET SYSTEMIC AUTOIMMUNE RHEUMATIC DISEASES

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Background With improved survival, most patients with childhood-onset systemic autoimmune rheumatic diseases (ChildSARDs) now live to become adults. Employment is a major milestone of independence in adulthood and has obvious impacts on socioeconomic attainment. Employment is associated with access to health insurance and healthcare. Therefore, employment is an important outcome. We aim to systematically review employment outcomes of adults diagnosed with ChildSARDs.

Methods Systemic autoimmune rheumatic diseases (SARDs) include: systemic lupus erythematosus (SLE), inflammatory myositis, Sjogren's syndrome, systemic sclerosis, and systemic vasculitides. We developed a search strategy with an academic librarian and searched MEDLINE, Embase, and Scopus for full-length English articles (January 1990 and November 2017). If a study contained ChildSARDs and adult-onset SARD adults, we contacted the authors for clarification on the number of ChildSARD patients and their employment outcomes. We extracted information on study design, employment outcome measures, prognostic factors, and confounders using a standard data collection form. Study quality was graded independently by 2 reviewers using the Quality in Prognosis Studies (QUIPS) risk-of-bias tool.

Results Of 2109 abstracts, 5 publications from 4 studies (4 SLE, 1 juvenile dermatomyositis) were included. There were 296 patients (257 SLE, 39 JDM); study participants had a mean age of 23.3–29 years with a mean disease duration of 7.6–15 years. Only 1 study was longitudinal (≥ 3 repeated outcome measurements). 80% were from North America. No study made comparisons of the employment outcomes of patients with the general population. Moderate to high risks-of-bias were commonly found in the domains of study population (100%), prognostic factor measurement (80%), and confounding (80%). 47% of the patients were working (full/part-time), 21% were studying and the remaining 32% were not working. Two studies assessed work productivity, and one measured work characteristics. Income was reported in two studies. Prognostic factors for employment identified in 3 studies were generally either disease characteristics or work-related characteristics.

Conclusion There is scarce information on employment outcomes of ChildSARDs adults in literature. There was little information on work characteristics and productivity; prognostic factor testing was limited. Important study domains, such as population and confounding, are at moderate-high risk-of-bias. Future studies should aim to study more ChildSARD diseases. Careful attention should be paid to study design, and investigators should collect more comprehensive information on employment beyond work status, compare patient outcomes to the general population, and test for the effects of both sociodemographic and disease related factors within the same models.

CS-21 A SYSTEMATIC REVIEW OF PROGNOSIS STUDIES IN CHILDHOOD-ONSET SYSTEMIC AUTOIMMUNE RHEUMATIC DISEASES

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Background With tremendously improved survival, many adults live with childhood-onset (onset <18 years) systemic autoimmune rheumatic diseases (ChildSARDs) which are systemic lupus erythematosus (SLE), Sjogren's syndrome, idiopathic inflammatory myositis (IIM), systemic sclerosis, and systemic vasculitides. Little is known about ChildSARD outcomes in adulthood. We systematically reviewed prognosis studies performed on ChildSARD adults to summarize the