Remission using Wallace's criteria was predicted in oligo and polyarthritis respectively by improvements in physician's global (OR: 3.1, 95% CI: 1.9 to 5.3; OR: 4.8, 95% CI: 1.4 to 16.7) and parental global (OR: 1.5, 95% CI: 1.2 to 1.8; OR: 1.4, 95% CI: 1.5 to 2.0). For oligoarthritis, additional predictors included improvement in active joint count (OR: 1.7, 95% CI: 1.0 to 2.3) and ESR (OR: 1.1, 95% CI: 1.0 to 1.2). Improvement in limited joint count also predicted remission in polyarticular JIA (OR: 1.2, 95% CI: 1.0 to 1.4) (table 1).

Remission using cJADAS10 was predicted in oligo and polyarthritis respectively by improvements in physician's global (OR: 2.1, 95% CI: 1.6 to 2.8; OR: 2.3, 95% CI: 1.5 to 3.6), parental global (OR: 1.9, 95% CI: 1.4 to 2.6; OR: 2.0, 95% CI: 1.3 to 3.0), active joint count (OR: 1.6, 95% CI: 1.1 to 2.2; OR: 1.3, 95% CI: 1.1 to 1.7), limited joint count (OR: 1.4, 95% CI: 1.1 to 1.9; OR: 1.1, 95% CI: 1.3 to 2.3), CHAQ (OR: 2.2, 95% CI: 1.4 to 3.3; OR: 2.7, 95% CI: 1.5 to 5.0) and pain (OR: 1.2, 95% CI: 1.1 to 1.4; OR: 1.3, 95% CI: 1.1 to 1.5) (table 1).

Abstract OP0099 – Table 1 Achievement and predictors for remission according to wallace's preliminary criteria and the cJADAS10

	Oligoarthritis (n=704)		Polyarthritis (n=341)	
	Wallace's preliminary criteria	cJADAS10	Wallace's preliminary criteria	cJADAS10
Follow-up	Percent remission			
2 years	19	35	15	21
3 years	19	35	15	22
Ever	27	45	20	28
Improvement over the first year in one unit of:	Odds ratios for ever remission (95% CI)			
Active joint count	1.7 (1.0, 2.3)	1.6 (1.1, 2.2)	1.4 (0.9, 2.0)	1.3 (1.1, 1.7)
Limited joint count	1.3 (0.58, 1.7)	1.4 (1.1, 1.9)	1.2 (1.0, 1.4)	1.1 (1.3, 2.3)
Physician global assessment (cm)	3.1 (1.9, 5.3)	2.1 (1.6, 2.8)	4.8 (1.4, 16.7)	2.3 (1.5, 3.6)
Parent global assessment (cm)	1.5 (1.2, 1.8)	1.9 (1.4, 2.6)	1.4 (1.5, 2.0)	2.0 (1.3, 3.0)
CHAQ	1.3 (0.8, 2.0)	2.2 (1.4, 3.3)	1.6 (0.9, 2.9)	2.7 (1.5, 5.0)
ESR (mm/hr)	1.1 (1.0, 1.2)	1.0 (1.0, 1.1)	1.1 (1.0, 1.2)	1.0 (1.0, 1.1)
Pain (cm)	1.1 (1.0, 1.1)	1.2 (1.1, 1.4)	1.1 (1.0, 1.3)	1.3 (1.1, 1.5)

cJADAS10: Clinical Juvenile Arthritis Disease Activity Score in 10 joints; CI: Confidence Interval; CHAQ: Childhood Health Assessment Questionnaire; ESR: Erythrocyte Sedimentation Rate

Conclusions: Both improvements in the physician's and parental global assessments over the first year of disease predict remission in JIA. However, improvements in function and pain predict higher odds of remission on the cJADAS10 but not Wallace's preliminary criteria. These factors may be helpful in predicting well-being but not a lack of inflammation.

Disclosure of Interest: None declared

DOI: 10.1136/annrheumdis-2018-eular.3659

OP0100

INCREASE IN DIRECT HEALTHCARE COSTS IN JUVENILE IDIOPATHIC ARTHRITIS OVER THE PAST 10 YEARS – RESULTS OF A HEALTH INSURANCE CLAIMS DATA ANALYSIS

L. Redeker¹, F. Hoffmann², K. Albrecht¹, J. Klotsche^{1,3}, A. Zink^{1,4}, K. Minden^{1,4}.

¹Epidemiology Unit, German Rheumatism Research Centre, Berlin; ²Department of Health Services Research, Carl von Ossietzky University, Oldenburg; ³Institute for Social Medicine, Epidemiology and Health Economics; ⁴Department of Rheumatology and Clinical Immunology, Charité – Universitätsmedizin Berlin, Berlin, Germany

Background: Biological disease-modifying anti-rheumatic drugs (bDMARDs) are effective but expensive treatment options in juvenile idiopathic arthritis (JIA). The extent to which the healthcare costs of JIA have changed as a result of their increasing use has hardly been investigated.

Objectives: The aim of this study was to analyse resource utilisation and direct healthcare costs in patients with JIA since the introduction of treatment with biologic agents.

Methods: Using health insurance claims data in Germany, resource utilisation and direct healthcare costs of children and adolescents with a diagnosis of JIA (International Classification of Diseases, Tenth Revision, [ICD-10] code M08, M09.0, L40.5) between January 1, 2007 and December 31, 2016 were assessed. Direct healthcare costs comprised costs for outpatient care (i.e., visits to physicians, laboratory tests, emergency department visits, and outpatient hospital services), costs for inpatient care (i.e., hospital admissions), costs for pharmacotherapy and other treatment costs (i.e., non-physician visits [e.g., visits to physical therapists] and aids/adaptations).

Results: Data from 12 652 children and adolescents with a diagnosis of JIA were included in the analyses. Mean direct healthcare costs per patient increased by 33% from € 4577 in 2007 to € 6109 in 2016. Pharmacological treatment was the cost domain with the highest increase (table 1). This increase was almost entirely caused by an increasing prescription of bDMARDs (from 8.6% to 15.7%). Costs for inpatient care also increased, whereas other treatment costs slightly decreased.

Total costs per patient were calculated as the sum of the domains outpatient care, hospital admissions, pharmacotherapy and other treatment costs.

bDMARDs, biological Disease-Modifying Anti-Rheumatic Drugs; csDMARDs, conventional synthetic Disease-Modifying Anti-Rheumatic Drugs.

* excluding costs for pharmacotherapy.

Conclusions: Direct healthcare costs in JIA considerably increased over the past 10 years, mainly caused by an expanding use of biologic agents. The results also showed that the rise in costs for treatment with biologic agents has been at a plateau since 2014. The healthcare costs incurred must, of course, always be placed in the context of indirect and intangible costs and the long-term prognosis of patients.

Acknowledgements: This work was supported by the Federal Ministry of Education and Research within the research network PROCLAIR (01EC1405).

Disclosure of Interest: None declared

DOI: 10.1136/annrheumdis-2018-eular.5371

Abstract OP0100 – Table 1. Mean direct healthcare costs (in euros) per patient per year.

	2007 n=1067	2008 n=1057	2009 n=1125	2010 n=1160	2011 n=1219	2012 n=1302	2013 n=1344	2014 n=1414	2015 n=1448	2016 n=1516
Outpatient care*	834	877	691	731	687	707	775	826	810	812
Hospital admissions*	1549	1602	1532	1559	1843	1878	2097	2028	1924	1749
Pharmacotherapy	1701	1791	2021	2021	2219	2346	2924	3264	3396	3131
csDMARDs	159	151	147	137	165	158	189	201	187	153
bDMARDs	964	1153	1424	1446	1653	1831	2250	2599	2557	2494
Glucocorticoids	9	8	8	7	7	7	8	13	9	6
Other treatment costs	492	469	412	438	434	437	424	449	417	417
Non-physician visits	353	340	307	332	314	317	312	323	312	279
Aids and adaptations	139	129	105	106	120	120	112	126	105	138
Total direct costs	4577	4739	4655	4749	5182	5367	6220	6566	6547	6109