

PRO INSTRUMENTS USED IN STUDIES OF ANKYLOSING SPONDYLITIS SINCE 1960

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Objectives

To create an evidence map of the different patient-reported outcome instruments used in studies of patients with ankylosing spondylitis, the geographical settings in which these studies were conducted and the interventions assessed.

Methods

We searched the heoro.com database (www.heoro.com) for PRO studies on ankylosing spondylitis published between 1960 and December 7 2016, and analysed the abstracts identified by the search to determine the different PRO instruments cited across the range of geographical locations and interventions. We presented the findings as an evidence map.

Results

	Geographical jurisdiction													
	Australia	Brazil	Canada	China	Czech Republic	Denmark	Egypt	Finland	France	Germany	Greece	International or unknown	Israel	Italy
No. of studies	2	3	11	2	1	1	3	1	5	12	1	12	1	2
	Korea	Mexico	Netherlands	New Zealand	Norway	Philippines	Portugal	Romania	Spain	Sweden	Taiwan	Turkey	UK	US
	1	1	16	1	3	1	2	1	3	3	1	12	12	14

	PRO Instrument															
	AQOL Assessment of Quality of Life	AS-AIMS2 Arthritis Impact Measurement Scale	ASAS Assessment in Ankylosing Spondylitis Criteria	ASDAS Ankylosing Spondylitis Disease Activity Score	AS-WIS Ankylosing Spondylitis Work Instability Scale	ASES Arthritis Self-Efficacy Scale	ASQOL Ankylosing Spondylitis Quality of Life Scale	BASDAI Bath Ankylosing Spondylitis Disease Activity Index	BASFI Bath Ankylosing Spondylitis Functional Index	BAS-G Bath Ankylosing Spondylitis Global score	BASMI Bath Ankylosing Spondylitis Metrology Index	BDI Beck Depression Inventory	BFI Brief Fatigue Inventory	Body Chart	CASQ Combined AS Q'nnaire	CCI Charlson comorbidity index
No. of studies	1	4	11	8	1	2	34	66	54	6	14	1	1	1	1	1
	DFI Dougados Functional Index	DISQ Dudley Inflammatory Bowel Symptom Q'nnaire	EASi-QoL Evaluation of Ankylosing Spondylitis Quality of Life	EQ-5D EuroQol 5 dimensions score	EQ-VAS EuroQol Visual Analog Scale	FACIT-F Functional Assessment of Chronic Illness Therapy- Fatigue	FIQ Fibromyalgia Impact Q'nnaire	FIS Fatigue Impact scale	FSS Fatigue severity scale	GHS General Health Survey	HADS Hospital Anxiety and Depression Scale	HAQ Health Assessment Q'nnaire	HUI3 Health Utilities Index Mark 3	IPQ Brief-Illness Perception Q'nnaire	JAOQ Juvenile Arthritis Quality of Life Q'nnaire	JSEQ Jenkins Sleep Evaluation Q'nnaire
No. of studies	1	1	3	14	5	1	1	1	2	1	2	20	4	1	1	1
	LDQ Leeds Disability Q'nnaire	MAF Multi-dimensional Assessment of Fatigue Scale	MASES Maastricht Ankylosing Spondylitis Enthesitis Score	MOSSS Medical Outcomes Study Sleep Scale	MSASSS Modified Stoke AS Spine Score	NHP Nottingham Health Profile	NRS Numerical Rating Scale	ODI Oswestry Disability Index	PASS Patient Acceptable Symptom State	PGA Patient Global Assessment	PGI Patient Generated Index	PhGA Physician Global Assessment	PHQ-9 Patient Health Q'nnaire	QoL-5 Quality of Life 5 item scale	RADAI Rheumatoid Arthritis Disease Activity Index	RAI Rheumatoid Attitudes Index
No. of studies	2	1	3	2	1	3	3	1	2	5	1	4	1	1	1	1
	RAPID3 Routine Assessment of Patient Index Data	Schober test	SCL-90 Symptom Checklist	SCQ Self-administered Comorbidity Q'nnaire	SF-6D Short-form 6 items	SF-12 Short-form 12 items	SF-36 Short-form 36 items	VAS Visual Analog Scale	WF-NRS Worst Fatigue - Numeric Rating Scale	WHODAS-II World Health Organization Disability Assessment Scale	WHOQOL-BREF WHO Brief Quality of Life Score	WPAI Work Productivity and Activity Impairment	WPS Work Productivity Survey	WRS Well-being Rating Scale		
No. of studies	1	5	1	1	6	2	52	16	1	2	1	5	1	1		

	Interventions							
	Adalimumab	Certolizumab	Etanercept	Etoricoxib	Exercise	Golimumab	Infliximab	Methotrexate
No. of studies	10	2	6	1	8	2	9	1
	Physiotherapy	Probiotics	Rehabilitation	Spa therapy	Surgery	Any anti-TNF inhibitor	None or unknown	
	1	1	2	2	1	8	74	

	Type of PRO assessment						Publication year				
	General QOL	Utility	Disease-specific	Comorbidity	Work		1960-1999	2000-2004	2005-2009	2010-2014	2015-2016
No. of studies	46	63	89	12	6	No. of studies	11	26	34	44	13

Numbers refer to number of studies identified for each category. Where a study is set in two or three locations, these are all listed separately. Studies set in five or more jurisdictions, or systematic reviews are classified as International. Studies are mapped to all relevant subcategories. Number of studies in each subgroup may not add up to the total score because of double-counting.

Conclusions

A wide range of PRO tools have been used in studies of ankylosing spondylitis from a wide range of locations, but only nine tools and six countries were cited in more than 10 abstracts.