Table 1. Population characteristics, and physician reported satisfaction with secukinumab

	Population characteristics		Satisfaction level	
	N (%) PsA patients in each category (n=438)	N (%) AS patients in each category (n=277)	N (%) PsA physicians satisfied (n=438)	N (%) AS physicians satisfied (n=277)
Overall satisfaction	-	-	385 (87.9)	239 (86.3)
Severity at initiation*	28 (6.4)	5 (1.8)	18 (64.3)	4 (80.0)
Mild	236 (54.3)	128 (46.2)	210 (89.0)	109 (85.2)
Moderate	171 (39.3)	144 (52.0)	155 (90.6)	126 (87.5)
Severe				
Prior biologic use	191 (43.6)	147 (53.1)	155 (81.2)	118 (80.3)
Bio-experienced patients	247 (56.4)	130 (47.9)	230 (93.1)	121 (93.1)
Bio-naïve patients				
Secukinumab duration	82 (18.7)	72 (26.0)	56 (68.3)	48 (66.7)
1-4 months	120 (27.4)	68 (24.5)	108 (90.0)	61 (89.7)
>4-6 months	236 (53.9)	137 (49.5)	221 (93.6)	130 (94.9)
>6 months				
Concomitant medication	236 (53.9)	117 (42.2)	214 (90.7)	103 (88.0)
Monotherapy	104 (23.7)	113 (40.8)	89 (85.6)	95 (84.1)
Combination with a non-csDMARD	98 (22.4)	47 (17.0)	82 (83.7)	41 (87.2)
Combination with a csDMARD				

*PsA base size=435

Conclusion: This study provides insight into physician satisfaction with secukinumab in a real-world clinical setting. Physicians reported being highly satisfied with the ability of secukinumab to control PsA and AS disease, regardless of patient population subgroups.

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THU0636 HIGHER SOCIAL MEDIA USER STICKINESS ON SELF-MANAGEMENT SYSTEM MAY IMPROVE THE REMISSION RATE OF PATIENTS WITH ANKYLOSING SPONDYLITIS

Xiaojuan Ji, Jian Zhu, Jianglin Zhang, Feng Huang, SpAMS co-authors. Chinese PLA General Hospital, Department of Rheumatology, Beijing, China

Background: With the advance of mobile health technologies, it is possible to set up economic management systems to improve health care. By using a Smart-phone Spondyloarthritis Management System (SpAMS), the Chinese Ankylosing Spondylitis (AS)/Spondyloarthritis Prospective Imaging Cohort (CASPIC) was launched.

Objectives: To explore the improvement of disease management and cost effectiveness of SpAMS for Chinese patients with AS.

Methods: Patients enrolled in the CASPIC cohort who fulfilled the 1984 modified New York criteria and with at least 2 evaluations of Ankylosing Spondylitis Disease Activity Score (ASDAS) were included in this analysis. All physician-reported assessments were collected at the Chinese People's Liberation Army General Hospital using SpAMS in Beijing. The disease activity states were defined according to ASDAS1, which separated inactive disease (ID) from low disease activity (LDA) by 1.3, LDA from high disease activity (HDA) by 2.1, and HDA from very high disease activity (VHDA) by 3.5. According to ASDAS at the baseline visits and final visits, patients were divided into four groups (Figure 1): maintainer of ID/LDA, patients with relapse, maintainer of active disease, and new achiever of ID/LDA.

Results: From April 2016 to April 2018, 1201 patients with AS were enrolled in CASPIC. 4659 patient self-assessments were completed, including 3304 pre-visit assessments and 1355 assessments during the

follow-up interval. After online consultation, 29.1% of clinic visits to a tertiary hospital were considered unnecessary and could be solved in the primary care hospital. The time and cost of each patient's journey to Beijing were calculated based on the location of each patient. For the 1037 (86.3%) patients who lived outside the vicinity of Beijing, at least an average of 5.3 hours and 327.4 RMB for each person (USD: RMB =1:6.418) for traffic time and expenses were saved, which equaled to 16% of the Chinese monthly disposable personal income (data in 2016).

Table 1. Characteristics of disease activity

Characteristics	ID/LDA at baseline (n=445, 57.2%)			Active at baseline (n=332, 42.7%)		
	Maintainers of ID/LDA (n=410, 92.1%)	Patients with relapse (n=35, 7.9%)	P value	Maintainers of active disease (n=127, 38.2%)	New achievers of ID/LDA (n=205, 61.7%)	P value
Age, mean (s.d.), years	30.2 (9.1)	29.8 (7.6)	0.785	30.8 (8.6)	30.6 (8.3)	0.816
Disease duration, mean (s.d.), years	7.6 (6.2)	7.3 (5.6)	0.787	9.0(6.1)	9.3(6.1)	0.714
Number of self-assessments, mean (s.d.)	5.0 (2.7)	3.3 (1.8)	<0.001*	4.5(2.5)	5.6(3.1)	<0.001*
Male sex, %	79.8	88.6	0.207	89.8	83.9	0.133
ASDAS at baseline, mean (s.d.)	1.4 (0.5)	1.5 (0.4)	0.031*	3.2 (0.8)	3.0 (0.8)	0.134
Smoker, %	24.7	40.0	0.047*	44.0	32.8	0.042*
NSAIDs at baseline, %	98.1	99.8	0.448	97.9	99.4	0.263
TNFi at baseline, %	19.2	13.8	0.479	24.5	29.8	0.359
DMARDs at baseline, %	64.0	72.4	0.363	66.0	68.5	0.679
TNFi during follow-up period ^a , %	29.9	27.3	0.755	32.3	45.6	0.016*

*P < 0.05.

Figure 1. Flow chart of participants in the study

Abbreviation: ID: inactive disease; LDA: low disease activity; HDA: high disease activity; VHDA: very high disease activity

Of these patients enrolled in CASPIC, 777 patients had at least 2 evaluations of ASDAS. The rate of patients with ID/LDA was 57.2% at baseline and increased significantly to 79.2% with a mean (SD) follow-up of 13.3 (5.9) months (Table 1). Compared with patients who relapsed, those that maintained the ID/LDA had more patient assessments [5.0 (2.7) vs 3.3 (1.8), $P < 0.001$]. The new achievers of ID/LDA also completed online patient assessments more frequent [5.6 (3.1) vs 4.5 (2.5), $P < 0.001$] compared to patients who maintained active disease.

Conclusion: Higher social media user stickiness on self-management system may improve the remission rate of AS patients. SpAMS could serve as a cost- and time-saving specialty care online platform for patients with AS.

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THU0637

ACADEMIC ACHIEVEMENT, EMPLOYMENT STATUS, WORK PRODUCTIVITY AND ACTIVITY IMPAIRMENT IN ADULTS WITH JUVENILE IDIOPATHIC ARTHRITIS (JIA): DETERMINANTS AND CONSEQUENCES

Chengappa Kavadiachanda, Karunya Ravi, Vir Negi. *Jawaharlal Institute of Postgraduate Medical Education and Research, Clinical Immunology, Puducherry, India*

Background: Changes occurring in childhood due to JIA leads to activity and work impairment during their transition to adulthood. The factors impairing work and overall activity among adults with JIA need to be explored to formulate policy decisions and rehabilitation measures.

Objectives: • To assess the level of academic achievement, employment, work productivity and activity impairment among adults suffering from JIA
 • To identify factors determining activity impairment among adults with JIA

Methods: Consecutive adults classified as JIA (1) were included. Consenting patients filled a questionnaire comprising of demographic details, occupational/educational status, Indian health associated questionnaire (iHAQ), Work Productivity and Activity Impairment score (WPAI) (2) in the language of their choice. Clinical evaluation for disease activity and damage was done and remission was assessed by Wallace criteria. Remission was defined as ever remission: ≥ 3 months and sustained remission: ≥ 6 months of disease control. Appropriate statistical tests to assess association and correlation of various factors with WPAI were used.

Results: Demography (n=51) is depicted in table 1. Never attaining remission resulted in significantly higher college dropouts (8 vs 17, $p < 0.05$), functional impairment (mean iHAQ 1.08 vs 0.5, $p < 0.05$) and articular damage (mean JADI A 3 vs 8, $p < 0.01$). Disease duration, JADI A and iHAQ correlated well ($r^2 > 0.400$, $p < 0.05$) with measures of WPAI (table 2). Assessment of patient variables like gender, occupation, disease activity and remission status (figure 1) showed that women, especially the homemakers and individuals with moderate to high disease activity had significant activity impairment ($P < 0.05$).

Conclusion: Early effective treatment directly impacts employment levels and activity in adults with JIA. Homemakers in middle- and low-income countries have the most impairment in activity as they cannot alter their work. Replacement costs for homemakers would be an added financial burden to the family and is seldom captured by studies. Our study highlights the need to look further into the indirect and intangible costs involving women that will help policy makers formulate effective economic policies for individuals with JIA.

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Table 1. Demographic, educational, occupational, health profile and WPAI measures of adults with JIA

S.No	Parameter (N=51)	Median	IQR
1	Age	22	8
2	Disease duration (years)	9	10
3	Duration of treatment (years)	5	5
4	WPAI Measures (in percentage)	40	50
	Overall Activity Impairment	64.06	61.66
	Overall Work Impairment (N=14)	40	72.05
	Presentism (N=12)	33.03	51.14
	Absenteeism (N=14)		
	Frequency (n)	Percentage (%)	
1	Gender	24/27	47.1/52.9
	Male/Female		
2	Residential type	10/41	19.6/80.4
	Urban/Rural		
3	Educational Status	1	2
	Illiterate	10	19.6
	Less than high school	14	27.5
	High School	8	15.7
	Intermediate/Diploma	18	35.3
	Graduate/Postgraduate or above		

4	Occupation status	18	35.3
	Student	14	27.5
	Employed/Professional/Business	12	13.7
	Housewife	7	11.8
	Unemployed/Quit job due to illness		
5	JIA Subtype	6	11.8
	Systemic Arthritis	4	7.8
	Oligo Arthritis	2	3.9
	Polyarthritis (RF-Negative)	15	29.4
	Polyarthritis (RF-Positive)	23	45.1
	Enthesitis-Related JIA	1	2.0
	Undifferentiated Arthritis		
6	Deformity	27/24	52.9/47.1
	Absent/Present		
7	Remission	16/35	31.4/68.4
	Never/Ever Remission	10/14	19.6/27.5
	Sustained remission before/after 18 yrs		

Figure 1: Correlation between various disease associated factors and WPAI measures.

Variables	Current Age	Disease duration (Years)	Damage Index (JADI A)	Functional disability score (iHAQ)	Patient VAS (%)	Physician VAS (%)	Overall work impairment	Overall Activity Impairment	Absenteeism
Current Age	1								
Disease duration (Years)	.763**	1							
Damage Index (JADI A)	.378**	.301*	1						
Functional disability score (iHAQ)	.572**	.476**	.715**	1					
Patient VAS (%)	.228	.259	.723**	.638**	1				
Physician VAS (%)	.338*	.374**	.679**	.588**	.931**	1			
Overall work impairment	.606*	.398	.691**	.636*	.545*	.541*	1		
Overall Activity Impairment	.481**	.410**	.414**	.519**	.373**	.381**	.844**	1	
Absenteeism	.661**	.600**	.480*	.644*	.360	.398	.822**	.546*	1
Presentism	.358	.187	.634*	.368	.354	.295	.911**	.826*	.388

WPAI- Work productivity and activity impairment, JADI A- Juvenile arthritis damage index- articular, VAS- Visual analogue scale, iHAQ- Indian Health associated questionnaire. * P value < 0.05, ** P value < 0.001.

Figure 2: Association of patient and disease characteristics with activity impairment

A. gender and activity impairment, B. Type of occupation and activity impairment, C. Activity impairment in patients with sustained remission and others, D. current disease activity by CIADAS/ JSpADA and activity impairment

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THU0638

CONSIDERATIONS FOR IMPROVING QUALITY OF CARE IN RHEUMATOID ARTHRITIS AND ASSOCIATED COMORBIDITIES

Tore K. Kvien¹, Karel Pavelka², Joaquim Polido-Pereira³, Anne Grete Semb¹, Magnus Sköld⁴, Alejandro Balsa⁵, Neil Betteridge⁶, Maya Buch⁷, Patrick Durez⁸, Ennio Favalli⁹, Guillaume Favier¹⁰, Cem Gabay¹¹, Rinie Geenen¹², Ioanna Gouni-Berthold¹³, Frank van den Hoogen¹⁴, Alison Kent¹⁵, Lars Klareskog⁴, Mikkel Østergaard¹⁶, Maxime Dougados¹⁷. ¹Diakonhjemmet Hosp, Oslo, Norway; ²Inst Rheumatology, Prague, Czech Republic; ³Hosp Santa Maria, Lisbon, Portugal; ⁴Karolinska U Hosp, Stockholm, Sweden; ⁵Hosp U La Paz, Madrid, Spain; ⁶Betteridge Assoc, London, United Kingdom; ⁷Chapel Allerton Hosp, Leeds, United Kingdom; ⁸Clin U Saint-Luc, Brussels, Belgium; ⁹Gaetano Pini Inst, Milan, Italy; ¹⁰KPMG, London, United Kingdom; ¹¹Geneva U Hosp, Geneva, Switzerland; ¹²Utrecht U, Utrecht, Netherlands; ¹³U Cologne, Cologne, Germany; ¹⁴Sint Maartenskliniek, Nijmegen, Netherlands; ¹⁵Salisbury Hosp, Salisbury, United Kingdom; ¹⁶Rigshospitalet, Copenhagen, Denmark; ¹⁷Cochin Hosp, Paris, France

Background: The presence of comorbidities in patients with rheumatoid arthritis (RA) contributes to increased morbidity and mortality⁽¹⁾. Patients