

**Table 2a: Domains and Corresponding Outcome Measures in PsA Randomized Controlled Trials, Longitudinal Observational Studies and Registries in 2010-2015**

2006 PsA Core Domain Set (8)	Domains	Outcome Measures Number/Domain	Studies assessing each Domain and Outcome			Overlap with patient PsAID domains
			Randomized Controlled Trials (N=22)	Measure n(%) Longitudinal Observational Studies (N=27)	Registries (N=12)	
Inner Circle	<b>Pain</b>	<b>8</b>	<b>22 (100)</b>	<b>18 (66.7)</b>	<b>8 (66.7)</b>	<b>Yes</b>
	Pain	Patient assessment of pain (VAS)	17 (77.3)	15 (83.3)	8 (100)	
		Patient assessment of arthritis joint pain (VAS)	4 (18.2)	0	1	
		Arthritis Self Efficacy Scale-Pain (ASES-Pain)	1 (4.5)	0	0	
		Arthritis Self Efficacy Scale-Pain (ASES-Pain)	1 (4.5)	0	0	
		Arthritis Impact Measurement Scales (AIMS2)	0	1 (5.6)	0	
		Arthritis Impact Measurement Scales (AIMS2)	0	1 (5.6)	0	
		Axial nocturnal pain (Y/N)	0	1 (5.6)	0	
		Peripheral nocturnal pain (Y/N)	0	1 (5.6)	0	
		Pain (11 point NRS)	0	1 (5.6)	0	
		Pain (Likert 0-5)	0	1 (5.6)	0	
	<b>Peripheral Joint Activity</b>	<b>14</b>	<b>21 (95.4)</b>	<b>24 (88.9)</b>	<b>10 (83.3)</b>	<b>No</b>
	Peripheral Joint Activity	SJC/TJC (66/68)	9 (42.8)	12 (50)	3 (30)	
		SJC/TJC (count not reported)	6 (28.6)	1 (4.2)	1 (10)	
		SJC/TJC (76/78)	4 (19)	3 (12.5)	0	
		SJC/TJC (66/72)	1 (4.8)	0	0	
		SJC/TJC (28, grading 0 none to 3 severe)	1 (4.8)	1 (4.2)	0	
		SJC/TJC (28)	0	3 (12.5)	6 (60)	
		SJC/TJC (28)	0	1 (4.2)	0	
	SJC/TJC (44)	0	1 (4.2)	0		
	SJC/TJC (70/72)	0	0	1 (10)		
	SJC/TJC (53/54)	0	2 (8.3)	0		
	Active Joint Count (AJC)	0	4 (16.7)	1 (10)		

	Damaged/Deformed Joint Count	0	1 (4.2)	0		
	RADAI Self-Report Joint Count	0	1 (4.2)	0		
	Number of Painful Regions (0–18)	0	1 (4.2)	1		
	BASDAI item #3 –Pain/Swelling Peripheral Joints					
<b>Physical Function</b>		<b>8</b>	<b>20 (90.9)</b>	<b>21 (77.8)</b>	<b>11 (91.7)</b>	<b>Yes</b>
Physical Function	Health Assessment Questionnaire Disability Index (HAQ-DI)		20 (100)	16 (76.2)	7 (63.6)	
	Disabilities of arm, shoulder and hand scale (DASH) -upper extremity function	1 (5)		0	0	
	Modified RA outcome score -lower extremity	1 (5)		0	0	
	BASFI	0		4 (19.0)	5 (45.4)	
	Modified HAQ (mHAQ)	0		1 (4.8)	2 (18.2)	
	Multidimensional health assessment questionnaire (MDHAQ)	0		2 (9.5)	0	
	Late Life Disability Instrument (LLDI)	0		1 (4.8)	0	
	ACR functional class	0		0	1 (9.1)	
<b>Skin</b>		<b>15</b>	<b>19 (86.4)</b>	<b>19 (70.4)</b>	<b>5 (41.7)</b>	<b>Yes</b>
Skin: Physician Assessment	Psoriasis Area and Severity Index (PASI)		16 (84.2)	16 (84.2)	3 (75.0)	
	Psoriasis >3% Body Surface Area (BSA)	8 (42.1)		0	0	
	Physician global assesment of psoriasis (0 clear to 5 severe)	3 (15.8)		2 (10.5)	1 (20)	
	Mean Body Surface Area	3 (15.8)		7 (36.8)	1(20)	
	Target psoriatic skin lesion score (0-12, 12 worse)	2 (10.5)		0	0	
	Physician Global Psoriasis Activity (VAS)	0		2 (10.5)	0	
	NPF-PS Physician Global Assessment	0		1 (5.3)	0	
Skin: Patient Assessment	Physician Global Psoriasis Activity (VAS)	0		1 (5.3)	0	
	NPF-PS Physician Global Assessment	1 (5.3)		0	1 (20)	
		1 (5.3)		0	0	
		1 (5.3)		0	0	

	Physician Global Psoriatic Disease Activity (Skin and Nail) (VAS)	1 (5.3) 0 0	5 (26.3) 1 (5.3) 1 (5.3)	0 0 0	
	Psoriasis Symptom Inventory (PSI)	0	1 (5.3)	0	
	Patient General health -Psoriasis (VAS)				
	Itch (VAS)				
	Patient Global Psoriasis Activity (VAS)				
	DLQI item #4 -Psoriasis Pain and Itch				
	Patient Global Psoriatic Disease Activity (Skin and Nail) (VAS)				
	Patient Assessment Skin Status (Likert)				
<b>Patient Global</b>		<b>9</b>	<b>18 (81.8)</b>	<b>20 (74.1)</b>	<b>10 (83.3)</b>
Patient Global	Patient (global) Assesment of Disease Activity (VAS)	16 (88.9)	6 (30.0)	1 (10)	<b>No</b>
	Patient Global Assessment (VAS)	5 (27.8)	10 (50.0)	6 (60)	
	Patient's Global Health Assessment (VAS)	1 (5.6)	3 (15.0)	4 (40)	
	Patients Global Arthritis (Joint) Activity (VAS)	1 (5.6)	4 (20.0)	1(10)	
	Patient Assessment of Target Joint (VAS)	0	0	0	
	Patient Global Score Psoriasis and Arthritis (VAS)	0	1 (5.0)	1 (10)	
	Patient Global Status (Likert)	0	1 (5.0)	0	
	Patient Global Health (NRS)	0	1 (5.0)	0	
	Patient Global Rheumatic Disease Activity (VAS)	0	1 (5.0)	0	
<b>HRQL</b>		<b>10</b>	<b>17 (77.3)</b>	<b>14 (51.8)</b>	<b>7 (58.3)</b>
HRQL	Short Form-36 (SF-36)	12 (70.6)	8 (57.1)	4 (66.7)	
	DLQI	6 (35.3)	5 (35.7)	0	
	Psoriatic Arthritis Quality of Life	3 (17.6)	2 (14.3)	0	

	(PsAQoL)	3 (17.6)	4 (28.6)	3 (42.8)		
	Euro-Quality of Life (Euro-QoL)	0	1 (7.1)	0		
	Psoriasis index of quality of life (PSORIQoL)	0	5 (35.7)	1 (16.7)		
	Ankylosing spondylitis quality of life (ASQoL)	0	1 (7.1)	0		
	Short Form-6D (SF-6D)	0	0	1 (16.7)		
	Short Form 12 (SF-12)					
	Illness Intrusiveness Scale (IIS)					
	Assessment of quality of life (AQoL)					
<b>Outer Circle</b>	<b>“Acute Phase Reactants”</b>	<b>2</b>	<b>22 (100)</b>	<b>20 (74.1)</b>	<b>10 (83.3)</b>	<b>No</b>
	Systemic Inflammation Markers		22 (100)	19 (95.0)	10 (100)	
	C-Reactive Protein (CRP)		10 (45.5)	18 (90.0)	9 (90)	
	Erythrocyte Sedimentation Rate (ESR)					
	<b>Physician Global</b>	<b>10</b>	<b>18 (81.8)</b>	<b>13 (48.1)</b>	<b>7 (58.3)</b>	<b>No</b>
	Physician Global		9 (50)	4 (30.8)	2 (28.6)	
	Physician (Global) Assessment of Disease Activity (VAS)		6 (33.3)	7 (53.8)	5 (71.4)	
	Physician Global Assessment (VAS)		1 (5.6)	0	0	
	Physician Global Health Assessment (VAS)		1 (5.6)	3 (23.1)	1 (14.3)	
	Physician’s Global Assessment of Arthritis -Joint (VAS)		1 (5.6)	0	0	
	Physician’s Global Assessment of Psoriasis (Likert)		1 (5.6)	0	0	
	Physician Global Assessment Response -Skin (Likert)		0	1 (7.7)	0	
	Physician Global Assessment of Psoriasis -Skin and Nail (VAS)		0	1 (7.7)	0	
	Physician Global Score -Psoriasis and Arthritis (VAS)		0	0	1 (14.3)	
	Physician Global Status (Likert)					
	Physician Global Assessment of					

		Disease Activity (Likert)				
<b>Enthesitis</b>		<b>10</b>	<b>13 (59.1)</b>	<b>12 (44.4)</b>	<b>3 (25.0)</b>	<b>No</b>
Enthesitis	Presence of enthesitis		8 (61.5)	3 (25.0)	1 (33.3)	
	Leeds Enthesitis Index (LEI)		4 (30.8)	2 (16.7)	0	
	Maastricht Ankylosing Spondylitis Enthesis Score (MASSES)		3 (23.1)	4 (33.3)	2 (66.7)	
	Modified MASSES		3 (23.1)	0	0	
	Impact Index (0-4, Achilles Tendon, Plantar Fascia)		2 (15.4)	0	0	
	Spondyloarthritis Research Consortium of Canada Index (SPARCC)		1 (7.7)	2 (16.7)	1 (33.3)	
	Future1 RCT Index (0-4, Lateral Epicondyle, Achilles Tendon)		1 (7.7)	0	0	
	Enthesis count (0-13)		0	2 (16.7)	0	
	Enthesis count (0-8)		0	2 (16.7)	0	
	Tender enthesial count (total NR)		0	1 (8.3)	0	
	Enthesial Pain (VAS)		0	1 (8.3)	0	
<b>Dactylitis</b>		<b>5</b>	<b>13 (59.1)</b>	<b>12 (44.4)</b>	<b>1 (8.3)</b>	<b>No</b>
Dactylitis	Presence of dactylitis		11 (84.6)	5 (41.7)	1 (100)	
	Dactylitis score (20 digits, graded 0 none to 3 severe, max score 60)		5 (38.4)	0	0	
	Dactylitis Score (maximum score 20)		4 (30.8)	6 (50)	1 (100)	
	Leeds Dactylitis Index (LDI)		3 (23.1)	3 (25.0)	0	
	Dactylitis Score (point scale 0 very good to 4 very severe)		0	1 (8.3)	0	
<b>Fatigue</b>		<b>10</b>	<b>7 (35)</b>	<b>12 (44.4)</b>	<b>4 (33.3)</b>	<b>Yes</b>
Fatigue	Fatigue/Tiredness (VAS)		3 (43)	3 (25.0)	3 (75.0)	
	Functional Assessment of Chronic Illness Therapy (FACIT)		3 (43)	3 (25.0)	0	
	Fatigue Assessment Scale (FAS)		1 (14)	0	0	
	Modified Fatigue Severity Score (FSS)		0	1 (8.3)	0	
	Bristol RA Fatigue (BRAFF) (NRS)		0	1 (8.3)	0	
	Multidimensional assessment of		0	1 (8.3)	0	

	fatigue (MAF)	0	3 (25.0)	1 (25.0)	
	PsAQOL item 1 -Fatigue	0	1 (8.3)	0	
	BASDAI item 1 -Fatigue/Tiredness	0	1 (8.3)	0	
	Fatigue (Likert)				
	Fatigue (NRS)				
<b>Nail</b>		<b>8</b>	<b>5 (22.7)</b>	<b>8 (29.6)</b>	<b>1 (8.3)</b>
Nail	Modified Nail Psoriasis Severity	2 (40)	3 (37.5)	0	
	Index (NAPSI)	1 (20)	1 (12.5)	0	
	Nail Psoriasis Severity Index (NAPSI)	1 (20)	4 (50.0)	0	
	Presence of Nail Involvement	1 (20)	0	0	
	Number of Fingernails Affected	1 (20)	0	0	
	Target NAPSI score	0	1 (12.5)	0	
	Nail Disease Score	0	0	1 (100)	
	Nail Lesion (Likert)				
	Nail Psoriasis (VAS)				
<b>Spine</b>		<b>11</b>	<b>4 (20)</b>	<b>9 (33.3)</b>	<b>5 (41.7)</b>
	BASDAI	4 (100)	8 (88.9)	5 (100)	
	Ankylosing Spondylitis Disease Activity Score (ASDAS)	0	4 (44.4)	0	
	Bath Ankylosing Spondylitis Patient Global Score (BAS-G)	0	1 (11.1)	0	
	Axial nocturnal pain (Y/N)	0	1 (11.1)	0	
	Clinical assessment of spinal pain (0-4)	0	1 (11.1)	0	
	Spinal pain (VAS)	0	0	1 (20)	
	Spinal nocturnal pain (VAS)	0	0	1 (20)	
	Spinal mobility: modified Schober	0	0	1 (20)	
	Spinal mobility: occiput to wall	0	0	1 (20)	
	Spinal mobility: lateral lumbar flexion				
<b>"Radiology"</b>		<b>10</b>	<b>6 (27.3)</b>	<b>6 (22.2)</b>	<b>2 (16.7)</b>
Radiographic Damage	PsA Modified van der Heijde-Sharp (vdH-S) Score	6 (100)	2 (33.3)	0	
	Modified Steinbrocker Scoring Method	0	2 (33.3)	0	
	Radiographic Erosion or	0	1 (16.7)	1 (50)	
		0	2 (33.3)	0	
		0	2 (33.3)	1 (50)	

		Osteolysis (Y/N)						
		Ratingen Scoring System	0	1 (16.7)	1 (50)			
		Bath Ankylosing Spondylitis						
		Radiology Index (BASRI) -Spine	0	1 (16.7)	1 (50)			
		Bath Ankylosing Spondylitis						
		Radiology Index (BASRI) -Hip	0	1 (16.7)	0			
		Bath Ankylosing Spondylitis						
		Radiology Index (BASRI) -Total	0	1 (16.7)	0			
		Modified Stoke Ankylosing						
		Spondylitis Spine Score	0	1 (16.7)	0			
		(mSASSS)						
		Radiographic Ankylosing						
		Spondylitis Spinal Score (RASSS)						
		Psoriatic Arthritis Spondylitis						
		Radiology Index (PASRI)						
<b>Research Agenda</b>	<b>"MRI/CT/US"</b>		<b>9</b>	<b>4 (20)</b>	<b>4 (14.8)</b>	<b>1 (8.3)</b>	<b>No</b>	
	Synovial, enthesal, digital or spinal disease activity and damage	Modified RA Magnetic Resonance Imaging Scoring (mRAMRIS or PsAMRIS)	2 (50)	0	0	0		
		Ultrasound Synovitis (Y/N)	1 (25)	2 (50.0)	0	0		
		Contrast-Enhanced Ultrasound (CEUS)	1 (25)	0	0	0		
		0	0	1 (25.0)	0	0		
		0	0	1 (25.0)	0	0		
		MAdrid Sonographic Enthesitis Index (MASEI)	0	0	0	1 (100)		
		Glasgow Ultrasound Enthesitis Scoring System (GUESS)	0	0	0	1 (100)		
		Ultrasound entheses (thickening, calcification, fluid, erosion, PD)	0	0	0	1 (100)		
		Ultrasound dactylitis (Y/N, PD)	0	0	0	1 (100)		
		Ultrasound joints (synovitis, erosion, joint space narrowing, PD)	0	0	0	1 (100)		
		MRI (pelvis, hips, spine, peripheral joints)						
		<b>Participation</b>		<b>3</b>	<b>1 (4.5)</b>	<b>1 (3.7)</b>	<b>0</b>	<b>Yes</b>
		Participation	AIMS2 -Social	1 (100)	0	0	0	
			Social Role Participation	0	1 (100)	0	0	

	Questionnaire (SRPQ)	0	1 (100)	0			
	Keele Assessment of Participation (KAP)						
	<b>"Tissue analysis"</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>		
<b>Other Domains not in the Core Set</b>	<b>Productivity</b>	<b>15</b>	<b>7 (31.8)</b>	<b>5 (18.5)</b>	<b>4 (33.3)</b>		
	Productivity						
		Impact of PsA on Work	2 (28)	0	0		
		Productivity (VAS)	1 (14)	2 (40.0)	0		
		Work Limitations Questionnaire (WLQ)	1 (14)	0	0		
		Work Productivity Survey (WPS)	1 (14)	0	0		
		Productivity Score (VAS)					
		Change in Employment Due to Arthritis/Psoriasis Symptoms (Y/N)	1 (14)	0	1 (25)		
		Sick Days (number of sick days/month)	1 (14)	0	0		
			0	1 (20.0)	1 (25)		
		AIMS2 –Role	0	1 (20.0)	0		
		Work Productivity and Activity Impairment (WPAI)	0	1 (20.0)	0		
		Questionnaire Assessment of Work-Related Factors (QAWRF)	0	1 (20.0)	0		
		Health and Labour Questionnaire (HLQ)	0	1 (20.0)	0		
			0	0	1 (25)		
			0	0	1 (25)		
		Difficulties at Work (Y/N)					
		Work Absenteeism					
		Working Status (Work Disability Y/N)					
		Disability Pension (Y/N)					
		Productivity losses (absenteeism due to health-related absence from work)					
		<b>Stiffness</b>	<b>4</b>	<b>4 (18.2)</b>	<b>4 (14.8)</b>	<b>1 (8.3)</b>	
		Stiffness					
			Duration of Morning Stiffness	3 (75)	2 (50)	0	
			Morning Stiffness Lasting 45 Minutes	1 (25)	0	0	
				0	1 (25)	1 (100)	
			BASDAI item #6 Duration of Morning Stiffness	0	1 (25)	0	
		Patient Assessment of Morning					

		Stiffness (VAS)				
<b>Anxiety</b>		<b>1</b>	<b>2 (9.1)</b>	<b>1 (3.7)</b>	<b>0 (0)</b>	<b>Yes</b>
Anxiety	Hospital Anxiety and Depression Scale (HADS)-Anxiety		2 (100)	1 (100)	0	
<b>Depression</b>		<b>2</b>	<b>2 (9.1)</b>	<b>2 (7.4)</b>	<b>0 (0)</b>	<b>Yes</b>
Depression	HADS-Depression		2 (100)	1 (50)	0	
	PSAQoL item #4 "I can't do the things I want to do"		0	1 (50)	0	
<b>Coping</b>		<b>2</b>	<b>1 (4.5)</b>	<b>0</b>	<b>0</b>	<b>Yes</b>
Coping	Patient Activation Measure (PAM)		1 (100)	0	0	
	ASES -Other Symptom Subscale		1 (100)	0	0	
<b>Well-Being</b>		<b>1</b>	<b>1 (4.5)</b>	<b>0</b>	<b>0</b>	<b>No</b>
Well-Being	Arizona Integrative Outcomes Scale (AIOS)		1 (100)	0	0	
<b>Self-Efficacy</b>		<b>1</b>	<b>0</b>	<b>1 (3.7)</b>	<b>0</b>	<b>No</b>
Self-Efficacy	ASES		0	1 (100)	0	
<b>Sleep</b>		<b>1</b>	<b>0</b>	<b>1 (3.7)</b>	<b>0</b>	<b>Yes</b>
Sleeping Disturbance	Sleeping disorder due to night pain (0-3)		0	1 (100)	0	

Table 2a is the complete original version of abbreviated Table 2 provided in text (due to space considerations). Domains and outcome measures are listed in decreasing order of frequency of assessment in RCTs. Abbreviations not listed in Table 2: VAS Visual Analog Scale; Y/N Yes/No; NRS Numerical Rating Scale, SJC Swollen Joint Count; TJC Tender Joint Count; RADAI Rheumatoid Arthritis Disease Activity Index; NPF-PS National Psoriasis Foundation Psoriasis Score calculated as: Severity (score of 0-5 for average of erythema, induration, scaling)\*Body Surface Area (score of 0-5); BASDAI Bath Ankylosing Spodylitis Activity Index; RA Rheumatoid Arthritis; BASFI Bath Ankylosing Spondylitis Functional Index; DLQI Dermatology Life Quality Index; Likert 5 point scale; We listed in quotation marks “ “ items listed in the 2006 PsA core set that do not represent actual domains rather modalities of assessment (eg: Radiology, MRI, Tissue analysis, Acute phase reactants).