Table 1. Summary Table of Measures of Disease Activity in Rheumatoid Arthritis (RA).[†] Color coding denotes variations of the same measure.

							Psychometric properties[‡]		
Measure/Scale	**Measure outputs**	**No. of items**	**Response Format**	**Method of Administration**	**Time for administration***	**Validated in RA**	**Reliability**	**Validity**	**Responsiveness**
DAS (Disease Activity Score)	A single source on a continuous scale (0-10).	4 items, or 3 when Pt Global VAS is omitted.	RAI: 0-78; SJC44:0-44; ESR: 0-100; Pt Global VAS: 0-100	Provider assessment, patient item, lab.	Patient: ≈ 10 seconds Provider: 5-8 minutes Lab: 1 hour waiting time for ESR	Yes	Excellent	Excellent	Excellent
DAS-28 (Disease Activity Score with 28 Joint Counts)	A single source on a continuous scale (0-9.4).	4 items, or 3 when general health is omitted.	TJC28: 0-28; SJC28: 0-28; ESR 0-100; Pt Global VAS: 0-100	Provider assessment, patient item, lab.	Patient: ≈ 10 seconds Provider: 3-5 minutes Lab: 1 hour waiting time for ESR	Yes	Excellent	Excellent	Excellent
SDAI (Simplified Disease Activity Index)	A single source on a continuous scale (0-86).	5 items	TJC28: 0-28; SJC28: 0-28; Pt Global VAS: 0-10; CRP: 0-10	Provider item; patient item; lab	Patient: ≈ 10 seconds Provider: ≈ 2 minutes Lab: waiting time for CRP varies by lab	Yes	Good, test-retest reliability for composite has not been evaluated.	Excellent	Excellent
CDAI (Clinical Disease Activity Index)	A single source on a continuous scale (0-76).	4 items	TJC28: 0-28; SJC28: 0-28; Pt Global VAS: 0-10; Pr Global VAS: 0-10	Provider item; patient item	Patient: ≈ 10 seconds Provider: < 2 minutes Lab: N/A	Yes	Good, test-retest reliability for composite has not been evaluated.	Excellent	Excellent
PAS (Patient Activity Score)	A single source on a continuous scale (0-10).	3 items	HAQ: 0-3; Pain VAS: 0-10; Pt Global	Patient questionnaire	Patient: < 3.5 minutes	Yes	Acceptable, test-retest reliability for	Acceptable	Acceptable for individual components.

			VAS: 0-10		Provider: < 1 minute Lab: N/A		composite has not been evaluated.		
PASII (Patient Activity Score-II)	A single source on a continuous scale (0-10).	3 items	HAQII: 0-3; Pain VAS: 0-10; Pt Global VAS: 0-10	Patient questionnaire	Patient: < 1.5 minutes Provider: <30 seconds Lab: N/A	Yes	Acceptable, test-retest reliability for composite has not been evaluated.	Acceptable	Acceptable for individual components.
RAPID3 (Routine Assessment of Patient Index Data with 3 measures)	A single source on a continuous scale (0-10).	3 items	MDHAQ: 0-3; Pain VAS: 0-10; Pt Global VAS: 0-10	Patient questionnaire	Patient: ≈ 1.5 minutes Provider: < 30 seconds Lab: N/A	Yes	Acceptable, test-retest reliability for composite has not been evaluated.	Good	Acceptable for individual components.
RAPID4PTJC (Routine Assessment of Patient Index Data with 4 measures)	A single source on a continuous scale (0-10).	4 items	MDHAQ: 0-3; Pain VAS: 0-10; Pt Global VAS: 0-10; Self-TJC: 0-48	Patient questionnaire; patient joint count	Patient: 5-10 minutes Provider: < 1 minute Lab: N/A	Yes	Acceptable, test-retest reliability for composite has not been evaluated.	Good	Acceptable for individual components.
RAPID4MDJC (Routine Assessment of Patient Index Data with 4 measures)	A single source on a continuous scale (0-10).	4 items	MDHAQ: 0-3; Pain VAS: 0-10; Pt Global VAS: 0-10; TJC: 0-28; SJC: 0-26	Patient questionnaire; provider joint count	Patient: < 1.5 minutes Provider: ≈ 2 minutes Lab: N/A	Yes	Acceptable, test-retest reliability for composite has not been evaluated.	Good	Acceptable for individual components.
RAPID5 (Routine Assessment of Patient Index Data with 5 measures)	A single source on a continuous scale (0-10).	5 items	MDHAQ: 0-3; Pain VAS: 0-10; Pt Global VAS: 0-10; Pr Global VAS 0-10; TJC: 0-48	Patient questionnaire; provider item; patient or provider joint count	Patient: 5-10 minutes if patient joint count and < 5 minutes if provider joint count Provider: < 1 minute if patient joint count; < 2.5 minutes if provider joint count	Yes	Acceptable, test-retest reliability for composite has not been evaluated.	Good	Acceptable for individual components.

					Lab: N/A				
RADAI-5 (Rheumatoid Arthritis Disease Activity Index-5)	A single source on a continuous scale (0-10).	5 items	Global activity over 6 moths: 0-10; Current activity: 0-10; Pain: 0-10; Health status: 0-10; Stiffness: 0-10	Patient questionnaire	Patient: < 1 minute Provider: < 30 seconds Lab: N/A	Yes	Good, test-retest reliability for composite has not been evaluated.	Good	Poor
CASI (Chronic Arthritis Systemic Index)	A single source on a continuous scale (0-74).	4 items	HAQ: 0-3; Pain VAS: 0-100; ESR: 0-100; RAI: 0-78	Patient questionnaire, provider assessment, lab	Patient: < 3.5 minutes Provider: ≈ 3 minutes Lab: 1 hour waiting time for ESR	Yes	Excellent	Good	Good
Patient Global Assessment of Disease Activity Visual Analog Scale	A single source on a continuous scale (0-100).	1 item	0-10 or 0-100 VAS	Patient item	Patient: ≈ 10 seconds Provider: ≈ 10 seconds Lab: N/A	Yes	Good	Acceptable	Poor
Provider Global Assessment of Disease Activity Visual Analog Scale	A single source on a continuous scale (0-100).	1 item	0-10 or 0-100 VAS	Provider item	Patient: N/A Provider: ≈ 10 seconds Lab: N/A	Yes	Excellent	Good	Acceptable

[†]Pr Global VAS = Provider Global Visual Analog Scale; Pt Global VAS = Patient Global Visual Analog Scale; RAI = Ritchie Articular Index (53 points in 26 graded units, graded for tenderness on pressure; maximum score 78); SJC = Swollen Joint Count; TJC = Tender Joint Count; HAQ = Health Assessment Questionnaire; HAQII = Health Assessment Questionnaire-II; MDHAQ = Multi-dimensional Health Assessment Questionnaire; Lab = Laboratory value required;

Stiffness = Early morning stiffness scale; ESR = Erythrocyte sedimentation rate; CRP = C-reactive protein.

[‡]Psychometric properties were subjectively ranked using an ordered category scale (Excellent, Good, Acceptable, Poor, Unacceptable) based on currently published literature.

*Times were derived from multiple sources (authors of this paper, published comments, and formal studies) in varying populations and should be considered rough estimates. For the most part, they were not determined in head-to-head studies, precluding direct comparison between measures.(19, 22, 36, 57, 58)