

## Calculate\_disease\_scores()

### Calculating Disease Activity Scores for SPARC

Data elements from +/- 7 days can be collapsed together to calculate scores.

Score Element	Derived Variable (Y/N)	DDM Table	DDM Data Source	Other DDM Filters	DDM Variable	Notes	
ABDOMINAL.PAIN.SCORE	N	Observations	SF_SPARC; ECRF_SPARC	FOR SF, OBS_TEST_CONCEPT_NAME equals Abdominal Pain-Pain Scale; For ECRF, OBS_TEST_CONCEPT_NAME equals Abdominal Pain	DESCRIPTIVE_SYMP_TEST_RESULTS	Use to calculate A for sCDAI equation.	
						DESCRIPTIVE_SYMP_TEST_RESULTS	A
						None	0
						Mild	1
						Moderate	2
						Severe	3
DAILY.BM	N	Observations	SF_SPARC; ECRF_SPARC	FOR SF, OBS_TEST_CONCEPT_NAME equals Current Average Number of Daily Bowel Movements or Current Maximum Number of Daily Bowel Movements. For ECRF, OBS_TEST_CONCEPT_NAME equals Current Average Number of Daily Bowel Movements or Current Average Number of Daily Liquid Bowel Movements. For ECRF, if OBS_TEST_RESULT_DATE before August 1, 2018 use Current Average Number of Daily Bowel Movements.	TEST_RESULT_NUMERIC; DESCRIPTIVE_SYMP_TEST_RESULTS	This is B for the sCDAI equation. This is N/A for anyone with an ostomy. 20+ was treated as 20 in the sCDAI equation.	
DAILY.BM.VERSION	Y					Refers to the question used to determine the daily.bm variable in the sCDAI equation.	
						1	Current Average Number of Daily Bowel Movements

Score Element	Derived Variable (Y/N)	DDM Table	DDM Data Source	Other DDM Filters	DDM Variable	Notes													
						2	Current Average Number of Daily Liquid Bowel Movements												
						3	Current Maximum Number of Daily Bowel Movements												
GENERAL.WELL.BEING.SCORE	N	Observations	SF_SPARC; ECRF_SPARC	FOR SF, OBS_TEST_CONCEPT_NAME equals Constitutional - General Well-Being; For ECRF, OBS_TEST_CONCEPT_NAME equals General Well-Being	DESCRIPTIVE_SYMP_TEST_RESULTS	Use to calculate G for sCDAI equation. <table><tr><td>DESCRIPTIVE_SYMP_TEST_RESULTS</td><td>G</td></tr><tr><td>Generally well</td><td>0</td></tr><tr><td>Slightly under par</td><td>1</td></tr><tr><td>Poor</td><td>2</td></tr><tr><td>Very poor</td><td>3</td></tr><tr><td>Terrible</td><td>4</td></tr></table>		DESCRIPTIVE_SYMP_TEST_RESULTS	G	Generally well	0	Slightly under par	1	Poor	2	Very poor	3	Terrible	4
DESCRIPTIVE_SYMP_TEST_RESULTS	G																		
Generally well	0																		
Slightly under par	1																		
Poor	2																		
Very poor	3																		
Terrible	4																		
SCDAI.DATE	N	Observations	SF_SPARC; ECRF_SPARC		OBS_TEST_RESULT_DATE														
SCDAI.SCORE <sup>E1</sup>	Y	[Calculated]	SF_SPARC; ECRF_SPARC			Crohn's Disease Only. Only use SF or ECRF to calculate; Do not combine from multiple sources to calculate. If one variable is missing from equation, leave blank for that source. $sCDAI = 44 + (2 \times 7 \times B) + (5 \times 7 \times A) + (7 \times 7 \times G)$													
GLOBAL.ASSESSMENT.SCORE	N	Observations	SF_SPARC	OBS_TEST_CONCEPT_NAME equals Physician's Global Assessment of Current Disease Status	DESCRIPTIVE_SYMP_TEST_RESULTS	This is T for the UCDAI.9.SCORE. <table><tr><td>DESCRIPTIVE_SYMP_TEST_RESULTS</td><td>T</td></tr><tr><td>Quiescent</td><td>0</td></tr><tr><td>Mild</td><td>1</td></tr><tr><td>Moderate</td><td>2</td></tr><tr><td>Severe</td><td>3</td></tr></table>		DESCRIPTIVE_SYMP_TEST_RESULTS	T	Quiescent	0	Mild	1	Moderate	2	Severe	3		
DESCRIPTIVE_SYMP_TEST_RESULTS	T																		
Quiescent	0																		
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RECTAL.BLEEDING.SCORE	Y	Observations	SF_SPARC;	FOR SF, OBS_TEST_CONCEPT_NAME Blood in Stool - Recent	DESCRIPTIVE_SYMP_TEST_RESULTS	If from both sources at baseline separate by semicolon. This is R for the UCDAI.6 & UCDAI.9 SCORE.													

<sup>1</sup> Henao MP, Bewtra M, Osterman MT, Aberra FN, Scott FI, Lichtenstein GR, Kraschnewski J, Lewis JD. Measurement of Inflammatory Bowel Disease Symptoms: Reliability of an Abbreviated Approach to Data Collection. Inflamm Bowel Dis. 2015 Oct;21(10):2262-71. doi: 10.1097/MIB.0000000000000496. PMID: 26193348; PMCID: PMC4567473.

Score Element	Derived Variable (Y/N)	DDM Table	DDM Data Source	Other DDM Filters	DDM Variable	Notes													
			ECRF_SF; PARC;	Change in Rectal Bleeding Amount . For ECRF, OBS_TEST_CONCEPT_NAME equals Blood in Stool and/or Blood Passed Alone		<table><tr><td>DESCRIPTIVE_SYMP_TEST_RESULTS</td><td>R</td></tr><tr><td>None; No blood seen</td><td>0</td></tr><tr><td>Visible blood in stool less than half the time; Blood less than 50% of the time</td><td>1</td></tr><tr><td>Visible blood in stool half the time or more; Blood 50% or more of the time</td><td>2</td></tr><tr><td>Passing blood alone; ECRF: Blood Passed Alone = Yes</td><td>3</td></tr></table>	DESCRIPTIVE_SYMP_TEST_RESULTS	R	None; No blood seen	0	Visible blood in stool less than half the time; Blood less than 50% of the time	1	Visible blood in stool half the time or more; Blood 50% or more of the time	2	Passing blood alone; ECRF: Blood Passed Alone = Yes	3			
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Passing blood alone; ECRF: Blood Passed Alone = Yes	3																		
STOOL.FREQ.SCORE	N	Observations	SF_SF; PARC; ECRF_SF; PARC;	FOR SF, OBS_TEST_CONCEPT_NAME equals Recent Change in Daily Stool Frequency. For ECRF, OBS_TEST_CONCEPT_NAME equals Recent Change in Daily Stool Frequency	DESCRIPTIVE_SYMP_TEST_RESULTS	<table><tr><td colspan="2">If from both sources at baseline separate by semicolon. This is S for the UCDAI.6 &amp; UCDAI.9 SCORE.</td></tr><tr><td>DESCRIPTIVE_SYMP_TEST_RESULTS</td><td>S</td></tr><tr><td>Normal</td><td>0</td></tr><tr><td>1-2 stools/day more than normal</td><td>1</td></tr><tr><td>3-4 stools/day more than normal</td><td>2</td></tr><tr><td>&gt;4 stools/day more than normal; 5 or more stools per day more than normal</td><td>3</td></tr></table>	If from both sources at baseline separate by semicolon. This is S for the UCDAI.6 & UCDAI.9 SCORE.		DESCRIPTIVE_SYMP_TEST_RESULTS	S	Normal	0	1-2 stools/day more than normal	1	3-4 stools/day more than normal	2	>4 stools/day more than normal; 5 or more stools per day more than normal	3	
If from both sources at baseline separate by semicolon. This is S for the UCDAI.6 & UCDAI.9 SCORE.																			
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UCDAI.6.SCORE	Y	[Calculated]				Ulcerative Colitis Only. Only use SF or ECRF to calculate; Do not combine from multiple sources to calculate. If one variable is missing from equation, leave blank for that source. $UCDAI.6.SCORE = S + R$													
UCDAI.9.SCORE	Y	[Calculated]				Ulcerative Colitis Only. Only use SF or ECRF to calculate; Do not combine from multiple sources to calculate. If one variable													

Score Element	Derived Variable (Y/N)	DDM Tabl e	DDM Data Source	Other DDM Filters	DDM Variable	Notes
						is missing from equation, leave blank for that source. $UCDAI.9.SCORE = S + R + T$
UCDAI.DAT E	N	Obse rvati ons	SF_SPA RC; ECRF_S PARC		OBS_TEST_RESULT_DATE	