Supplemental Table 2.2. Characteristics of the Ulcerative Colitis Population at Cohort Entry

Characteristic	Group	New Initiators of Prolonged Steroids or Anti-TNF			Final Cohort Excluding Outliers From Baseline PS			Final Weighted Cohort		
		Steroids (N = 4167)	Anti-TNF (N = 513)		Steroids (N = 3224)	Anti-TNF (N = 459)		Steroids	Anti-TNF	
		%	%	SMD	%	%	SMD	%	%	SMD
Age at index*	1 = 18-34.9	3.5	5.7	0.11	4.1	5.7	0.07	4.3	4.5	0.01
	2 = 35-49.9	6.5	9.0	0.09	7.0	9.2	0.08	7.3	8.1	0.03
	3 = 50-64.9	8.9	9.0	0.00	9.4	8.9	0.02	9.3	9.8	0.02
	4 = 65-69.9	23.9	29.0	0.12	26.9	28.5	0.04	27.2	28.2	0.02
	5 = 70-74.9	20.8	24.6	0.09	22.8	25.3	0.06	23.2	23.4	0.00
	6 = 75-79.9	17.0	12.1	0.14	14.5	12.0	0.07	14.1	14.4	0.01
	7 = 80-84.9	12.2	7.8	0.15	10.3	7.6	0.09	9.9	7.9	0.07
	8 = 85+	7.1	2.9	0.19	5.1	2.8	0.12	4.7	3.8	0.04
Gender*	Female	57.1	55.2	0.04	55.0	54.5	0.01	55.0	55.5	0.01
Race	White	92.1	91.8	0.01	91.4	91.9	0.02	91.3	91.9	0.02
Calendar year at index*	2007	23.5	14.2	0.24	20.7	14.4	0.17	19.7	18.4	0.03
	2008	15.7	12.7	0.09	14.5	12.2	0.07	14.1	14.1	0.00

Characteristic	Group	New Initiators of Prolonged Steroids or Anti-TNF			Final Cohort Excluding Outliers From Baseline PS			Final Weighted Cohort		
		Steroids ($N =$ 4167)	Anti-TNF ($N =$ 513)		Steroids ($N =$ 3224)	Anti-TNF ($N =$ 459)		Steroids	Anti-TNF	
		%	%	SMD	%	%	SMD	%	%	SMD
	2009	12.3	16.0	0.11	13.4	15.7	0.07	13.6	13.7	0.00
	2010	8.9	10.3	0.05	9.7	11.3	0.05	9.9	12.2	0.07
	2011	12.0	12.7	0.02	12.5	12.9	0.01	12.4	13.0	0.02
	2012	11.7	14.4	0.08	12.7	14.6	0.06	12.9	14.2	0.04
	2013	15.8	19.7	0.10	16.5	19.0	0.07	17.5	14.5	0.08
Urban residence*	Yes	74.4	73.3	0.03	74.4	73.2	0.03	74.3	72.6	0.04
Diabetes*^	Yes	18.7	17.0	0.04	18.1	17.2	0.02	17.9	16.8	0.03
Hypertension*^	Yes	48.3	49.9	0.03	48.5	49.2	0.01	48.7	49.2	0.01
Coronary artery disease*^	Yes	20.2	14.2	0.16	17.6	14.4	0.09	17.4	17.8	0.01
Congestive heart failure^	Yes	7.1	5.3	0.07	5.9	5.4	0.02	5.8	5.5	0.01
Carotid artery disease	Yes	1.1	0.8	0.03	1.0	0.7	0.03	0.9	0.4	0.06
Hypercholesterolemia*^	Yes	43.2	42.9	0.01	42.7	42.3	0.01	42.3	41.1	0.02
Osteoporosis^	Yes	13.3	10.7	0.08	11.2	11.1	0.00	11.2	9.8	0.05
Stroke/Parkinson's disease^	Yes	2.7	2.1	0.04	2.4	2.0	0.03	2.4	1.1	0.10

		New Initiators of Prolonged Steroids or Anti-TNF			Final Cohort Excluding Outliers From Baseline PS			Final Weighted Cohort		
		Steroids (*N* = 4167)	Anti-TNF (*N* = 513)		Steroids (*N* = 3224)	Anti-TNF (*N* = 459)		Steroids	Anti-TNF	
Characteristic	Group	%	%	SMD	%	%	SMD	%	%	SMD
Problems with balance*^	Yes	17.9	19.1	0.03	18.2	19.4	0.03	18.4	18.0	0.01
Falls in prior 365 days	Yes	0.6	0.4	0.03	0.5	0.4	0.01	0.4	0.2	0.04
DXA scan in prior 365 days^	Yes	15.9	13.5	0.07	14.6	14.6	0.00	14.8	13.2	0.05
Combined comorbidity score^	0 = ≤ 0	32.5	29.0	0.08	32.9	29.8	0.07	32.7	30.3	0.05
	1 = 1	19.6	20.5	0.02	20.2	20.9	0.02	20.2	24.6	0.11
	2 = 2-3	24.9	28.8	0.09	25.2	26.8	0.04	25.4	25.2	0.00
	3 = 4+	23.0	21.6	0.03	21.7	22.4	0.02	21.7	20.0	0.04
Fistula w/in 365 and 56 days prior to index	0 = none in past 365 days	100.0	100.0		100.0	100.0		100.0	100.0	
Small bowel follow-through exam w/in 365 and 56 days prior to index	0 = none in past 365 days	97.5	96.5	0.06	97.3	96.5	0.05	97.2	95.6	0.09
	1 = w/in 57-365 days prior	1.8	2.7	0.06	1.8	2.8	0.07	1.8	3.7	0.12
	2 = w/in 56 days prior	0.7	0.8	0.01	0.9	0.7	0.02	0.9	0.7	0.02

Characteristic	Group	New Initiators of Prolonged Steroids or Anti-TNF			Final Cohort Excluding Outliers From Baseline PS			Final Weighted Cohort		
		Steroids (*N* = 4167)	Anti-TNF (*N* = 513)		Steroids (*N* = 3224)	Anti-TNF (*N* = 459)		Steroids	Anti-TNF	
		%	%	SMD	%	%	SMD	%	%	SMD
Colonoscopy or sigmoidoscopy w/in 365 and 56 days prior to index*^	0 = none in past 365 days	32.5	11.3	0.53	25.2	12.0	0.34	23.6	22.2	0.03
	1 = w/in 57-365 days prior	52.1	37.8	0.29	55.8	40.5	0.31	53.6	51.6	0.04
	2 = w/in 56 days prior	15.4	50.9	0.81	19.0	47.5	0.63	22.8	26.2	0.08
CT or MRI scan of abdomen/pelvis w/in 365 and 56 days prior to index^	0 = none in past 365 days	74.9	75.2	0.01	75.8	76.3	0.01	75.3	75.8	0.01
	1 = w/in 57-365 days prior	18.8	14.2	0.12	17.7	14.4	0.09	17.6	15.4	0.06
	2 = w/in 56 days prior	6.2	10.5	0.16	6.5	9.4	0.11	7.1	8.8	0.06
C difficile w/in 183 and 56 days prior to index^	0 = none in past 183 days	95.1	92.6	0.10	94.8	93.2	0.07	94.5	94.7	0.01
	1 = w/in 57-183 days prior	3.4	3.3	0.01	3.6	3.3	0.02	3.6	2.5	0.06

Characteristic	Group	New Initiators of Prolonged Steroids or Anti-TNF			Final Cohort Excluding Outliers From Baseline PS			Final Weighted Cohort		
		Steroids (*N* = 4167)	Anti-TNF (*N* = 513)		Steroids (*N* = 3224)	Anti-TNF (*N* = 459)		Steroids	Anti-TNF	
		%	%	SMD	%	%	SMD	%	%	SMD
	2 = w/in 56 days prior	1.5	4.1	0.16	1.6	3.5	0.12	1.9	2.8	0.06
Testing for *C difficile* w/in 183 and 56 days prior to index*^	0 = none in past 183 days	66.0	57.1	0.18	64.9	57.7	0.15	63.8	63.2	0.01
	1 = w/in 57-183 days prior	25.5	21.6	0.09	25.2	22.7	0.06	25.6	19.7	0.14
	2 = w/in 56 days prior	8.5	21.2	0.36	9.9	19.6	0.28	10.6	17.1	0.19
Bowel resection w/in 183 days prior to index	Yes	0.3	0.4	0.02	0.3	0.4	0.02	0.3	0.2	0.02
Serious infection w/in 183 days prior to index^	Yes	4.8	4.5	0.01	3.9	3.9	0.00	4.2	2.4	0.10
Opportunistic infection w/in 183 days prior to index	Yes	0.7	0.8	0.01	0.6	0.9	0.03	0.6	0.7	0.01
Blood transfusion w/in 183 days prior to index^	Yes	4.3	8.8	0.18	4.5	6.8	0.10	4.8	4.8	0.00
Intravenous iron w/in 183 days prior to index	Yes	1.1	1.0	0.01	0.9	0.9	0.00	0.9	0.9	0.00
Parenteral nutrition w/in 183 days prior to index^	Yes	0.7	2.7	0.16	0.8	2.2	0.12	0.9	2.3	0.11
Anemia from iron deficiency or NOS w/in 183 days prior to index*^	Yes	31.2	40.5	0.19	32.3	38.1	0.12	33.2	32.0	0.03

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Characteristic	Group	%	%	SMD	%	%	SMD	%	%	SMD
Other nutritional anemia (eg, B12) w/in 183 days prior to index^	Yes	3.8	2.7	0.06	3.4	2.8	0.03	3.5	2.3	0.07
Weight loss or malnutrition w/in 183 days prior to index^	Yes	6.6	11.9	0.18	7.4	9.8	0.09	7.4	8.6	0.04
Dehydration/hypovolemia w/in 183 days prior to index^	Yes	11.6	14.4	0.08	11.6	14.2	0.08	12.1	12.2	0.00
Electrolyte disorders w/in 183 days prior to index^	Yes	13.9	19.3	0.15	14.1	17.4	0.09	14.6	14.7	0.00
Pyoderma gangrenosum w/in 183 days prior to index	Yes	0.5	0.8	0.04	0.5	0.7	0.03	0.5	0.4	0.01
Stool culture w/in 183 days prior to index*^	Yes	17.8	24.4	0.16	18.7	23.5	0.12	19.5	20.4	0.02
Quinolone Rx w/in 183 days prior to index^	Yes	20.6	21.8	0.03	20.1	22.0	0.05	20.7	19.9	0.02
Metronidazole Rx w/in 183 days prior to index*^	Yes	15.0	26.1	0.28	16.9	24.4	0.19	18.0	20.3	0.06
Other antibiotic Rx w/in 183 days prior to index*^	Yes	35.2	35.7	0.01	35.0	35.5	0.01	35.1	34.4	0.01
Herpes antiviral Rx w/in 183 days prior to index^	Yes	2.7	2.3	0.03	2.5	2.2	0.02	2.6	1.8	0.05
Antifungal Rx w/in 183 days prior to index^	Yes	4.1	5.1	0.05	4.4	4.6	0.01	4.4	4.5	0.00
Mesalamine Rx w/in 183 days prior to index*^	Yes	68.6	76.8	0.18	72.4	77.3	0.11	73.0	74.6	0.04
AZA/6MP Rx w/in 183 days prior to index*^	Yes	17.7	33.1	0.36	21.1	32.0	0.25	22.6	25.3	0.06

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Characteristic	Group	%	%	SMD	%	%	SMD	%	%	SMD
Methotrexate Rx w/in 183 days prior to index^	Yes	0.8	1.2	0.04	0.8	1.3	0.05	0.8	1.6	0.07
Narcotics Rx (excluding Belladonna/Opium) w/in 183 days prior to index*^	Yes	29.9	26.7	0.07	28.2	26.6	0.04	27.8	27.6	0.00
PPI Rx w/in 183 days prior to index*^	Yes	30.8	32.9	0.05	30.6	32.7	0.05	30.9	31.8	0.02
Benzodiazepine Rx w/in 183 days prior to index*^	Yes	4.3	4.7	0.02	4.2	4.8	0.03	4.5	4.0	0.02
Bisphosphonate Rx w/in 183 days prior to index^	Yes	15.4	9.0	0.20	12.4	8.9	0.11	12.2	8.9	0.11
High dose vitamin D Rx w/in 183 days prior to index	Yes	0.5	0.6	0.01	0.3	0.7	0.06	0.3	0.8	0.07
Stains Rx w/in 183 days prior to index*^	Yes	35.2	33.1	0.04	34.5	32.7	0.04	34.1	31.4	0.06
Fibrates Rx w/in 183 days prior to index^	Yes	3.6	2.5	0.06	3.1	2.8	0.02	3.1	2.1	0.06
Prednisone use in 183 days prior to index*	yes	72.8	87.9	0.39	80.5	86.9	0.17	81.5	85.2	0.10
Budesonide use in 183 days prior to index*	Yes	26.8	7.8	0.52	16.1	7.2	0.28	15.1	10.8	0.13
# of non-IBD medication classes taking during 183 days prior to index*^	0-3	19.6	20.5	0.02	21.5	20.7	0.02	21.4	23.4	0.05
	4-6	30.9	27.1	0.08	29.6	28.1	0.03	29.4	28.4	0.02
	7-10	29.8	33.7	0.08	30.7	32.2	0.03	30.8	29.8	0.02

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		Steroids ($N =$ 4167)	Anti-TNF ($N =$ 513)		Steroids ($N =$ 3224)	Anti-TNF ($N =$ 459)		Steroids	Anti-TNF	
Characteristic	Group	%	%	SMD	%	%	SMD	%	%	SMD
	> 10	19.7	18.7	0.03	18.2	19.0	0.02	18.3	18.4	0.00
Total IBD hospitalization days in 183 days prior to index*^	0 = none	81.6	64.5	0.39	79.0	68.0	0.25	77.4	74.1	0.08
	1 = ≥ 1 day	18.4	35.5	0.39	21.0	32.0	0.25	22.6	25.9	0.08
# of hospitalizations other than IBD in 183 days prior to index	0	83.8	89.1	0.16	87.0	88.9	0.06	86.8	89.3	0.08
	1+	16.2	10.9	0.16	13.0	11.1	0.06	13.2	10.7	0.08

* Included in baseline model.

^ Included in time-updating models.