

**Table, Supplemental Digital Content 53.** Risk factors for discontinuation of biologic agents in patients with ulcerative colitis in the discontinuation cohort (univariate analysis)

		First Biologic				Second Biologic			
Risk Factor	Measurement	N	Hazard ratio	95% CL	P value	N	Hazard ratio	95% CL	P value
Age at biologic initiation	Each additional year of age at biologic initiation	166	1.062	(0.978, 1.153)	0.1537	25	0.844	(0.649, 1.097)	0.2044
Age at diagnosis	Each additional year of age at diagnosis	166	1.044	(0.972, 1.121)	0.2349	25	0.900	(0.764, 1.060)	0.2079
Time from diagnosis to start of first biologic	0 to 3 months vs 3 to 12 months	166	0.862	(0.324, 2.293)	0.4492	19	-*	-	0.7849
	0 to 3 months vs >12 months		1.252	(0.478, 3.281)			-	-	
	3 to 12 months vs >12 months		1.453	(0.812, 2.599)			0.544	(0.098, 3.018)	
BMI z-score at biologic initiation	Each additional BMI z-score unit	164	0.909	(0.747, 1.105)	0.3386	24	1.802	(0.685, 4.740)	0.2329
CRP at biologic initiation	Normal vs elevated	127	0.772	(0.399, 1.494)	0.4426	13	-*	-	-
CRP at biologic initiation relative to ULN range	Each additional CRP unit	92	1.041	(0.962, 1.127)	0.3142		-	-	
ESR at biologic initiation	Normal vs elevated	120	0.758	(0.404, 1.422)	0.3881		-	-	

		First Biologic				Second Biologic			
Risk Factor	Measurement	N	Hazard ratio	95% CL	P value	N	Hazard ratio	95% CL	P value
Ethnicity	Hispanic vs non-Hispanic	116	1.375	(0.484, 3.904)	0.5503		-	-	
Extent of disease at biologic initiation - UC	Pancolitis vs other	137	1.327	(0.552, 3.189)	0.5277	19	-*	-	-
Immunomodulator use within the first 6 months post baseline	No vs yes	165	1.335	(0.765, 2.330)	0.3095	24	0.239	(0.029, 1.999)	0.1866
PGA at biologic initiation	Mild vs moderate	162	0.619	(0.307, 1.247)	0.5672	21	-*	-	0.1282
	Mild vs severe		0.620	(0.197, 1.951)			0.060	(0.006, 0.620)	
	Moderate vs severe		1.002	(0.345, 2.910)					
	Quiescent vs mild		1.632	(0.659, 4.042)			9.063	(0.761, 107.9)	
	Quiescent vs moderate		1.010	(0.453, 2.254)			-	-	
	Quiescent vs severe		1.012	(0.303, 3.377)			0.544	(0.069, 4.320)	

		First Biologic				Second Biologic			
Risk Factor	Measurement	N	Hazard ratio	95% CL	P value	N	Hazard ratio	95% CL	P value
Prednisone or methylprednisolone usage at biologic	No vs yes	166	1.298	(0.749, 2.250)	0.3519	25	1.321	(0.295, 5.914)	0.7155
PUCAI	Each additional unit of PUCAI score	147	1.008	(0.995, 1.020)	0.2306	23	1.023	(0.986, 1.061)	0.2226
Race	Black vs non-Black	150	0.504	(0.178, 1.423)	0.1954	22	2.144	(0.390, 11.795)	0.3806
ESR at biologic initiation	Each additional ESR unit	120	1.009	(0.997, 1.021)	0.1379	15	0.998	(0.952, 1.047)	0.9428
Hematocrit at biologic initiation	Each additional hematocrit unit	135	0.993	(0.942, 1.047)	0.7962	17	0.871	(0.597, 1.272)	0.4760
Extent of disease at diagnosis - UC	Pancolitis vs other	160	1.491	(0.738, 3.012)	0.2654	25	2.720	(0.323, 22.90)	0.3572

\*No discontinuation of second biologic was observed in one of the categories in the row variable. Therefore, the hazard ratios for contrasts involving this category are not estimable.

BMI = body mass index; CL = confidence limits; CRP = C-reactive protein; ESR = erythrocyte sedimentation rate; PGA = Physician Global Assessment; PUCAI = Pediatric Ulcerative Colitis Activity Index; UC = ulcerative colitis.