

Table S7. Cox hazard regression analysis: treatment effects and other factors significantly affecting time to discontinuation of biologic therapy; patients with psoriatic arthritis initiating new therapy during the registry

	First-line therapy				Second-line therapy				Third-line therapy			
	Hazard ratio	95% CI	p- value ^a	Missing patients (N=119)	Hazard ratio	95% CI	p- value ^a	Missing patients (N=192)	Hazard ratio	95% CI	p- value ^a	Missing patients (N=141)
Infliximab vs ustekinumab	0.709	0.128, 3.923	0.6936	0	7.639	2.650, 22.024	0.0002	0	1.602	0.469, 5.472	0.4519	0
Adalimumab vs ustekinumab	1.782	0.503, 6.318	0.3710	0	4.170	1.708, 10.185	0.0017	0	1.809	0.606, 5.398	0.2878	0
Etanercept vs ustekinumab	2.563	0.735, 8.941	0.1399	0	3.452	1.323, 9.003	0.0113	0	3.751	1.291, 10.894	0.0151	0
Prior immunomodulator use (Yes vs No)	0.710	0.242, 2.081	0.5322	1	1.527	0.775, 3.012	0.2213	0	1.086	0.393, 3.002	0.8733	0
Concomitant methotrexate (Yes vs No)	0.549	0.172, 1.754	0.3116	0	1.561	0.786, 3.099	0.2030	0	0.922	0.414, 2.057	0.8434	0
Prior TNF- α inhibitor vs prior ustekinumab	NA	NA	NA	NA	5.411	0.662, 44.214	0.1152	0	0.604	0.219, 1.666	0.3299	0
Prior other treatment vs prior ustekinumab	NA	NA	NA	NA	10.181	1.000, 103.614	0.0500	0	1.034	0.123, 8.694	0.9754	0
Male vs Female	2.120	0.765, 5.879	0.1486	0	0.884	0.475, 1.646	0.6972	0	0.561	0.274, 1.149	0.1140	0
Age at PsO diagnosis /10 years ^b	0.690	0.441, 1.079	0.1036	23	1.043	0.815, 1.334	0.7403	32	0.801	0.576, 1.115	0.1887	30
Age at biologic start /10 years ^b	1.881	1.055, 3.352	0.0322	0	0.931	0.689, 1.256	0.6381	0	1.258	0.844, 1.875	0.2591	0
Non-white vs White	2.986	0.431, 20.666	0.2678	0	2.216	0.932, 5.269	0.0717	0	1.860	0.707, 4.896	0.2088	0

Overweight/obesity class I (25≤BMI<35 vs <25)	0.599	0.138, 2.609	0.4951	2	1.753	0.645, 4.765	0.2713	2	1.026	0.326, 3.231	0.9651	2
Obesity class II/III (BMI≥ 35 vs <25)	1.232	0.258, 5.885	0.7938	2	1.422	0.473, 4.279	0.5306	2	1.003	0.285, 3.533	0.9967	2
Alcohol (current/past vs never)	0.627	0.214, 1.832	0.3932	0	1.025	0.444, 2.364	0.9544	1	0.568	0.232, 1.391	0.2160	0
Smoking (current/past vs never)	1.372	0.529, 3.560	0.5151	0	0.713	0.386, 1.320	0.2818	0	1.020	0.496, 2.097	0.9580	0
Family history of PsO vs no history of PsO	0.646	0.232, 1.797	0.4022	0	1.331	0.741, 2.393	0.3385	0	0.869	0.394, 1.919	0.7288	0
Baseline PGA 2,3 vs 0,1	0.704	0.138, 3.589	0.6732	3	1.303	0.596, 2.850	0.5070	5	1.322	0.474, 3.688	0.5944	2
Baseline PGA 4,5 vs 0,1	0.680	0.101, 4.578	0.6919	3	0.738	0.257, 2.114	0.5710	5	1.665	0.500, 5.547	0.4065	2
PsA vs no PsA	NA	NA	NA	0	NA	NA	NA	0	NA	NA	NA	0
Europe ^c vs North America ^d	3.624	0.545, 24.079	0.1827	0	0.999	0.378, 2.638	0.9985	0	0.138	0.015, 1.281	0.0814	0
Latin America ^e vs North America ^d	NA	NA	NA	0	16.186	3.016, 86.868	0.0012	0	0.772	0.116, 5.140	0.7895	0
Disc: efficacy vs insurance	NA	NA	NA	NA	0.997	0.342, 2.905	0.9959	0	1.271	0.193, 8.371	0.8032	0
Disc: adverse event vs insurance	NA	NA	NA	NA	1.274	0.325, 5.000	0.7283	0	1.942	0.217, 17.352	0.5526	0
Disc: patient choice vs insurance	NA	NA	NA	NA	0.874	0.260, 2.936	0.8280	0	0.820	0.138, 4.865	0.8275	0
Disc: reason unknown vs due to insurance	NA	NA	NA	NA	7.187	1.989, 25.969	0.0026	0	6.950	0.943, 51.213	0.0571	0
Disc: other reason ^f vs insurance	NA	NA	NA	NA	2.881	0.697, 11.910	0.1439	0	1.022	0.126, 8.318	0.9836	0
Ins: Gov/Public vs None	0.452	0.056, 3.668	0.4572	0	1.896	0.323, 11.110	0.4784	0	0.221	0.030, 1.618	0.1373	0

Ins: Private vs None	3.770	0.628, 22.644	0.1469	0	1.114	0.211, 5.871	0.8988	0	0.711	0.109, 4.625	0.7213	0
Ins: Gov/Public & Private vs None	3.153	0.245, 40.574	0.3783	0	1.110	0.144, 8.584	0.9204	0	0.224	0.013, 3.859	0.3032	0

BMI=body mass index; CI=confidence interval; Disc=discontinuation; Gov=government; Ins=insurance; NA=not applicable, PGA=Physician's Global Assessment; PsA-psoriatic arthritis; PsO=psoriasis; TNF=tumor necrosis factor.

^ap-value derived from Wald Chi-square test.

^bResults presented here represent the imputed model. When the non-imputed model was calculated, results differed due to the large number of missing patients for age at diagnosis. When the non-imputed model was re-run without this factor, the results without imputation were consistent with the imputed data reported here.

^cEurope includes Austria, Belgium, Czech Republic, Greece, The Netherlands, Portugal, Slovakia, Slovenia, Ukraine, and Israel.

^dNorth America includes the United States and Canada.

^eLatin America includes Chile, Columbia, Argentina, and Mexico.

^fOther reasons for discontinuation (e.g., adverse events, lack of effectiveness, patient choice) were associated with time to stop/switch.