

Supplemental Tables/eTables**eTable 1A: Intervention HCPCS/CPT Codes**

Intervention	HCPCS/CPT Codes
Ipilimumab infusion	J9228/C9284
Nivolumab infusion	J9299/C9453
Pembrolizumab infusion	J9271/C9027
Methylprednisolone infusion	J2920/J2930
Hospitalization	99221-99223/99234-99236/99218-99220

eTable 1B: Oral Prednisone NDC Code Stems

545693043	500902403	332610352	105440125	551544926	619190373	591150140	504364326
500900095	500902532	332610780	105440274	551544938	619190404	591150141	504364324
500900096	500902608	532170255	105440473	551544946	619190235	597460171	504364325
500900099	500902786	532170288	105440538	551544949	619190226	597460172	504361720
500900100	500902789	532170292	105440913	551544950	619190342	597460173	707860172
500900101	500902804	606870122	105440914	551544954	619190995	597460175	504361750
500900093	500902822	606870134	105440915	551544965	619190321	683870240	1431410
500900094	545690330	606870145	636291579	681510820	682583013	683870241	1439741
500900097	545690331	433530657	636291587	581180018	663360094	353560674	1431425
500900098	545690332	433530819	636291605	581184728	663360058	499990008	1431473
500900102	545690333	675440399	636294562	581185338	663360219	499990110	1431475
500900439	545693302	126340188	636294658	581189738	663360428	353560673	1431477

500901001	545694026	126340184	636295250	581180027	604290130	499990028	1439738
500901002	545693413	178563722	636296621	581185442	604290131	353560677	1439739
500901455	545695840	105440508	636296659	556950013	604290132	353560818	1439740
500901989	5915052	105440509	636297335	556950014	765191048	353560819	540017
500901990	5915442	105440045	636297388	556950015	529590126	557000049	540018
500901991	5915443	105440046	4636141	556950024	529590127	557000072	540019
500902136	332610129	105440048	4636155	619190326	529590220	557000203	543722
500902402	332610351	105440093	708820117	619190365	591150139	557000208	544728
557000209	6151542	430630472	687887372	216950764	493490725	705180306	544741
4408165	6152513	430630590	687889177	216950765	493490997	705180307	544742
4408167	6153593	430630608	687889178	672960140	521250034	705180242	548724
762370227	6156516	430630610	687889179	672960600	521250054	705180473	548739
762370228	516550320	430630643	687881473	672960602	521250150	705180632	548740
637390518	516550410	430630644	687889513	672960247	521250255	705180800	
637390519	6035335	430630703	687889503	672960974	521250522	548722	
637390520	6035336	458020303	687889551	672961032	521250555	484330321	
637390588	6035337	458020733	687889309	672961194	521250366	607600629	
511380144	6035338	548680258	631870020	672961203	521250775	165900373	
511380145	6035339	548680836	631870037	242360205	242360418	165900624	
511380146	430630097	548680908	631870066	493490059	521250957	425490647	
511380147	552890330	548681119	631870085	493490550	521250996	165900326	
458650638	552890352	548681183	631870243	493490607	617860049	165900365	
458650670	552890373	548684095	631870300	493490717	242360107	538080399	

661160485	552890438	548684096	631870807	493490783	242360405	538080540	
534890138	430630109	548685213	216950305	493490856	617860538	538080542	
534890139	430630415	548685230	216950306	242360217	705180073	538080543	
534890140	430630426	687886414	216950307	242360248	705180205	538080560	
6150536	430630432	687886440	216950580	242360625	705180305	647251473	

eTable 2: ICD9/10 Codes Used in Autoimmune Disease Identification

Disease	ICD9/10 Codes
Alopecia areata	70401/L63
Autoimmune hemolytic anemia	2830/D591
Autoimmune hepatitis	57142/K754
Crohn's Disease	555/K50
Discoid lupus	6954/L93
Graves's Disease	2420/E05
Hashimoto's thyroiditis	2452E063
Idiopathic pulmonary fibrosis	51631/J84112
Multiple sclerosis	340/G35
Myasthenia gravis	358/G70
Polymyalgica Rheumatica	725/M353
Psoriasis	696/L40
Psoriatic arthritis	6960L4050
Rheumatic fever	390/I00/I01

Rheumatoid arthritis	7140/M06
Scleroderma	7010/L940
Seronegative arthritis	7140/M060
Sjögren syndrome	7102/M350
Systemic lupus erythematosus	7100/M32
Ulcerative colitis	556/K51
Vasculitis	4476/I776/L959

eTable 3: Results Summary by Autoimmune Disease

Disease	Prednisone	IV Methylprednisolone	Hospitalization
Autoimmune Hemolytic Anemia	0% (0/1)	0% (0/6)	33.3% (2/6)
Autoimmune Hepatitis	100% (1/1)	23.1% (3/13)	38.5% (5/13)
Crohn's Disease	0% (0/3)	14.3% (1/7)	14.3% (1/7)
Discoid Lupus	0% (0/2)	N/A (0/0)	N/A (0/0)
Grave's Disease	14.8% (4/27)	2.5% (1/40)	25.0% (10/40)
Hashimoto's Thyroiditis	22.2% (2/9)	6.7% (1/15)	33.3% (5/15)
Idiopathic Pulmonary Fibrosis	0% (0/2)	60.0% (3/5)	40.0% (2/5)
Multiple Sclerosis	0% (0/3)	0% (0/7)	42.9% (3/7)
Myasthenia Gravis	0% (0/1)	16.7% (1/6)	50.0% (3/6)
Polymyalgica Rheumatica	0% (0/2)	0% (0/9)	33.3% (3/9)
Psoriasis	25.0% (4/16)	8.7% (2/23)	13.0% (3/23)

Psoriatic Arthritis	0% (0/2)	N/A (0/0)	N/A (0/0)
Rheumatoid Arthritis	16.7% (4/24)	6.7% (2/30)	50.0% (15/30)
Rheumatic Fever	0% (0/2)	0% (0/1)	0% (0/1)
Scleroderma	N/A (0/0)	0% (0/1)	100% (1/1)
Seronegative Arthritis	25.0% (4/16)	7.1% (2/28)	46.4% (13/28)
Sjogren's Syndrome	33.3% (1/3)	0% (0/7)	57.1% (4/7)
Systemic Lupus	0% (0/4)	0% (0/3)	0% (0/3)
Ulcerative Colitis	28.6% (2/7)	8.3% (2/24)	54.2% (13/24)
Vasculitis	N/A (0/0)	0% (0/2)	100.0% (2/2)