

Supplementary file S1: Baseline patient characteristics of data included from both DRESS and STRASS

Patient characteristics	DRESS	STRASS
Age	59 (10.0)	54.3 (10.7)
Female sex*	74 (62)	53 (83)
Disease duration (years)	12.0 (12.2)	8.3 (5.4)
DAS28-ESR score	2.5 (0.6)	1.9 (0.6)
Treatment (etanercept/adalimumab)*	78/42 (65/35)	35/29 (55/45)

Data are mean (standard deviation) unless stated otherwise.

*Number (%) of patients

Supplementary file S2: Parameters used in the models

Parameter name	Deterministic Value*	95% CI		Standard error	Distribution	Alpha	Beta	Source
Discount rates								
Discount rate for costs	0.010	-	-	-	fixed	-	-	Dutch Pharmacoeconomic guideline
Discount rate for effects	0.004	-	-	-	fixed	-	-	Dutch Pharmacoeconomic guideline
Utilities								
Mean utility in case of flare	0.731	0.701	0.761	0.015	beta	620.537	228.046	DRESS database + Dutch tariff for the five-level version of the EQ-5D
Mean utility in case of no flare	0.807	0.796	0.818	0.006	beta	3849.062	919.038	DRESS database + Dutch tariff for the five-level version of the EQ-5D
Mean utility in case of flare in strategy 4	0.744	0.726	0.761	0.009	beta	1846.714	636.926	DRESS database + Dutch tariff for the five-level version of the EQ-5D
Mean utility in case of no flare in strategy 4	0.834	0.822	0.846	0.006	beta	3049.980	605.132	DRESS database + Dutch tariff for the five-level version of the EQ-5D
Costs								
Mean costs of 100% dosage	3475.663	3451.443	3499.894	12.339	gamma	79339.094	0.044	www.medicijnkosten.nl + DRESS database
Mean costs of 67% dosage	2389.649	2378.191	2401.107	5.835	gamma	167721.789	0.014	www.medicijnkosten.nl + DRESS database
Mean costs of 50% dosage	1715.761	1704.200	1727.321	5.887	gamma	84937.716	0.020	www.medicijnkosten.nl + DRESS

								database
Mean costs of 33% dosage	1146.969	-	-	-	fixed	-	-	33% van dose 100%
Mean costs of 0% dosage	0.000	-	-	-	fixed	-	-	-
Mean costs of other biologicals (rituximab /golimumab)	1131.829	-	-	-	fixed	-	-	www.medicijnkosten.nl + DRESS database
Mean costs of consultations, other medication, travelling costs and absence from work in case of flare	223.221	188.571	257.872	17.653	gamma	159.886	1.396	Dutch Guideline for Costs Analyses + DRESS database
Mean costs of consultations, other medication, travelling costs and absence from work in case of no flare	179.567	162.294	184.840	5.743	gamma	977.480	0.184	Dutch Guideline for Costs Analyses + DRESS database
Mean costs of consultations, other medication, travelling costs and absence from work in case of flare in strategy 4	217.591	194.573	240.608	11.727	gamma	344.276	0.632	Dutch Guideline for Costs Analyses + DRESS database
Mean costs of consultations, other medication, travelling costs and absence from work in case of no flare in strategy 4	159.419	148.239	170.599	5.696	gamma	783.323	0.204	Dutch Guideline for Costs Analyses + DRESS database

Transition probabilities strategy 1 (t=1)								
pD100_Flare_t1_1 (probability of being in dosage 100% and having flare in cycle 1 of strategy 1)	0.039	0.011	0.084	0.019	beta	4.168	103.157	DRESS database
pD100_F_Other_t1_1 (probability of being in dosage 100%, having flare and switch to another biological in cycle 1 of strategy 1)	0.000				fixed			DRESS database
pD100_F_D100_t1_1	1.000	-	-	-	fixed	-	-	DRESS database
pD100_NoFlare_t1_1	0.961	0.916	0.989	0.019	beta	103.157	4.168	DRESS database
pD100_N_D100_t1_1	0.030	0.006	0.072	0.017	beta	3.166	101.326	DRESS database
pD100_N_D67_t1_1	0.970	0.928	0.994	0.017	beta	101.326	3.166	DRESS database
Transition probabilities strategy 1 (t=2)								
pD100_Flare_t2_1	0.020	0.000	0.889	0.227	beta	-0.012	-0.606	DRESS database; 0 adjusted to 0,02
pD100_F_Other_t2_1	0.000	-	-	-	fixed	-	-	DRESS database
pD100_F_D100_t2_1	1.000	-	-	-	fixed	-	-	DRESS database
pD100_NoFlare_t2_1	0.980	0.828	1.000	0.044	beta	8.951	0.183	DRESS database; 1 adjusted to 0,98
pD100_N_D100_t2_1	0.857	0.541	0.996	0.116	beta	6.932	1.155	DRESS database
pD100_N_D67_t2_1	0.143	0.004	0.459	0.116	beta	1.155	6.932	DRESS database

pD67_Flare_t2_1	0.033	0.007	0.077	0.018	beta	3.166	93.933	DRESS database
pD67_F_D100_t2_1	0.333	0.013	0.842	0.212	beta	1.322	2.643	DRESS database
pD67_F_D67_t2_1	0.667	0.158	0.987	0.212	beta	2.643	1.322	DRESS database
pD67_NoFlare_t2_1	0.967	0.923	0.993	0.018	beta	93.933	3.166	DRESS database
pD67_N_D100_t2_1	0.067	0.025	0.128	0.026	Beta	6.168	85.325	DRESS database
					dirichlet			
pD67_N_D67_t2_1	0.034	0.007	0.080	0.019	Beta	3.166	90.765	DRESS database
					dirichlet			
pD67_N_D50_t2_1	0.899	0.829	0.952	0.031	Beta	81.488	9.167	DRESS database
					dirichlet			
Transition probabilities strategy 1 (t=3)								
pD100_Flare_t3_1	0.143	0.019	0.360	0.087	beta	2.168	13.005	DRESS database
pD100_F_Other_t3_1	0.500	0.025	0.975	0.242	beta	1.628	1.628	DRESS database
pD100_F_D100_t3_1	0.500	0.025	0.975	0.242	beta	1.628	1.628	DRESS database
pD100_NoFlare_t3_1	0.857	0.640	0.981	0.087	beta	13.005	2.168	DRESS database
pD100_N_D100_t3_1	0.917	0.715	0.998	0.072	beta	12.555	1.141	DRESS database
pD100_N_D67_t3_1	0.083	0.002	0.285	0.072	beta	1.141	12.555	DRESS database
pD67_Flare_t3_1	0.143	0.004	0.459	0.116	beta	1.155	6.932	DRESS database
pD67_F_D100_t3_1	0.020	0.000	0.290	0.074	beta	0.052	2.539	DRESS database; 0 adjusted to 0.02
pD67_F_D67_t3_1	0.980	0.710	1.000	0.074	beta	2.539	0.052	DRESS database; 1 adjusted to 0.98
pD67_NoFlare_t3_1	0.857	0.541	0.952	0.105	beta	8.671	1.445	DRESS database

pD67_N_D100_t3_1	0.500	0.147	0.853	0.180	Beta dirichlet	3.346	3.346	DRESS database
pD67_N_D67_t3_1	0.333	0.053	0.716	0.169	Beta dirichlet	2.251	4.502	DRESS database
pD67_N_D50_t3_1	0.167	0.005	0.522	0.132	Beta dirichlet	1.165	5.826	DRESS database
pD50_Flare_t3_1	0.231	0.145	0.330	0.047	beta	18.168	60.560	DRESS database
pD50_F_D67_t3_1	0.500	0.278	0.722	0.113	beta	9.254	9.254	DRESS database
pD50_F_D50_t3_1	0.500	0.278	0.722	0.113	beta	9.254	9.254	DRESS database
pD50_NoFlare_t3_1	0.769	0.670	0.855	0.047	beta	60.560	18.168	DRESS database
pD50_N_D100_t3_1	0.033	0.004	0.091	0.022	Beta dirichlet	2.161	62.673	DRESS database
pD50_N_D50_t3_1	0.117	0.049	0.208	0.041	Beta dirichlet	7.167	54.265	DRESS database
pD50_N_D0_t3_1	0.850	0.750	0.928	0.045	Beta dirichlet	51.947	9.167	DRESS database
Transition probabilities strategy 1 (t=4)								
pD100_Flare_t4_1	0.200	0.061	0.396	0.086	beta	4.175	16.699	DRESS database
pD100_F_Other_t4_1	0.250	0.008	0.708	0.178	beta	1.223	3.670	DRESS database
pD100_F_D100_t4_1	0.750	0.292	0.992	0.178	beta	3.670	1.223	DRESS database
pD100_NoFlare_t4_1	0.800	0.604	0.939	0.086	beta	16.699	4.175	DRESS database

pD100_N_D100_t4_1	0.938	0.782	0.998	0.055	beta	17.099	1.140	DRESS database
pD100_N_D67_t4_1	0.063	0.002	0.218	0.055	beta	1.140	17.099	DRESS database
pD67_Flare_t4_1	0.020	0.000	0.132	0.034	beta	0.325	15.912	DRESS database; 0 adjusted to 0.02
pD67_F_D100_t4_1	0.500	0.025	0.975	0.242	beta	1.628	1.628	DRESS database; 0 adjusted to 0.5
pD67_F_D67_t4_1	0.500	0.025	0.975	0.242	beta	1.628	1.628	DRESS database; 0 adjusted to 0.5
pD67_NoFlare_t4_1	0.980	0.868	1.000	0.034	beta	15.912	0.325	DRESS database; 1 adjusted to 0.98
pD67_N_D100_t4_1	0.308	0.084	0.508	0.108	Beta	5.292	11.908	DRESS database
					dirichlet			
pD67_N_D67_t4_1	0.462	0.211	0.723	0.131	Beta	6.252	7.294	DRESS database
					dirichlet			
pD67_N_D50_t4_1	0.231	0.055	0.484	0.110	Beta	3.185	10.617	DRESS database
					dirichlet			
pD50_Flare_t4_1	0.176	0.040	0.383	0.088	beta	3.173	14.808	DRESS database
pD50_F_D67_t4_1	0.980	0.766	1.000	0.060	beta	4.423	0.090	DRESS database; 1 adjusted to 0.98
pD50_F_D50_t4_1	0.020	0.000	0.234	0.060	beta	0.090	4.423	DRESS database; 0 adjusted to 0.02
pD50_NoFlare_t4_1	0.824	0.617	0.960	0.088	beta	14.808	3.173	DRESS database
pD50_N_D100_t4_1	0.071	0.002	0.247	0.063	Beta	1.140	14.824	DRESS database
					dirichlet			
pD50_N_D50_t4_1	0.786	0.546	0.950	0.103	Beta	11.663	3.181	DRESS database
					dirichlet			
pD50_N_D0_t4_1	0.143	0.019	0.360	0.087	Beta	2.168	13.005	DRESS database
					dirichlet			

pD0_Flare_t4_1	0.321	0.203	0.451	0.063	beta	17.178	36.376	DRESS database
pD0_F_D50_t4_1	0.882	0.698	0.984	0.073	beta	16.228	2.164	DRESS database
pD0_F_D0_t4_1	0.118	0.016	0.906	0.227	beta	0.119	0.894	DRESS database
pD0_NoFlare_t4_1	0.679	0.549	0.797	0.063	beta	36.376	17.178	DRESS database
pD0_N_D100_t4_1	0.020	0.000	0.084	0.021	beta	0.845	41.411	DRESS database; 0 adjusted to 0.02
pD0_N_D0_t4_1	0.980	0.916	1.000	0.021	beta	41.411	0.845	DRESS database; 1 adjusted to 0.98
Transition probabilities strategy 1 (t=5)								
pD100_Flare_t5_1	0.174	0.052	0.349	0.076	beta	4.171	19.813	DRESS database
pD100_F_Other_t5_1	0.000	-	-	-	fixed	-	-	DRESS database
pD100_F_D100_t5_1	1.000	-	-	-	fixed	-	-	DRESS database
pD100_NoFlare_t5_1	0.826	0.651	0.948	0.076	beta	19.813	4.171	DRESS database
pD100_N_D100_t5_1	0.980	0.000	0.111	0.028	beta	22.800	0.465	DRESS database; 1 adjusted to 0.98
pD100_N_D67_t5_1	0.020	0.889	1.000	0.028	beta	0.465	22.800	DRESS database; 0 adjusted to 0.02
pD67_Flare_t5_1	0.091	0.003	0.308	0.078	beta	1.142	11.423	DRESS database
pD67_F_D100_t5_1	0.020	0.000	0.290	0.074	beta	0.052	2.539	DRESS database; 0 adjusted to 0.02
pD67_F_D67_t5_1	0.980	0.710	1.000	0.074	beta	2.539	0.052	DRESS database; 1 adjusted to 0.98
pD67_NoFlare_t5_1	0.909	0.692	0.997	0.078	beta	11.423	1.142	DRESS database
pD67_N_D100_t5_1	0.400	0.137	0.701	0.144	Beta	4.242	6.363	DRESS database
					dirichlet			
pD67_N_D67_t5_1	0.500	0.212	0.788	0.147	Beta	5.290	5.290	DRESS database
					dirichlet			

pD67_N_D50_t5_1	0.100	0.003	0.336	0.085	Beta dirichlet	1.144	10.294	DRESS database
pD50_Flare_t5_1	0.111	0.024	0.251	0.058	beta	3.166	25.327	DRESS database
pD50_F_D67_t5_1	0.667	0.158	0.987	0.212	beta	2.643	1.322	DRESS database
pD50_F_D50_t5_1	0.333	0.013	0.842	0.212	beta	1.322	2.643	DRESS database
pD50_NoFlare_t5_1	0.889	0.749	0.976	0.058	beta	25.327	3.166	DRESS database
pD50_N_D100_t5_1	0.125	0.028	0.280	0.064	Beta dirichlet	3.167	22.168	DRESS database
pD50_N_D50_t5_1	0.792	0.612	0.925	0.080	Beta dirichlet	19.661	5.174	DRESS database
pD50_N_D0_t5_1	0.083	0.011	0.219	0.053	Beta dirichlet	2.161	23.769	DRESS database
pD0_Flare_t5_1	0.400	0.256	0.554	0.076	beta	16.196	24.294	DRESS database
pD0_F_D50_t5_1	0.563	0.323	0.787	0.118	beta	9.298	7.232	DRESS database
pD0_F_D0_t5_1	0.438	0.213	0.677	0.118	beta	7.232	9.298	DRESS database
pD0_NoFlare_t5_1	0.600	0.446	0.744	0.076	beta	24.294	16.196	DRESS database
pD0_N_D100_t5_1	0.042	0.001	0.148	0.038	beta	1.140	26.222	DRESS database
pD0_N_D0_t5_1	0.958	0.852	0.999	0.038	beta	26.222	1.140	DRESS database
Transition probabilities strategy 1 (t=6)								
pD100_Flare_t6_1	0.067	0.008	0.178	0.043	beta	2.160	30.245	DRESS database
pD100_F_Other_t6_1	0.000	-	-	-	fixed-	-	-	DRESS database

pD100_F_D100_t6_1	1.000	-	-	-	fixed	-	-	DRESS database
pD100_NoFlare_t6_1	0.933	0.356	0.610	0.065	beta	12.893	0.921	DRESS database
pD100_N_D100_t6_1	0.929	0.810	0.991	0.046	beta	28.086	2.160	DRESS database
pD100_N_D67_t6_1	0.071	0.009	0.190	0.046	beta	2.160	28.086	DRESS database
pD67_Flare_t6_1	0.020	0.000	0.155	0.040	beta	0.230	11.268	DRESS database; 0 adjusted to 0.02
pD67_F_D100_t6_1	0.500	0.025	0.975	0.242	beta	1.628	1.628	DRESS database; 0 adjusted to 0.5
pD67_F_D67_t6_1	0.500	0.025	0.975	0.242	beta	1.628	1.628	DRESS database; 0 adjusted to 0.5
pD67_NoFlare_t6_1	0.980	0.845	1.000	0.040	beta	11.268	0.230	DRESS database; 1 adjusted to 0.98
pD67_N_D100_t6_1	0.101	0.003	0.369	0.093	Beta dirichlet	0.950	8.452	DRESS database; 0.111 adjusted to 0.101
pD67_N_D67_t6_1	0.879	0.631	0.997	0.093	Beta dirichlet	9.830	1.353	DRESS database; 0.889 adjusted to 0.879
pD67_N_D50_t6_1	0.020	0.000	0.155	0.040	Beta dirichlet	0.230	11.268	DRESS database; 0 adjusted to 0.02
pD50_Flare_t6_1	0.133	0.038	0.265	0.058	beta	4.432	28.806	DRESS database
pD50_F_D67_t6_1	0.750	0.292	0.992	0.178	beta	3.670	1.223	DRESS database
pD50_F_D50_t6_1	0.250	0.008	0.708	0.178	beta	1.223	3.670	DRESS database
pD50_NoFlare_t6_1	0.867	0.726	0.961	0.060	beta	27.090	4.168	DRESS database
pD50_N_D100_t6_1	0.101	0.010	0.204	0.049	Beta dirichlet	3.656	32.540	DRESS database; 0.111 adjusted to 0.101
pD50_N_D50_t6_1	0.879	0.796	0.990	0.049	Beta dirichlet	37.419	5.151	DRESS database; 0.889 adjusted to 0.879

pD50_N_D0_t6_1	0.020	0.000	0.097	0.025	Beta	0.625	30.627	DRESS database; 0 adjusted to 0.02
					dirichlet			
pD0_Flare_t6_1	0.382	0.229	0.549	0.082	beta	13.194	21.314	DRESS database
pD0_F_D50_t6_1	0.538	0.277	0.789	0.131	beta	7.294	6.252	DRESS database
pD0_F_D0_t6_1	0.462	0.211	0.723	0.131	beta	6.252	7.294	DRESS database
pD0_NoFlare_t6_1	0.618	0.451	0.771	0.082	beta	21.314	13.194	DRESS database
pD0_N_D100_t6_1	0.020	0.000	0.106	0.027	beta	0.511	25.061	DRESS database; 0 adjusted to 0.02
pD0_N_D0_t6_1	0.980	0.894	1.000	0.027	beta	25.061	0.511	DRESS database; 1 adjusted to 0.98
Transition probabilities strategy 2 (t=1)								
pD100_Flare_t1_2	0.039	0.011	0.084	0.019	beta	4.168	103.157	DRESS database
pD100_F_Other_t1_2	0.000	-	-	-	fixed	-	-	DRESS database
pD100_F_D100_t1_2	1.000	-	-	-	fixed	-	-	DRESS database
pD100_NoFlare_t1_2	0.961	0.916	0.989	0.019	beta	103.157	4.168	DRESS database
pD100_N_D100_t1_2	0.030	0.006	0.072	0.017	beta	3.166	101.326	DRESS database
pD100_N_D67_t1_2	0.970	0.928	0.994	0.017	beta	101.326	3.166	DRESS database
Transition probabilities strategy 2 (t=2)								
pD100_Flare_t2_2	0.020	0.000	0.889	0.227	beta	-0.012	-0.606	DRESS database; adjusted to 0.02
pD100_F_Other_t2_2	0.000	-	-	-	fixed	-	-	DRESS database
pD100_F_D100_t2_2	1.000	-	-	-	fixed	-	-	DRESS database
pD100_NoFlare_t2_2	0.980	0.828	1.000	0.044	beta	8.951	0.183	DRESS database; adjusted to 0.98
pD100_N_D100_t2_2	0.857	0.541	0.996	0.116	beta	6.932	1.155	DRESS database

pD100_N_D67_t2_2	0.143	0.004	0.459	0.116	beta	1.155	6.932	DRESS database
pD67_Flare_t2_2	0.033	0.007	0.077	0.018	beta	3.166	93.933	DRESS database
pD67_F_D100_t2_2	0.333	0.013	0.842	0.212	beta	1.322	2.643	DRESS database
pD67_F_D67_t2_2	0.667	0.158	0.987	0.212	beta	2.643	1.322	DRESS database
pD67_NoFlare_t2_2	0.967	0.923	0.993	0.018	beta	93.933	3.166	DRESS database
pD67_N_D100_t2_2	0.067	0.025	0.128	0.026	beta	6.168	85.325	DRESS database
					dirichlet			
pD67_N_D67_t2_2	0.034	0.007	0.080	0.019	beta	3.166	90.765	DRESS database
					dirichlet			
pD67_N_D50_t2_2	0.899	0.829	0.952	0.031	beta	81.488	9.167	DRESS database
					dirichlet			
Transition probabilities strategy 2 (t=3)								
pD100_Flare_t3_2	0.143	0.019	0.360	0.087	beta	2.168	13.005	DRESS database
pD100_F_Other_t3_2	0.500	0.025	0.975	0.242	beta	1.628	1.628	DRESS database
pD100_F_D100_t3_2	0.500	0.025	0.975	0.242	beta	1.628	1.628	DRESS database
pD100_NoFlare_t3_2	0.857	0.640	0.981	0.087	beta	13.005	2.168	DRESS database
pD100_N_D100_t3_2	0.917	0.715	0.998	0.072	beta	12.555	1.141	DRESS database
pD100_N_D67_t3_2	0.083	0.002	0.285	0.072	beta	1.141	12.555	DRESS database
pD67_Flare_t3_2	0.143	0.004	0.459	0.116	beta	1.155	6.932	DRESS database
pD67_F_D100_t3_2	0.020	0.000	0.290	0.074	beta	0.052	2.539	DRESS database; adjusted to 0.02
pD67_F_D67_t3_2	0.980	0.710	1.000	0.074	beta	2.539	0.052	DRESS database; adjusted to 0.98

pD67_NoFlare_t3_2	0.857	0.541	0.952	0.105	beta	8.671	1.445	DRESS database
pD67_N_D100_t3_2	0.500	0.147	0.853	0.180	beta	3.346	3.346	DRESS database
					dirichlet			
pD67_N_D67_t3_2	0.333	0.053	0.716	0.169	beta	2.251	4.502	DRESS database
					dirichlet			
pD67_N_D50_t3_2	0.167	0.005	0.522	0.132	beta	1.165	5.826	DRESS database
					dirichlet			
pD50_Flare_t3_2	0.231	0.145	0.330	0.047	beta	18.168	60.560	STRASS database
pD50_F_D67_t3_2	0.500	0.278	0.722	0.113	beta	9.254	9.254	STRASS database
pD50_F_D50_t3_2	0.500	0.278	0.722	0.113	beta	9.254	9.254	STRASS database
pD50_NoFlare_t3_2	0.769	0.670	0.855	0.047	beta	60.560	18.168	STRASS database
pD50_N_D100_t3_2	0.033	0.004	0.091	0.022	beta	2.161	62.673	STRASS database
					dirichlet			
pD50_N_D50_t3_2	0.117	0.049	0.208	0.041	beta	7.167	54.265	STRASS database
					dirichlet			
pD50_N_D33_t3_2	0.850	0.750	0.928	0.045	beta	51.947	9.167	STRASS database
					dirichlet			
Transition probabilities strategy 2 (t=4)								
pD100_Flare_t4_2	0.200	0.061	0.396	0.086	beta	4.175	16.699	DRESS database
pD100_F_Other_t4_2	0.250	0.008	0.708	0.178	beta	1.223	3.670	DRESS database
pD100_F_D100_t4_2	0.750	0.292	0.992	0.178	beta	3.670	1.223	DRESS database

pD100_NoFlare_t4_2	0.800	0.604	0.939	0.086	beta	16.699	4.175	DRESS database
pD100_N_D100_t4_2	0.938	0.782	0.998	0.055	beta	17.099	1.140	DRESS database
pD100_N_D67_t4_2	0.063	0.002	0.218	0.055	beta	1.140	17.099	DRESS database
pD67_Flare_t4_2	0.020	0.000	0.132	0.034	beta	0.325	15.912	DRESS database; adjusted to 0.02
pD67_F_D100_t4_2	0.500	0.025	0.975	0.242	beta	1.628	1.628	DRESS database; adjusted to 0.5
pD67_F_D67_t4_2	0.500	0.025	0.975	0.242	beta	1.628	1.628	DRESS database; adjusted to 0.5
pD67_NoFlare_t4_2	0.980	0.868	1.000	0.034	beta	15.912	0.325	DRESS database; adjusted to 0.98
pD67_N_D100_t4_2	0.308	0.084	0.508	0.108	beta	5.292	11.908	DRESS database
					dirichlet			
pD67_N_D67_t4_2	0.462	0.211	0.723	0.131	beta	6.252	7.294	DRESS database
					dirichlet			
pD67_N_D50_t4_2	0.231	0.055	0.484	0.110	beta	3.185	10.617	DRESS database
					dirichlet			
pD50_Flare_t4_2	0.176	0.040	0.383	0.088	beta	3.173	14.808	DRESS database
pD50_F_D67_t4_2	0.980	0.766	1.000	0.060	beta	4.423	0.090	DRESS database; adjusted to 0.98
pD50_F_D50_t4_2	0.020	0.000	0.234	0.060	beta	0.090	4.423	DRESS database; adjusted to 0.02
pD50_NoFlare_t4_2	0.824	0.617	0.960	0.088	beta	14.808	3.173	DRESS database
pD50_N_D100_t4_2	0.020	0.000	0.285	0.073	beta	0.054	2.664	STRASS database; 0 adjusted to 0.02
					dirichlet			
pD50_N_D50_t4_2	0.240	0.008	0.708	0.178	beta	1.136	3.597	STRASS database; 0.250 adjusted to
					dirichlet			0.240
pD50_N_D33_t4_2	0.740	0.292	0.992	0.178	beta	3.735	1.312	STRASS database; 0.750 adjusted to

					dirichlet		0.740	
pD33_Flare_t4_2	0.069	0.009	0.183	0.045	beta	2.160	29.165	STRASS database
pD33_F_D50_t4_2	0.980	0.710	1.000	0.074	beta	2.539	0.052	STRASS database; adjusted to 0.98
pD33_F_D33_t4_2	0.020	0.000	0.290	0.074	beta	0.052	2.539	STRASS database; adjusted to 0.02
pD33_NoFlare_t4_2	0.931	0.817	0.991	0.045	beta	29.165	2.160	STRASS database
pD33_N_D100_t4_2	0.020	0.000	0.102	0.026	beta	0.557	27.303	STRASS database; 0 adjusted to 0.02
					dirichlet			
pD33_N_D33_t4_2	0.729	0.546	0.893	0.088	beta	17.713	6.585	STRASS database; 0.739 adjusted to
					dirichlet		0.729	
pD33_N_D0_t4_2	0.251	0.107	0.454	0.088	beta	5.791	17.282	STRASS database; 0.261 adjusted to
					dirichlet		0.251	
Transition probabilities strategy 2 (t=5)								
pD100_Flare_t5_2	0.174	0.052	0.349	0.076	beta	4.171	19.813	DRESS database
pD100_F_Other_t5_2	0.000	-	-	-	fixed	-	-	DRESS database
pD100_F_D100_t5_2	1.000	-	-	-	fixed	-	-	DRESS database
pD100_NoFlare_t5_2	0.826	0.651	0.948	0.076	beta	19.813	4.171	DRESS database
pD100_N_D100_t5_2	0.980	0.000	0.111	0.028	beta	22.800	0.465	DRESS database; adjusted to 0.98
pD100_N_D67_t5_2	0.020	0.889	1.000	0.028	beta	0.465	22.800	DRESS database; adjusted to 0.02
pD67_Flare_t5_2	0.091	0.003	0.308	0.078	beta	1.142	11.423	DRESS database
pD67_F_D100_t5_2	0.000	0.000	0.290	0.074	beta	0.000	-1.000	DRESS database
pD67_F_D67_t5_2	1.000	0.710	1.000	0.074	beta	-1.000	0.000	DRESS database

pD67_NoFlare_t5_2	0.909	0.692	0.997	0.078	beta	11.423	1.142	DRESS database
pD67_N_D100_t5_2	0.400	0.137	0.701	0.144	beta	4.242	6.363	DRESS database
					dirichlet			
pD67_N_D67_t5_2	0.500	0.212	0.788	0.147	beta	5.290	5.290	DRESS database
					dirichlet			
pD67_N_D50_t5_2	0.100	0.003	0.336	0.085	beta	1.144	10.294	DRESS database
					dirichlet			
pD50_Flare_t5_2	0.111	0.024	0.251	0.058	beta	3.166	25.327	DRESS database
pD50_F_D67_t5_2	0.667	0.158	0.987	0.212	beta	2.643	1.322	DRESS database
pD50_F_D50_t5_2	0.333	0.013	0.842	0.212	beta	1.322	2.643	DRESS database
pD50_NoFlare_t5_2	0.889	0.749	0.976	0.058	beta	25.327	3.166	DRESS database
pD50_N_D100_t5_2	0.020	0.000	0.163	0.042	beta	0.206	10.108	STRASS database; 0 adjusted to 0.02
					dirichlet			
pD50_N_D50_t5_2	0.490	0.184	0.816	0.161	beta	4.222	4.395	STRASS database; 0.500 adjusted to 0.490
					dirichlet			
pD50_N_D33_t5_2	0.490	0.184	0.816	0.161	beta	4.222	4.395	STRASS database; 0.500 adjusted to 0.490
					dirichlet			
pD33_Flare_t5_2	0.182	0.054	0.363	0.079	beta	4.172	18.775	STRASS database
pD33_F_D50_t5_2	0.500	0.025	0.975	0.242	beta	1.628	1.628	STRASS database
pD33_F_D33_t5_2	0.500	0.025	0.975	0.242	beta	1.628	1.628	STRASS database
pD33_NoFlare_t5_2	0.818	0.637	0.946	0.079	beta	18.775	4.172	STRASS database
pD33_N_D100_t5_2	0.020	0.000	0.117	0.030	beta	0.419	20.520	STRASS database; 0 adjusted to 0.02

					dirichlet			
pD33_N_D33_t5_2	0.343	0.152	0.587	0.111	beta	5.944	11.386	STRASS database; 0.353 adjusted to 0.343
					dirichlet			
pD33_N_D0_t5_2	0.637	0.413	0.848	0.111	beta	11.344	6.465	STRASS database; 0.647 adjusted to 0.637
					dirichlet			
pD0_Flare_t5_2	0.429	0.118	0.777	0.168	beta	3.284	4.379	STRASS database
pD0_F_D33_t5_2	0.667	0.158	0.987	0.212	beta	2.643	1.322	STRASS database
pD0_F_D0_t5_2	0.333	0.013	0.842	0.212	beta	1.322	2.643	STRASS database
pD0_NoFlare_t5_2	0.571	0.223	0.882	0.168	beta	4.379	3.284	STRASS database
pD0_N_D100_t5_2	0.020	0.000	0.234	0.060	beta	0.090	4.423	STRASS database; adjusted to 0.02
pD0_N_D0_t5_2	0.980	0.766	1.000	0.060	beta	4.423	0.090	STRASS database; adjusted to 0.98
Transition probabilities strategy 2 (t=6)								
pD100_Flare_t6_2	0.067	0.008	0.178	0.043	beta	2.160	30.245	DRESS database
pD100_F_Other_t6_2	0.000	-	-	-	fixed	-	-	DRESS database
pD100_F_D100_t6_2	1.000	-	-	-	fixed	-	-	DRESS database
pD100_NoFlare_t6_2	0.933	0.356	0.610	0.065	beta	12.893	0.921	DRESS database
pD100_N_D100_t6_2	0.929	0.810	0.991	0.046	beta	28.086	2.160	DRESS database
pD100_N_D67_t6_2	0.071	0.009	0.190	0.046	beta	2.160	28.086	DRESS database
pD67_Flare_t6_2	0.020	0.000	0.155	0.040	beta	0.230	11.268	DRESS database; adjusted to 0.02
pD67_F_D100_t6_2	0.500	0.025	0.975	0.242	beta	1.628	1.628	DRESS database
pD67_F_D67_t6_2	0.500	0.025	0.975	0.242	beta	1.628	1.628	DRESS database

pD67_NoFlare_t6_2	0.980	0.845	1.000	0.040	beta	11.268	0.230	DRESS database; adjusted to 0.98
pD67_N_D100_t6_2	0.101	0.003	0.369	0.093	beta dirichlet	0.950	8.452	DRESS database; 0.111 adjusted to 0.101
pD67_N_D67_t6_2	0.879	0.631	0.997	0.093	beta dirichlet	9.830	1.353	DRESS database; 0.889 adjusted to 0.879
pD67_N_D50_t6_2	0.020	0.000	0.155	0.040	beta dirichlet	0.230	11.268	DRESS database; 0 adjusted to 0.02
pD50_Flare_t6_2	0.133	0.038	0.265	0.058	beta	4.432	28.806	DRESS database
pD50_F_D67_t6_2	0.750	0.292	0.992	0.178	beta	3.670	1.223	DRESS database
pD50_F_D50_t6_2	0.250	0.008	0.708	0.178	beta	1.223	3.670	DRESS database
pD50_NoFlare_t6_2	0.867	0.726	0.961	0.060	beta	27.090	4.168	DRESS database
pD50_N_D100_t6_2	0.020	0.000	0.163	0.042	beta dirichlet	0.206	10.108	STRASS database; 0 adjusted to 0.02
pD50_N_D50_t6_2	0.434	0.157	0.755	0.153	beta dirichlet	4.145	5.406	STRASS database; 0.444 adjusted to 0.434
pD50_N_D33_t6_2	0.546	0.245	0.843	0.153	beta dirichlet	5.267	4.380	STRASS database; 0.556 adjusted to 0.546
pD33_Flare_t6_2	0.133	0.018	0.339	0.082	beta	2.166	14.079	STRASS database
pD33_F_D50_t6_2	0.500	0.025	0.975	0.242	beta	1.628	1.628	STRASS database
pD33_F_D33_t6_2	0.500	0.025	0.975	0.242	beta	1.628	1.628	STRASS database
pD33_NoFlare_t6_2	0.867	0.661	0.982	0.082	beta	14.079	2.166	STRASS database
pD33_N_D100_t6_2	0.020	0.000	0.137	0.035	beta	0.301	14.753	STRASS database; 0 adjusted to 0.02

					dirichlet			
pD33_N_D33_t6_2	0.657	0.390	0.891	0.128	beta	8.426	4.399	STRASS database; 0.667 adjusted to 0.657
					dirichlet			
pD33_N_D0_t6_2	0.323	0.109	0.610	0.128	beta	4.010	8.405	STRASS database; 0.333 adjusted to 0.323
					dirichlet			
pD0_Flare_t6_2	0.200	0.047	0.428	0.097	beta	3.178	12.711	STRASS database
pD0_F_D33_t6_2	0.980	0.740	1.000	0.066	beta	3.372	0.069	STRASS database; adjusted to 0.98
pD0_F_D0_t6_2	0.020	0.000	0.260	0.066	beta	0.069	3.372	STRASS database; adjusted to 0.02
pD0_NoFlare_t6_2	0.800	0.572	0.953	0.097	beta	12.711	3.178	STRASS database
pD0_N_D100_t6_2	0.020	0.000	0.137	0.035	beta	0.301	14.753	STRASS database; adjusted to 0.02
pD0_N_D0_t6_2	0.980	0.863	1.000	0.035	beta	14.753	0.301	STRASS database; adjusted to 0.98
Transition probabilities strategy 3 (t=1)								
pD100_Flare_t1_3	0.039	0.011	0.084	0.019	beta	4.168	103.157	DRESS database
pD100_F_Other_t1_3	0.000	-	-	-	fixed	-	-	DRESS database
pD100_F_D100_t1_3	1.000	-	-	-	fixed	-	-	DRESS database
pD100_NoFlare_t1_3	0.961	0.916	0.989	0.019	beta	103.157	4.168	DRESS database
pD100_N_D100_t1_3	0.030	0.006	0.072	0.017	beta	3.166	101.326	DRESS database
pD100_N_D67_t1_3	0.970	0.928	0.994	0.017	beta	101.326	3.166	DRESS database
Transition probabilities strategy 3 (t=2)								
pD100_Flare_t2_3	0.020	0.000	0.889	0.227	beta	-0.012	-0.606	DRESS database; adjusted to 0.02
pD100_F_Other_t2_3	0.000	-	-	-	fixed	-	-	DRESS database

pD100_F_D100_t2_3	1.000	-	-	-	fixed	-	-	DRESS database
pD100_NoFlare_t2_3	0.980	0.828	1.000	0.044	beta	8.951	0.183	DRESS database; adjusted to 0.98
pD100_N_D100_t2_3	0.857	0.541	0.996	0.116	beta	6.932	1.155	DRESS database
pD100_N_D67_t2_3	0.143	0.004	0.459	0.116	beta	1.155	6.932	DRESS database
pD67_Flare_t2_3	0.033	0.007	0.077	0.018	beta	3.166	93.933	DRESS database
pD67_F_D100_t2_3	0.333	0.013	0.842	0.212	beta	1.322	2.643	DRESS database
pD67_F_D67_t2_3	0.667	0.158	0.987	0.212	beta	2.643	1.322	DRESS database
pD67_NoFlare_t2_3	0.967	0.923	0.993	0.018	beta	93.933	3.166	DRESS database
pD67_N_D100_t2_3	0.067	0.025	0.128	0.026	beta	6.168	85.325	DRESS database
					dirichlet			
pD67_N_D67_t2_3	0.034	0.007	0.080	0.019	beta	3.166	90.765	DRESS database
					dirichlet			
pD67_N_D50_t2_3	0.899	0.829	0.952	0.031	beta	81.488	9.167	DRESS database
					dirichlet			
Transition probabilities strategy 3 (t=3)								
pD100_Flare_t3_3	0.143	0.019	0.360	0.087	beta	2.168	13.005	DRESS database
pD100_F_Other_t3_3	0.500	0.025	0.975	0.242	beta	1.628	1.628	DRESS database
pD100_F_D100_t3_3	0.500	0.025	0.975	0.242	beta	1.628	1.628	DRESS database
pD100_NoFlare_t3_3	0.857	0.640	0.981	0.087	beta	13.005	2.168	DRESS database
pD100_N_D100_t3_3	0.917	0.715	0.998	0.072	beta	12.555	1.141	DRESS database
pD100_N_D67_t3_3	0.083	0.002	0.285	0.072	beta	1.141	12.555	DRESS database

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pD100_Flare_t4_3	0.200	0.061	0.396	0.086	beta	4.175	16.699	DRESS database
pD100_F_Other_t4_3	0.250	0.008	0.708	0.178	beta	1.223	3.670	DRESS database
pD100_F_D100_t4_3	0.750	0.292	0.992	0.178	beta	3.670	1.223	DRESS database
pD100_NoFlare_t4_3	0.800	0.604	0.939	0.086	beta	16.699	4.175	DRESS database
pD100_N_D100_t4_3	0.938	0.782	0.998	0.055	beta	17.099	1.140	DRESS database
pD100_N_D67_t4_3	0.063	0.002	0.218	0.055	beta	1.140	17.099	DRESS database
pD67_Flare_t4_3	0.020	0.000	0.132	0.034	beta	0.325	15.912	DRESS database; adjusted to 0.02
pD67_F_D100_t4_3	0.500	0.025	0.975	0.242	beta	1.628	1.628	DRESS database; adjusted to 0.5
pD67_F_D67_t4_3	0.500	0.025	0.975	0.242	beta	1.628	1.628	DRESS database; adjusted to 0.5
pD67_NoFlare_t4_3	0.980	0.868	1.000	0.034	beta	15.912	0.325	DRESS database; adjusted to 0.98
pD67_N_D100_t4_3	0.308	0.084	0.508	0.108	beta	5.292	11.908	DRESS database
					dirichlet			
pD67_N_D67_t4_3	0.462	0.211	0.723	0.131	beta	6.252	7.294	DRESS database
					dirichlet			
pD67_N_D50_t4_3	0.231	0.055	0.484	0.110	beta	3.185	10.617	DRESS database
					dirichlet			
pD50_Flare_t4_3	0.176	0.040	0.383	0.088	beta	3.173	14.808	DRESS database
pD50_F_D67_t4_3	0.980	0.766	1.000	0.060	beta	4.423	0.090	DRESS database; adjusted to 0.98
pD50_F_D50_t4_3	0.020	0.000	0.234	0.060	beta	0.090	4.423	DRESS database; adjusted to 0.02
pD50_NoFlare_t4_3	0.824	0.617	0.960	0.088	beta	14.808	3.173	DRESS database
pD50_N_D100_t4_3	0.020	0.000	0.285	0.073	beta	0.054	2.664	STRASS database; 0 adjusted to 0.02

					dirichlet			
pD50_N_D50_t4_3	0.240	0.008	0.708	0.178	beta	1.136	3.597	STRASS database; 0.250 adjusted to 0.240
					dirichlet			
pD50_N_D33_t4_3	0.740	0.292	0.992	0.178	beta	3.735	1.312	STRASS database; 0.750 adjusted to 0.740
					dirichlet			
pD33_Flare_t4_3	0.069	0.009	0.183	0.045	beta	2.160	29.165	STRASS database
pD33_F_D50_t4_3	0.980	0.710	1.000	0.074	beta	2.539	0.052	STRASS database; adjusted to 0.98
pD33_F_D33_t4_3	0.020	0.000	0.290	0.074	beta	0.052	2.539	STRASS database; adjusted to 0.02
pD33_NoFlare_t4_3	0.931	0.817	0.991	0.045	beta	29.165	2.160	STRASS database
pD33_N_D100_t4_3	0.020	0.000	0.102	0.026	beta	0.557	27.303	STRASS database; 0 adjusted to 0.02
pD33_N_D33_t4_3	0.980	0.898	1.000	0.026	beta	27.303	0.557	STRASS database; 0 adjusted to 0.98
Transition probabilities strategy 3 (t=5)								
pD100_Flare_t5_3	0.174	0.052	0.349	0.076	beta	4.171	19.813	DRESS database
pD100_F_Other_t5_3	0.000	-	-	-	fixed	-	-	DRESS database
pD100_F_D100_t5_3	1.000	-	-	-	fixed	-	-	DRESS database
pD100_NoFlare_t5_3	0.826	0.651	0.948	0.076	beta	19.813	4.171	DRESS database
pD100_N_D100_t5_3	0.980	0.000	0.111	0.028	beta	22.800	0.465	DRESS database; adjusted to 0.98
pD100_N_D67_t5_3	0.020	0.889	1.000	0.028	beta	0.465	22.800	DRESS database; adjusted to 0.02
pD67_Flare_t5_3	0.091	0.003	0.308	0.078	beta	1.142	11.423	DRESS database
pD67_F_D100_t5_3	0.020	0.000	0.290	0.074	beta	0.052	2.539	DRESS database; adjusted to 0.02
pD67_F_D67_t5_3	0.980	0.710	1.000	0.074	beta	2.539	0.052	DRESS database; adjusted to 0.98

pD67_NoFlare_t5_3	0.909	0.692	0.997	0.078	beta	11.423	1.142	DRESS database
pD67_N_D100_t5_3	0.400	0.137	0.701	0.144	beta	4.242	6.363	DRESS database
					dirichlet			
pD67_N_D67_t5_3	0.500	0.212	0.788	0.147	beta	5.290	5.290	DRESS database
					dirichlet			
pD67_N_D50_t5_3	0.100	0.003	0.336	0.085	beta	1.144	10.294	DRESS database
					dirichlet			
pD50_Flare_t5_3	0.111	0.024	0.251	0.058	beta	3.166	25.327	DRESS database
pD50_F_D67_t5_3	0.667	0.158	0.987	0.212	beta	2.643	1.322	DRESS database
pD50_F_D50_t5_3	0.333	0.013	0.842	0.212	beta	1.322	2.643	DRESS database
pD50_NoFlare_t5_3	0.889	0.749	0.976	0.058	beta	25.327	3.166	DRESS database
pD50_N_D100_t5_3	0.020	0.000	0.163	0.042	beta	0.206	10.108	STRASS database; 0 adjusted to 0.02
					dirichlet			
pD50_N_D50_t5_3	0.490	0.184	0.816	0.161	beta	4.222	4.395	STRASS database; 0.500 adjusted to 0.490
					dirichlet			
pD50_N_D33_t5_3	0.490	0.184	0.816	0.161	beta	4.222	4.395	STRASS database; 0.500 adjusted to 0.490
					dirichlet			
pD33_Flare_t5_3	0.182	0.054	0.363	0.079	beta	4.172	18.775	STRASS database
pD33_F_D50_t5_3	0.500	0.025	0.975	0.242	beta	1.628	1.628	STRASS database
pD33_F_D33_t5_3	0.500	0.025	0.975	0.242	beta	1.628	1.628	STRASS database
pD33_NoFlare_t5_3	0.818	0.637	0.946	0.079	beta	18.775	4.172	STRASS database
pD33_N_D100_t5_3	0.020	0.000	0.117	0.030	beta	0.419	20.520	STRASS database; 0 adjusted to 0.02

pD33_N_D33_t5_3	0.980	0.883	1.000	0.030	beta	20.520	0.419	STRASS database; 0 adjusted to 0.98
<i>Transition probabilities strategy 3 (t=6)</i>								
pD100_Flare_t6_3	0.067	0.008	0.178	0.043	beta	2.160	30.245	DRESS database
pD100_F_Other_t6_3	0.000	-	-		fixed	-	-	DRESS database
pD100_F_D100_t6_3	1.000	-	-		fixed	-	-	DRESS database
pD100_NoFlare_t6_3	0.933	0.356	0.610	0.065	beta	12.893	0.921	DRESS database
pD100_N_D100_t6_3	0.929	0.810	0.991	0.046	beta	28.086	2.160	DRESS database
pD100_N_D67_t6_3	0.071	0.009	0.190	0.046	beta	2.160	28.086	DRESS database
pD67_Flare_t6_3	0.020	0.000	0.155	0.040	beta	0.230	11.268	DRESS database; adjusted to 0.02
pD67_F_D100_t6_3	0.500	0.025	0.975	0.242	beta	1.628	1.628	DRESS database
pD67_F_D67_t6_3	0.500	0.025	0.975	0.242	beta	1.628	1.628	DRESS database
pD67_NoFlare_t6_3	0.980	0.845	1.000	0.040	beta	11.268	0.230	DRESS database; adjusted to 0.98
pD67_N_D100_t6_3	0.101	0.003	0.369	0.093	beta	0.950	8.452	DRESS database; 0.111 adjusted to 0.101
					dirichlet			
pD67_N_D67_t6_3	0.879	0.631	0.997	0.093	beta	9.830	1.353	DRESS database; 0.889 adjusted to 0.879
					dirichlet			
pD67_N_D50_t6_3	0.020	0.000	0.155	0.040	beta	0.230	11.268	DRESS database; 0 adjusted to 0.02
					dirichlet			
pD50_Flare_t6_3	0.133	0.038	0.265	0.058	beta	4.432	28.806	DRESS database
pD50_F_D67_t6_3	0.750	0.292	0.992	0.178	beta	3.670	1.223	DRESS database
pD50_F_D50_t6_3	0.250	0.008	0.708	0.178	beta	1.223	3.670	DRESS database

[illegible]

pD100_Flare_t2_4	0.200	0.015	0.540	0.134	beta	1.585	6.339	DRESS database
pD100_F_Other_t2_4	0.000	-	-	-	fixed	-	-	DRESS database
pD100_F_D100_t2_4	1.000	-	-	-	fixed	-	-	DRESS database
pD100_NoFlare_t2_4	0.800	0.460	0.985	0.134	beta	6.339	1.585	DRESS database
pD100_N_D100_t2_4	0.857	0.541	0.996	0.116	beta	6.932	1.155	DRESS database
pD100_N_D67_t2_4	0.143	0.004	0.459	0.116	beta	1.155	6.932	DRESS database
pD67_Flare_t2_4	0.233	0.153	0.324	0.044	beta	21.568	71.153	DRESS database
pD67_F_D100_t2_4	0.333	0.013	0.842	0.212	beta	1.322	2.643	DRESS database
pD67_F_D67_t2_4	0.667	0.158	0.987	0.212	beta	2.643	1.322	DRESS database
pD67_NoFlare_t2_4	0.767	0.676	0.847	0.044	beta	71.153	21.568	DRESS database
pD67_N_D100_t2_4	0.067	0.025	0.128	0.026	Beta	6.168	85.325	DRESS database
					dirichlet			
pD67_N_D67_t2_4	0.034	0.007	0.080	0.019	Beta	3.166	90.765	DRESS database
					dirichlet			
pD67_N_D50_t2_4	0.899	0.829	0.952	0.031	Beta	81.488	9.167	DRESS database
					dirichlet			
Transition probabilities strategy 4 (t=3)								
pD100_Flare_t3_4	0.343	0.124	0.586	0.118	beta	5.223	10.011	DRESS database
pD100_F_Other_t3_4	0.500	0.025	0.975	0.242	beta	1.628	1.628	DRESS database
pD100_F_D100_t3_4	0.500	0.025	0.975	0.242	beta	1.628	1.628	DRESS database
pD100_NoFlare_t3_4	0.657	0.414	0.876	0.118	beta	10.011	5.223	DRESS database

pD100_N_D100_t3_4	0.917	0.715	0.998	0.072	beta	12.555	1.141	DRESS database
pD100_N_D67_t3_4	0.083	0.002	0.285	0.072	beta	1.141	12.555	DRESS database
pD67_Flare_t3_4	0.343	0.069	0.700	0.161	beta	2.644	5.067	DRESS database
pD67_F_D100_t3_4	0.020	0.000	0.290	0.074	beta	0.052	2.539	DRESS database; 0 adjusted to 0.02
pD67_F_D67_t3_4	0.980	0.710	1.000	0.074	beta	2.539	0.052	DRESS database; 1adjusted to 0.98
pD67_NoFlare_t3_4	0.657	0.300	0.931	0.161	beta	5.067	2.644	DRESS database
pD67_N_D100_t3_4	0.500	0.147	0.853	0.180	Beta	3.346	3.346	DRESS database
					dirichlet			
pD67_N_D67_t3_4	0.333	0.053	0.716	0.169	Beta	2.251	4.502	DRESS database
					dirichlet			
pD67_N_D50_t3_4	0.167	0.005	0.522	0.132	Beta	1.165	5.826	DRESS database
					dirichlet			
pD50_Flare_t3_4	0.431	0.324	0.541	0.056	beta	33.797	44.660	DRESS database
pD50_F_D67_t3_4	0.500	0.278	0.722	0.113	beta	9.254	9.254	DRESS database
pD50_F_D50_t3_4	0.500	0.278	0.722	0.113	beta	9.254	9.254	DRESS database
pD50_NoFlare_t3_4	0.569	0.459	0.676	0.056	beta	44.660	33.797	DRESS database
pD50_N_D100_t3_4	0.033	0.004	0.091	0.022	Beta	2.161	62.673	DRESS database
					dirichlet			
pD50_N_D50_t3_4	0.117	0.049	0.208	0.041	Beta	7.167	54.265	DRESS database
					dirichlet			
pD50_N_D0_t3_4	0.850	0.750	0.928	0.045	Beta	51.947	9.167	DRESS database
					dirichlet			

<i>Transition probabilities strategy 4 (t=4)</i>								
pD100_Flare_t4_4	0.400	0.203	0.616	0.106	beta	8.211	12.316	DRESS database
pD100_F_Other_t4_4	0.250	0.008	0.708	0.178	beta	1.223	3.670	DRESS database
pD100_F_D100_t4_4	0.750	0.292	0.992	0.178	beta	3.670	1.223	DRESS database
pD100_NoFlare_t4_4	0.600	0.384	0.797	0.106	beta	12.316	8.211	DRESS database
pD100_N_D100_t4_4	0.938	0.782	0.998	0.055	beta	17.099	1.140	DRESS database
pD100_N_D67_t4_4	0.063	0.002	0.218	0.055	beta	1.140	17.099	DRESS database
pD67_Flare_t4_4	0.200	0.040	0.446	0.104	beta	2.779	11.117	DRESS database
pD67_F_D100_t4_4	0.500	0.025	0.975	0.242	beta	1.628	1.628	DRESS database; 0 adjusted to 0.5
pD67_F_D67_t4_4	0.500	0.025	0.975	0.242	beta	1.628	1.628	DRESS database; 0 adjusted to 0.5
pD67_NoFlare_t4_4	0.800	0.554	0.960	0.104	beta	11.117	2.779	DRESS database
pD67_N_D100_t4_4	0.308	0.099	0.572	0.121	Beta	4.201	9.453	DRESS database
					dirichlet			
pD67_N_D67_t4_4	0.462	0.211	0.723	0.131	Beta	6.252	7.294	DRESS database
					dirichlet			
pD67_N_D50_t4_4	0.231	0.055	0.484	0.110	Beta	3.185	10.617	DRESS database
					dirichlet			
pD50_Flare_t4_4	0.376	0.170	0.611	0.112	beta	6.610	10.947	DRESS database
pD50_F_D67_t4_4	0.980	0.766	1.000	0.060	beta	4.423	0.090	DRESS database; 1 adjusted to 0.98
pD50_F_D50_t4_4	0.020	0.000	0.234	0.060	beta	0.090	4.423	DRESS database; 0 adjusted to 0.02
pD50_NoFlare_t4_4	0.624	0.389	0.830	0.112	beta	10.947	6.610	DRESS database

pD50_N_D100_t4_4	0.071	0.002	0.247	0.063	Beta dirichlet	1.140	14.824	DRESS database
pD50_N_D50_t4_4	0.786	0.546	0.950	0.103	Beta dirichlet	11.663	3.181	DRESS database
pD50_N_D0_t4_4	0.143	0.019	0.360	0.087	Beta dirichlet	2.168	13.005	DRESS database
pD0_Flare_t4_4	0.521	0.387	0.653	0.068	beta	27.836	25.617	DRESS database
pD0_F_D50_t4_4	0.882	0.698	0.984	0.073	beta	16.228	2.164	DRESS database
pD0_F_D0_t4_4	0.118	0.016	0.302	0.073	beta	2.164	16.228	DRESS database
pD0_NoFlare_t4_4	0.479	0.347	0.613	0.068	beta	25.617	27.836	DRESS database
pD0_N_D100_t4_4	0.020	0.000	0.084	0.021	beta	0.845	41.411	DRESS database; 0 adjusted to 0.02
pD0_N_D0_t4_4	0.980	0.916	1.000	0.021	beta	41.411	0.845	DRESS database; 1 adjusted to 0.98
Transition probabilities strategy 4 (t=5)								
pD100_Flare_t5_4	0.374	0.193	0.576	0.098	beta	8.800	14.735	DRESS database
pD100_F_Other_t5_4	0.000	-	-	-	fixed	-	-	DRESS database
pD100_F_D100_t5_4	1.000	-	-	-	fixed	-	-	DRESS database
pD100_NoFlare_t5_4	0.626	0.424	0.807	0.098	beta	14.735	8.800	DRESS database
pD100_N_D100_t5_4	0.980	0.000	0.111	0.028	beta	22.800	0.465	DRESS database; 1 adjusted to 0.98
pD100_N_D67_t5_4	0.020	0.889	1.000	0.028	beta	0.465	22.800	DRESS database; 0 adjusted to 0.02
pD67_Flare_t5_4	0.291	0.077	0.576	0.127	beta	3.403	8.295	DRESS database
pD67_F_D100_t5_4	0.020	0.000	0.290	0.074	beta	0.052	2.539	DRESS database; 0 adjusted to 0.02

pD67_F_D67_t5_4	0.980	0.710	1.000	0.074	beta	2.539	0.052	DRESS database; 1 adjusted to 0.98
pD67_NoFlare_t5_4	0.709	0.424	0.923	0.127	beta	8.295	3.403	DRESS database
pD67_N_D100_t5_4	0.400	0.137	0.701	0.144	Beta	4.242	6.363	DRESS database
					dirichlet			
pD67_N_D67_t5_4	0.500	0.212	0.788	0.147	Beta	5.290	5.290	DRESS database
					dirichlet			
pD67_N_D50_t5_4	0.100	0.003	0.336	0.085	Beta	1.144	10.294	DRESS database
					dirichlet			
pD50_Flare_t5_4	0.311	0.155	0.494	0.087	beta	8.585	19.009	DRESS database
pD50_F_D67_t5_4	0.667	0.158	0.906	0.191	beta	3.407	1.703	DRESS database
pD50_F_D50_t5_4	0.333	0.013	0.842	0.212	beta	1.322	2.643	DRESS database
pD50_NoFlare_t5_4	0.689	0.506	0.845	0.087	beta	19.009	8.585	DRESS database
pD50_N_D100_t5_4	0.125	0.028	0.280	0.064	Beta	3.167	22.168	DRESS database
					dirichlet			
pD50_N_D50_t5_4	0.792	0.612	0.925	0.080	Beta	19.661	5.174	DRESS database
					dirichlet			
pD50_N_D0_t5_4	0.083	0.011	0.219	0.053	Beta	2.161	23.769	DRESS database
					dirichlet			
pD0_Flare_t5_4	0.600	0.446	0.744	0.076	beta	24.294	16.196	DRESS database
pD0_F_D50_t5_4	0.563	0.323	0.787	0.118	beta	9.298	7.232	DRESS database
pD0_F_D0_t5_4	0.438	0.213	0.677	0.118	beta	7.232	9.298	DRESS database
pD0_NoFlare_t5_4	0.400	0.256	0.554	0.076	beta	16.196	24.294	DRESS database

pD0_N_D100_t5_4	0.042	0.001	0.148	0.038	beta	1.140	26.222	DRESS database
pD0_N_D0_t5_4	0.958	0.852	0.999	0.038	beta	26.222	1.140	DRESS database
Transition probabilities strategy 4 (t=6)								
pD100_Flare_t6_4	0.267	0.127	0.435	0.079	beta	8.177	22.487	DRESS database
pD100_F_Other_t6_4	0.000	-	-	-	fixed	-	-	DRESS database
pD100_F_D100_t6_4	1.000	-	-	-	fixed	-	-	DRESS database
pD100_NoFlare_t6_4	0.733	0.565	0.873	0.079	beta	22.487	8.177	DRESS database
pD100_N_D100_t6_4	0.929	0.810	0.991	0.046	beta	28.086	2.160	DRESS database
pD100_N_D67_t6_4	0.071	0.009	0.190	0.046	beta	2.160	28.086	DRESS database
pD67_Flare_t6_4	0.200	0.024	0.498	0.121	beta	1.983	7.932	DRESS database
pD67_F_D100_t6_4	0.500	0.025	0.975	0.242	beta	1.628	1.628	DRESS database; 0 adjusted to 0.05
pD67_F_D67_t6_4	0.500	0.025	0.975	0.242	beta	1.628	1.628	DRESS database; 0 adjusted to 0.06
pD67_NoFlare_t6_4	0.800	0.502	0.976	0.121	beta	7.932	1.983	DRESS database
pD67_N_D100_t6_4	0.101	0.003	0.369	0.093	Beta dirichlet	0.950	8.452	DRESS database; 0.111 adjusted to 0.101
pD67_N_D67_t6_4	0.879	0.631	0.997	0.093	Beta dirichlet	9.830	1.353	DRESS database; 0.889 adjusted to 0.879
pD67_N_D50_t6_4	0.020	0.000	0.140	0.036	Beta dirichlet	0.287	14.082	DRESS database; 0 adjusted to 0.02
pD50_Flare_t6_4	0.333	0.179	0.508	0.084	beta	10.186	20.373	DRESS database
pD50_F_D67_t6_4	0.750	0.292	0.992	0.178	beta	3.670	1.223	DRESS database

pD50_F_D50_t6_4	0.250	0.008	0.708	0.178	beta	1.223	3.670	DRESS database
pD50_NoFlare_t6_4	0.667	0.492	0.821	0.084	beta	20.373	10.186	DRESS database
pD50_N_D100_t6_4	0.101	0.010	0.204	0.049	Beta dirichlet	3.656	32.540	DRESS database; 0.111 adjusted to 0.101
pD50_N_D50_t6_4	0.879	0.796	0.990	0.049	Beta dirichlet	37.419	5.151	DRESS database; 0.889 adjusted to 0.879
pD50_N_D0_t6_4	0.020	0.000	0.097	0.025	Beta dirichlet	0.625	30.627	DRESS database; 0 adjusted to 0.02
pD0_Flare_t6_4	0.582	0.415	0.740	0.083	beta	20.083	14.403	DRESS database
pD0_F_D50_t6_4	0.538	0.277	0.789	0.131	beta	7.294	6.252	DRESS database
pD0_F_D0_t6_4	0.462	0.211	0.723	0.131	beta	6.252	7.294	DRESS database
pD0_NoFlare_t6_4	0.418	0.260	0.585	0.083	beta	14.403	20.083	DRESS database
pD0_N_D100_t6_4	0.020	0.000	0.106	0.027	beta	0.511	25.061	DRESS database
pD0_N_D0_t6_4	0.980	0.895	1.000	0.027	beta	25.720	0.525	DRESS database
<i>Transition probabilities strategy 5</i>								
pFlare_5	0.080	-	-	-	fixed	-	-	Nijmegen Inception Cohort of Early RA
pNoFlare_5	0.920	-	-	-	fixed	-	-	Nijmegen Inception Cohort of Early RA
pFalsePositive_5	0.082	-	-	-	fixed	-	-	DRESS database % in each outcome group

pFalseNegative_5	0.118	-	-	-	fixed	-	-	DRESS database % in each outcome group
pTrueNegative_5	0.329	-	-	-	fixed	-	-	DRESS database % in each outcome group
pTruePostive_D50_5	0.302	-	-	-	fixed	-	-	DRESS database % in each outcome group
pTruePostive_D0_5	0.169	-	-	-	fixed	-	-	DRESS database % in each outcome group
<i>Transition probabilities strategy 0 (t=1)</i>								
pD100_Flare_t1_0	0.096	0.033	0.189	0.040	beta	5.167	48.569	DRESS database
pD100_NoFlare_t1_0	0.904	0.811	0.967	0.040	beta	48.569	5.167	DRESS database
pD100_F_D100_t1_0	0.980	0.710	1.000	0.074	beta	2.539	0.052	DRESS database; 1adjusted to 0.98
pD100_F_Other_t1_0	0.020	0.000	0.290	0.074	beta	0.052	2.539	DRESS database; 0 adjusted to 0.02
<i>Transition probabilities strategy 0 (t=2)</i>								
pD100_Flare_t2_0	0.082	0.023	0.172	0.038	beta	4.166	46.872	DRESS database
pD100_NoFlare_t2_0	0.918	0.828	0.977	0.038	beta	46.872	4.166	DRESS database
pD100_F_D100_t2_0	0.980	0.710	1.000	0.074	beta	2.539	0.052	DRESS database; 1 adjusted to 0.98
pD100_F_Other_t2_0	0.020	0.000	0.290	0.074	beta	0.052	2.539	DRESS database; 0 adjusted to 0.02
<i>Transition probabilities strategy 0 (t=3)</i>								
pD100_Flare_t3_0	0.022	0.001	0.080	0.020	beta	1.142	50.231	DRESS database
pD100_NoFlare_t3_0	0.978	0.920	0.999	0.020	beta	50.231	1.142	DRESS database

pD100_F_D100_t3_0	0.020	0.000	0.290	0.074	beta	0.052	2.539	DRESS database; 0 adjusted to 0.02
pD100_F_Other_t3_0	0.980	0.710	1.000	0.074	beta	2.539	0.052	DRESS database; 1 adjusted to 0.98
Transition probabilities strategy 0 (t=4)								
pD100_Flare_t4_0	0.111	0.038	0.217	0.046	beta	5.167	41.336	DRESS database
pD100_NoFlare_t4_0	0.889	0.783	0.962	0.046	beta	41.336	5.167	DRESS database
pD100_F_D100_t4_0	0.800	0.398	0.994	0.152	beta	4.736	1.184	DRESS database
pD100_F_Other_t4_0	0.200	0.006	0.602	0.152	beta	1.184	4.736	DRESS database
Transition probabilities strategy 0 (t=5)								
pD100_Flare_t5_0	0.103	0.029	0.214	0.047	beta	4.167	36.457	DRESS database
pD100_NoFlare_t5_0	0.897	0.786	0.971	0.047	beta	36.457	4.167	DRESS database
pD100_F_D100_t5_0	0.750	0.292	0.992	0.178	beta	3.670	1.223	DRESS database
pD100_F_Other_t5_0	0.250	0.008	0.708	0.178	beta	1.223	3.670	DRESS database
Transition probabilities strategy 0 (t=6)								
pD100_Flare_t6_0	0.132	0.045	0.254	0.053	beta	5.167	34.105	DRESS database
pD100_NoFlare_t6_0	0.868	0.746	0.955	0.053	beta	34.105	5.167	DRESS database
pD100_F_D100_t6_0	0.600	0.194	0.932	0.188	beta	3.460	2.306	DRESS database
pD100_F_Other_t6_0	0.400	0.068	0.806	0.188	beta	2.306	3.460	DRESS database

*values valid for one cycle length of 3 months

Supplementary file S3: Assessment of the Validation Status of Health-Economic decision models (AdViSHE)

Part A: Validation of the conceptual model (2 questions)

Part A discusses techniques for validating the conceptual model. A conceptual model describes the underlying system (e.g., progression of disease) using a mathematical, logical, verbal, or graphical representation. Please indicate where the conceptual model and its underlying assumptions are described and justified.

A1/ Face validity testing (conceptual model): **Have experts been asked to judge the appropriateness of the conceptual model?**

If yes, please provide information on the following aspects:

- Who are these experts?
- What is your justification for considering them experts?
- To what extent do they agree that the conceptual model is appropriate?

If no, please indicate why not.

Yes;

- A rheumatologist of the Sint Maartenskliniek in Nijmegen.

- Disease activity-guided tapering of adalimumab and etanercept in RA patients and research into this field is carried out by him for years.

- It would be better if we were able to use the different DAS28 health states next to flare/no flare since this is not equal to one another. Costs and effects would be allocated to more specific health states.

A2/ Cross validity testing (conceptual model): **Has this model been compared to other conceptual models found in the literature or clinical textbooks?**

If yes, please indicate where this comparison is reported.

If no, please indicate why not.

No, a model with four different health states from Welsing et al. (formed by the different DAS28 scores) in each dosage step had too many transition probabilities which results in a too data hungry model, what made us decide to move away from this validated model.

Part B: Input data validation (2 questions)

Part B discusses techniques to validate the data serving as input in the model. These techniques are applicable to all types of models commonly used in HE modelling. Please indicate where the description and justification of the following aspects are given:

- search strategy;
- data sources, including descriptive statistics;
- reasons for inclusion of these data sources;
- reasons for exclusion of other available data sources;
- assumptions that have been made to assign values to parameters for which no data was available;
- distributions and parameters to represent uncertainty;

- data adjustments: mathematical transformations (e.g., logarithms, squares); treatment of outliers; treatment of missing data; data synthesis (indirect treatment comparison, network meta-analysis); calibration; etc.

B1/ Face validity testing (input data): **Have experts been asked to judge the appropriateness of the input data?**

If yes, please provide information on the following aspects:

- Who are these experts?

- What is your justification for considering them experts?

- To what extent do they agree that appropriate data have been used?

If no, please indicate why not.

Yes;

- A rheumatologist of the Sint Maartenskliniek in Nijmegen.

- Disease activity-guided tapering of adalimumab and etanercept in RA patients and research into this field is carried out by him for years.

- Data of the two trials and the RA Nijmegen cohort that have been used, are closest to each other in terms of strategies that were executed.

B2/ Model fit testing: **When input parameters are based on regression models, have statistical tests been performed?**

If yes, please indicate where the description, the justification and the outcomes of these tests are reported.

If no, please indicate why not.

No input parameters based on regression models were used.

Part C: Validation of the computerized model (4 questions)

Part C discusses various techniques for validating the model as it is implemented in a software program. If there are any differences between the conceptual model (Part A) and the final computerized model, please indicate where these differences are reported and justified.

C1/ External review: **Has the computerized model been examined by modelling experts?**

If yes, please provide information on the following aspects:

- Who are these experts?

- What is your justification for considering them experts?

- Can these experts be qualified as independent?

- Please indicate where the results of this review are reported, including a discussion of any unresolved issues.

If no, please indicate why not.

Yes;

- Two PhD students of the department for Health Evidence of the Radboudumc.

- They teach in designing (Markov) models.

- They are independent since they are not involved in this study and/or the subject of this study.

- The results are not reported, but the discussions led to the described model in this research article.

C2/ Extreme value testing: **Has the model been run for specific, extreme sets of**

Yes, a tornado diagram was created and checks for the number of

parameter values in order to detect any coding errors? If yes, please indicate where these tests and their outcomes are reported. If no, please indicate why not.	<i>people in each cycle and the sum of transition probabilities were executed to detect coding errors.</i>
C3/ Testing of traces: Have patients been tracked through the model to determine whether its logic is correct? If yes, please indicate where these tests and their outcomes are reported. If no, please indicate why not.	<i>Yes, the model was built in Excel which making every cycle visible. So, in each cycle it was clear in which health state patients were located. This pattern was compared to the clinical data.</i>
C4/ Unit testing: Have individual sub-modules of the computerized model been tested? If yes, please provide information on the following aspects: - Was a protocol that describes the tests, criteria, and acceptance norms defined beforehand? - Please indicate where these tests and their outcomes are reported. If no, please indicate why not.	<i>Yes, all different strategies were modelled in a separate Markov model and the outcomes of strategy 0 and 1 were compared with the outcomes of the trial data.</i>
Part D: Operational validation (4 questions) Part D discusses techniques used to validate the model outcomes.	
D1/ Face validity testing (model outcomes): Have experts been asked to judge the appropriateness of the model outcomes? If yes, please provide information on the following aspects: - Who are these experts? - What is your justification for considering them experts? - To what extent did they conclude that the model outcomes are reasonable? If no, please indicate why not.	<i>Yes;</i> - <i>A rheumatologist of the Sint Maartenskliniek and a researcher of the Radboud university medical center in Nijmegen.</i> - <i>Disease activity-guided tapering of adalimumab and etanercept in RA patients and research into this is carried out by them for years.</i> - <i>The outcomes were completely reasonable.</i>
D2/ Cross validation testing (model outcomes): Have the model outcomes been compared to the outcomes of other models that address similar problems? If yes, please provide information on the following aspects: - Are these comparisons based on published outcomes only, or did you have access to the alternative model? - Can the differences in outcomes between your model and other models be	<i>No, we only checked the model outcomes with trial data and cost-effectiveness analyses of them.</i>

explained?

- Please indicate where this comparison is reported, including a discussion of the comparability with your model.

If no, please indicate why not.

D3/ Validation against outcomes using alternative input data: **Have the model outcomes been compared to the outcomes obtained when using alternative input data?**

Yes, a tornado diagram and scenario analyses were executed and the latter were presented in this article (supplementary file IV).

If yes, please indicate where these tests and their outcomes are reported.

If no, please indicate why not.

D4/ Validation against empirical data: **Have the model outcomes been compared to empirical data?**

Yes;

If yes, please provide information on the following aspects:

-The model is based on patient-level datasets and the outcomes of the strategies were compared to summary statistics.

- Are these comparisons based on summary statistics, or patient-level datasets?

-Yes, the differences are described in the results of this article (table 1).

- Have you been able to explain any difference between the model outcomes and empirical data?

- Please indicate where this comparison is reported.

If no, please indicate why not.

D4.A/ Comparison against the data sources on which the model is based (dependent validation).

D4.B/ Comparison against a data source that was not used to build the model (independent validation).

D4.A/B. So, there was a dependent validation and no independent validation.

Part E: Other validation techniques (1 question)

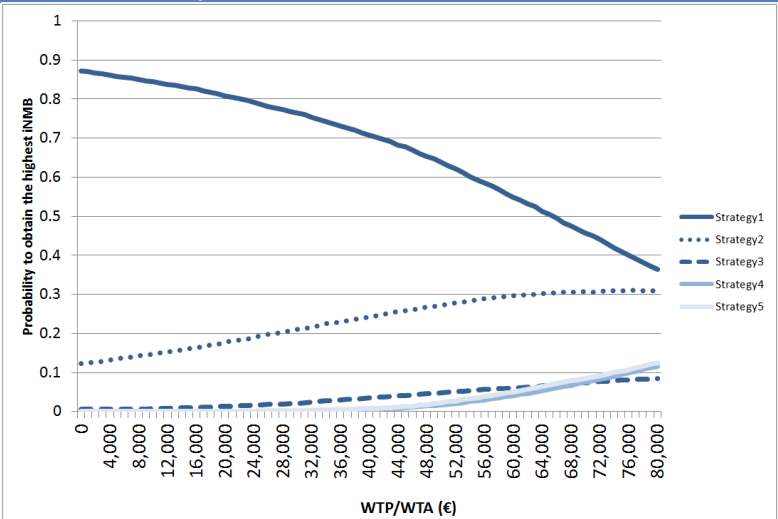
E1/ Other validation techniques: **Have any other validation techniques been performed?**

No other validation techniques were performed.

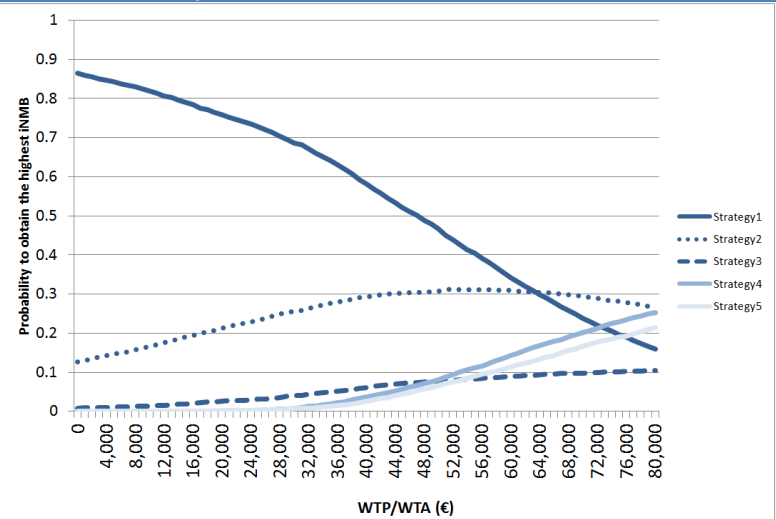
If yes, indicate where the application and outcomes are reported, or else provide a short summary here.

Supplementary file S4: Scenario analyses

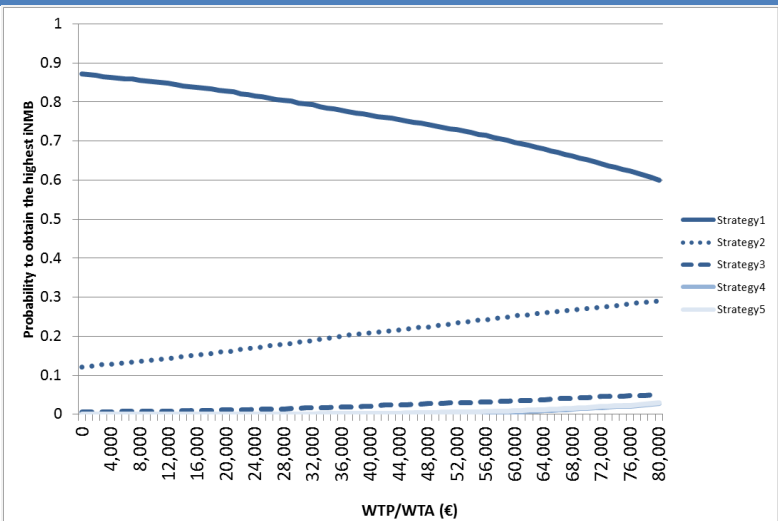
30% lower TNFi prices



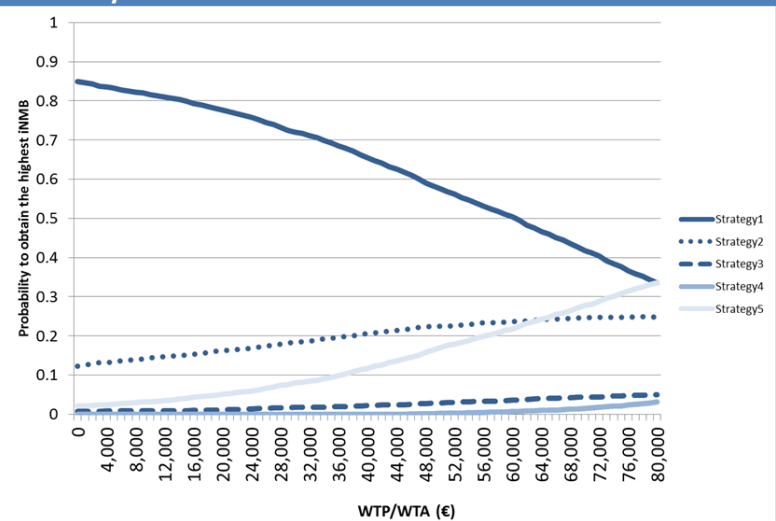
50% lower TNFi prices



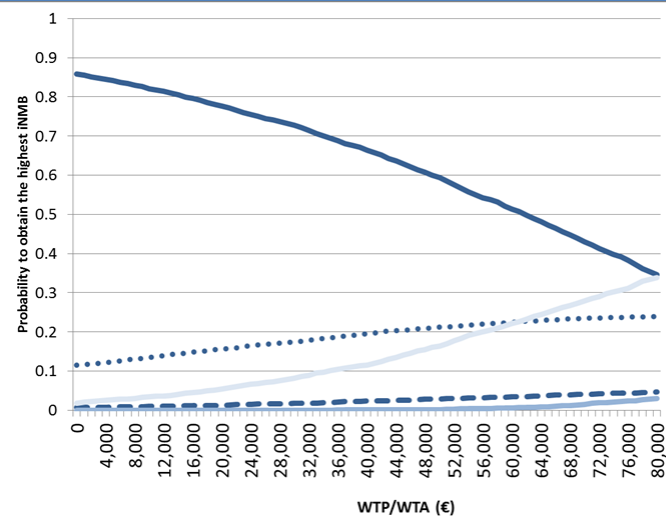
No discounting



Highest iNMB of strategy 5 with €100 predictor at a 85.2% specificity and sensitivity



Highest INMB of strategy 5 with €50 predictor at 84.6% specificity and sensitivity



Highest INMB of strategy 5 with €0 predictor at 84% specificity and sensitivity

