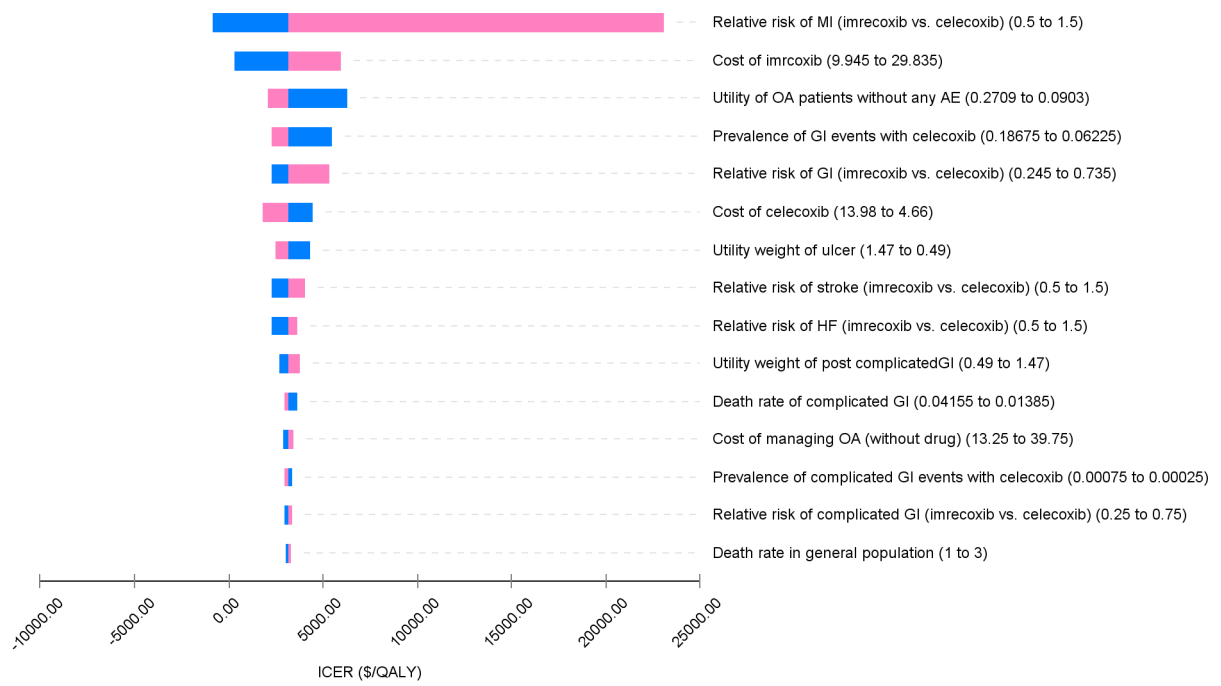


Table S1 Distributional information for model inputs

Variables name	Distribution	Estimate	a	b	SE	95% CI	
						Lower	Upper
Cost-imrecoxib	Gamma	19.8900			5.0740	9.9450	29.8350
Cost-celecoxib	Gamma	9.3200			2.3776	4.6600	13.9800
Cost-topical diclofenac	Gamma	20.3000			5.1786	10.1500	30.4500
Cost-managing OA without any drugs	Gamma	26.5000			6.7602	13.2500	39.7500
Cost-GI	Gamma	10.5200			2.6837	5.2600	15.7800
Cost-ulcer	Gamma	34.5700			8.8189	17.2850	51.8550
Cost-complicated GI events	Gamma	1,354.1500			345.4464	677.0750	2031.2250
Cost-stroke	Gamma	1,289.9200			329.0612	644.9600	1934.8800
Cost-MI	Gamma	5,190.9300			1324.2168	2595.4650	7786.3950
Cost-HF	Gamma	1,182.3300			301.6148	591.1650	1773.4950
Cost-post ulcer	Gamma	0.8100			0.2066	0.4050	1.2150
Cost-post complicated GI events	Gamma	21.5400			5.4949	10.7700	32.3100
Cost-post stroke	Gamma	619.5900			158.0587	309.7950	929.3850
Cost-post MI	Gamma	948.4700			241.9566	474.2350	1422.7050
Cost-post HF	Normal	451.2900			115.1250	225.6450	676.9350
Probability-celecoxib-GI	Beta	0.1245	775.0125	3,466.9875		0.0623	0.1868
Probability-celecoxib-ulcer	Beta	0.0009	5.6025	4,236.3975		0.0005	0.0014
Probability-celecoxib-complicated GI events	Beta	0.0005	3.1125	4,238.8875		0.0003	0.0008
Probability-celecoxib-stroke	Beta	0.0002	1.2450	4,240.7550		0.0001	0.0003
Probability-celecoxib-MI	Beta	0.0015	9.3375	4,232.6625		0.0008	0.0023
Probability-celecoxib-HF	Beta	0.0004	2.4900	4,239.5100		0.0002	0.0006
Probability-general-death (age years=55-64)	Uniform	0.0037				0.0019	0.0056
Probability-general-death (age years=65-74)	Uniform	0.0094				0.0047	0.0141
Probability-general-death (age years=75-80)	Uniform	0.0267				0.0134	0.0401
Probability-complicated GI events-death	Uniform	0.0951				0.0476	0.1427
Probability-post complicated GI events-death	Uniform	0.0277				0.0139	0.0416
Probability-stroke-death	Uniform	0.0323				0.0162	0.0485
Probability-post stroke-death	Uniform	0.0046				0.0023	0.0069
Probability-HF-death	Uniform	0.0495				0.0248	0.0743
Probability-post HF-death	Uniform	0.0017				0.0009	0.0026
Probability-MI-death	Uniform	0.0428				0.0214	0.0642
Probability-post MI-death	Uniform	0.0045				0.0023	0.0068
Probability-COX-2-withdraw	Beta	0.1120	446.5440	3,540.4560		0.0560	0.1680
Utility-OA patients with treatment of COX-2	Beta	0.1806			0.0461	0.0903	0.2709
Relative risk-GI-imrecoxib vs. celecoxib	Lognormal	0.4900				0.2450	0.7350
Relative risk-ulcer-imrecoxib vs. celecoxib	Lognormal	1.3400				0.6700	2.0100
Relative risk-complicated GI events-imrecoxib vs. celecoxib	Lognormal	0.5000				0.2500	0.7500
Relative risk-stroke-imrecoxib vs. celecoxib	Lognormal	1.0000				0.5000	1.5000
Relative risk-MI-imrecoxib vs. celecoxib	Lognormal	1.0000				0.5000	1.5000
Relative risk-HF-imrecoxib vs. celecoxib	Lognormal	1.0000				0.5000	1.5000
Relative risk-utility-GI	Lognormal	0.7330				0.3665	1.0995
Relative risk-utility-withdraw due to GI	Lognormal	0.9890				0.4945	1.4835
Relative risk-utility-ulcer	Lognormal	0.5520				0.2760	0.8280
Relative risk-utility-post ulcer	Lognormal	0.9800				0.4900	1.4700
Relative risk-utility-complicated GI events	Lognormal	0.4590				0.2295	0.6885
Relative risk-utility-post complicated GI events	Lognormal	0.9800				0.4900	1.4700
Relative risk-utility-stroke	Lognormal	0.3480				0.1740	0.5220
Relative risk-utility-post stroke	Lognormal	0.7060				0.3530	1.0590
Relative risk-utility-MI	Lognormal	0.3740				0.1870	0.5610
Relative risk-utility-post MI	Lognormal	0.8800				0.4400	1.3200
Relative risk-utility-HF	Lognormal	0.7100				0.3550	1.0650
Relative risk-utility-post HF	Lognormal	1.0000				0.5000	1.5000
Relative risk-utility-post treatment	Lognormal	0.9890				0.4945	1.4835
Relative risk-risk of bleeding/ulcer (aged 65) vs. (aged 55)	Lognormal	2.9600				1.4800	4.4400
Relative risk-risk of CV (aged 65) vs. (aged 55)	Lognormal	1.9400				0.9700	2.9100

OA, osteoarthritis; COX-2, cyclooxygenase; GI, gastrointestinal; HF, heart failure; MI, myocardial infarction; CV, cardiovascular diseases.



**Figure S1** The tornado diagram (imrecoxib versus celecoxib). OA, osteoarthritis; GI, gastrointestinal; HF, heart failure; MI, myocardial infarction.