

Supplementary Online Content

Aguiar PN Jr, Haaland B, Park W, Tan PS, del Giglio A, Lopes GD Jr. Cost-effectiveness of osimertinib in the first-line treatment of patients with *EGFR*-mutated advanced non–small cell lung cancer. *JAMA Oncol*. Published online May 31, 2018. doi:10.1001/jamaoncol.2018.1395

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This supplementary material has been provided by the authors to give readers additional information about their work.

Table 1: Deterministic sensitivity analysis parameters

Parameter	Mean deterministic	95% CI	
		Lower value	Upper value
General			
Discount rate	10%	NA	NA
	20%	NA	NA
Maximum cost to be cost-effective	\$12,500 (US) \$3,000 (Brazil)	NA	NA
Costs			
Monitoring costs (per month)	\$1,150 (US) \$448 (Brazil)	\$920 (US) \$358 (Brazil)	\$1,380 (US) \$537 (Brazil)
End-of-life costs (per case)	\$8,632 (US) \$1,034 (Brazil)	\$6,906 (US) \$827 (Brazil)	\$10,358 (US) \$1,240 (Brazil)
Outcomes			
Progression-Free Survival Utility	0.6393	0.6193	0.6593
Post-Progression Survival Utility	0.4734	0.4334	0.5134
Survival			
HR on PFS	0.46	0.37	0.57
HR on OS	0.63	0.45	0.88

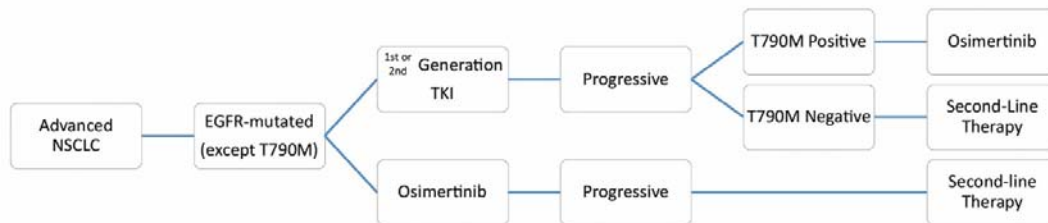
HR: Hazard Ratio; PFS: Progression-Free Survival; OS: Overall Survival.

Table 2: Summary of base-case analysis

Parameters	United States				Brazil			
	Osimertinib	Erlotinib	Gefitinib	Afatinib	Osimertinib	Erlotinib	Gefitinib	Afatinib
N of cycles	18	10	10	10	18	10	10	10
Drug Cost	\$306,520	\$93,904	\$91,174	\$97,857	\$158,219	\$21,276	\$10,299	\$13,491
Adverse Events Costs	\$7,771	\$7,854	\$7,854	\$7,854	\$1,942	\$1,964	\$1,964	\$1,964
Post Progression Drugs Costs	\$32,273	\$115,109	\$115,109	\$115,109	\$13,332	\$54,470	\$54,470	\$54,470
End-of-life Costs	\$1,726	\$2,590	\$2,590	\$2,590	\$207	\$310	\$310	\$310
Monitoring Costs	\$18,400	\$12,650	\$12,650	\$12,650	\$7,180	\$4,936	\$4,936	\$4,936
Total Costs	\$333,334	\$242,198	\$239,194	\$246,546	\$158,402	\$81,667	\$69,592	\$73,104
Mean PFS (months)	19.10	11.70	11.70	11.70	19.10	11.70	11.70	11.70
Mean PPS (months)	28.60	23.90	23.90	23.90	28.60	23.90	23.90	23.90
Mean OS (months)	47.70	35.60	35.60	35.60	47.70	35.60	35.60	35.60
Utility	2.134	1.540	1.540	1.540	2.134	1.540	1.540	1.540
AEs	-0.012	-0.026	-0.026	-0.026	-0.012	-0.026	-0.026	-0.026
QALY	2.122	1.514	1.514	1.514	2.122	1.514	1.514	1.514
Osimertinib QALY gain	-	0.594	0.594	0.594	-	0.594	0.594	0.594
Osimertinib ICER per QALY	-	\$226,527	\$231,123	\$219,874	-	\$162,329	\$180,804	\$175,432
LYS	3.98	2.97	2.97	2.97	3.98	2.97	2.97	2.97
Osimertinib LYS gain	-	1.01	1.01	1.01	-	1.01	1.01	1.01
Osimertinib ICER per LYS	-	\$133,472	\$136,180	\$129,552	-	\$95,646	\$106,532	\$103,366

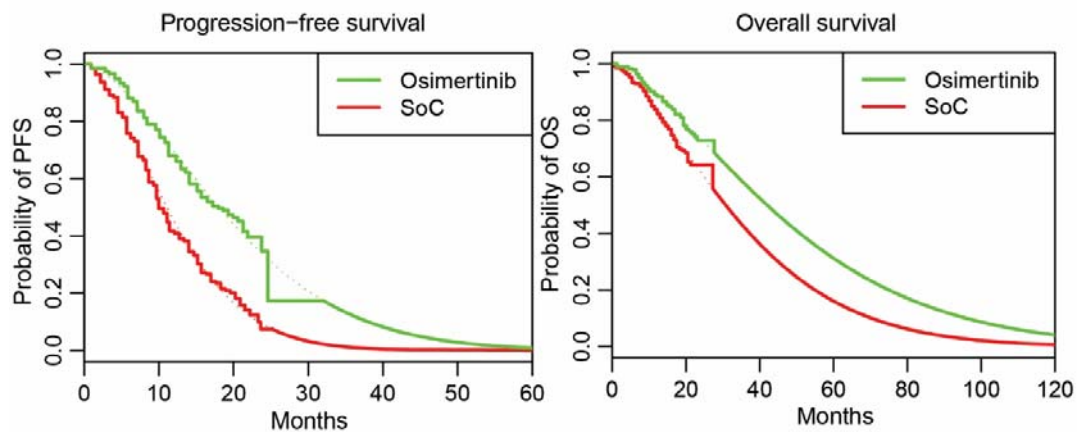
N: number; PFS: Progression-Free Survival; OS: Overall Survival; QALY: Quality-adjusted Life Years; ICER: Incremental Cost-effectiveness Ratio; LYS: Life Years Saved.

eFigure 1A: Decision-analytic model used in this study



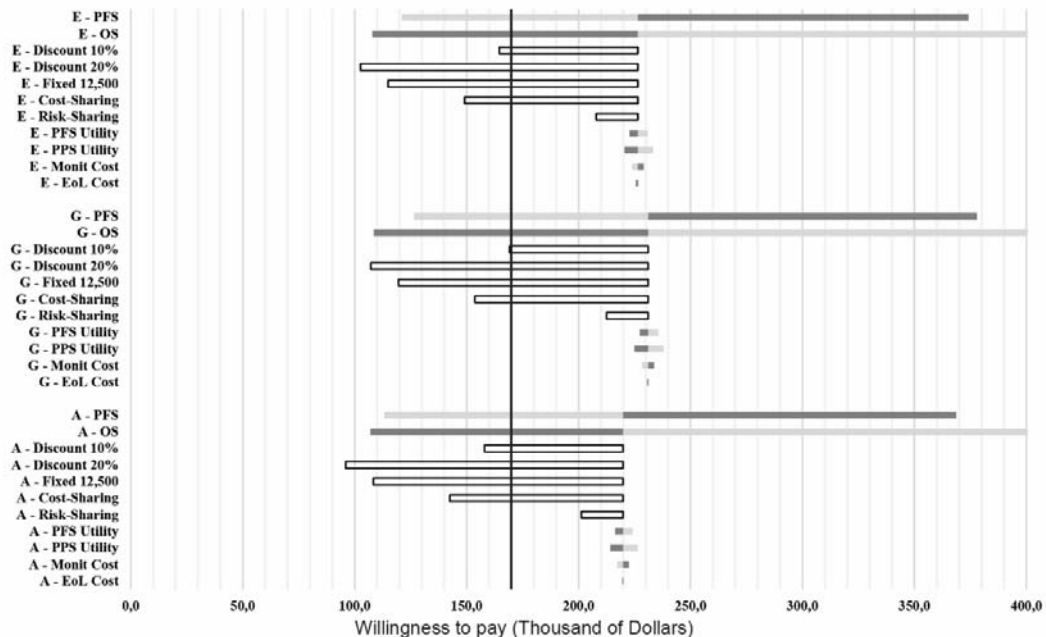
NSCLC (Non-small cell lung cancer), EGFR (Epidermal growth factor receptor), TKI (Tyrosine kinase inhibitor).

eFigure 1B: Fitted Kaplan-Meier models with Weibull tails for PFS and OS



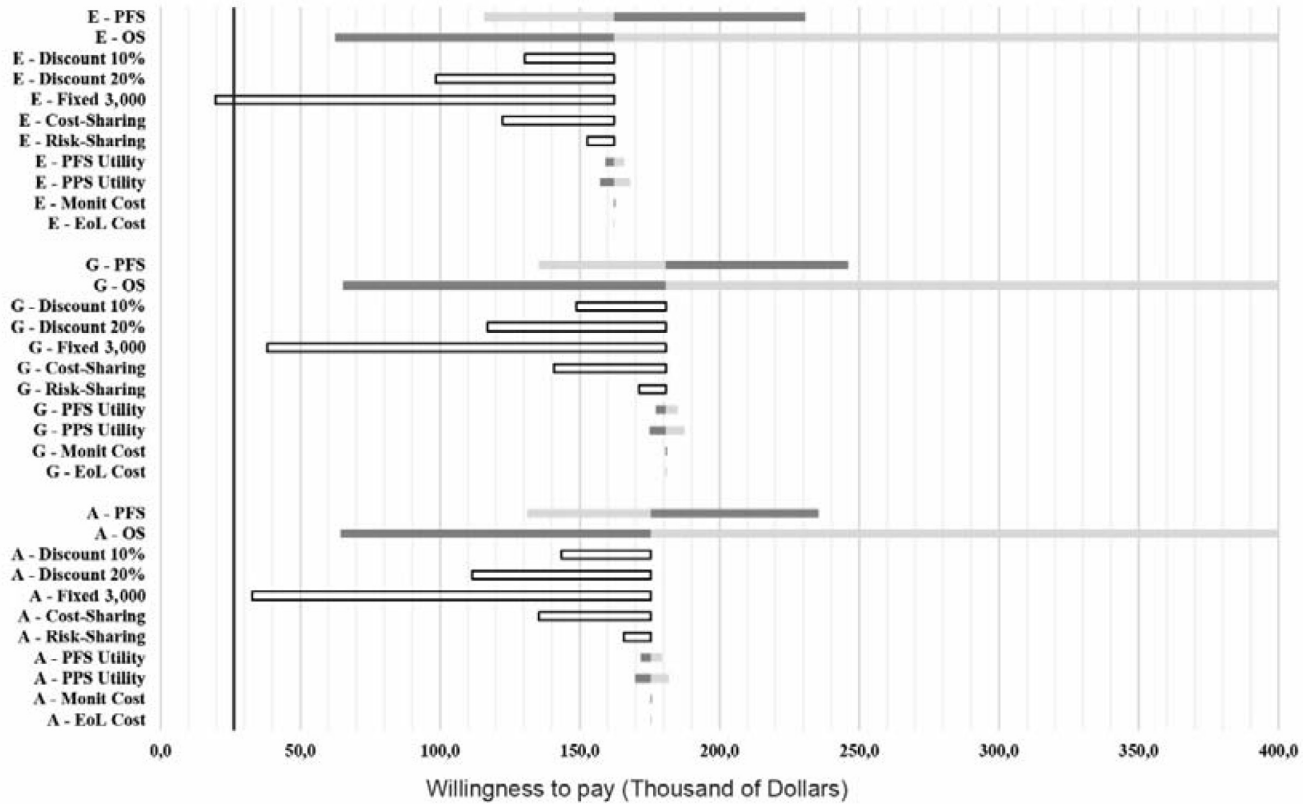
PFS: Progression-free survival; OS: Overall survival; SoC: Standard of care (first or second-generation EGFR-TKI)

eFigure 2: Tornado diagram of osimertinib cost-effectiveness in the US



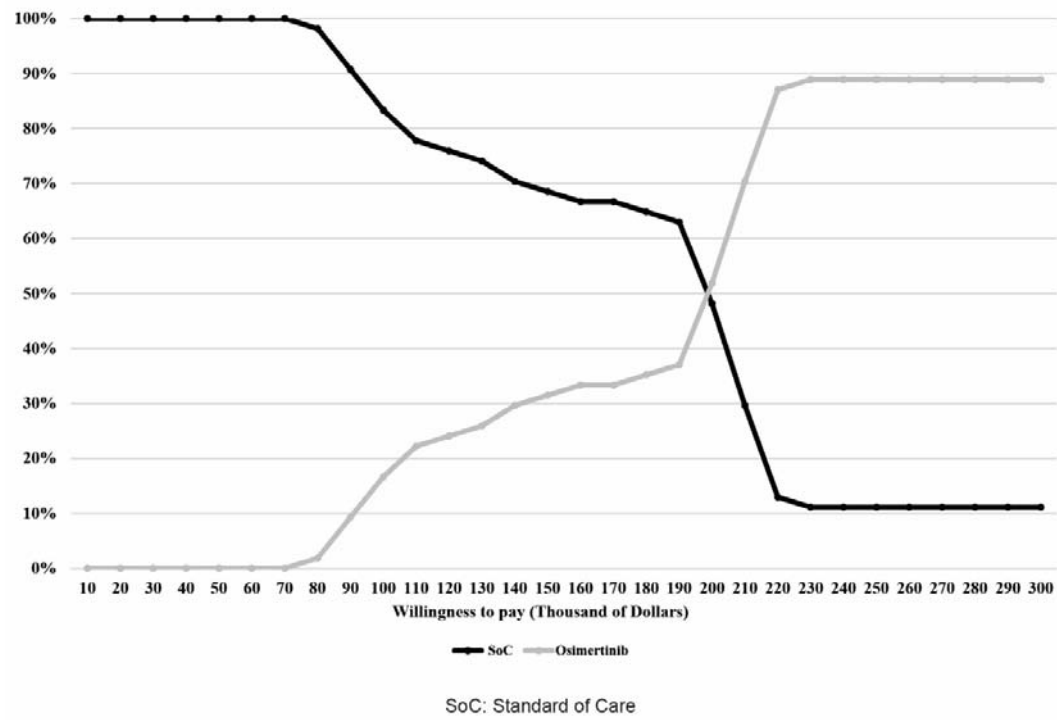
E (Erlotinib), PFS (Progression-Free Survival), OS (Overall Survival), PPS (Post-Progression Survival), Monit (Monitoring), EoL (end-of life), G (Gefitinib), A (Afatinib)

eFigure 3: Tornado diagram of osimertinib cost-effectiveness in Brazil



E (Erlotinib), PFS (Progression-Free Survival), OS (Overall Survival), PPS (Post-Progression Survival), Monit (Monitoring), EoL (end-of life), G (Gefitinib), A (Afatinib)

eFigure 4A - Probability of being cost-effective in the US



eFigure 4B - Probability of being cost-effective in Brazil

