

Supplementary appendix 4 The results of the probabilistic sensitivity analyses

The probabilistic sensitivity analyses (PSA) were carried by varying all parameters simultaneously, except for specific parameters such as ramucirumab cost (10mg/kg per unit) and erlotinib cost (2100 mg per unit), etc, therefore, to test the influence of uncertainty in the model parameters on the ICERs.

Table 4 The results of the probabilistic sensitivity analyses

Parameter	Variable range	ICER for	
		Ramucirumab-erlotinib vs Placebo-erlotinib Low value	High value
Costs (\$)			
Ramucirumab(10mg/kg per unit)	43.5 to 100.5	65226.85	128302.29
Erlotinib(2100 mg per unit)	115.6 to 385.3	128302.29	131554.68
Routine follow-up per unit	27.8 to 46.3	128179.30	128424.75
Subsequent therapy per unit	462.0 to 648.9	127029.19	129497.47
Best supportive care per unit	105.8 to 529.1	124094.94	139035.99
Terminal phase per unit	1527.9 to 1977.7	128291.51	128312.98
Hypertension per event	11.6 to 14.2	128302.03	128302.55
Diarrhea per event	4.14 to 6.22	128302.24	128302.34
Risk for SAEs			
Diarrhea in ramucirumab arm	0.058 to 0.086	128213.85	128385.95
Diarrhea in placebo arm	0.1 to 0.16	128060.34	128159.21
Hypertension in ramucirumab arm	0.188 to 0.282	128125.48	128477.39
Hypertension in placebo arm	0.042 to 0.064	128291.07	128314.22
Rash in ramucirumab arm	0.0070 to 0.011	128284.95	128318.80
Rash in placebo arm	0.018 to 0.026	128293.83	128311.76
Vomiting in ramucirumab arm	0.0070 to 0.011	128280.39	128323.14
Vomiting in placebo arm	0.0030 to 0.0050	128300.72	128306.38
Fatigue in ramucirumab arm	0.011 to 0.017	128288.76	128323.52
Neutropenia in ramucirumab arm	0.022 to 0.032	128213.38	128386.16
Neutropenia in placebo arm	0.0070 to 0.011	128292.63	128310.93
Health utility values			
PFS state	0.652 to 0.978	122801.27	134319.28

PS state	0.257 to 0.385	114621.00	145692.29
PFS plus diarrhea	0.597 to 0.895	127394.86	129222.74
PFS plus hypertension	0.618 to 0.928	125320.08	131429.90
PFS plus rash	0.576 to 0.846	128266.81	128342.87
PFS plus nausea/vomiting	0.556 to 0.834	128204.91	128399.83
PFS plus fatigue	0.6 to 0.9	128124.41	128480.67
PFS plus neutropenia	0.497 to 0.745	128029.05	128576.71
Discount rate(%)	0.0 to 0.08	108160.85	159964.08
Patient weight(kg)	52.0 to 78.0	106064.97	150539.62
