

Axitinib for the treatment of advanced renal cell carcinoma after failure of prior systemic treatment

ERG report addendum: Exploratory scenario analysis

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This exploratory analysis explores how QALYs accumulate before and after progression for the two subgroups, i.e. cytokine refractory and sunitinib refractory patients.

Table 52 (page 166) of the manufacturer's submission gives the required details, while Table 53 (page 166) provides information about the cost distribution.

Table 1 MS: Summary of QALY gain by health state

Health state	QALY (axitinib)	QALY (BSC)	Increment	Absolute increment	% absolute increment
Prior cytokine					
Progression free	■	■	■	■	■
Progressed disease	■	■	■	■	■
Total	■	■	■	■	■
Prior sunitinib					
Progression free	■	■	■	■	■
Progressed disease	■	■	■	■	■
Total	■	■	■	■	■

Abbreviations: BSC, best supportive care; PD, progressive disease; PFS, progression-free disease; QALY, quality-adjusted life year.

Table 2: Summary of costs by health state (with PAS)

Health state	Cost (axitinib)	Cost (BSC)	Increment	Absolute increment	% absolute increment
Prior cytokine					
Progression free	██████	████	██████	██████████	██████
Progressed disease	██████	██████	████	██████	████
Total	██████	██████	██████	██████████	██████
Prior sunitinib					
Progression free	██████	████	██████	██████████	██████
Progressed disease	██████	██████	████	██████████	████
Total	██████	██████	██████	██████████	██████

Abbreviations: BSC, best supportive care; PD, progressive disease; PFS, progression-free disease.

From table 52 it is clear that for the cytokine refractory patients the number QALYs accumulated after progression is the same for the axitinib and BSC arm, which means that the total QALY gain is solely determined by the QALY gain before progression. For the sunitinib refractory patients the QALY accumulation is different. Here about █████ of the QALY gain for axitinib is achieved before progression and █████ after progression.

The question may be raised whether there is a good reason why prior sunitinib patients would have a QALY gain after progression while prior cytokine patients do not. Thus we performed a scenario analysis in which it is assumed that prior sunitinib patients show no difference after progression.

This means that the total QALY gain in the prior sunitinib subgroup amounts to █████ instead of █████.

In addition, it is then also reasonable to assume that there is no cost difference after progression between axitinib and BSC, which means that the cost difference now becomes █████.

After dividing these two we find an ICER of £62,108.