

**A REVIEW OF THE COST-EFFECTIVENESS OF SUNITINIB (SUTENT®) UNDER
THE HIGH TECH DRUG SCHEME
IN IRELAND**



Summary

1. Sunitinib is an oral, multitargeted tyrosine kinase inhibitor, with direct antiproliferative effects and antiangiogenic properties, targeting the vascular endothelial growth factor receptors (VEGFR1, VEGFR2, VEGFR3), the platelet derived growth factors (PDGFR α and PDGFR β), stem cell factor receptor (KIT), Fms-like tyrosine kinase-3 (FLT3), colony stimulating factor receptor (CSF-1R), and the glial cell-line derived neurotrophic factor receptor (RET).
2. Sutent is licensed on the Irish Market for two therapeutic indications: the treatment of unresectable and/or metastatic malignant gastrointestinal stromal tumor (GIST) after failure of imatinib mesylate treatment due to resistance or intolerance. It is also licensed for the treatment of advanced and/or metastatic renal cell carcinoma (mRCC) after failure of interferon alfa or interleukin -2 therapy.
3. In September 2006, Pfizer Healthcare Ireland submitted an evaluation of the cost-effectiveness and budget impact of Sutent (sunitinib) as second-line treatment of patients with gastro-intestinal stromal tumours (GIST). Data on the cost-effectiveness and budget impact of Sutent as second line treatment for patients with metastatic renal cell carcinoma (mRCC) was also presented. The purpose of the data was to support an application for reimbursement under the High Tech Drug Scheme.
4. Sunitinib treatment prolongs life by approximately 0.3 years and results in 0.2 additional QALYs compared to best supportive care (BSC). With an additional cost of €13,456 as compared with BSC, sunitinib had an incremental cost effectiveness ratio of £30,273 (€44,853) per life-year gained and £45,305 (€57,280) per QALY. Sensitivity analysis demonstrates that a reduction in drug price enhances cost-effectiveness. The estimated total budget impact of Sutent if reimbursed under the High Tech Drugs Scheme could range from approximately €600,000 in 2006 to approximately €2.3million in 2010.

5. As the cost/QALY exceeds €45,000 sunitinib would not be considered cost-effective in the Irish healthcare setting. However, sunitinib is an innovative product and reimbursement could be considered on this basis.