

**A REVIEW OF THE COST-EFFECTIVENESS OF RIMONABANT  
(ACOMPLIA®) UNDER THE COMMUNITY DRUG  
SCHEMES IN IRELAND**



## Summary

1. Rimonabant is a selective cannabinoid-1 receptor (CB<sub>1</sub>) blocker which has been shown to reduce body weight and improve cardiovascular risk factors in obese patients. Its therapeutic indication is 'an adjunct to diet and exercise for the treatment of obese patients (BMI $\geq$ 30kg/m<sup>2</sup>), or overweight patients (BMI $>$ 27kg/m<sup>2</sup>) with associated risk factor(s), such as type 2 diabetes or dyslipidaemia'.
2. In June 2006, Sanofi-Aventis submitted an evaluation of the cost-effectiveness of rimonabant (in addition to diet and exercise) in the management of multiple cardiovascular risks in overweight or obese patients in Ireland, to support its application for reimbursement of rimonabant under the Community Drugs Schemes.
3. In the revised base case economic model (1 year treatment duration, 60 year time horizon) for patients without diabetes mellitus the incremental cost per quality adjusted life year (QALY) for rimonabant compared with diet and exercise was €3,058/QALY. For patients with diabetes mellitus the incremental cost effectiveness ratio (ICER) was estimated at €18,644/QALY.
4. Our review group considered a two-year treatment duration with a twenty-year time horizon more realistic. Under such conditions the ICERs were calculated at €19,477/QALY (GMS scheme) and €30,806/QALY (DP scheme) for patients without diabetes mellitus. For patients with diabetes mellitus the ICERs were €23,774/QALY (GMS scheme) and €34,304/QALY (DP scheme).
5. Sensitivity analysis demonstrated the impact of pharmacy price on the ICERs. Reducing the pharmacy price to 90% and 80% of the base case in the GMS scenario (non diabetics, 2 year's treatment, 20 year time horizon) resulted in ICERs of €17,222/QALY and €14,890/QALY respectively. Similarly, for the DP scheme, reducing the pharmacy price to 90% and 80% resulted in ICERs of €27,384/QALY and €23,963/QALY. The impact of pharmacy price was also evident for patients with diabetes mellitus. Therefore a reduction in the proposed price for the Community Drugs Schemes would increase the probability of cost-

effectiveness. The ICERs appeared less responsive to changes in time horizon, discount rates and cost of complications.

6. The review group considered that the base case utility decrement per unit BMI increase (0.014) was too high. Sensitivity analysis using a utility decrement of 0.007 per unit BMI increase had a significant impact on the ICERs obtained. For non diabetics (2-year treatment duration, 20-year time horizon) the ICERs ranged from €30,666/QALY (GMS) to €48,502/QALY (DPS). The corresponding values for diabetics were €30,583/QALY (GMS) and €44,129/QALY (DPS).
  
7. Rimonabant is a novel product which may have a substantial budget impact i.e. exceeding €5 million by 2010. It may be considered cost-effective under the GMS Scheme in the Irish healthcare setting. When prescribed under the DP Scheme the product may not prove cost-effective. In this economic evaluation the comparator was diet and exercise rather than existing anti obesity therapeutic agents e.g. orlistat and sibutramine which raises some uncertainty around the ICERs obtained.