



Systematic Review - case study

Evidence Review & Generation | Health Technology Evaluation
Economic Modelling | Reimbursement & Market Access | Medical Communications

bright minds, brilliant outcomes

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Client situation

Our client had developed a novel therapy in a therapeutic area where treatment was well established and inexpensive. Some patient monitoring was required with the established therapy, particularly at the initiation of treatment. In order to successfully launch the new therapy, an argument needed to be constructed to show that increased drug costs with our client's therapy, could be offset against the drug costs of established therapy plus the associated patient monitoring.

Therapy background

Vitamin K antagonists, such as warfarin, are commonly used in patients with coagulation problems. Their use is associated with frequent laboratory blood testing to measure coagulation levels, aiming to maintain a target range. Good anticoagulation control is important because variations in the target range could lead to ischaemic stroke (above target range) or a fatal clot (below target range).

Our client had developed an orally active, direct thrombin inhibitor with which, unlike vitamin K antagonists, there appeared to be no need for laboratory monitoring. Our client's therapy potentially offered significant benefits to patients and cost-savings to the health system.

Abacus solution

In the first instance, Abacus conducted a systematic review which highlighted the issues surrounding established therapy. The results of this systematic review showed clearly:

- With established therapy, in order to keep patients within a target range, frequent monitoring and dose adjustment were necessary.
- Patients were better controlled in certain environments (RCTs>Clinics>community).

This means that the efficacy of vitamin K antagonists could have been overestimated in the literature; results from RCTs may represent the optimum achievable level of anticoagulation control compared with routine clinical practice. This highlights an opportunity for new therapies where frequent monitoring is not required to keep patients within target INR range.

Outputs from the systematic review were used to develop a pharmacoeconomic (PE) model which compared the incremental cost effectiveness of our client's therapy versus the established treatment. The model calculated the cost of treating a patient with the established therapy and the costs associated with anticoagulation monitoring to maintain a target range. This could

then be compared with the costs of our client's therapy without associated patient monitoring.

Business benefits

The systematic review and the PE model demonstrated that the client product, which did not require frequent laboratory monitoring of patients to keep them in designated INR range, had significant clinical and economic benefits over established therapy.

Outputs

- Systematic Review (SR) and meta-analysis (MA)
- Publication in a peer reviewed journal of the SR and MA
- An economic model to support the economic case for adoption of the our client's therapy

Contact us

Interested in Systematic Review from Abacus International and want to know more?

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