

ANTICOAGULATION THERAPY APIXABAN IS COST-EFFECTIVE

Apixaban is a cost-effective alternative to either warfarin or aspirin for stroke prevention in patients with atrial fibrillation (AF), according to a new cost-effectiveness analysis performed from the perspective of the UK health-care system. “New treatments, particularly those that are costly, generate great interest in the price of the intervention; so it is important to analyse, in addition to effectiveness, whether they are good value for money,” says lead researcher Paul Dorian from Toronto, ON, Canada.

Patients with AF are at risk of stroke, and prophylactic anticoagulation is recommended. Historically, patients have been given the vitamin K antagonist warfarin, but the short-comings of this drug (such as interactions with other drugs and with food, and the need for regular monitoring) are well documented. Patients who are intolerant to warfarin, or in whom the drug is contraindicated, can be given aspirin.

Apixaban is a direct factor Xa inhibitor. This novel oral anticoagulant has been shown to be highly efficacious in preventing strokes in patients with AF, without a substantially increased risk of bleeding, in various large, multinational, randomized, controlled trials. Data from the ARISTOTLE and AVERROES studies were incorporated into a Markov cohort model used in the cost-effectiveness analysis. “For a novel treatment to be accepted, it should either prolong life or improve quality of life,” says Dr Dorian. “The current metric for assessing benefit and cost is the incremental cost-effectiveness ratio (ICER), which evaluates the cost per quality-adjusted life-year (QALY) gained.” Apixaban was associated with an ICER of UK£11,909 per QALY gained compared with warfarin, and £7,196 per QALY gained compared with aspirin. An ICER \leq £20,000 per QALY gained is generally considered cost-effective in the UK. Cost-effectiveness analyses inherently contain many assumptions and extrapolations, but the ICERs were consistent in sensitivity analyses, and were most favourable in high-risk patients (CHADS₂ score \geq 3).

The investigators have developed a modular way to perform cost-effectiveness analyses, so that the input data can easily be modified. “In this way, we can incorporate data from any new studies,” says Dr Dorian, “or rapidly calculate an ICER that is specific to another country or health-care system.”

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