

Poster Display Presentations

PD01 IPC For Prevention Of VTE: An Economic Analysis

AUTHORS:

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INTRODUCTION:

Total hip and knee arthroplasty (THKA) patients are at risk of venous thromboembolism (VTE). Guidelines recommend 10–35 days of pharmacoprophylaxis, but this may induce bleeding resulting in increased healthcare costs. This study assessed whether using intermittent pneumatic compression (IPC) for VTE prophylaxis is associated with reduced healthcare costs compared to anticoagulants.

METHODS:

Studies related to VTE and prophylaxis in THKA were identified by a structured search of the PubMed database. VTE incidence and cost data were Australia specific or, if not available, taken from other developed healthcare systems. A Markov model was used to estimate the incidence of deep vein thrombosis (DVT), pulmonary embolism (PE), death, post-thrombotic syndrome, as well as minor and major bleeding and heparin-induced-thrombocytopenia, to assess the budget impact of different VTE prophylaxis strategies. The time horizon was one year, low-molecular-weight-heparin (LMWH) was used as the reference intervention, and effectiveness data were obtained from meta-analyses.

RESULTS:

A total of 102,459 THKA were performed in Australia in 2015. The twelve-day incidence of DVT and PE using LMWH prophylaxis were 4.48 percent and 0.25 percent, respectively, with minor and major bleeding occurred in 9.9 percent (within twelve days) and 1.9 percent (within 10 days) of the patients, respectively. The incidence of VTE was not different between LMWH and IPC after THKA. The model estimated that the total cost of post-operative care for THKA was AUD 101.7 million (USD 77 million) in 2015. A one percent-point change from LMWH to IPC prophylaxis (n=1025 patients) would reduce the total healthcare costs by AUD 317,361 (USD 240,274) per year (or AUD 310 (USD 235) per patient), primarily through reduced bleeding events (-72 minor

and -3 major bleeds). Sensitivity analysis including 500 simulations demonstrated a likelihood of 100 percent for IPC to reduce both costs and bleeding events compared to LMWH. Similarly, a one percent-point change from dabigatran and rivaroxaban to IPC also resulted in total healthcare savings of AUD 320,580 (USD 242,711) and AUD 702,584 (USD 531,926) per year, respectively, with two-thirds and ninety-nine percent of the simulations favored IPC over dabigatran for bleeding and cost savings, respectively.

CONCLUSIONS:

Using IPC for VTE prophylaxis after THKA has the potential to substantially reduce total healthcare costs compared to anticoagulants, primarily through reduced bleeding events. IPC is suitable for all patients, but may be particularly cost-effective in the immediate postoperative period or in patients at high-risk of bleeding.

PD04 Cost-Utility Of Quetiapine For Schizophrenia: A Systematic Review

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INTRODUCTION:

Schizophrenia is a chronic debilitating condition characterized by disorders in thought, affect and behavior. The worldwide prevalence is around 0.3 to 1 percent. The pharmacological treatment is based on antipsychotic drugs, but their efficacy is limited, culminating in discontinuation of treatment, relapses, and readmissions to health services. Quetiapine was initially approved for use in the United States of America in 1997. The drug has moderate affinity for D2 and 5-HT2A receptors and high affinity for H1 receptors. This study aimed to conduct an assessment of the cost-utility of quetiapine for schizophrenia around the world.

METHODS:

Cost-utility studies of head-to-head comparisons of quetiapine against other antipsychotic drugs for the