COST BURDEN OF VENOUS THROMBOEMBOLISM AND ITS PROPHYLAXIS IN THE UNITED STATES

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Objectives

VTE and its complications have significant morbidity and mortality. Costs of VTE vary by country and are driven by differences in healthcare systems. The objective was to determine the cost burden of VTE using comparable data.

Methods

A systematic review of PubMed was performed using MeSH terms to identify VTE prophylactic methods. Randomized controlled trials and observational studies were included. A probabilistic Markov model was developed to model the cost-effectiveness of different prophylactic methods. Sensitivity analyses were conducted to test the robustness of the model results.

Results

The estimated cost of VTE in the US is $10 billion. The estimated cost saving with IPC was $23,339 (95% CI: $19,901 to $25,721) compared to LMWH. IPC was associated with an 11% reduction in bleeding events and a 36% reduction in the cost of VTE treatment. The probabilistic analysis confirmed the robustness of the model results.

Conclusions

IPC is an effective and cost-saving method for VTE prophylaxis in the US.

BACKGROUND

The US Surgeon General identified VTE as a major public health problem.

METHODS

Literature review

Structured search of PubMed was performed to identify recent publications relating to the incidence and cost of VTE and adverse events.

AIMS

Evaluate the current literature to estimate the US burden of VTE and the impact of different prophylaxis methods for healthcare payers using a standard pay for service model for total hip arthroplasty (THA) and total knee arthroplasty (TKA).

BUDGET-IMPACT MODEL

Separate Markov models were developed in Microsoft Excel to simulate the onset and progression of VTE and AE.

CONCLUSIONS

VTE is a significant burden to the US healthcare system. Small changes in the methods of prophylaxis chosen will not substantially alter budgets.

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REFERENCES


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