Aspirin for thromboprophylaxis post total hip or knee replacement

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Background

The National Institute for Health and Care Excellence (NICE) recommended the use of oral aspirin as an alternative to low molecular weight heparin (LMWH) injections post elective hip (THR) and knee (TKR) arthroplasty in March 2018 for venous thromboembolism (VTE) prophylaxis. Each treatment choice also poses practical and financial implications.

Aims

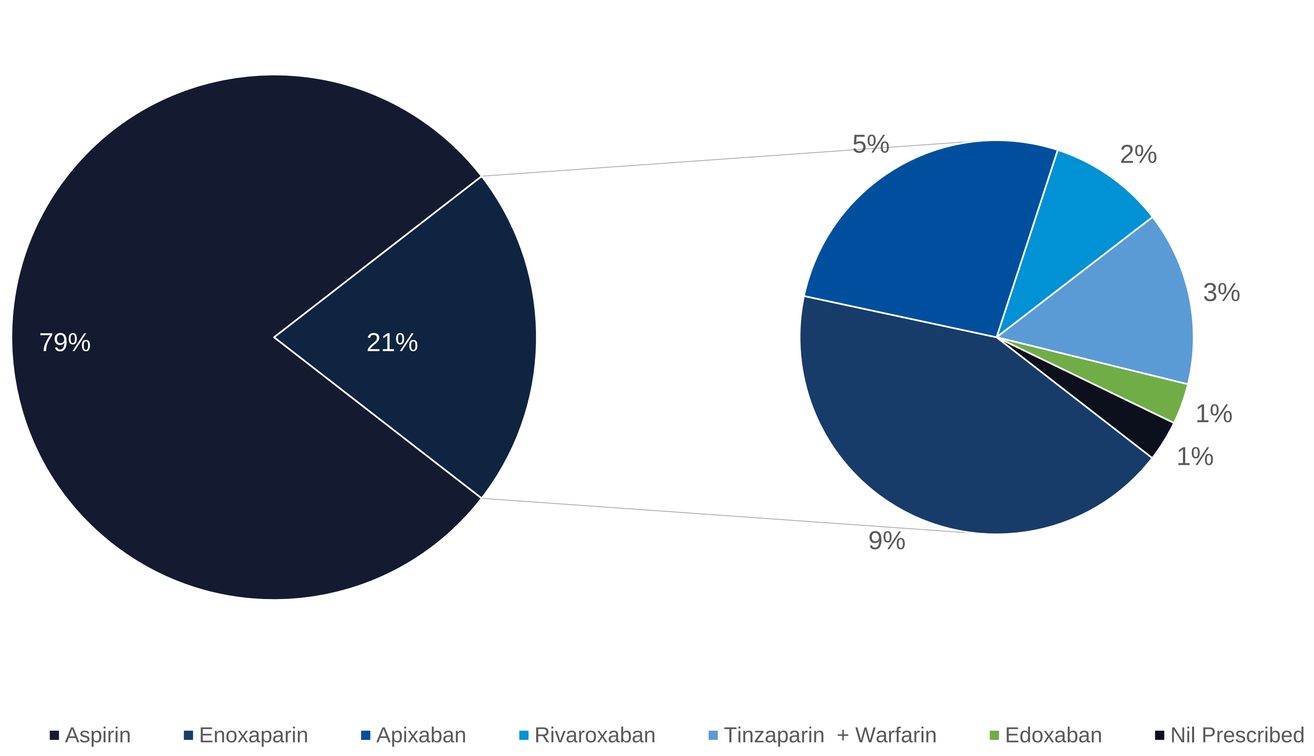
To identify whether we are achieving best practice guidelines for VTE prophylaxis and whether there is a significant difference in post-operative VTE complications between aspirin or LMWH post elective THR and TKR at Imperial College Healthcare Trust, London.

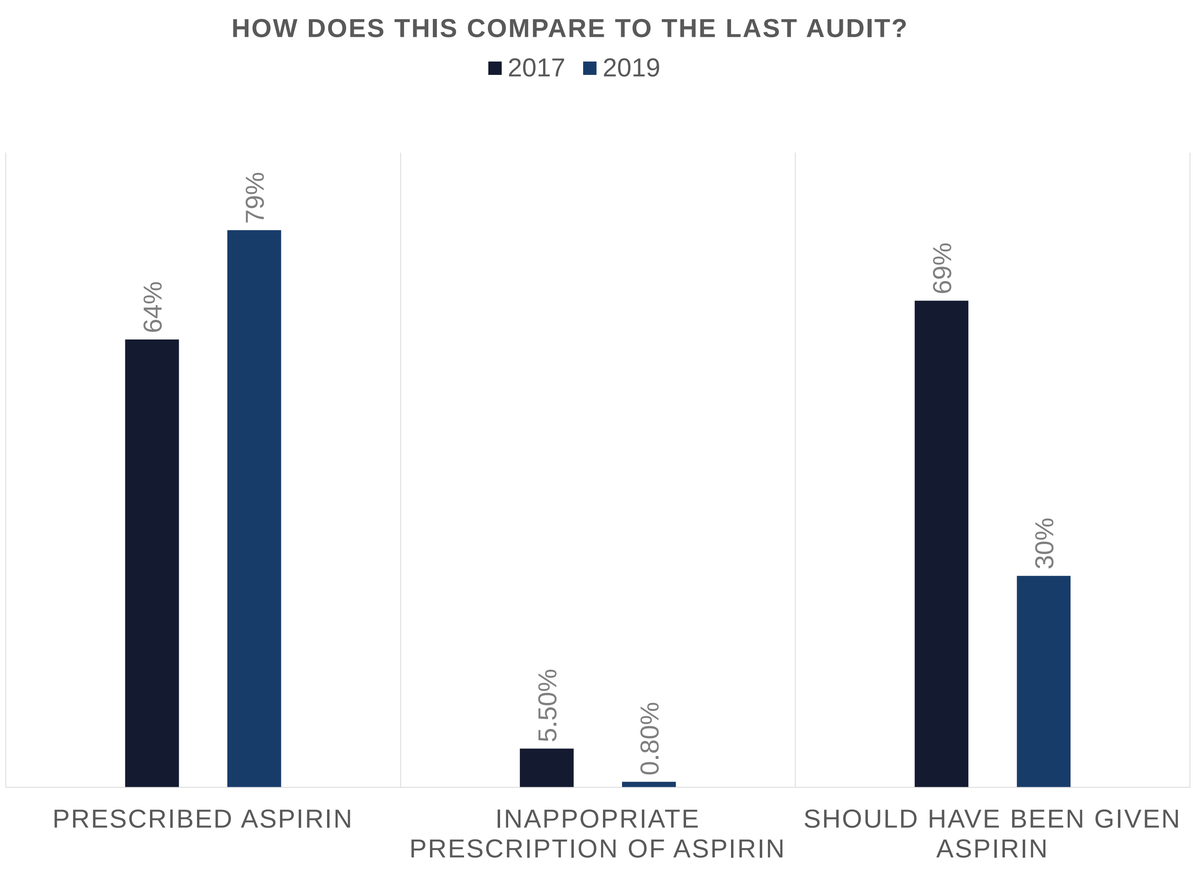
Methods

A closed loop audit was conducted between 01/05/17 and 29/10/19, before and after the release of the NICE guidelines. The data and complications were collected, analysed and presented at the departmental clinical governance meetings alongside a cost-effectiveness analysis.

Results

n=468. 63.5% of patients received Aspirin in the initial audit cycle (94.5% appropriate, 5.5% inappropriate), 69% of patients who did not receive aspirin should have. In the reaudit 79% of patient received aspirin (99.2% appropriate, 0.8% inappropriate) and 30% of patients who did not receive aspirin should have. A total of 6 (1.3%) patients developed post-operative VTE: 4 (67%) whilst on LMWH and 2 (33%) whilst on aspirin.





Conclusion

NICE supports the use of aspirin post elective THR and TKR if there is otherwise no increased risk of VTE. The cost implication of switching from LMWH to aspirin and PPI could save the trust £40,656.20 annually. These funds could be used elsewhere to improve services and patient care. Hence, aspirin is a cheaper and more practical alternative. We did not find an increased risk of VTE in patients who were given aspirin appropriately instead of LMWH. We propose to re-audit the efficiency of aspirin in the prevention of VTE with comparison to a similar group using LMWH

References: NICE guideline [NG89] Venous thromboembolism in over 16s: reducing the risk of hospital acquired deep vein thrombosis or pulmonary embolism. Published date: March 2018 Last update: August 2019 Accessed via: https://www.nice.org.uk/guidance/ng89/chapter/Recommendations#ftn.footnote_6Jan 2020).