

157. Direct Oral Anticoagulant vs Low Molecular Weight Heparin For the Treatment of Venous Thromboembolism Associated With Malignancy: A Meta-Analysis

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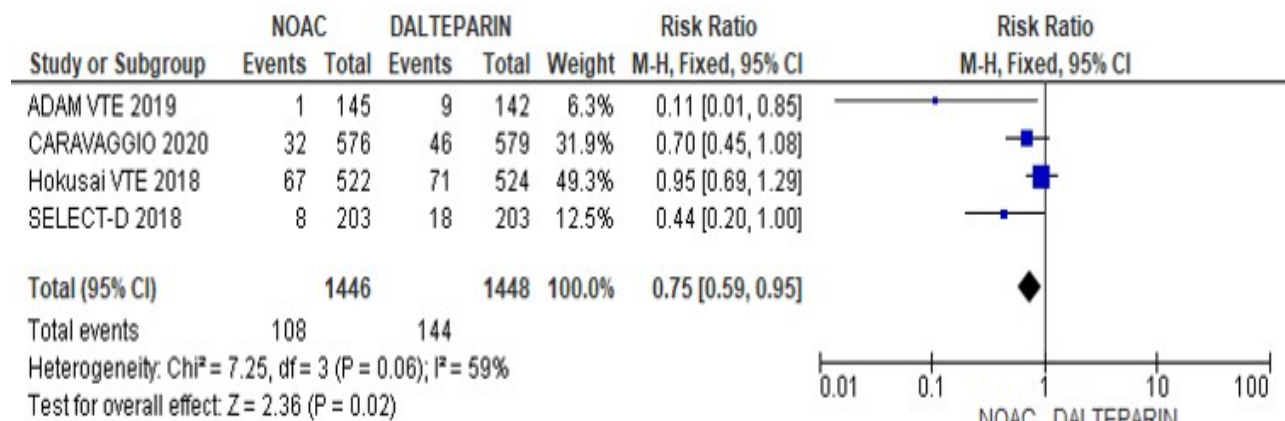
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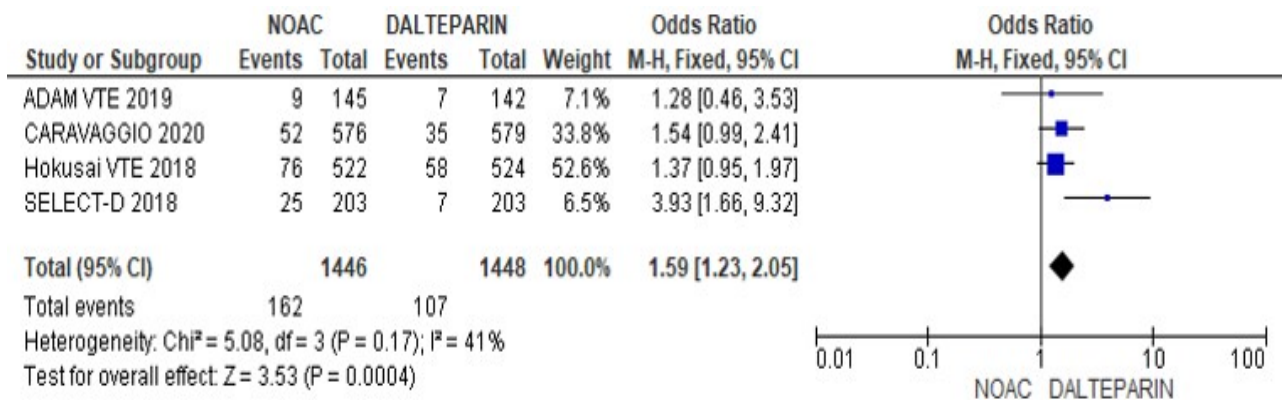
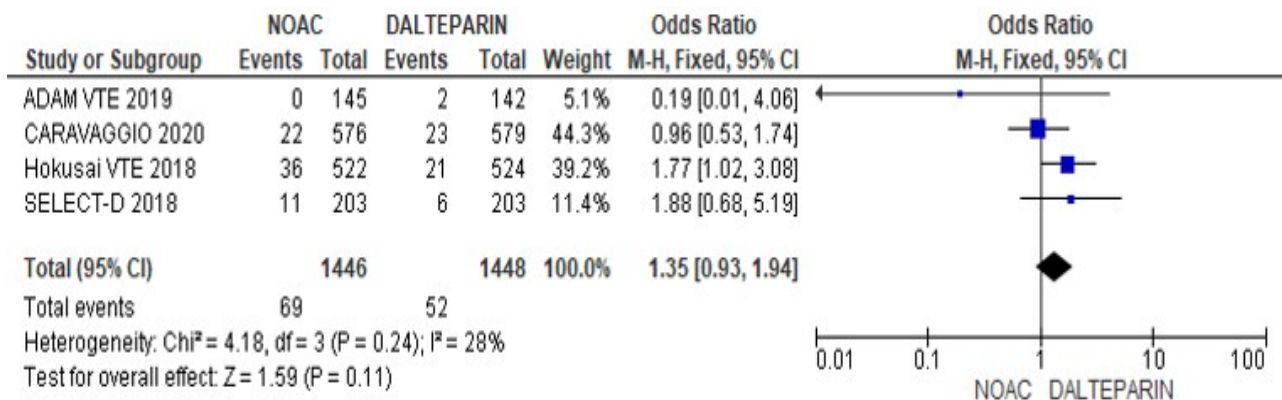
Background: Venous thromboembolism is a major cause of morbidity and mortality in cancer patients and treatment of cancer associated thromboembolism is challenging. Low molecular weight heparin has been the standard of care treatment for cancer-associated VTE yet the use of direct oral anticoagulant has been promising. The purpose of this study is to determine the efficacy and safety of direct oral anticoagulants compared to low molecular weight heparin in recurrent VTE prevention cancer associated thromboembolism.

Methods: Randomized controlled trials (RCT) comparing DOACs with LMWH for treatment of VTE in cancer patients.

Results: Four randomized controlled trials were selected which included a total of 2,894 participants enrolled in 4 randomized controlled trials, with a mean follow-up of 6-12 months. As a pooled aggregate, oral anticoagulant is beneficial over dalteparin in the prevention of recurrent VTE. (RR 0.75; 95% CI, 0.59-0.95; I2 59%). There was statistically no significant difference in the major bleeding risk (RR 1.35; 95% CI, 0.93-1.94; I2 28%). Sub-group analysis of clinically relevant non major bleeding however favors the dalteparin over oral anticoagulant. (RR 1.59; 95% CI, 1.23-2.05; I2 41%).

Conclusion: In this meta-analysis, the efficacy of direct oral anticoagulant in terms of recurrent VTE prevention for patients with cancer is favorable compared that of Dalteparin. Though safety profile has no significant difference in terms of major bleeding between the two groups, oral anticoagulants has a higher risk of clinically non-major bleeding.





Clinical Implications: improve the management of recurrent VTE prevention in cancer patients for it will simplify the treatment and increases patient's compliance.