**LOW RISK PULMONARY EMBOLISM PATIENTS CAN BE DISCHARGED FROM EMERGENCY DEPARTMENT: A META-ANALYSIS**

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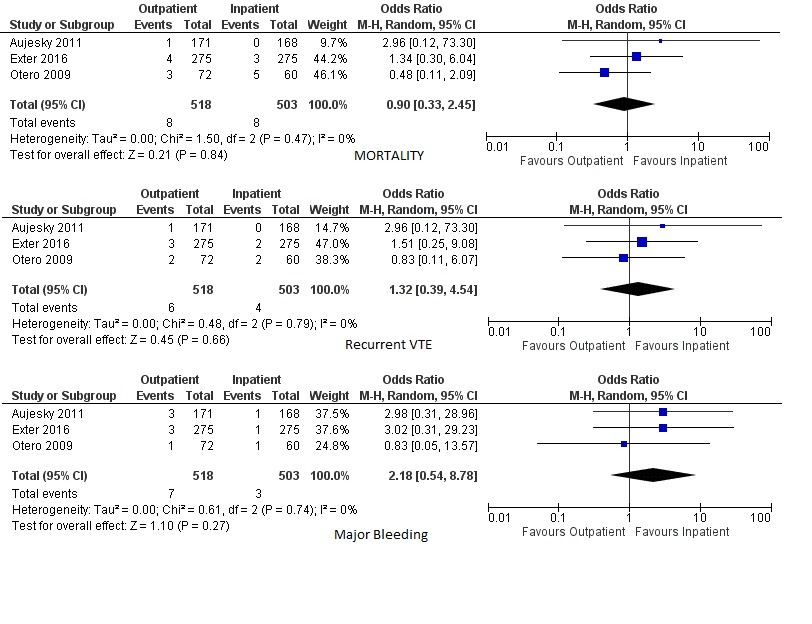
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**Background**: Annual health expense of hospital admissions, due to Venous Thromboembolism (VTE) including Pulmonary Embolism, exceeds 10 billion dollars in the United states. Majority of these patients still get admitted to hospital despite the advent of non-vitamin K antagonist oral anticoagulants (NOACs). Our aim is to show that low-risk pulmonary embolism patients can safely be discharged from the emergency department and undergo outpatient treatment.

**Methods**: Pubmed and Embase were searched for randomized controlled trials (RCTs). All RCTs that compared inpatient treatment of pulmonary embolism compared to outpatient treatment were identified. Two independent investigators assessed the studies against an a priori inclusion criteria and disagreements were resolved via mutual discussion. We used reported event rates to compute cumulative odds ratio and p-value for mortality, recurrence of venous thromboembolism, and major bleeding.

**Results:** Of the 135 potentially relevant studies, a total of 3 studies (1,021 patients) were identified that met the inclusion criteria. The pooled estimate of the included studies showed no statistical significant difference between inpatient versus outpatient treatment. The odds ratio for mortality, recurrent VTE and major bleeding are 0.90 (0.33,2.45), 1.32 (0.39, 4.54), and 2.18 (0.54, 8.78) respectively.

**Conclusion**: In conclusion, our meta-analysis of RCTs shows that low-risk pulmonary embolism can safely be discharged from the emergency departments.

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