

EVMS Emergency Medicine Journal Club

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Citation: Robert-Ebadi H, et al., [*Impact of the Age-Adjusted D-Dimer Cutoff to Exclude Pulmonary Embolism: A Multinational Prospective Real-Life Study \(the RELAX-PE Study\)*](#). *Circulation*. 2021 May 4;143(18):1828-1830.

Methodology (Study design): Multinational, large (10 hospitals in Belgium, France, Switzerland) prospective impact-analysis study; 4-year time frame; 1507 patients included; low pre-test-probability with d-dimer < age adjusted were followed for 3mo for possible development of VTE

Results: In the study population of 1421 patients with low PTP and negative AADD 1/1421 had confirmed non-fatal PE (0.07% CI 0.01-0.40)

Strengths:

- Cost effectiveness, decreased CTA use (20% of whole cohort, 67% those >75 y/o)
- Only 20 patients (1.3%) lost to follow-up with large population 1430. 18/20 had dimer <0.5
- Geneva score was used, similar enough to Well's score that we use.
- VTE events/deaths adjudicated by blinded experts

Weaknesses:

- Used the Geneva score to determine pretest probability which is slightly different from Well's which most of us probably use in the US.
- Uncertain generalizability as study took place in Belgium, France and Switzerland.
- No demographics given regarding patient comorbidities.

My Clinical Bottom Line: This study validates the utility of using the age-adjusted d-dimer in excluding PE and its impact on reducing unnecessary CT's with inherent harms and costs.