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Title: Should there be an age adjusted D-dimer cut-off value in diagnosing thromboembolic disease? A retrospective analysis

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Body: Previous studies using the enzyme-linked immunosorbent assay (ELISA) D-dimer in pulmonary embolism have suggested that the D-dimer cut-off should be adjusted for age. (Douma et al. BMJ 2010; 340 c.1475) Using a retrospective analysis from our DVT clinic we compared latex agglutination assay D-dimer values for patients without DVT in 10 year age brackets (1696 patients). There was a significant D-dimer level rise (compared to under 50 years) with advancing age.

Age (years)	50<	50-60	60-70	70-80	80-90	90+	All
D-dimer Mean (SD)	390 (740)	398 (734)	431 (619)	643 (891)	632 (807)	679 (631)	513 (777)
D-dimer Median	178	188	255	340	400	469	285
p value	-	>0.1	>0.1	<0.001	<0.001	<0.01	

We analysed the data from positive DVTs to look for an age adjusted D-dimer cut-off. (212 patients)

By generating receiver operating characteristics (ROC) curves we calculated 95% sensitivity D-dimer cut-off limits for the various age brackets. A clear relationship between age and D-dimer cut-off could not be shown.

Our data again showed that D-dimer level rises with advancing age. However, with our assay an age adjusted D-dimer cut-off could not be deduced without reducing sensitivity.