



Age Related D-Dimer Cut-Off Values

Measurement of plasma D-dimer allows venous thromboembolism (VTE) to be ruled out in patients with non-high clinical probability, but interpretation is complicated by the fact that D-dimer levels rise normally with age.

The use of an age-adjusted d-dimer cutoff in patients with non-high clinical probability of VTE has been evaluated by multiple investigators, with consistent positive outcomes.

The implementation of an age adjusted cut-off values for D-dimer *substantially** increases the proportion of older patients** in whom VTE can be excluded without reducing safety.

To improve the clinical utility of D-dimer testing in patients aged 50 or more with a non-high clinical probability, the following simple calculation may be used:

- Age > 50 D-dimer cut off value < (age ×10)
- Age < 50 cutoff value < 500

In line with other New Zealand laboratory's we will be implementing the reporting of age related D-dimer cut off values on 17th November 2014.

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*Diagnostic accuracy of conventional or age adjusted D-dimer cut-off values in older patients with suspected venous thromboembolism: systematic review and meta-analysis - *BMJ* 2013;346:f2492

Use of age adjusted D-dimer cut-off values would result in imaging examinations being correctly avoided in 30-54% of older patients with a non-high clinical probability of venous thromboembolism

***Local review indicates overall increase of VTE exclusion by 17 %*