cutoff, the age adjusted cutoffs (age x 10 and age x 12.5) would have resulted in an absolute decrease in further investigations of 13.1% and 22.2%, respectively, with false negative rates of 0.1% and 0.3%. **Conclusion:** Among older patients with suspected DVT and low clinical probability, the age adjusted D-dimer increases the proportion of patients among whom DVT can be ruled out. A novel cutoff (age x 12.5) demonstrated improved specificity. Future large scale prospective studies are needed to confirm this finding and to explore the cost savings of these approaches.

**Keywords:** deep venous thrombosis, D-dimer

### LO07

**Role of the age adjusted D-dimer in suspected deep venous thrombosis**

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**Introduction:** It is well established that a negative D-dimer will reliably rule out thromboembolism in selected low risk patients. Multiple modified D-dimer cutoffs have been suggested for older patients to improve diagnostic specificity. However, these approaches are better established for pulmonary embolism than for deep venous thrombosis (DVT). This study will evaluate the diagnostic performance of previously suggested D-dimer cutoffs for low risk DVT patients in the ED, and assess for a novel cutoff with improved performance. **Methods:** This health records review included patients >50 years with suspected DVT who were low-risk and had a D-dimer performed. Our analysis evaluated the diagnostic accuracy of D-dimer cutoffs of 500 and the age adjusted (age x 10) rule for patients >50 years; and 750, and 1,000 cutoffs for patients >60 years. 30-day outcome was a diagnosis of DVT. **Results:** 1,110 patients (mean age 68 years; 59% female) were included. Of these, 110 patients (11%) were diagnosed with DVT. The conventional cutoff of <500 µg/L demonstrated a sensitivity of 99.1% (95% CI 95.0-99.9) and a specificity of 36.4% (95% CI 33.2-39.7). For patients >60 years, the absolute cutoffs of 750 and 1,000 showed sensitivity of 98.7% (95% CI 92.9, 99.9), and the specificity increased to 48.6% (95% CI, 44.5-52.8%) and 62.1% (95% CI, 58.1-66.1%) respectively. For all study patients, age adjusted D-dimer demonstrated a sensitivity of 99.1% (95% CI 95.0-99.9) and a specificity of 51.2% (95% CI, 47.9-54.6). A novel age adjusted cutoff (age x 12.5) for patients >50, demonstrated a sensitivity of 97.3% (95% CI 92.2-99.4) and a specificity of 61.2% (95% CI 58.0-64.5). When compared to conventional