The risk of VTE during pregnancy, particularly in the peripartum period is high with thrombosis occurring in as many as 1 per 1,000 pregnancies. During pregnancy, D-dimer levels rise continuously with upper limits of the reference intervals reaching levels of 286 ng DDU/mL, 457 ng DDU/mL and 644 ng DDU/mL in the first, second and third trimesters respectively. This significantly reduces the value of the D-dimer assay in the exclusion of VTE. Studies developing separate, rising thresholds for exclusion of VTE have been reported, however the power of these studies is limited by the number of cases included, such application would have to be done with caution. This is a particular problem because the use of imaging studies in pregnancy needs to be avoided if at all possible, yet the D-dimer use for exclusion has limited value. The finding of a D-dimer below the threshold published in the package insert can be used safely, but because of rising values, the test was below the threshold in patients without VTE in 50%, 22% and 0% in patients in the first second and third trimesters respectively, thus there is an increased false positive value of the test, a problem that increases with the progression of the pregnancy along with the increase risk of VTE in the pregnant woman.


Additional References