Racial differences in venous thromboembolism.

The incidence of venous thrombosis (VTE) varies by race, with African-Americans having over 5-fold greater incidence than Asian-ancestry populations, and an intermediate risk for European and Hispanic populations. Known racial differences in genetic polymorphisms associated with thrombosis do not account for this gradient of risk, nor do known racial variations in environmental risk factors. Data on the incidence of and risk factors for VTE outside of Europe and North America and in non-European ancestry populations are sparse. Common genetic polymorphisms in European-Ancestry populations, such as factor V Leiden and prothrombin G20210A, and environmental risk factors, such as obesity, may account for some of the increased risk in European populations, and high factor VIII, high von Willebrand factor and low protein C levels and increased prevalence of obesity may explain some of the increased risk in African-Americans. The low rates in Asian populations may be partially explained by low clinical suspicion in a perceived low-risk population and lack of access to healthcare in other populations. As risk factors for thrombosis, such as surgery and treatment for cancer, are applicable to more people, as obesity increases in prevalence in the developing world, and as surveillance systems for VTE improve, VTE may increase in previously low-risk populations. While differences in VTE by race due to genetic predisposition will probably always be present, understanding the reasons for racial differences in VTE will help providers develop strategies to minimize VTE in all populations.