Venous thromboembolic (VTE) events including deep vein thrombosis (DVT) and pulmonary embolism (PE) remain a significant concern following total joint arthroplasty.[1] The American Academy of Orthopaedic Surgeons (AAOS) guidelines for VTE prophylaxis have focused on the safety of prophylactic regimens, with the primary endpoint being prevention of symptomatic events while avoiding the risks of hematoma, infection, and re-operation associated with aggressive anticoagulation. [2] In 2007, the AAOS clinical practice guideline recommended “risk stratification” of patients for VTE events and bleeding. Unfortunately, there remains limited evidence as to specific factors that should be used during pre-operative risk stratification.[2]

A prior investigation has demonstrated the effectiveness of using a history of VTE events, active cancer, and hypercoagulable state (i.e. Factor V Leiden) as criteria for high-risk patients undergoing total joint arthroplasty.[3] In addition, large national database systems have been used to identify risk factors for VTE events.[4,5] Unfortunately, these investigations emphasize different risk factors and their importance in increasing the risk of VTE events. Thus, criteria to be used for risk stratification of patients undergoing total joint arthroplasty remain unclear. What remains clear is that even in healthy patients who are aggressively anticoagulated, a VTE event can still occur.[6]

References: