

# **Bivalirudin (ANGIOMAX): Is It a Better Anticoagulant for Peripheral Arterial Interventions?**

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Traditionally, unfractionated heparin has been used to prevent thrombotic complications in peripheral interventions and vascular surgery. We recently began to evaluate the use of Bivalirudin (ANGIOMAX) as an anticoagulant alternative for peripheral interventions and abdominal and thoracic aortic endografts.

In 2001, direct thrombin inhibitor with Bivalirudin (ANGIOMAX R, The Medicines Company, New Jersey) became an option as an anticoagulation strategy for treating patients with unstable angina undergoing angioplasty. Within this group of patients undergoing percutaneous coronary interventions, there was a similar reduction of ischemic events, but Bivalirudin showed a decreased number of bleeding complications which proved to be of statistical significance. It also seemed to have a favorable biochemical, pharmacokinetic, and pharmacodynamic profile.

For that reason we began the use of this agent as an alternative during a variety of endovascular procedures.

We reviewed an experience with Bivalirudin in a diverse group of over 200 procedures including peripheral, renal, carotid, and endografts. The overall complication rate was 3.6%, with one embolic stroke 0.9%, one thrombosis 0.9%, and two groin hematomas (1.8%). Considering that most percutaneous procedures were controlled with manual compression, this morbidity seemed to be lower than noted in our previous historical control with heparin.

Details of usage, dosing, and cost analysis will be presented, but clinical experience has shown direct thrombin inhibitor to be a good alternative to conventional anticoagulation.