What screening is indicated for patients with a family history of thromboembolism?

**Evidence-Based Answer**
At present, no clear recommendation can be made for or against routine screening of asymptomatic patients with a high-risk family history of thromboembolism. When such testing is being considered, both the risks and benefits of testing must be presented. Patients can then make an informed decision based on their unique values and circumstances. (SOR C, based on expert opinion.)

Several consensus groups, including the American College of Medical Genetics, the American Academy of Pediatrics, and the International Society of Thrombosis and Haemostasis, cite several potential benefits of screening high-risk family members of patients with venous thromboses. Among these benefits:

- Patients can be educated about early signs and symptoms of venous thrombosis.
- Women may be counseled to avoid oral contraceptive therapy.
- Targeted recommendations can be made for anticoagulant therapy in high-risk situations (surgery, prolonged immobilization including prolonged travel, and postpartum states).\(^1,2\)

Arguments against routine testing of high-risk family members include the following factors:

- Possible denial of insurance, particularly life and disability insurance.
- Inadvertent impact on paternity claims.
- Although inherited thrombophilias are transmitted in an autosomal dominant fashion, the gene mutations are of variable expressivity, so that not all patients with an inherited thrombophilia will develop thrombosis.
- Testing for thrombophilias can be time-consuming and expensive, and has not been proven to be cost effective.\(^3\)

Additional research is needed to further define the epidemiology of venous thromboembolism in children and adults with familial thrombophilia and to determine the benefits of thromboprophylaxis.\(^3\)

Results of such research would help determine who and when to screen for thrombophilia, what type of genetic counseling to provide pre- and post-screening, and what to do with the screening results. Experts agree that the research for screening should continue as new risk factors for thrombophilia are identified and new anticoagulants are developed.

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What is the value of intensive statin therapy in lowering morbidity and mortality in patients at high risk for coronary artery disease?

**Evidence-Based Answer**
High-dose statins are better at prolonging the time to the first cardiovascular event in patients with diabetes and chronic kidney disease, but not in patients with diabetes who have normal kidney function. (SOR B, based on a randomized controlled trial.) High-dose statin therapy reduces the risk of myocardial infarction (MI) and stroke in patients with either acute coronary syndromes (ACS) or stable coronary artery disease (CAD), and has been demonstrated to reduce all-cause mortality in patients with ACS. (SOR A, based on a meta-analysis.)

A randomized, controlled, double-blinded study published in 2008 was conducted with 10,002 patients with diabetes mellitus type 2 who either had a normal estimated glomerular filtration rate or chronic kidney disease. The patients were given either 10 or 80 mg atorvastatin.\(^1\)

Higher-dose atorvastatin was associated with a reduced risk of first major cardiovascular event at 4.8 years (13.9% [38/273] vs 20.9% [57/273]; hazard ratio=0.65; 95% confidence interval [CI], 0.43–0.98; \(P=0.04\); number needed to treat=14). The patients with diabetes mellitus and a normal glomerular filtration rate or chronic kidney disease. The patients were given either 10 or 80 mg atorvastatin.\(^1\)

A recent meta-analysis of 7 randomized clinical trials comparing lipid-lowering regimens in 29,395 patients with CAD supports the use of high-dose...