

Sponsored by Bayer HealthCare

Prophylaxis of Venous Thromboembolism in Orthopedic Surgery

Benjamin Brenner

Rambam Health Care Campus, Haifa

Prophylaxis of Venous Thromboembolism in Orthopedic Surgery

B. Brenner

Thrombosis & Haemostasis Unit, Rambam Health Care Campus, Haifa

Venous thromboembolism is a leading cause of morbidity in hospitalized patients. The risk is particularly high in patients undergoing major orthopedic surgical procedures such as elective hip and knee replacement as well as lower extremity and spine surgery for trauma. The pathogenesis of increased thrombotic risk in these patients is complex and the risk persist up to 5 weeks after major procedures.

Early ambulation and mechanical prophylaxis is of value.

Data accumulated over the past 20 years have demonstrated the efficacy of heparins in reduction of the thrombotic burden. Unfractionated heparin, low molecular weight heparin and Fondaparinaoux are injectable indirect coagulation factors inhibitors that require antithrombin to exert their action. Oral specific inhibitors of coagulation factors are the focus of current research. Rivaroxaban (Xarelto) is a direct factor Xa inhibitor which has recently demonstrated improved efficacy without increased bleeding in patients undergoing elective hip and knee replacement. The Record program is a landmark of antithrombotic prophylaxis in major orthopedic surgery and is likely to change guidelines and practice in this field.

References:

1. Eriksson BI, Borris LC, Friedman RJ et al. Rivaroxaban versus enoxaparin for thromboprophylaxis after hip arthroplasty. *N Engl J Med* 2008;149:6-7
2. Kakkar AK, Brenner B, Dahl OE et al. Extended duration rivaroxaban versus short-term enoxaparin for the prevention of venous thromboembolism after total hip arthroplasty: a double-blind, randomised controlled trial. *Lancet* 2008;372:31-9
3. Lassen MR, Ageno W, Borris LC et al. Rivaroxaban versus enoxaparin for thromboprophylaxis after total knee arthroplasty. *N Engl J Med* 2008;26:2776-86 .
4. Geerts WH, Bergqvist D, Pineo GF et al. Prevention of venous thromboembolism: American college of chest physicians evidence-based clinical practice guidelines (8th edition). *Chest* 2008;133:381S-453S

<u>Name</u>	<u>Program Page</u>	<u>Abstract Page</u>
B.		
Brenner B.	1	2