



Institut Lady Davis de recherches médicales | Lady Davis Institute for Medical Research

PAPER OF THE MONTH • AUGUST 2018



Susan Kahn, MD, FRCPC, MSc (Epid)

Senior Investigator, Centre for Clinical Epidemiology, Lady Davis Institute Director, Centre of Excellence in Thrombosis and Anticoagulation Care (CETAC), Jewish General Hospital

Professor, Department of Medicine, McGill University



David Zukor, MD, FRCSCChief, Department of Orthopedics, Jewish General Hospital
Associate Professor of Surgery, McGill University



The NEW ENGLAND JOURNAL of MEDICINE

Aspirin or Rivaroxaban for VTE Prophylaxis after Hip or Knee Arthroplasty

David R. Anderson, M.D., Michael Dunbar, M.D., John Murnaghan, M.D., Susan R. Kahn, M.D., Peter Gross, M.D., Michael Forsythe, M.D., Stephane Pelet, M.D., William Fisher, M.D., Etienne Belzile, M.D., Sean Dolan, M.D., Mark Crowther, M.D., Eric Bohm, M.D., Steven J. MacDonald, M.D., Wade Gofton, M.D., Paul Kim, M.D., David Zukor, M.D., Susan Pleasance, B.Sc.N., Pantelis Andreou, Ph.D., Steve Doucette, M.Sc., Chris Theriault, M.Sc., Abongnwen Abianui, B.Sc., Marc Carrier, M.D., Michael J. Kovacs, M.D., Marc A. Rodger, M.D., Doug Coyle, Ph.D., Philip S. Wells, M.D., and Pascal-Andre Vendittoli, M.D.

A multicentre, double-blind, randomized, controlled clinical trial of patients who underwent total hip or knee replacement surgery showed that aspirin was as effective as rivaroxaban, the standard anti-coagulation medication, at preventing post-operative venous thromboembolism (VTE). Montreal's Jewish General Hospital (JGH) was among the participating institutions. The results were published in the prestigious New England Journal of Medicine.

All 3424 patients enrolled in the trial (1804 for hip replacement and 1620 for knee replacement) took rivaroxaban for five days after surgery before being randomized either to receive aspirin (1707 patients) or to continue with rivaroxaban (1717 patients). Eleven in the former group and 12 in the latter experienced VTE. The most worrisome complication from anti-coagulants is bleeding. In this trial, rates of clinically important bleeding were less than 1.5% and did not differ significantly between the two groups. All bleeding events occurred at the surgical site, as opposed to other, potentially more dangerous, regions such as the brain or gastrointestinal tract. As a result, aspirin could emerge as a practical alternative to more expensive anticoagulants.

DOI: 10.1056/NEJMoa1712746