



LETTER

Heparin Thromboprophylaxis for Medical Inpatients

To the Editor:

On the basis of the results of a pilot study, Lederle et al.¹ concluded that the decision to use heparin-based thromboprophylaxis pertains to only 7% of general medical patients aged more than 60 years and that the effect of heparin prophylaxis on clinical outcome is uncertain for these patients. Although the authors have to be commended for this well-designed study on an important topic, their conclusions should be tempered.

First, the generalizability of their findings is limited. Of the 6694 patients screened for eligibility, 1819 (27%) were excluded because of a “contraindication to heparin in the opinion of the attending physician.” This was the main reason for patient exclusion in this study, and it would be interesting to know the detailed objective exclusion criteria for these patients. In addition, 1785 patients (26%) were excluded because of warfarin or heparin treatment for reasons other than venous thromboembolism prophylaxis. In contrast, 2 cross-sectional studies with prospective data collection found that only 13% of general medical patients hospitalized at 2 acute care hospitals (of those, 69% were aged ≥ 60 years)² and 10% of elderly patients hospitalized at 36 hospital-based postacute departments³ required oral anticoagulant or heparin for reasons other than thromboprophylaxis. A potential explanation for this discrepancy is that patients admitted to Veterans Affairs medical centers are more likely to have a history of cardiovascular disease than those admitted to other hospitals, as suggested by the study population baseline characteristics.

Second, this pilot study, which enrolled 280 patients, lacked the statistical power to demonstrate any survival benefit of heparin prophylaxis, as acknowledged by the authors. Although laudable, the statement by Lederle et al.¹ that the only relevant clinical outcome for heparin prophylaxis is all-cause mortality raises some questions. We agree

that most randomized trials used a composite outcome combining a symptomatic venous thromboembolism event with asymptomatic deep vein thrombosis. However, a meta-analysis based on some of the studies cited by Lederle et al demonstrated a significant reduction in fatal or symptomatic pulmonary embolism for medical patients receiving heparin prophylaxis.⁴ To our knowledge, no survival benefit of low-molecular-weight heparin prophylaxis has been evidenced for patients with total hip replacement.⁵ Following the reasoning of Lederle et al, should we also wait for such a trial before recommending low-molecular-weight heparin prophylaxis to these patients?

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