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Dabigatran Compared With Rivaroxaban vs Warfarin.

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To the Editor:

Graham, *et.al.* report rivaroxaban use had increased risks of major bleeding with non-significant reduction in thromboembolic stroke and increased mortality compared to dabigatran in elderly Medicare beneficiaries newly treated with dabigatran or rivaroxaban for nonvalvular atrial fibrillation (NVAF) during November, 2011- June 30, 2014. (1) However, dabigatran event rates were lower than reported by Graham, *et.al.* in a larger group of elderly Medicare beneficiaries newly treated with dabigatran or warfarin for NVAF with longer follow-up during a partially overlapping period (October, 2010 until December 2012). (2) Incidence rates/1000 person-years for dabigatran when compared to rivaroxaban vs warfarin were 26.6 vs. 42.7 for major hemorrhage, 23.3 vs. 34.2 for G.I. hemorrhage, 12.9 vs 15.7 for acute M.I., and 22.2 vs 32.6 for mortality. (1) (2) The marked differences in dabigatran event rates could have possible explanations but raise concerns.

Another concern is the information presented for renal dosing adjustment. (1). The authors state adjustments are based on creatinine clearance (CrCL) in units of mL/min/1.73 m² while FDA-approved recommendations specify Cockcroft and Gault estimated CrCL in mL/min. (see labels.fda.gov) Laboratories report estimated glomerular filtration rate (eGFR) in mL/min/1.73 m² from equations (3) that produce higher values than measured or Cockcroft and Gault-estimated CrCL at older ages and may fail to identify 20-50% of patients for whom reduced DOAC doses are recommended. (4-5).

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