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Warfarin has been the only drug used for anticoagulation until dabigatran was recently approved. Recent guideline update recommended dabigatran as an alternative to warfarin, while describing that patients already taking warfarin with excellent PT-INR control may have little to gain by switching to dabigatran. Analysis of time in the therapeutic range (TTR) is used to assess appropriateness of PT-INR control, and TTR >60-65% is associated with reduced risk for stroke. In the multicenter TTR study, 501 non-valvular atrial fibrillation (AF) patients taking warfarin for ≥2 years were enrolled from 5 prefectures in Japan. TTR was 64±25% for all patients with variation from 56% to 74% with the institution. TTR in patients <70 and ≥70 years old was 46±23% and 77±17%, respectively (P<0.0001). TTR in patients with CHADS2 score ≤1 and ≥2 was 59±27% and 68±23%, respectively (P<0.0001). TTR in patients with warfarin doses <2.5, 2.5-4.9, and ≥5.0 mg/day was 72±22%, 63±25% and 48±24%, respectively (all P<0.001). Multivariate analysis revealed age and warfarin dose as independent predictors of TTR. Thus, TTR is generally high in Japan, although it varies with institutions and is influenced by age and warfarin dose. Switching to dabigatran may be considered in patients with low TTR values during warfarin therapy, which are frequently observed in patients <70 years and with warfarin dose ≥5.0 mg/day.

Keywords: anticoagulation therapy, warfarin, time in therapeutic range