

## ADHERENCE TO CLINICAL GUIDANCE IN THE PRESCRIBING OF ANTI-COAGULANT MEDICATION IN PATIENTS WITH ATRIAL FIBRILLATION

M. Savage, M. Teeling, K. Bennett & J. Feely. Department of Therapeutics, Trinity College and St James's Hospital, Dublin 8, Ireland.

Atrial fibrillation is the commonest cardiac rhythm disturbance; its prevalence increases with increasing age. Atrial fibrillation is a known independent risk factor for ischaemic stroke and current published guidance [1,2] recommends the use of oral anticoagulation therapy (OAC) in atrial fibrillation patients. However, studies undertaken in different settings have shown sub-optimal OAC usage in atrial fibrillation patients [3,4].

The aims of this study were (1) to evaluate the prescribing of OAC in patients with atrial fibrillation in order to see if prescribing patterns were in keeping with published clinical guidance and (2) to assess the usefulness of digoxin as a surrogate marker for atrial fibrillation.

The study was undertaken over a 6-week period in July/August 2004. The study group consisted of patients acutely admitted to a Dublin teaching hospital who were taking digoxin and/or had a diagnosis of atrial fibrillation on admission during the study period or within the previous 30 days. Study patients were followed for 7 days after admission and the following information collected, weight, blood biochemistry, electrocardiogram findings, allergies, prescription details on dosage of digoxin, OAC and concomitant medications, in order to assess the appropriateness of digoxin usage and their eligibility for and correct prescription of OAC.

A total of 100 eligible patients were identified during the period of the study. Of these, over three quarters were receiving digoxin, but results suggested that at least 33 of these were receiving a potentially incorrect dosage of digoxin. OAC was prescribed to 87 patients. However 35 (40%) of these 87 patients were receiving inappropriate OAC (either in terms of dosage or type) while 10 at-risk patients were not receiving OAC, according to the criteria laid down in the published guidance. Patients < 75 years were more likely to be receiving appropriate OAC (63%) compared with those aged > 75 years (47%),  $P < 0.05$ .

The level of prescribing of OAC in the study population compares favourably with the published studies and clinical guidance. The finding of greater levels of inappropriate OAC use in older patients suggests an age bias in OAC treatment. Digoxin was found to be a good surrogate marker for atrial fibrillation in this population.

1. Albers G, *et al. Chest* 2001; **119**: S194.
2. Lip G, *et al. Br Med J* 2002; **325**: 1002.
3. Bungard T, *et al. Arch Int Med* 2000; **160**: 1.
4. Deplanque D, *et al. Br J Clin Pharmacol* 2004; **57**: 798.