Atrial fibrillation (AF) confers a 5-fold risk of stroke and the risk of death from AF-related stroke is doubled; it is the most common sustained cardiac arrhythmia, occurring in 1%–2% of the general population. Meta-analysis of anti-platelet therapy demonstrates a non-significant 19% reduction in the incidence of stroke, proving oral anticoagulation (OAC; such as warfarin) to be far superior (64% relative risk reduction) in stroke prevention. Recent guidelines have been published by the European Society of Cardiology (ESC) which focus on the most effective antithrombotic therapy in AF and propose a new risk scoring system, the CHA2DS2-VASc score. In our institution the prescription and documentation of antithrombotic therapy in AF has been the focus of a previous audit that demonstrated poor compliance with the guidelines and documentation of decision making. The focus of this audit was twofold: first to determine whether compliance with the guidelines and documentation had improved and second to determine the effect of the new risk scoring system on prescription of OAC. A random 10% of cases of patients discharged with a coding diagnosis of AF were selected (125 cases). They were risk assessed using the NICE 2006 stroke risk stratification, CHADS2 and CHA2DS2-VASc score. In all cases the agent used for thromboprophylaxis was reviewed as to whether NICE recommendations had been met. The scoring systems were compared to identify patients in whom the ESC guidelines would change treatment—i.e., OAC instead of Aspirin or as first line antithrombotic therapy. Of the 125 selected case notes 114 arrived in time for analysis; out of these 8 were excluded due to erroneous coding as AF. 106 patients were risk stratified, of whom 68.22% (73) were high risk, 28.04% (30) moderate and 2.80% (3) low risk according to NICE guidelines. 74.77% (80) scored 2 or more points on the CHA2DS2 risk assessment—this number increased to 93.46% (100) if CHA2DS2-VASc was applied, for whom OAC would be the recommended antithrombotic therapy (see Abstract 62 figure 1). Only 57.50% or 61 patients were on the appropriate choice of thromboprophylaxis if the NICE guideline was used as risk assessment. 75.77% (45) of patients had no formal documentation why NICE guideline had not been followed; this mostly comprised patients who were on Aspirin but, correctly risk assessed, were candidates for OAC. We extrapolate our findings to suggest that in an average sized DGH, 200 patients more per year would be considered high thromboembolic risk and hence appropriate for OAC. This audit shows that the rate of appropriate anti-coagulation among patients with AF is still low and could be improved further. The new ESC guidelines add to this challenge as significantly more patients will be considered for OAC therapy.