

Rate and rhythm control treatment in the elderly and very elderly patients with atrial fibrillation: an observational cohort study of 1,497 patients

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Aim: Stroke prevention and rate or rhythm control are crucial parts of the treatment of atrial fibrillation (AF). There is limited evidence for the efficacy or safety of rate and rhythm control in elderly or very elderly patients, although this population is rapidly increasing. Therefore, we analyzed electronic health record data from outpatient cardiology clinics to give insight in prescribing patterns and mortality of both treatment strategies in the elderly patients.

Methods and results: We extracted data from all patients with AF who were aged >75 years, used a pharmacological rate or rhythm control strategy and visited one of the independent outpatient cardiology clinics in the Netherlands between 2007 and February 2018. This resulted in 1,497 selected patients (54% women), of whom 316 (21%) were prescribed rhythm control (consisting of class 1 or 3 antiarrhythmic drugs) and 1,181 (79%)

rate control (beta blockers, calcium antagonists or digoxin). Patients aged >85 years (OR: 2.28) and those with permanent AF (OR: 2.71) were more likely to receive rate control (OR: 2.28, OR: 2.71 respectively), whereas those with paroxysmal AF were more likely to receive rhythm control (OR: 0.42). After correcting for relevant confounders, the mortality risk for patients using rhythm control was similar to patients using rate control (HR: 0.89; 95% CI: 0.70; p=0.31).

Conclusion: Considering the similar mortality risks in both groups, a more liberal approach in prescribing a rhythm control strategy to the healthier elderly patient with AF seems safe. Our data underscores the need for a non-inferiority trial to provide definite answers on safety of rhythm control in elderly patients with AF.