

M7 Clinical outcomes of rate vs rhythm control for atrial fibrillation in older persons: a systematic review and meta-analysis

Topic	medical
Presentation	poster
Quality project	
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Abstract title	Clinical outcomes of rate vs rhythm control for atrial fibrillation in older persons: a systematic review and meta-analysis
Abstract body	<p>Background and Objectives: Atrial fibrillation (AF) is highly prevalent in older adults and has been associated with increased morbidity and mortality. To reduce this AF-related morbidity in older adults, rhythm control by antiarrhythmic drugs (AAD) is regularly used, assuming that increasing time in sinus rhythm reduces AF-related morbidity. It remains unclear however whether AAD can improve clinical outcome in older adults due to their increased risk for adverse drug events, compared to rate control. Hence, the aim of this study was to determine the impact of rhythm control versus rate control on clinical outcomes in older adults with AF.</p> <p>Design and Methods: We conducted a systematic review and meta-analysis, targeting patients, aged 65 years and older, with AF and using rate or rhythm controlling drugs. Articles were included if the following criteria were met: enrollment of older patients (sample mean 75 years or older) with AF, a comparison of pharmacological rate versus rhythm control and reporting of all-cause mortality, cardiovascular mortality or ischemic stroke.</p> <p>Results: Five observational studies were included. A total of 86926 AF patients with a mean age ranging from 75 years to 92 years were studied. No differences were found between rhythm and rate control for all-cause mortality (odds ratio (OR) = 1.11, 95% confidence interval (CI): 0.78 – 1.59, $I^2 = 79.6\%$, $n = 28526$, 4 studies) and cardiovascular mortality (OR 1.09, 95% CI: 0.81 – 1.47, $I^2 = 0\%$, $n = 2292$, 2 studies). There were fewer strokes in favor of rhythm control (OR = 0.86, 95% CI: 0.80 – 0.93, $I^2 = 0\%$, $n = 59496$), albeit mainly determined by one study.</p> <p>Conclusion: All collected data was observational, which precludes making strong recommendations. Furthermore, all confidence intervals were wide, adding to the uncertainty of the observed effects. We therefore conclude that there is insufficient evidence to recommend rhythm or rate control as first line therapy of AF in older adults. As AF is particularly prevalent in older persons, more randomized controlled trials are needed in these patients.</p>