Reviewer’s report

Title: Renal Sympathetic Denervation Versus Antiarrhythmic Drugs for Drug-Resistant Hypertension and Symptomatic Atrial Fibrillation

Version: 1  Date: 10 April 2013

Reviewer: Bertram Pitt

Reviewer’s report:

1-major compulsory revisions:

The primary endpoint as stated by the authors is the reduction in incidence of AF and blood pressure. However the sample size estimates are only for the reduction in AF. There needs to be some further explanation in regard to the primary endpoint. Will it be a reduction in the incidence of AF at 1 year, a reduction in blood pressure, or both? If both how will these two components be analyzed?

There should be a section on the potential limitations of this study. It is stated that patients in the drug arm will be maintained on their baseline medications. However in my opinion a fairer approach might have been to optimize the blood pressure control, at least in the drug if not both arms, before randomization. This should be discussed.

Minor essential revisions:

It is not clear from the methods or discussion as to what the actual Antiarrythmic drugs will be in the drug treatment arm. It would be of value to list the antiarrythmic drug strategy in both arms of the study.

The authors have included both paroxysmol AF and persistant AF patients. There should be some further discussion regarding the potential differences in pathophysiology and therapeutic approaches to these 2 subsets. I beleive the study might have had a better chance of success focusing on those with paroxysmal AF rather than persistant AF. Given the sample size it will be difficult to evaluate the efectivness of renal sympathetic nerve denervation in these two subgroups separately.

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.

Declaration of competing interests:
yes: consultant to pfizer, takeda, relypsa, lilly, bayer, novartis, astra zeneca, merck, sc therapeutics (company evaluating the use of the subcutaneous delivery of furosemide to patients with heart failure - one of the founders), Avert-AF (company related to the use of antigalectin 3 strategies in the prevention of persistent AF - one of the founders), Scopus therapeutics (company exploring the site specific delivery of cardiovascular medications such as eplerenone to the heart, kidney, and/or endothelium - one of the founders)