

Supplementary Files

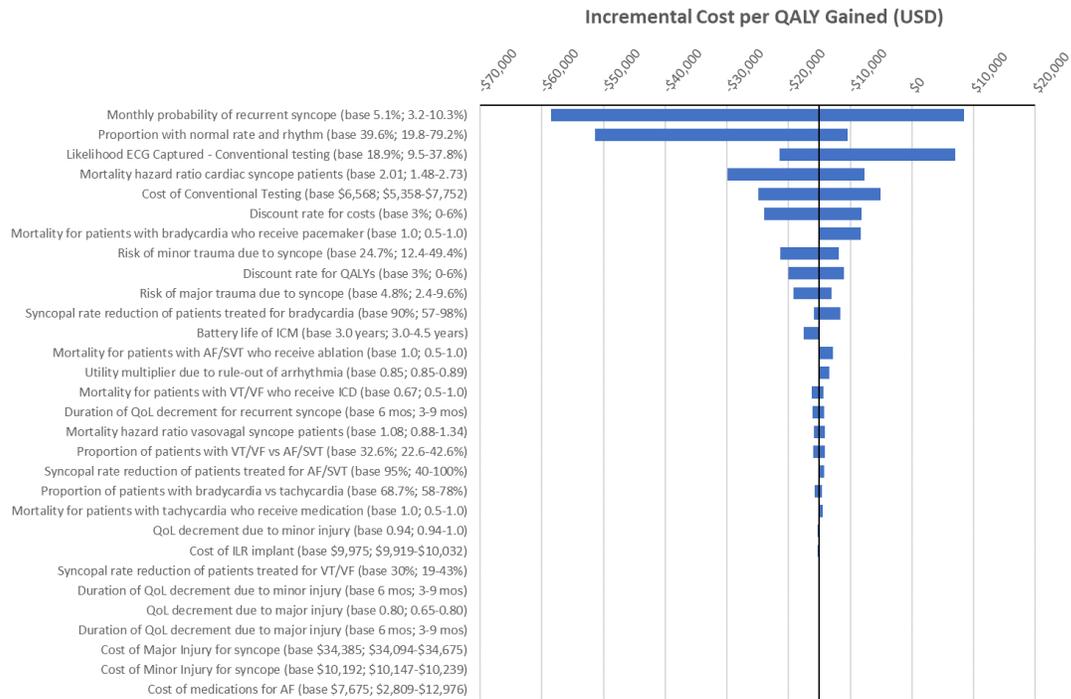
Cost of medication for the treatment of SVT/AF

In the absence of directly relevant prescribing data, we calculated the cost of medication for the treatment of SVT/AF using estimates from published studies and expert opinion. Reynolds et al. [45] estimated that the mean annual medication cost for people with AF was \$1,658 (2002 USD), which is equivalent to \$2,810 in 2018 USD. However, this study did not account for the impact of novel anticoagulants (NOACs).

Racsa et al. [46] estimated that the average cost of NOACs (dabigatran, apixaban and rivaroxaban) was \$1,081 per person per month or \$12,976 per year. We estimated that 50% of patients taking medication for arrhythmia were prescribed oral anticoagulants, and that 75% of patients on anticoagulants were on NOACs and the rest on a vitamin K agonist such as warfarin [47, 48]. Therefore, we assumed that the additional average annual cost of NOACs was \$4,866 ($\$12,976 \times 50\% \times 75\%$). Adding the additional NOAC drug cost to the baseline cost of rate and rhythm control drugs reported by Reynolds et al. resulted in an average annual cost of \$7,675 ($\$2,809 + \$4,866$), or \$640 per month.

All one-way sensitivity analyses

Supplementary Table 1. Full results of one-way sensitivity analyses



Calculating the causes of cardiac syncope

The proportion of arrhythmia patients with bradycardia, VT/VF and SVT/AF was obtained from a meta-analysis of 4,381 patients by Solbiati et al., 2017 [18]. This study reported that out of 43.9% of patients diagnosed, “the proportion of patients diagnosed with arrhythmic syncope (26.5%), ventricular arrhythmias (2.7%), supraventricular arrhythmias (4.9%), and bradyarrhythmia (18.2%)” were reported. 60.4% (26.5%/43.9%) of patients had arrhythmic syncope; 68.7% (18.2%/26.5%) of patients with arrhythmia had bradycardia (defined as significant bradyarrhythmia requiring permanent pacemaker implantation), and the remainder (100%-68.7%=31.3%) had tachycardia. The proportion of patients with ventricular arrhythmia was estimated to be 10.2% (2.7%/26.5%) and the remainder had atrial fibrillation or supraventricular fibrillation (31.3%-10.2%=21.1%).