



## Arrhythmias and Clinical EP

### COST UTILITY AND QUALITY OF LIFE IMPACT OF LEFT ATRIAL APPENDAGE CLOSURE COMPARED TO WARFARIN FOR STROKE PREVENTION IN ATRIAL FIBRILLATION

Poster Contributions

Hall C

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**Background:** Stroke is the most severe and debilitating consequence of atrial fibrillation (AF), with many patients ranking the resultant disability as worse than death. While warfarin is effective at reducing ischemic stroke, it is associated with increased bleeds and lower quality of life (QoL). Left atrial appendage closure (LAAC) with the Watchman Device has been found to be superior to warfarin at reducing risk of stroke in AF patients, and recent data suggest strokes are less disabling. This analysis sought to assess the cost utility of LAAC versus warfarin for stroke prevention in AF.

**Methods:** A Markov model was constructed from a Medicare perspective comparing clinical outcomes, QoL, and total costs of LAAC versus warfarin using PROTECT AF 4-year data. All clinical events reported in PROTECT AF were modeled over 1-year increments to determine time to cost effectiveness. New analyses of stroke severity and QoL were incorporated. The model was populated with a cohort of 10,000 70-year old patients with a mean CHADS2 score of 2. Cost data were taken from US DRGs.

**Results:** LAAC was cost effective at 6 years, and dominant (less expensive and more effective) at 10 years. LAAC patients had fewer and less disabling strokes and higher QoL, resulting in more QALYs.

**Conclusions:** Stroke prevention in AF with LAAC provides improved clinical and QoL outcomes, and offers better value to Medicare over a patient's lifetime. This analysis should be considered when formulating policy and practice guidelines.

Results of cost utility analysis of LAAC compared to warfarin at 6 years, 10 years and lifetime			
Outcome	6 Years	10 Years	Lifetime
Incremental cost per stroke avoided	\$118,378	Dominant	Dominant
Incremental cost per life year gained	\$40,673	Dominant	Dominant
Incremental quality-adjusted life expectancy (impacted by stroke severity)	0.16 years	0.4 years	1.3 years
Incremental cost per quality-adjusted life year (QALY)	\$37,713	Dominant	Dominant