Abstracts

CONCLUSION: Patients diagnosed with atrial flutter incur significant health care costs and resource utilization. This analysis of atrial flutter patients is the first step towards understanding the clinical and economic burden of the disease in the United States.

CARDIOVASCULAR DISEASE—Atrial Fibrillation

TOTAL HEALTH CARE COSTS OF PATIENTS WITH CHRONIC NON-VALVULAR ATRIAL FIBRILLATION BEFORE AND AFTER TIA, ISCHEMIC STROKE OR MAJOR BLEED


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OBJECTIVES: To determine the total direct health care costs of patients newly diagnosed with chronic non-valvular atrial fibrillation (CNVAF) before diagnosis and after a transient ischemic attack (TIA), ischemic stroke (IS) or major bleed (MB).

METHODS: This retrospective, observational cohort study utilized medical and pharmacy claims data from a large, geographically diverse managed care organization to identify patients with two atrial fibrillation (AF) claims between January 1, 2001–June 30, 2002. Continuously enrolled members with no evidence of AF (ICD-9 CM = 427.31) or warfarin claims 12 months prior to the index AF claim were followed for 26-months until first TIA/IS/MB (EVENT) or study end. Total direct health care costs for all patients were assessed pre- and post-AF index claim. For the subset of patients with an EVENT, total health care costs were also assessed pre- and post-EVENT (from index AF up to EVENT, and EVENT to study end). RESULTS: Of 3891 incidence CNVAF patients, 62% were male and 55% were 65 years. Pre- and post-AF total direct health care costs were $400 and $1073 per patient month (PPM) respectively. The 448 of 3891 (12%) patients with an EVENT had post-EVENT total direct health care costs of $2311 PPM. Approximately 46% of all events occurred 3–6 months after the index AF claim. CONCLUSIONS: In this population, post-AF total direct health care costs were 2.7 times greater than pre-AF total health care costs. For the subgroup of patients with a subsequent TIA, IS or MB, pre- and post-EVENT total direct health care costs increased 5.8 times from pre-AF costs with nearly half of the events occurring within one month of AF diagnosis. Identification and treatment of CNVAF patients at risk for a cardiovascular event can result in substantially lower costs to the health care system.

COST-EFFECTIVENESS OF AMIODARONE TO PREVENT ATRIAL FIBRILLATION AFTER CARDIAC SURGERY


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Atrial fibrillation (AF) develops in some 30% of patients following cardiac surgery, significantly increasing hospital length of stay (LOS) and costs. Previous data suggested that amiodarone was cost-effective overall in preventing postoperative AF. OBJECTIVES: Using recently published epidemiological and clinical data, the purpose of this analysis was to assess the cost-effectiveness of amiodarone prophylaxis in specific patient subgroups undergoing cardiac surgery. METHODS: A literature-based decision analytic model was developed from a US payer perspective. The time horizon was the duration of cardiac surgery hospitalization. Amiodarone plus standard of care (beta-blocker prophylaxis) was compared to standard care alone in the following patient AF risk groups: 1) age ≥ 70 years, 50–69 years, and 30–49 years; 2) history of AF; and 3) concurrent valve surgery. The cost of amiodarone, LOS, physician services, adverse events, and AF treatment were included. Sensitivity analyses were conducted to test the robustness of the analysis. RESULTS: In all patient populations, a 26% AF risk reduction rate was used for amiodarone with a range of 18%–72%. Total LOS in the intensive care unit (ICU) and non-ICU was 9.20 (ICU/non-ICU: 2.86/6.34) days in AF patients versus 6.40 (ICU/non-ICU: 2.23/4.17) days in non-AF patients. Amiodarone was dominant over standard of care alone in high-risk patients (age ≥ 70 years, history of AF, or concurrent valve surgery). The cost of amiodarone per AF event prevented was $1,793 in patients 50–69 years and increased to $19,424 in patients 30–49 years. The results were highly sensitive to a change in amiodarone efficacy and LOS, but less sensitive to amiodarone drug cost. CONCLUSION: Based on this model, amiodarone can be considered cost effective in patients undergoing cardiac surgery depending on the willingness-to-pay threshold employed. Selection of high-risk patients improves the cost-effectiveness ratio compared to patients with low/moderate risk.