METHODS: Patients with an ACE between January 1, 2004 and May 31, 2009 were identified (the Index Date was defined as the earliest ACE). Patients age ≥18, 28 months eligibility pre- and post-Index Date, ≥21 statin fill and no statin augmenting fill 6 months before the Index Date, and ≥21 and FF or SM fill 6 months after the Index Date ( Cohort ID) were included. Patients augmenting therapies or SCRE during the Cohort ID Period were excluded. The primary outcome was ACE. Secondary outcomes were cerebrovascular event risk and event-related medical costs. Event risk was compared using Cox proportional hazards models, while costs were compared via generalized linear models. Multivariate analyses were controlled for age, gender, geography, co-morbidities, concomitant medications, statin potency, and severity of initial ACE. RESULTS: A total of 24,625 patients added FF (n = 399) or maintained SM (n = 24,226) 6-months after initial ACE while meeting study inclusion criteria. FF patients were younger (59 ± 10 vs. 65 ± 10 years, P < 0.0001), less likely female (27% vs. 34%, P = 0.0002), and had shorter follow-up (358 vs. 443 days, P < 0.0001). FF patients had lower frequency of ACE (20%) vs. SM (25%), with an unadjusted hazard ratio (HR) of 0.88 (95% CI: 0.71–1.10), a similar direct cost, followed by hospitalization cost. Early and effective management of the disease is necessary to reduce mortality and morbidity of ACS. Findings of this study suggest for further research to uncover ways to reduce the economic burden of ACS in Korea.

A NATIONAL SURVEY OF SOCIETAL COST OF ACUTE CORONARY SYNDROME IN SOUTH KOREA

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OBJECTIVES: Acute coronary syndrome (ACS) is a highly prevalent disease and the third-leading cause of death in Korea, however the economic impact of ACS from societal perspective has not been investigated. This study examined the national epidemiology and economic costs of ACS in Korea for 2009.

METHODS: This study used the societal cost of illness framework, consisting of epidemiology of ACS, direct medical costs, direct non-medical costs, and indirect costs such as productivity lost from morbidity and mortality of ACS. National-level health survey results and insurance claims databases were used to analyze annual health care utilization, hospitalization cost and outpatient cost of the total Korean population (48 million people). Using a data mining technique, we identified medical claims with international classification of disease 10 codes for ACS over a one year period and estimated the costs by a marginal costing method.

RESULTS: Prevalence rate of ACS is estimated at 6.4 persons per 1000 population in 2009 and its mortality rate is 7.8% in 2008. During 2009, there were 309,384 patients who had at least 1 medical claim related to ACS. The total societal cost of ACS in 2009 was estimated at $1.02 billion. Direct medical cost for ACS was $180.3 million, which includes hospitalization cost of $118.8 million and outpatient cost of $61.6 million. The direct non-medical cost, involving transportation cost and caregiver cost, was estimated at $10.1 million. Indirect costs associated with morbidity and mortality of ACS were $627.2 million. CONCLUSIONS: The study showed third-the societal cost of ACS in Korea is markedly high, particularly the indirect cost, followed by hospitalization cost. Early and effective management of the disease is necessary to reduce mortality and morbidity of ACS. Findings of this study suggest for further research to uncover ways to reduce the economic burden of ACS in Korea.

Aneurysmal subarachnoid hemorrhage (SAH) is a cerebrovascular disease that causes disability. Long-term health-economic burden and health-related quality of life (HRQoL) in SAH are scarce and only one previous study analyzed cost-driving factors. The objective was to evaluate HRQoL and first-year costs in German patients with aneurysmal SAH and to identify cost-driving factors. METHODS: A total of 113 incident cases of aneurysmal SAH treated in the Department of Neurosurgery and Neuroradiology at the University of Bonn between January 2004 and December 2005 were eligible for the study. Clinical assessments ( Hunt and Hess scale, Barthel Index), evaluation of HRQoL [6-item Short Form Survey, EQ5D, EQ-VAS] and collection of cost data from societal perspective (health-economic questionnaires) were performed at discharge, and at 6 and 12 months follow-up. All costs are expressed in € (year 2009 values). Independent determinants of costs and HRQoL were identified using multiple regression analysis.

RESULTS: The total first-year costs were €383,300 (95% CI: €34,490–41,100) per patient. Direct costs accounted for 58.7% of total costs and were mainly paid by the health insurance (92.0%). The major cost-driving factors were younger age and worse functional outcome (Barthel Index). HRQoL in SAH patients was considerably reduced. At discharge, 92.2% of patients had moderate or severe problems on the EQ-5D. The EQ-VAS at discharge was 57.8 ± 19.3 and increased by only 12–14% after 12 months. Independent predictors of decreased HRQoL were female gender, severe disease, depression, lower level of education and the lack of a stable partnership.

CONCLUSIONS: Aneurysmal SAH is a cerebrovascular disease that causes disability. Long-term health-economic burden and unfavourable long-term HRQoL outcome. Clinical trials in SAH should include HRQoL measures. Independent determinants of costs and HRQoL identified in this study should be considered in the health care programmes aimed at increasing the HRQoL in SAH survivors and decreasing health-economic burden of SAH.