**DEPRESSIVE SYMPTOMATOLOGY, MEDICATION PERSISTENCE, AND ASSOCIATED HEALTH CARE COSTS IN OLDER ADULTS WITH INSOMNIA**

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**OBJECTIVE:** The effect of insomnia along with the decreased cognitive functioning associated with aging is a serious concern within the elderly (65 years and older) population. We examined the association of patient health care utilization and depressive symptomatology with medication adherence in insomnia in Medicare-HMO enrolled elderly patients. **METHODS:** This was a retrospective, longitudinal cohort study which included elderly patients (65 and older) enrolled continuously for 1–5 years in the Medicare HMO. Medication possession ratio was used to estimate the adherence in insomnia medication. Different MPR thresholds (0.8, 0.6, 0.4 and 0.2) were used to determine non-adherence. Associations between depressive symptoms, medication adherence and health care costs were assessed using ordinary least square multiple regressions. **RESULTS:** A total of 2068 patients with a primary diagnosis of insomnia were included in the study. Sixty percent of these patients had depressive symptomatology. The severity of comorbidity (Charlson index) was 4 and the patient perception of quality of life (Short Form-12 scores) were between 79 and 82. The prevalence of non-adherence was 70% even with a low MPR of 0.2. Insomnia patients with depressive symptoms were 92% less likely to be adherent to their insomnia medications (p < 0.03). After controlling other variables, we found MPR was a good predictor of total health care costs (10% increases in MPR for every 2% decrease in total health care costs, p < 0.001). **CONCLUSION:** We found strong associations between depressive symptomatology, medication adherence, and health care costs in elderly patients with insomnia. Disease and risk management programs in managed care settings should be used to optimize the medication adherence in the elderly.

**THE COST OF NON-ADHERENCE TO ASTHMA TREATMENT GUIDELINES AMONG A LOW-INCOME COHORT**

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**OBJECTIVE:** Investigate the effects of non-adherence by providers to the National Institutes of Health treatment guidelines on the costs of care for children and adults with asthma. The Guidelines recommend providing access to rescue medications but restricting their overuse through controller medications. **METHODS:** Pediatric (6–19 years) and adult (20–64 years) patients with a prescription for an albuterol inhaler (AI) or an inhaled corticosteroid (ICS) and a diagnosis for asthma between January 1, 2001 and December 31, 2005 were identified from the Utah Medicaid population. Patients were observed for ninety days following the first prescription and classified into three groups on the basis of AI use and ICS prescription, as following: 1) less than three canisters of AI (appropriate); 2) three or more canisters of AI (inappropriate); 3) no AI use but a prescription for ICS (inappropriate). Once categorized as adherent (group 1) or non-adherent (groups 2, 3), direct medical costs were estimated for children and adults for one year using generalized linear two-part regression models adjusting for demographics, comorbidities, smoking status, seasonal effects and year. **RESULTS:** Of the final sample (N = 4731), children comprised 40.4%...
OBJECTIVE: We sought to test the treatment of chronic heart failure (CHF). We sought to test (ACEI) or angiotensin II receptor blocker (ARB) therapy for mortality-and-morbidity (CHARM) trial programme

CONCLUSION: Lack of adherence with evidence-based treatment guidelines remains a significant problem. Interventions to improve guideline adherence have the potential to reduce costs.

OBJECTIVE: Clinical trials show the efficacy of combination beta-blocker (BB) and angiotensin converting enzyme inhibitor (ACEI) or angiotensin II receptor blocker (ARB) therapy for the treatment of chronic heart failure (CHF). We sought to test the effectiveness of these drugs in day-to-day health care.

RESULTS: The study was a retrospective analysis of a national cohort of patients diagnosed with CHF from October 1, 1996 through September 30, 2002 identified from the Department of Veterans Affairs electronic medical records system. Prevalent cases with CHF for at least 90 days as of October 1, 2001 (index date) were analyzed separately from incident cases identified after index date. Patients were classified into four treatment categories: BB, ACEI or ARB, Both and Neither according to their exposure after index date. Multiple logistic regression analysis was employed to assess the adjusted association between these treatments and mortality within 1 year after index date, controlling for demographic factors, years with CHF, 65 years >65 years (76.1%), 28.3% of patients were on beta blockers only, 12.7% on ACEI or ARB only, 40.1% on both and 18.9% on neither. All three treatment options showed protective effect as compared to Neither. Adjusted OR (95% CI) were: BB 0.646 (0.616, 0.677), ACEI or ARB 0.708 (0.669, 0.749) and Both 0.460 (0.435, 0.488). The same pattern of protective effect remained for incident cases (N = 28,353). Adjusted OR (95% CI) were: BB 0.713 (0.652, 0.781), ACEI or ARB 0.780 (0.701, 0.868) and Both 0.614 (0.553, 0.681). CONCLUSION: Effectiveness of combination therapy of beta blockers and angiotensin inhibition was confirmed, supporting the use of evidence-based care to improve outcomes in the “real-world” setting.


OBJECTIVE: To estimate the lifetime cost-effectiveness of candesartan (Atacand) in addition to standard care in patients with HF based on the Low-LVEF trials in the CHARM programme.

METHODS: A stochastic Markov model was developed to estimate resource utilisation, morbidity and mortality effects during and after the end of the Low-LVEF trials. Trial data were integrated with external data—specific for Swedish patients—on morbidity, mortality, and HRQoL. A Weibull hazard function was estimated on the pooled data from the CHARM-Alternative and the CHARM-Added trials (Low-LVEF) to capture the treatment effect of candesartan during 40 months of follow up. Active treatment is modeled to continue until death, with identical mortality rates in both arms after end of follow-up. Age specific mortality rates were supplied by the Swedish HF registry. Medical resource were recorded in the CHARM trials and priced according to public Swedish DRG-tariffs. TTO based QALY weight estimates for NYHA-classes derive from a study of 323 Swedish HF patients. Benefits and costs were discounted at 3%.

RESULTS: The expected lifetime per patient direct medical costs and QALYs for candesartan and placebo were SEK371,000 and SEK 352,000 (1 USD = SEK6.40) and 5.84 and 5.43 QALYs (8.75LY vs 8.17LY) respectively. This corresponds to an ICER per QALY gained of approximately SEK46,000 (SEK33,000 per LY). The CEAC shows that the likelihood of candesartan representing the cost effective treatment strategy is 0.633, 0.969 and 1 at a willingness-to-pay at SEK46,000 (SEK33,000 per LY). The CEAC shows that the likelihood of candesartan representing the cost effective treatment strategy is 0.633, 0.969 and 1 at a willingness-to-pay at SEK50,000, 60,000, and 70,000 respectively. CONCLUSION: Candesartan reduces cardiovascular death, hospital admissions, and all-cause mortality in patients with HF and LVEF ≤ 40%, when added to standard therapies. The present study suggests that long-term treatment with candesartan is highly cost-effective, both as an alternative to and in addition to ACE-inhibition, in HF.