Background: Despite demonstrated benefits and recommendations by national guidelines, angiotensin converting-enzyme inhibitors (ACE-I) are underprescribed in left-ventricle systolic dysfunction (LVSD) and heart failure (HF). The impact of underutilization has not been quantified in the United States. Our objective was to estimate the annual clinical and economic impact of ACE-I underprescribing in patients identified as ideal candidates for, but not receiving, ACE-I, and the cost effectiveness of prescribing ACE-I in these patients.

Methods: The number of potential candidates not receiving ACE-I was determined from the literature. This population was categorized into 3 cohorts corresponding to the populations from large prospective studies: symptomatic chronic systolic HF (SOLVD-Type), post-myocardial infarction (MI) HF (AIRE-Type), and post-MI, asymptomatic LVSD (SAVE-Type). Based on the literature, we estimated the economic burden of underprescribing ACE-I in terms of excess hospitalizations, direct medical costs (inpatient and ACE-I drug costs), deaths, and life-years lost.

Results: We estimate that more than 280,000 ideal candidates for ACE-I fail to receive treatment, of which 187,850 are SOLVD-Type, 60,771 AIRE-Type, and 32,566 SAVE-Type. ACE-I use in these patients could potentially prevent 2,217,21,6, and 20.1 deaths, and 68.6, 55.3, and 55.3 life-years lost.

Conclusions: Treating the estimated 280,000 patients with LVSD or HF who could benefit from ACE-I therapy is an economically attractive investment to improve quality of care.

1215-166 Physician Specialty and Quality of Care for Elderly Patients Hospitalized With Heart Failure

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Background: Whether specialist care is associated with better quality of care remains controversial. We sought to determine whether the attending physician specialty (cardiologist, internist or family practitioner) and evaluated for the use of 9 quality of care indicators of quality of care among elderly patients hospitalized with heart failure (HF). Methods: We studied a national sample of 26,305 Medicare patients age >/= 65 years hospitalized with HF in 1998-99 to determine the proportion of patients treated by cardiologists and to identify characteristics associated with having a cardiologist as an attending. Demographic, clinical, geographic, and hospital characteristics were evaluated in a backward stepwise polytomous logistic regression model to identify factors associated with cardiologist care compared with internist (IM) or family practitioner (FP) care.

Results: Cardiologists cared for 25.5% of patients while IM and FP cared for 50.0% and 24.5% of patients. Female patients (OR 0.91, 95% CI 0.83-1.00), older patients (OR 0.92, 95% CI 0.90-0.95 per each year), and black patients (OR 0.84, 95% CI 0.71-0.99), were less likely to have cardiologist care. Patients with COPD (OR 0.70, 95% CI 0.63-0.75), dementia (OR 0.59, 95% CI 0.49-0.71), and diabetes (OR 0.79, 95% CI 0.72-0.87) were less likely to be treated by a cardiologist, white patients with prior HF (OR 1.15, 95% CI 1.04-1.27) or coronary disease (OR 1.25, 95% CI 1.11-1.41) were more likely to receive cardiologist care. Patients treated in rural areas (OR 0.59, 95% CI 0.50-0.70), in the Midwest (OR 0.71, 95% CI 0.60-0.84 vs Northeast), and in hospitals without cardiac care facilities or hospitals with only a catheterization lab (OR 0.75, 95% CI 0.64-0.88 and OR 0.65, 95% CI 0.56-0.75 respectively vs with CABG facilities) were less likely to be treated by a cardiologist. Patients hospitalized at for-profit hospitals (OR 1.27, 95% CI 1.06-1.51 vs public) were more likely to have a cardiologist as their attending.

Conclusions: Cardiologists were attending for only one fourth of older patients hospitalized with HF. These patients are younger with less comorbidity than patients cared for by either internists or family practitioners. Case mix should be considered when making quality of care and outcomes comparisons between specialties.

1215-170 Impact of Age, Gender, and Race on Quality of Care of Elderly Patients With Congestive Heart Failure


Background: Congestive heart failure (CHF) is more common in the elderly, females, and non-whites in the United States. However, the influence of age, gender, and race on the quality of care of CHF patients (pts) has not been extensively studied.

Methods: We evaluated 5671 Medicare beneficiaries admitted to acute care hospitals in Southeast Michigan with CHF (1/1/98-12/31/00). Patients were identified retrospectively using ICD-9 codes for CHF. They were divided into 3 age groups: Group A (65 ± 74 years), Group B (75 ± 84 years) and Group C (> 85 years). Quality indicators (in ideal population were evaluated among different CHF groups.

Results: The quality care indicators and the impact of age, gender, and race are shown. There were no differences in the length of stay for the different age groups, gender, or race. One-year mortality was higher in whites compared to non-whites (36.9% vs. 32.9%, p = 0.005) with a trend towards higher 1-year mortality with increasing age. Gender did not influence 1-year mortality.

Conclusions: Quality of care is adversely affected by increasing age and female gender in hospitalized CHF pts. This data identifies a significant opportunity for improvement in the quality of care in these high-risk subgroups that needs to be addressed.

Quality Group A Group B Group C P Male Female P White Non- P
Discharge ACE-I inhibitor/ARB (%) 80.4 77.6 75.2 0.429 78.1 78.7 0.804 78.0 84.4 0.001
LVEF (documented) (%) 70.3 66.4 62.1 0.001 70.1 66.5 0.004 68.6 67.8 0.88
Discharge smoking cessation counseling (%) 33 20 10.5 0.10 30.6 22.3 0.157 30.2 22.8 0.21
Discharge written instructions (%) 98.1 97.2 94.9 0.122 96.5 0.718 0.142 96.8 97.8 0.056
Weights measured, >50% hospital days (%) 67.3 67.9 55.3 0.003 68.6 63 0.020 66.3 64.8 0.566
Discharge warfarin in CHF pts with atrial fibrillation (%) 55.4 44.6 28.4 0.002 47.2 44.4 0.575 46.9 42.4 0.446