RR for SCD by Time Period

	1970-1979	1980-1989	1990-1999
Overall	0.85 (0.65,1.1)	0.60 (0.46,0.79)	0.48 (0.35,0.66)
No CHD/CHF	0.98 (0.67,1.4)	0.60 (0.40,0.91)	0.53 (0.33,0.85)
CHD/CHF	0.69 (0.48,0.98)	0.55 (0.38,0.79)	0.40 (0.26,0.61)

4:15 p.m.

877-2 **Health Resource Utilization in Patients With Life-Threatening Ventricular Arrhythmia: Results From Primary Defibrillator Implant Study (PRIDE)**

Zefeng Zhang, Angel R. Leon, Steven D. Culler, Andrzej Kosinski, Paige Smith, Elizabeth M. Mahoney, William S. Weintraub, *Emory University, Atlanta, Georgia.*

Background: The PRIDE trial compared a strategy of immediate cardioverter-defibrillator (ICD) implant to a strategy of electrophysiology (EPS) guided therapy in patients with life threatening arrhythmias. 208 patients were randomized between 6/96 and 4/99. We present a comparison of health care resource utilized during the initial hospitalization and the 2-year follow-up period.

Methods: We examined length of stay (LOS) for the initial hospitalization (IH) and rehospitalizations, the number of emergency room (ER) visits, physician visits and procedural tests, the number of days in which anti-arrhythmics and beta-blocker medications were used, and the percent of patients utlimately receiving ICD in each group.

Results: Age was 65±11 yrs, 79% male, 61% prior MI, EF 30±15, 50% ventricular tachycardia, 35% ventricular fibrillation, 15% dilated cardiomyopathy. The mean LOS for IH was 6.52±5.99 days; 1.19±1.56 days for rehospitalizations. Patients randomized to the EPS guided treatment did not consume significantly fewer health care service than patients randomized to the primary ICD implant arm during either the initial hospitalization or the 2-year follow-up period. In addition, there was no significant difference between the two study arms in the proportion of patients who ultimately received an ICD during the study period. Conclusion: There is little difference in health care resources according to initial treatment strategy among patients with life threatening arrhythmias.

	Primary ICD (n=105)	EPS Guided (n=103)	P value
LOS for IH (days)	5.9±5.3	7.1±6.6	0.12
LOS for rehospitalization(days)	1.3±1.5	1.1±1.6	0.36
ER visits(#)	0.5±1.1	0.5±1.0	0.70
Physician visits(#)	8.2±8.3	8.2±9.9	0.66
Procedural tests(#)	5.3±9.2	5.6±15.1	0.41
Anti-arrhythmics(days)	190.2±278.2	174.1±269.1	0.75
Beta-Blockers(days)	224.1±303.1	208.0±297.7	0.70
% receiving ICD	93.3	88.4	0.40

4:30 p.m.

877-3 **Left Ventricular Diastolic Dysfunction: An Important Predictor of First Diagnosed Nonvalvular Atrial Fibrillation in 840 Elderly Men and Women**

Teresa S. Tsang, Bernard J. Gersh, Christopher P. Appleton, Marion E. Barnes, Kent R. Bailey, Samantha C. Montgomery, Yasuhiko Takemoto, James B. Seward, *Mayo Clinic, Rochester, Minnesota.*

Background: Few data exist regarding the relationship between diastolic function and nonvalvular atrial fibrillation (NVAF).

Methods: The clinical and echocardiographic characteristics of a random sample of residents of Olmsted County, MN, aged ≥ 65 years, who had an echocardiogram performed at Mayo Clinic, Olmsted Medical Center, or their affiliated hospitals between 1990 and 1998 were reviewed. Exclusion criteria included history of atrial arrhythmia, stroke, valvular or congenital heart disease, or pacemaker implantation. A simple diastolic function profile was determined from mitral inflow characteristics and offline left atrial volume. Patients were followed in their medical records to the last clinical visit or death for documentation of first atrial fibrillation.

Results: Of 840 patients (39% men; mean [± SD] age, 75 ± 7 years), 80 (9.5%) developed NVAF over a mean (± SD) follow-up of 4.1 ± 2.7 years. Abnormal relaxation, pseudonormal, and restrictive diastolic filling were associated with hazard ratios of 3.33 (95% confidence interval [CI], 1.5-7.4; P = 0.003), 4.84 (95% CI, 2.05-11.4; P < 0.001), and 5.26 (95% CI, 2.3-12.03; P < 0.001), respectively, when compared to normal diastolic function. After multiple adjustments, diastolic function profile remained incremental to history of congestive heart failure and previous myocardial infarction for prediction of NVAF. Age-adjusted Kaplan-Meier 5-year risks of NVAF were 1, 12, 14, and 21 percent for normal, abnormal relaxation, pseudonormal, and restrictive diastolic filling, respectively.

Conclusions: The presence and severity of diastolic dysfunction are independently predictive of first documented NVAF in the elderly.

4:45 p.m.

877-4 **Patients With Atrial Fibrillation Are at Increased Risk for Medication Errors**

Michael S. Blum, Harlan M. Krumholz, *Yale University School of Medicine, New Haven, Connecticut, Yale-New Haven Hospital, New Haven, Connecticut.*

Background: The prevention of medication errors is a national priority, but little information is available regarding the frequency of potential medication interactions in hospitalized patients with cardiovascular disease.

Methods: In support of our medication error reduction program at Yale-New Haven Hospital (YNHH), we created an Oracle based clinical data repository that works in concert with our Eclipsys 7000 clinical information system. This system acts as a safety net for the pharmacy staff, alerting them to potential medication errors due to drug-drug and drug-allergy interactions. We reviewed this database for the frequency of potential drug interactions prescribed at YNHH.

Results: In June and July 2001, the system screened 162,794 new medication orders. Of these, 2402 orders (1.7%) created a potential medical error through a known, important drug-drug interaction. A total of 979 interactions (0.6%) either involved combinations in which one or both drugs could have been replaced with a therapeutic equivalent or required closer monitoring. Of these 979 potential ADEs, 760 (78%) involved an order for warfarin. Moreover, the most common interaction (310 orders, 32%) involved the combination of amiodarone and warfarin. Other common combinations that could lead to ADEs involved warfarin and non-steroidal anti-inflammatory drugs (205 orders, 21%), and warfarin and anti-fungal agents (135 orders, 14%). Of the 76 individual patients (1% of hospital admissions) prescribed the combination of warfarin and amiodarone, 47% had an INR >3.9 during the treatment period and 17% had an INR >6.

Conclusions: Potential interactions with warfarin occurred relatively commonly over the two month period, with warfarin and amiodarone frequently administered concurrently, often leading to over-anticoagulation. The improved use (or avoidance) of this particular combination appears to be an opportunity to improve care.

ORAL CONTRIBUTIONS

890 Quality of Care and Assessment of Heart Failure

Wednesday, March 20, 2002, 10:30 a.m.-Noon
Georgia World Congress Center, Room 160W

10:30 a.m.

890-1 **The Kansas City Cardiomyopathy Questionnaire Is Sensitive to Clinical Change in Congestive Heart Failure**

John A. Spertus, Mark W. Conard, Joseph Rinaldi, Ross Tsuyuki, Harlan Krumholz, Ileana Pina, Edward Havranek, Joseph F. Tooley, Cardiovascular Outcomes Research Consortium (CORC), *Mid America Heart Institute/UMKC, Kansas City, Missouri.*

Background: Health status (symptoms, functional status, and quality of life) is an important health care outcome. The Kansas City Cardiomyopathy Questionnaire (KCCQ) is a valid measure of health status in patients with CHF. Additional research is needed to define the clinical significance of changes in KCCQ scores. The Cardiovascular Outcomes Research Consortium (CORC) is a 13-center consortium that is currently conducting a study to determine the minimal clinically important change in KCCQ scores.

Methods: Five hundred outpatients with LVEF<=0.40 will be given the KCCQ at 2 times separated by 6±2 weeks. In addition, assessments by both the patient and their physician of changes in the patients' condition over this time period will be independently ascertained. Comparisons of change in KCCQ scores, 6 minute walk distance and NYHA functional class will be made against the gold standard of patients' assessments of change. Currently 227 patients have baseline data available and 109 have completed follow-up.

Results: Of the 109 patients with complete follow-up, 21 (19.3%) deteriorated, 67 (61.5%) remained stable and 21 (19.3%) reported improvement. The table (*=p<0.05)compares the KCCQ Overall Summary Score with the 6-minute walk test and NYHA classification.

Conclusion: These preliminary data demonstrate that the KCCQ is at least as sensitive as traditional measures of patient function. Final data provide finer gradations of changes in KCCQ scores.

	Pts reporting deterioration	Stable Pts	Pts reporting improvement	Responsiveness Statistic
KCCQ change	-7.9±12*	2.3±10	8.0±16*	0.79
6 MWT change	-112±168*	20.7±205	90.4±275	0.49
NYHA change	0.0±0.3	-0.2±.5*	-0.05±0.6	0.12