

(relief of all CHF symptoms and limitations [but no change in survival] vs. varying risk of immediate painless death). Willingness to accept a 10 point improved LHFQ for varying decrements of a hypothetical 36 month life expectancy was assessed in a series of time tradeoffs; a second set of tradeoffs was made against pt's self-estimated prognosis (SEP).

**Results:** Most pts were relatively unwilling to gamble immediate death for resolution of CHF symptoms (median acceptable risk of death = 5%) or to trade months of life for improved QOL (median tradeoff 1 of 36 months and 3.5% of SEP). However, 25% of pts would give up ~6 out of 36 months for a 10-point improvement in LHFQ; 25% of pts would give up ≥15% of their SEP for the same 10 point LHFQ improvement; and 25% of pts were willing to accept ~30% risk of immediate death for complete resolution of their symptoms of heart failure. Patients with the worst SEP made the largest tradeoffs (Spearman's R = -0.267, P = 0.084) and gambles (Spearman's R = -0.373, P = 0.013). LHFQ score was not associated with willingness to trade or gamble.

**Conclusions:** A substantial minority of pts with advanced CHF highly value QOL and would prefer a shorter life with improved quality. CHF patients' desires should be addressed by their physicians, and should be reflected in the drug development and approval process.

### 1132-93 Care Managers Versus Carepaths: An Active Approach to Care Management Reduces Cost and Length of Stay in Patients With Congestive Heart Failure

O. Costantini, E. Steidley, K. Huck, K.K. Boyd, G.S. Cooper, M.D. Carlson  
University Hospitals of Cleveland/Case Western Reserve University,  
Cleveland, OH, USA

**Background:** Clinical carepaths to enhance quality and decrease hospital costs have had low utilization. We hypothesized that an active approach would optimize adherence to a clinical carepath established for congestive heart failure (CHF) at our institution in 1996.

**Methods:** In the second quarter of 1997, a CHF management team consisting of a nurse care manager and a faculty cardiologist screened patients admitted with the diagnosis of CHF and followed them daily. Based on published guidelines, recommendations for diagnostic tests and therapies were offered daily, both verbally and in the chart, to the clinicians. The patients who were not screened, but coded for CHF at discharge, constituted the non-care-managed group. Length of stay (LOS), variable direct costs (VDC), intensive care unit LOS and thirty day readmission rates were compared for the two groups.

**Results:** Age, mortality, and thirty day readmission rates were not different between the two groups. LOS was shorter for the caremanaged group (n = 97) than for the non-caremanaged group (n = 74) (3.7 ± 2.3 vs. 5.6 ± 4.6 days) (p < 0.002). VDC/case was lower in the caremanaged group than in the non-caremanaged group (\$1199 ± 1231 vs. \$2277 ± 2813) (p < 0.003). The intensive care unit LOS was shorter in the caremanaged group than in the non-caremanaged one (0.7 ± 1.7 vs. 1.9 ± 3.2 days) (p < 0.02).

**Conclusion:** The use of a care management team approach results in a significant reduction in length of stay and cost for patients with heart failure.

### 1132-94 Population Based Impact of a Heart Failure Care Model Designed to Reduce Medical Resource Utilization in a Managed Care Environment

M.R. Mohra, H.O. Ventura, F.W. Smart, M. Porcho, R.V. Milani, J. Nowman, D.D. Stapleton, J.P. Murgu. *Ochsner Medical Institutions, New Orleans, Louisiana, USA*

**Background:** The heart failure (HF) conundrum of repeated hospitalizations, emergency room (ER) visits, and crisis intervention can benefit by the implementation of multidisciplinary outpatient care. While the impact of such an intervention on selected patients is appreciated, no previous investigation has sought to develop and investigate the effectiveness of a heart failure care process model designed for effect upon a large managed care population.

**Methods:** We studied the impact of implementation of a heart failure care model on an evolving cohort of capitated medicare risk population enrollees (age >65 yrs, n = 19,401) by selecting and targeting those heart failure cases that consumed the majority of the medical resources. Prospective criteria for recruitment included >2 HF hospitalizations in the previous 12 months or one HF hospitalization that exceeded 2 SDs of the median length of stay (LOS) or cost of care. The cases of heart failure that met this criteria (n = 210, 1.1% of the at risk population) were identified and followed in a program of multidisciplinary outpatient intervention consisting of intensive education, compliance assessment, clinical evaluation, triggered home health care, streamlined ER intervention, and outpatient inotropic therapy. The impact on the entire population was assessed by comparing hospitalization admission rates, LOS, ER admits, and home health utilization in the 12 months prior to program initiation

(June 1995–May 1996; n = 16,360) to the 12 months of program implementation (June 1996–May 1997; n = 19,401).

**Results:** All rates are expressed as per 1000 enrolled members

Group	HF Admits	LOS (days)	ER Admits	Home Health
Baseline year	16.4	55.1	6.6	3.2
Intervention year	14.6*	46.6**	7.7*	2.2*
% reduction	-10.9	-14.9	-10.8	-31.3

\*p = 0.05 \*\*p = 0.03 †p = 0.04. LOS = length of stay

The program resulted in 31 fewer HF hospitalizations, 144 fewer inpatient HF days, 33 less ER HF admits, and 18 fewer home health visits, which saved \$145,736. No differences in inpatient mortality were noted.

**Conclusion:** Significant population-wide medical resource utilization reduction and cost savings can be realized by developing a comprehensive heart failure care process targeting the concentrated manifest heart failure cases that consume the majority of the medical resources from within a defined managed care population.

### 1132-95 Impact of Presentation of Research Results on Prescribing of Medications in Patients With Left Ventricular Dysfunction

C.R. Lacy, J.A. Barone, D.M. Moylan, M. Bueno, D. Suh, J.B. Kostis.  
UMDNJ-Robert Wood Johnson Medical School New Brunswick, NJ, USA.  
Robert Wood Johnson University Hospital, New Brunswick, NJ, USA

**Background:** Clinical research studies variously report trial results in terms of differences in relative risk, absolute risk, number of patients needed to be treated to prevent one event, and other parameters of clinical efficacy. This study evaluated responses of health care professionals to identical data from one clinical trial when presented in different ways, and measured the likelihood of prescribing medication based on interpretation of results.

**Methods:** The same results of the SOLVD clinical trial were presented using three descriptions as if three different drugs were studied in three separate trials: relative reduction in mortality (%), absolute reduction in mortality (%), and number of patients needed to be treated to avoid one death. After reviewing study results, 105 physicians and pharmacists estimated how likely they would be to prescribe each drug based on a 7 point Likert scale (1 = definitely not prescribe; 7 = definitely prescribe).

**Results:** Likelihood of treatment was statistically significantly higher if study results were presented as relative reduction in mortality compared with absolute reduction in mortality or number of patients needed to be treated to avoid one death (P < 0.001).

**Conclusion:** Methods of reporting trial results significantly affect interpretations of clinical data by health care professionals and may influence prescribing behavior.

### 1132-96 Do Patients With Heart Failure Experience Better Outcomes at Urban Teaching Hospitals?

E.F. Philbin, T.G. DiSalvo. *Henry Ford Hospital, Detroit, MI, USA; Massachusetts General Hospital, Boston, MA, USA*

**Background:** Health care delivery systems influence outcomes in HF; if this is true of hospital type and location is not well known.

**Methods:** We utilized the New York statewide hospital data set to identify all first HF discharges for the year 1995. Demographics, procedure use, length of stay (LOS), charges, mortality and readmission were compared among patients at urban teaching (UT, N = 23,071), urban non-teaching (UNT, N = 8,202), rural teaching RT, N = 672) and rural non-teaching (RNT, N = 3,949) hospitals.

**Results:** UT patients were more often black, young and hypertensive with less comorbid disease (p < 0.05). Management at UT centers involved more procedures and cardiologists, fewer ICU stays, and higher complication rates: (p < 0.05). Clinical outcomes, adjusted for demographic differences, are shown (\* = p < 0.05):

Outcome	UT	UNT	RT	RNT
LOS, days	9.7	9.5	7.7	8.6
Charges, \$	13,673	10,101	7,499	6,677
Mortality, %	7.3	6.9	5.0	5.0
readmission, %	27.1	26.5	26.0	25.8

**Conclusions:** 1) HF inpatients treated at UT centers undergo more procedures and have longer LOS, thus incurring higher hospital charges, without fewer readmissions, 2) adjusted inpatient mortality is highest at UT hospitals, and, 3) whether these substantial mortality differences reflect disease severity, patient characteristics or process of care warrants further study.