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Comparison of methods examining hospital use variation among elderly heart failure patients

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inpatient stays, outpatient visits, and pharmacy claims were calculated over the 2 years following each patient's index claim. We then compared median per-patient total, medical, and psychiatric healthcare use and costs.

RESULTS: Among 2,924,412 Medicaid enrollees, 156 met criteria for P-OCD and 16,055 for P-D. Of these, 135 patients with P-OCD were matched to 1,511 patients with P-D (21 P-OCD patients could not be matched). Numbers of matches of P-OCD to P-D patients ranged from 1 to 76. The 2-year, median, per-patient total (inpatient, outpatient, and pharmacy) number of healthcare claims was approximately 2 times greater among patients with P-OCD than patients with P-D (P-OCD 126.0 versus P-D 68.4, $p < 0.0001$). Those with P-OCD had a 65% greater median number of outpatient visits for medical treatment (86.0 versus 56.0, $p = 0.0007$) and approximately 2 times greater median total medical costs for these visits than their P-D counterparts. Median total healthcare costs were approximately 3 times higher among patients with P-OCD than among those with P-D (P-OCD \$25,666 versus P-D \$7,732, $p < 0.0001$).

CONCLUSIONS: Although patients were matched on medical illness severity, those with P-OCD used significantly more outpatient medical services and incurred 2 times greater outpatient medical costs than their counterparts with P-D. These findings suggest that much of the care for patients with OCD may occur within the outpatient medical setting.

COMPARISON OF METHODS EXAMINING HOSPITAL USE VARIATION AMONG ELDERLY HEART FAILURE PATIENTS

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BACKGROUND: Recent national and California studies have documented variation in hospital resource utilization among expired elderly Medicare beneficiaries with chronic illnesses in their last two years and six months of life. However, findings may differ for elderly Medicare beneficiaries who did not expire and with expanded risk-adjustment.

METHODS: 7,301 hospitalizations for elderly Medicare beneficiaries with a principal diagnosis of heart failure (HF) were identified at six California academic medical centers between January 1, 2001 and June 30, 2005. Local administrative data and the National Death Index were used to generate outcomes of hospitalization length of stay, hospitalization total costs, inpatient mortality, and one month mortality. Two multivariate risk-adjustment models were used. The first model matched the model used in studies of expired elderly individuals, and included age, gender, ethnicity, and twelve chronic conditions; over-dispersed Poisson models were used for resource utilization outcomes and logistic models were used for mortality outcomes. The second expanded model included patient age at admission, gender, ethnicity, 26 comorbidities, admission year, Medicaid as an additional payor, transplant patient status, transfer patient status, and surgical Diagnostic Related Group classification; zero-truncated negative binomial models were used for resource utilization outcomes and logistic models were used for mortality outcomes. Adjusted means for each outcome were generated for each site using recycled estimates from the entire cohort to minimize selection bias.

RESULTS: The unadjusted resource utilization among the sites ranged from 4.3 to 8.4 hospital days and \$8,568 to \$19,185. Adjusted means with the first model showed similar resource utilization variation between sites, which ranged from 4.3 to 8.3 hospital days and \$7,999 to \$19,924. Adjusted means with the second model showed slightly reduced resource utilization variation between sites, which ranged from 4.7 to 8.0 hospital days and \$9,861 to \$19,561. The unadjusted inpatient and one month mortality rates among the sites ranged from 2.8% to 4.6% for inpatient mortality and 6.3% to 8.8% for one month mortality. The adjusted mortality rates using the first model showed increased variation between sites, which ranged from 3.0% to 5.4% for inpatient mortality and 6.2% to 9.9% for one month mortality. The adjusted mortality rates using the second model showed increased

variation between sites, which ranged from 2.8% to 5.1% for inpatient mortality and 6.4% to 11.1% for one month mortality. The site with the highest adjusted hospital days and costs also had the lowest adjusted mortality rate which significantly differed from the other sites. The Spearman correlation coefficients with the first model for one month mortality were -0.41 for adjusted hospital days and -0.32 for adjusted costs. The Spearman correlation coefficients with the second model for one month mortality were -0.60 for adjusted hospital days and -0.37 for adjusted costs.

CONCLUSIONS: Resource utilization variation patterns are reduced but persist when using an expanded risk-adjustment model compared to prior risk-adjustment models in a sample of HF patients that both expired and survived. However, focusing only on expired individuals may overlook associations of greater resource utilization and lower mortality among all Medicare beneficiaries admitted with HF.

COMPARISON OF PAPER AND ONLINE VERSIONS OF THE WEIGHT MANAGEMENT SUPPORT INVENTORY

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BACKGROUND: The Weight Management Support Inventory (WMSI) is a reliable and valid paper instrument to measure social support for weight loss. This measure may be useful for Internet-based studies of weight loss, but an online version has never been tested. We compared the psychometric properties of an online (ON) and paper (PA) version of the WMSI.

METHODS: The PA version has 26 five-point Likert items on the frequency and helpfulness of receiving 4 types of support: emotional, instrumental, informational, and appraisal. It yields a total and 4 subscale scores for both frequency and helpfulness. With a counter-balanced order of administration, members of an online weight loss program completed both versions within 2 days. We emailed subjects a link to the ON version and an attached file of the PA version, which they faxed back. We calculated Pearson correlations (r) for total and subscale scores and measured between-subjects and within-subjects effects with t -tests and repeated measures analysis of variance.

RESULTS: Of 737 eligible subjects, 511 enrolled and 230 returned both ON and PA versions (93% female, 86% white, mean age 37.0 years [SD=10.1], mean body mass index 31.3 [SD=7.3]). ON and PA versions were highly correlated ($r = 0.84$ to 0.95). Between-subjects comparison of ON vs PA (first administration) revealed no differences, except in the emotional frequency subscale (ON 2.61 vs PA 2.31, $p = 0.04$). Within-subjects comparison of ON vs PA (regardless of order of administration) also revealed no differences except in emotional frequency (ON 2.54 vs PA 2.45, $p = 0.002$).

CONCLUSIONS: There was no difference between ON and PA versions for total frequency, total helpfulness, and 7 of 8 subscales. The ON version of the WMSI generally retains the properties of the PA version and may be useful for assessing social support for weight loss.

COMPARISONS OF ATTITUDES ABOUT, BARRIERS TO AND INTAKE OF VEGETABLES AND FRUIT IN AN URBAN POPULATION AT A HEALTH CLINIC WITH A PROGRAM TO PROVIDE INEXPENSIVE LOCALLY GROWN PRODUCE

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BACKGROUND: Fruit and vegetable consumption is lower in poor urban populations compared to more affluent urban/suburban populations. Rising produce costs may contribute to lower produce consumption rates. Some programs providing inexpensive locally grown produce to urban populations increased participant produce consumption. Our objective was to measure: 1) baseline attitudes about 2) perceived barriers to and 3) baseline consumption of fruits and vegetables in participants and a convenience sample of non-participant controls in a program providing low-cost locally grown produce through an urban health center.

METHODS: All program participants (N=39) and a convenience control sample (N=75) from the clinic waiting rooms were surveyed. Survey items measured demographic characteristics and the three areas