Title
Quality implications for diabetes care of a change from multispecialty group to individual provider direct contracting: Results from the TRIAD study.

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Left ventricular ejection fraction (LVEF) documented, 2) Angiotensin converting enzyme inhibitor prescribed if LVEF ≤ 40%, 3) Beta blocker prescribed if LVEF ≤ 40% and HTN, 4) Anti-platelet prescribed if diagnosed with atrial fibrillation, 5) Diet, weight, and medication instructions given at hospital discharge, and 6) Tobacco cessation counseling given at least once while an inpatient. These process measures were each coded as present (1) or not (0) if not. 

Variables: Predictors were clustered into seven domains of conceptually-related survey items. These categories included: CHF guidelines implementation approaches, level of support for the guideline efforts, regional network leadership for guidelines, hospital use of guideline performance data, hospital culture, hospital structure, and patient population characteristics. Statistical Analysis: We constructed hierarchal logistic regression models using generalized esti- mation equation (GEE) models examining six provider process measures for each VA Medical Center (VAMC).

RESULTS: Limiting facilities to those with adequate complete data, 100 facilities (92%) were included in the analysis. Chart audit estimates of provider adherence measures were higher than expected (85% or more on average) for most measures, ranging from 14% for diet, weight and medication instructions at discharge to 91% for ejection fraction documentation and beta-blocker prescription. In GEE models, VAMCs with higher levels of adherence (P < 0.05) had: 1) the changed responsibilities of non-physicians to support adherence, 2) practices that believed the guidelines were applicable to their practice, and 3) a lower proportion of their patient population that was Hispanic.

CONCLUSIONS: Adherence to most important CHF quality of care measures overall was above that reported in other healthcare systems. Modifiable factors that healthcare organizations can adopt to enhance the delivery of chronic disease care in their settings include building provider support for the clinical practice guidelines and changing the responsibilities of non-physicians to support adherence.

PREDICTORS OF SCREENING FOR HEPATOCELLULAR CARCINOMA AMONG PATIENTS WITH HEPATITIS C IN PRIMARY CARE

BACKGROUND: Hepatitis C virus (HCV) infection affects 1.8% of the U.S. popula- tion and is the leading cause of the rising incidence of hepatocellular carcino- ma (HCC). Practice guidelines by the NIH and CDC recommend biannual screening for HCC in patients with cirrhosis due to HCV using serum alpha-fetoprotein (AFP) and abdominal imaging, although there are few data to support these recommendations. Primary care physicians perform most cancer screen- ing, yet it is unknown whether or how appropriately they implement HCC screening recommendations in their patients with HCV. The objective of this study was to determine HCC screening patterns for patients with HCV in an academic primary care practice and to identify significant predictors of screening.

METHODS: Using a computerized clinical database, we identified all patients with HCV (via serology or ICD-9 code) receiving care at one of three UCSF general medicine (GM) practices during a three-year period (1/1/01–12/31/03). Patients were excluded if they had a diagnosis of HCC or liver transplant, or had fewer than two GM clinic visits during the study period. Demographics, GM clinic visit frequency, gastroenterology (GI) specialty clinic visits, serologic studies, liver biopsies and radiographic studies were abstracted from the clinical database. The presence of cirrhosis was defined by liver nodularity reported on abdominal imaging (ultrasound, CT, or MR), or stage 4 fibrosis (Metavir histolo- gical staging) on liver biopsy. If such studies were performed. HCC screening was defined by having at least one AFP as well as one form of abdominal imaging performed during the study period. We used logistic regression to identify pre- dictors of HCC screening separately in subjects with cirrhosis (appropriate screening), and without cirrhosis (improper screening).

RESULTS: Among 458 patients with HCV (mean ± standard deviation age 54.8 ± 11.8, 52% male, 46% non-White, 13% non-English speaking, 25% married, 19% with pub- lic insurance), the overall rate of HCC screening was 41% (95% CI: 37–46%). For patients with cirrhosis, 73% (37/51) were screened compared to 37% of non- cirrhotics (152/407, p < 0.001). Among cirrhotics, having public insurance was the only significant predictor of HCC screening (adjusted OR 11, 95% CI: 4.4–29). Screening rates were not much higher in the subset of cirrhotic patients seen by the GI clinic (76%). Non-cirrhotics, on the other hand, were more likely to be unnecessarily screened if they had been to GI clinic (47%; adjusted OR 4.7 (95% CI: 2.4–9.7)), or had more frequent GM visits (adjusted OR 2.9 (95% CI: additional visit, 95% CI: 1.05–1.16). Race/ethnicity, language, gender, marital status, and age did not significantly influence screening rates in either subset of patients.

CONCLUSIONS: Our findings show some cirrhotics are not getting screened for HCC, while many patients without cirrhosis are getting unnecessary screening. Educating providers about targeting only cirrhotic patients for screening should improve the consistency of care for patients with HCV and make more appro- priate use of critical resources.

QUALITY IMPLICATIONS FOR DIABETES CARE OF A CHANGE FROM MULTISPECIALTY GROUP TO INDIVIDUAL PROVIDER DIRECT CONTRACTING: RESULTS FROM THE TRIAD STUDY

BACKGROUND: Managed care contracting arrangements between organized medical groups and health plans have several potential advantages to patients over direct contracts between plans and individual providers. Ongoing quality improvement efforts within the group structure and streamlined coordination of care of a group may lead to improved processes and outcomes for patients with diabetes. Few studies have examined whether the quality of diabetes care within a single population might be affected from a change in contracting arrange- ment.

METHODS: Data are from the Translating Research into Action for Diabetes (TRIAD) study, a multicenter longitudinal cohort study of diabetes care in managed care populations. We examined a single health care system, the 27 VA Health Care System (VHCS) clinics and 38 plan members with diabetes from 24 multispecialty groups were enrolled during 2000-01. Between baseline data collection and follow-up (2002-03), some group contracts were terminated in response to local market forces. Our primary pre- dictor was whether the participant was cared for in a multispecialty group (n = 7785) or by an individual provider (n = 3153) at follow-up. We examined sev- eral dependent variables: 1) processes of care, 2) intermediate outcomes, in- cluding glycated hemoglobin (A1c), blood pressure, and low density lipoprotein cholesterol (LDL), and 3) whether those patients with poorly controlled intermediate out- comes were managed with aggressive medication regimens. We conducted these tests with multivariate models that controlled for patient demographic and clinical status. Using these models, we obtained predicted probabilities and tested for differences between the two settings.

RESULTS: No differences were found in any of the measured processes of care between patients who remained in multispecialty groups and those whose providers switched to direct contracting arrangements. Predicted rates of process delivery generally exceeded 70% in both settings. 47% of pa- tients were appropriately glycosylated, 46% had controlled blood pressure, 71% had controlled lipids, which could reflect increased attention to the macrovascular complications of diabetes within medical groups and health plans. Future in- depth studies examining shifts in financing arrangements may provide causal explanations for these findings.

REDUCING CARDIOVASCULAR RISK IN DIABETES: ROOM FOR IMPROVED INTENSITY OF HYPERTENSION MEDICATION MANAGEMENT

BACKGROUND: Hypertension (HTN) is a dominant risk factor for cardiovascu- lar disease, especially among people with diabetes (DM). Yet, large numbers of individuals with DM have uncontrolled blood pressure (BP). Past reports suggest considerable room for improvement in intensifying BP medication manage- ment. Our primary objective was to determine the impact of changing contracting (a strategy to improve BP control. We studied recent trends in BP medication man- agement in a Veterans Administration (VA) medical center.

METHODS: We used the Veterans Health Information Systems and Technology Architecture (VISTA) to identify patients in 2001-2, who were considered to have DM if they had ≥1 DM diagnostic code over the 2 years, or any antihypertensive medication. This cohort was then evaluated twice for HTN management in 2001-2, and 2003-4. At each evaluation, HTN was defined to be present if they had ≥1 diagnostic code for HTN, or <2 systolic BP (SBP) >= 140 mmHg at least 14 days apart, or any SBP >= 180 mmHg over the 2 year observation period. BP medication was "appropriately intensified" if dose was increased or a new BP medication class added after the last eligible primary care visit with SBP >= 140 mmHg (each subject assessed at most once). Separate logistic regres- sions for each observation period included age, sex, race/ethnicity, and SBP level.

RESULTS: The 6810 DM patients had mean (standard deviation) age 64.7 (10.8) years, 2.2% were women and 19.4% were African American. In 2001-2, 5190 patients had DM and HTN; in 2003-4, 3711 patients had DM and HTN, representing those who remained in care. The mean number of pri- mary care visits was 6.1 (3.7) in 2001-2 and 6.3 (3.6) in 2003-4, and the mean number of BP medications at last visit was 2.2 (1.4) in 2001-2 and 2.7 (1.9) in 2003-4. At last measure, 50.9% had SBP > = 140 mmHg in 2001-2, and 50.6% in 2003-4. Of the 2074 who were uncontrolled in 2001-2 and who remained in care in 2003-4, 57.3% remained uncontrolled. HTN management in those with SBP > = 140 mmHg in the 2 assessment periods is presented in the Table. In- tense of BP medication management was considerably greater in 2003-4, al- though medication intensification occurred more frequently than SBP > =140 mmHg. In multivariable analysis, people of different ages, race/ethnic- ity or sex had similar patterns of medication intensification at both observation periods.

CONCLUSIONS: Two thirds of intensification opportunities were missed in 2001-2. While those who remained in care experienced improved intensities of HTN management in 2003-4, that care still fell considerably short, regard- less of age, sex or race/ethnicity. Although we report significant improvements compared to published reports, efforts to maximize medication intensification in hypertensive patients with DM are warranted, and enrolling individuals in on-going care may be an important step toward that goal.