Hospital Report Cards for Hospital-Acquired Pressure Ulcers: How does hospital performance by claims data compare to performance by standardized surveillance exams for hospital-acquired pressure ulcer rates?

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Background: Since March 2011, hospital rates of hospital-acquired complications (e.g., pressure ulcers) from administrative discharge data (i.e., claims data) are publicly reported online. In 2015, these claims-data generated complication rates will be used by Medicare to identify the top quartile of poor performing hospitals, to penalize by 1% less pay for all admissions. Concern exists regarding the accuracy and validity of complication rates as reported in claims data to compare hospitals. We evaluated whether hospitals in the top quartile of poor performance for hospital-acquired pressure ulcer (HAPU) rates according to claims data would be scored similarly when compared by HAPU rates from quarterly hospital-wide patient surveillance exams.

Methods: Using claims data from the Healthcare Cost and Utilization Project (HCUP) State Inpatient Dataset for all adults discharged from 185 acute care California hospitals in 2007, we generated hospital rates as a percentage of discharges with at least one HAPU. We assessed how hospital ranking according to HAPU rates from claims data compared to these hospitals' ranking according to HAPU rates from quarterly prevalence surveillance exams, as conducted by trained examiners in 2007 and reported by hospitals to the California Nursing Outcomes (CalNOC) Pressure Ulcer Prevalence Study and CalHospitalCompare.org.

Results: According to HCUP data, 6378 (0.4%) of admissions had a HAPU diagnosis; 1258 (19.7%) of these admissions also had a pressure ulcer diagnosis listed as present-on-admission. 886 (0.06%) had a pressure ulcer with unspecified status at admission. Hospital HAPU rates ranged from 0 to 1.7% (mean 0.3%) of discharges according to HCUP data, and from 0 to 9.4% (mean 3.3%) according to the CalNOC dataset. Of the 46 hospitals identified in the top quartile (Graph A) of poor performing hospitals according to claims data, only 20 (43%) also were identified in the top quartile of poor performing hospitals according to CalNOC prevalence data (Graph B).

Conclusions: Overall, hospital rates of hospital-acquired pressure ulcers were much higher according to quarterly prevalence exams compared with claims data. Relative hospital performance regarding HAPU rates varied significantly from claims data compared with prevalence surveillance exams, with less than half of hospitals identified in the top quartile as poor performing hospitals by claims data also being in the top quartile according to prevalence exam data. These findings imply that claims data may not be an accurate or valid datasource for comparing hospitals for public reporting or financial penalties for hospital-acquired pressure ulcers.

Attitudes and Preferences toward the Provision of Medication Abortion in an Urban Academic Internal Medicine Practice

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Background: Mifepristone (formerly known as RU-486) became commercially available for early abortion in the US in 2000. This offered Internal Medicine doctors the opportunity to greatly expand abortion access for their patients. A decade later, almost 70% of pregnancy terminations still occur in specialist clinics, with less than 1% of abortions performed by generalists. Our goal was to determine whether patient preference is a reason for the limited uptake of medication abortion among Internal Medicine physicians.

Methods: The study took place at an urban primary care center with Internal Medicine (IM) and Ob/Gyn clinics. Between December 2008 and July 2009, we approached women in the waiting room of the IM clinic, and invited them to be anonymously interviewed. All consecutive women aged 18 – 45 who presented to the clinic during research sessions were offered participation in the study. A semi-structured 43-item questionnaire was used to inquire about demographic characteristics, pregnancy history, contraceptive practices, and abortion preferences. Support for medication abortion was assessed with a binary yes/no question, followed by the open-ended question, "Why do you think this clinic should or should not offer medication abortion?" Responses to the open-ended question were coded into one of nine categories. The importance of abortion services was assessed with a question that had three possible responses: very important, somewhat important, and not important.

Results: Of 102 women who met inclusion criteria, 90 completed the survey, yielding a response rate of 88%. 49% were Hispanic, 51% black. The average age was 33. 82% of respondents reported having vaginal intercourse with a man in the past three months. 22.2% were at risk of unintended pregnancy. 47% had had at least one abortion in the past. None of the 77 pregnancy terminations reported were medication abortions. 59% responded Yes to the question, "Do you think this clinic should offer medication abortions?" and 66% stated that it was "very important" or "somewhat important" to offer this service. Among women who did not support medication abortion, the most common reason given was "abortion is morally wrong" (71%). Among women who would consider having an abortion in the future, 87% stated that they would be interested in receiving medication abortion from their primary care doctor.

Conclusions: To our knowledge, this is the first study to examine the abortion preferences of Internal Medicine patients specifically. We found rates of sexual intercourse, unintended pregnancy, and abortion use consistent with national trends. Among our respondents who would consider abortion, a wide majority would like to receive it from their primary care doctor. Our data suggest that patient preference is not a reason for limited uptake of medication abortion among Internal Medicine doctors. Alternate factors, such as physician comfort, should be explored. These data are limited by the small sample size, and a larger study should be done to assess whether these findings are generalizable. The provision of medication abortion by Internal Medicine physicians has the potential to greatly expand abortion access for women.

Putting Patients First: Using the Patient Perspective to Engineer Patient-Oriented Clinic Handoffs (EPOCH)

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Background: Although the year-end resident clinic handoff affects millions of patients annually and has implications for patient safety and satisfaction, little research to date has described the patient experiences as they transition to a new resident primary care physician (PCP). The aim of our study is to identify patients' perceptions of risks associated with the resident clinic handoff and elicit their suggestions to inform development a new patient-oriented handoff process.

Methods: Graduating internal medicine residents at a single academic institution identified their highest risk patients during the year-end clinic handoff. Three months after transfer to the new resident PCP, a trained research assistant conducted telephone interviews with patients using critical incident technique and appreciative inquiry to elicit both positive and negative experiences associated with the transfer to a new PCP. The interviews were audio recorded and transcribed to ensure accuracy. Using constant comparative method, two investigators independently reviewed ten transcripts to develop an initial coding classification, which was then applied to the remainder of the transcripts using ATLAS.ti software.

Results: Of 323 high-risk patients that departing residents identified, 37 were excluded due to incorrect contact information, change of insurance, transfer of care to other clinics, inability to consent, or death. Of the 286 eligible patients, 103 telephone interviews have been completed. The interviews revealed patient barriers that were categorized into four overarching themes: (1) breakdowns in transition process (i.e. patient unaware transition occurred); (2) clinic logistics (i.e. difficulty rescheduling appointments); (3) doctor-patient relationships (i.e. difficulty building rapport with new PCP); (4) patient safety issues (i.e. missed lab results). Specifically, they reported seeking acute care visits (ER or urgent care) due to delayed care, missed test results or running out of medications during the transition period. For example, one patient reported: "I have to hold everything in until I see [my new doctor]…my pressure was so high until...they sent me to emergency." Patients valued early notification and preparation for the transition. They also appreciated 'telephone visits' with their new PCP prior to their first clinic visit and reported that 'personal sharing' from the new PCP helped build rapport. For example, one patient reported: "Dr. X was…getting ready for her marriage…when I talked to her on the phone…I was like…you're not supposed to be worried about your patients, go get married, we'll talk when you get back." Patients who were aware of their role in the training mission were more understanding of the process: "You hate to see them go but they have to, they have no choice because they are residents."

Conclusions: By interviewing patients about their experiences with the resident PCP transition, unique insights into the challenges and solutions to this problem can be developed. This data can be used to develop and implement a patient-centered clinic handoff for medicine residents. Such solutions could include a patient 'transition packet' to facilitate early notification of the handoff and introduction to their new PCP, a systematic rescheduling process for missed appointments, formally recognizing and thanking patients for their role in the resident training mission, and implementing "telephone visits" prior to the first visit with the new PCP.

Innovative Care Delivery Model to Address Health Disparity in Underserved Population

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Background: African Americans are more likely to be overweight or obese compared to other racial/ethnic groups, and are subsequently more likely to be diagnosed with weight-related co-morbidities such as hypertension, diabetes, and cardiovascular disease. Based on the chronic care model, obesity may be effectively managed in a setting that combines self-management, patient education, and outreach utilizing the infrastructure of an existing community organization. The objective of this study is to describe the implementation and effectiveness of a community-based participatory research project that recruited African American subjects through a community organization to join a weight loss program and determine weight change after 12 weeks.

Methods: The Senior Wellness Initiative and TOPS Collaboration for Health (SWITCH) study is a prospective analysis of the weight change of the individuals who were recruited through a community organization to join a weight loss program. Participants were recruited through the Senior Wellness Initiative (SWI), a community program designed to help older African Americans maintain their independence. SWI participants aged 50 and older with BMI ≥ 25 were eligible to participate. Take Off Pounds Sensibly (TOPS) is a national, peer-led weight loss program that has been shown to help participants lose 5% of their initial weight, which is clinically significant. Its program consists of weekly peer-led meetings where there is a private weigh-in followed by educational programming on nutrition, physical activity, and behavior modification. TOPS chapters were started at three SWI sites—a senior center, a senior residence for independent living, and a church. Informational sessions were held at each site, and participants were encouraged to invite others to attend.

Weight change in kg was calculated as the average difference from the initial date of participation to week 12. For participants who were in the program for less than 12 weeks, their last weight measurement was carried forward. Weight change was also calculated as the percentage change from initial weight. Weight was subsequently categorized as weight loss or gain of 0 to 5% and ≥5%.

Results: Sixty-six people attended the informational sessions, and 50 people joined the three TOPS chapters. The average age of participants was 69.5 years (SD = 8.2). Their average starting weight was 91.7kg (SD=17.5) and the average baseline BMI was 34.7 kg/m2 (SD= 6.4). The average weight change for all participants was 1.8 kg (SD=2.5), equal to 2.0% (SD = 2.7) of initial weight. Almost 82% of participants lost weight during the 12 week period—10% of all participants lost 5% or more and 71% lost between 0 and 5% of their initial weight.

Conclusions: This study suggests that integrating community organizations with effective self-management tools can help address health disparities. Using the infrastructure of a community organization, recruitment goals of a study in the African American community were met with only three informational sessions. Ten percent of the individuals who participated in the SWITCH program lost a clinically significant amount of weight, while a majority of participants either maintained their weight or lost a modest amount.

Comparative Effectiveness of Hospital-Based Educational Interventions for Patients with COPD or Asthma

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Background: There has been an increasing focus on avoiding preventable readmissions through patient coaching and education. This is particularly salient for inpatients with Chronic Obstructive Pulmonary Disease (COPD), as it is the 3rd leading cause of 30-day hospital readmissions. However, little is known about how to to improve inpatient self-management skills, especially for medication use, for patients with obstructive lung disease (e.g., COPD, asthma). The primary objective of the study was to test the comparative effectiveness of two interventions that provide hospital-based education on effective inhaler technique for hospitalized patients with COPD or asthma.

Methods: Adult inpatients with COPD or asthma were randomized to receive either Teach-to-Goal (TTG) or Brief Intervention (BI) education. Participants receiving TTG were provided with a demonstration on inhaler technique and verbal and written instructions and then asked to re-demonstrate their technique (i.e., "teachback"); this cycle continued until they demonstrated mastery (≤ two rounds). BI participants received verbal and written instructions. Use of metered dose inhaler (MDI) and Diskus® devices was assessed using detailed checklists. Misuse was defined as <75% of steps correct. Self-reported inhaler technique confidence was measured using a 5-point Likert scale. Follow-up data were collected at 30-days post-discharge (phone interviews). Overall health-related events (ED visits, hospitalizations and/or deaths), post-discharge were assessed. Chi-squared, Fisher's exact, and t-tests were performed using STATA 11.

Results: Participants were enrolled and randomized to TTG (n=24) or BI (n=26). The mean age was 54 years, and the majority had COPD (60%), were female (68%) and were African-American (78%). This was a high-risk population with over half (58%) having ≥ 1 hospitalization in the past year for COPD or asthma, and nearly half (44%) having had a near-fatal event (ICU admission and/or intubation). While the majority of participants reported being confident with their inhaler technique (MDI 70%, Diskus® 94%), most misused their inhalers pre-intervention (MDI 62%, Diskus® 78%). The proportion who misused MDIs post-intervention decreased significantly for both TTG and BI groups ($p<0.05$). Further, there was a significantly greater reduction in the prevalence of misuse in the TTG group vs the BI group (50% vs. 30%, $p=0.01$). There was also a nearly significant decrease in misuse for Diskus in the TTG vs. BI group ($p=0.05$). Thirty-nine (78%) participants had 30-day follow-up data; there were 3 deaths and 36 completed follow-up interviews (77% BI, 79% TTG). There were significantly more health-related events in the BI group vs. TTG at 30-days post discharge ($p=0.02$).

Conclusions: Our study demonstrates that providing hospital-based instructions on inhaler technique for patients hospitalized with COPD or asthma can decrease prevalence of inhaler misuse prior to hospital discharge. Further, we demonstrate that TTG may be a superior strategy for improving inhaler technique, and may lead to improved clinical outcomes compared to BI. Finally, high-risk inpatients over-estimate their inhaler technique, emphasizing the need for hospital-based interventions to correct inhaler misuse. Larger, multi-institution comparative studies are needed to evaluate the effects of TTG vs. BI for different patient subgroups (e.g., level of health literacy), the durability of the hospital-based education and associated clinical outcomes.

Changes in Patient Experience in a Payment-Linked Patient Centered Medical Home Demonstration Project

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Background: Patient-centered medical homes (PCMH) pilots are garnering attention for their potential to improve primary care delivery. Linking practice transformation to payment reform may help accelerate this change process, but previous research on the short-term impact of transformation on patient experience has shown mixed results. We examined the impact of a payer-initiated, payment-linked PCMH demonstration on patient experience.

Methods: As part of a multi-modal evaluation, we analyzed data from the first 2 years (2009 and 2010) of a PCMH demonstration initiated by a non-profit commercial insurer in New York. The pilot tested facilitated primary care practice transformation to team-based care linked with comprehensive payment reform in 3 practices with 11,500 health plan patients. The practices received risk-adjusted monthly payments, initial transformation stipends, and significant performance bonus opportunities. Patient experience was surveyed by mail via the Clinical Group-Consumer Assessment of Health Plans (CG-CAHPS) survey, a well-validated measure for outpatient care. We focused on 4 domains: care when needed, physician communication, office staff helpfulness, and global physician rating. Each domain is measured on a 0-100 scale. The survey collects information on patient age, sex, race, education, duration of physician relationship, number of visits in prior year, and self-reported health status. We conducted bivariate analyses comparing patients of PCMH practices to non-PCMH practices, examining means of the domains. We constructed multivariable regression models to assess adjusted differences over time between the PCMH and non-PCMH patients, adjusting for the a priori covariates listed above and accounting for physician-level clustering effects using generalized estimating equations.

Results: In 2009 and 2010, 44,626 patients responded to the CG-CAHPS survey, 1689 of whom were linked to a PCMH pilot. Over 47% of the sample was from 2009. Compared to non-PCMH, PCMH patients were older, more likely to be white, and had higher education, according to bivariate analysis. They were significantly less likely to report seeing their physician for more than 5 years, and reported fewer visits per year. In unadjusted analyses, patient experience mean measures were significantly improved in global physician rating in both the PCMH and non-PCMH group. In the two year model adjusted for the significant covariates above, gender, and health status, PCMH ratings in office staff helpfulness improved (84.6 to 85.7), while adjusted means in the non-PCMH group decreased (89.7 to 89.4) (difference in differences= 1.4 (SE 0.7), P= 0.045). Similar trends toward improvement in the PCMH patients existed in the other domains, though without statistical significance (care when needed: 1.4 (SE 0.9), P= 0.14; physician communication: 1.2 (SE 0.8), P= 0.11; global rating of physician 0.9 (SE 0.8), P= 0.24).

Conclusions: In the first two years of a large PCMH pilot demonstration linked to payment reform, patient experience improved significantly in the office staff interaction domain, and trended toward improvement in other domains. These results are consistent with the pilot's transformation focus on team-based care and improving patient interactions and goal-setting. Aligned payment reform efforts to promote and reward this type of transformation may be a valuable tool for primary care delivery reform. Further research is needed to assess whether the changes are sustainable and replicable.