Factors Affecting Learners’ Daily Priorities During Ward Attending Rounds and Attending Physicians’ Adaptability. Brita Roy 1; Nidhi Huff 2; Analia Castiglioni 1; Lisa Willett 1; Carlos Estrada 3; Robert Centor 1. 1University of Alabama at Birmingham, Birmingham, Alabama; 2University of Alabama at Birmingham, Birmingham, Alabama; 3Birmingham VAMC, The University of Alabama at Birmingham, Birmingham, Alabama. (Proposal ID # 11041)

BACKGROUND: Understanding learners’ expectations and priorities for ward rounds is essential to enhance learning. In prior work, we identified domains necessary for successful ward rounds from the learners’ perspective. However, learners may prioritize domains differently due to daily changes in competing demands. This study aims to assess factors that affect the relative importance of each domain to learners on a daily basis and the frequency that attending physicians focus on those domains.

METHODS: In a prospective observational study, trainees from 39 different internal medicine inpatient ward teams at 3 hospitals from September-November 2010 independently completed daily evaluation cards. Each day, trainees (a) documented their team’s total patient census (<5, 6-10, and >11 patients), (b) day of call cycle (pre-call, call, post-call, and other), (c) ranked the 2 domains their attending demonstrated best, and (d) selected the domain that was most important. Domains of successful ward rounds have been previously described, and included: Teaching Process (ie. sharing decision-making process, physical exam skills), Learning Environment (ie. being approachable, respectful), Role Modeling (ie. teaching by example, bedside manner), and Team Management (ie. efficiency, providing autonomy). Patients were admitted only on call days, every fourth night, maximum of 10 admissions in a 24-hour period; at least 1 trainee completed a 30-hour shift on the post-call day. We used Chi square tests to evaluate associations between census/call cycle and domain selected (Chi for trend).

RESULTS: Trainees completed 831 cards, evaluating 41 attendings. Team Management was the most important domain for learners on post-call days (40%) compared to non-post-call days (NPCD) (22%) (p<0.001), and attendings were ranked highly in Team Management on post-call days (ranked as a top attribute on 51% of post-call days, vs. 38% of NPCD; p=0.002). As patient census increased, Team Management was increasingly important to trainees (p-trend<0.001), but was not ranked as a top domain for attending performance (p-trend=0.56).

Teaching Process was most important on NPCD (29%) compared to post-call days (19%) (p=0.007), and attendings performed well in this domain on NPCD (59%) vs. post-call days (51%) (p=0.07). Teaching Process had no association with importance (p-trend=0.36) or performance (p-trend=0.56) as patient census increased.

The importance of Role Modeling and Learning Environment was unchanged between post-call and NPCD days (p=0.05, p=0.53; respectively). As patient census increased, Role Modeling became less important (p-trend=0.07), but attending physicians performed better in this domain (p-trend=0.04). Attending performance in Learning Environment decreased as patient census increased (p-trend=0.001), and it was a lower priority for learners (p-trend=0.02).
CONCLUSION: On post-call days and days with higher patient loads, efficiency and autonomy is the priority for trainees, but on other days attendings should focus on sharing decision making process. Success on ward rounds requires emphasis of different skills on different days: the best ward attendings recognize trainee fatigue and work load, and apply a diverse and adaptable skill set for changing needs.
The Disconnect between Hemoglobin A1c Values and Patient Perceptions in Poorly Controlled Diabetes

Anjali Gopalan, Haley Moss, Jingsan Zhu, Sarah Windawi, Kevin Volpp. University of Pennsylvania School of Medicine, Philadelphia, Pennsylvania. (Proposal ID # 11446)

BACKGROUND: Numerous studies have shown that maintaining a hemoglobin A1c value less than 7% is associated with lower rates of diabetes-related complications. The hemoglobin A1c is the standard way that information regarding current diabetes control and risk of future complications is conveyed to patients. However, it is unclear how well understood these values are to diabetic patients who have poor glycemic control. To many such patients, particularly those with low numeracy or of lower socioeconomic status, the A1c may seem like a meaningless number that is not particularly intuitive or easily understood.

METHODS: Diabetic patients seen at three of the University of Pennsylvania internal medicine practices who had a recent hemoglobin A1c value greater than 8% were contacted regarding potential enrollment in a RCT testing different approaches to providing patient feedback on glycemic control. As part of this trial, we conducted phone surveys to collect information regarding socioeconomic status, diabetes history and participant perceptions of current disease control and disease-associated risk. Also included in this survey was the Schwartz 3-item numeracy assessment tool. Using the electronic medical record, the participants' hemoglobin A1c values at the time of enrollment were also collected. The primary outcomes examined for the present analyses were the relationships between a participant's hemoglobin A1c value and perception of disease control and disease-associated complication risk. Comparisons were made using unpaired t-test and chi-squared analysis.

RESULTS: We enrolled 177 patients in the study between May 2010 and November 2010. Of the enrolled participants, 55% reported no formal education beyond high school and 50% reported an individual annual income of less than $20,000. The numeracy of enrolled participants was quite poor, with 90% of respondents answering none or only one of the Schwartz assessment tool questions correctly, and only 1 participant of the 177 able to answer all three questions correctly. The average hemoglobin A1c of enrolled participants at baseline was 9.85%. Several of the findings suggest low comprehension of A1c scores. For example, 24% of enrolled participants described their current level of diabetes control as "excellent" or "good," while 37% described their level of diabetes control as "poor" or "terrible" on a five-point Likert scale. No statistically significant difference in hemoglobin A1c values was noted between these two groups (9.78% vs 10%, p=0.52). Further, there was no statistically significant difference in hemoglobin A1c values between the 21% of participants who reported to be "not at all" or "slightly" worried about complications and the 64% of respondents who reported being "very" or "extremely" worried about diabetes-related complications (9.52% vs 9.99%, p=0.13).

CONCLUSION: Many patients with poor glycemic control do not appear to understand the hemoglobin A1c value in assessing their diabetes control or future diabetes-related complication risk. The poor numeracy noted amongst this population may contribute to this problem. Given this, it is clear that alternate information formats to the hemoglobin A1c are needed to more effectively educate diabetic patients about disease control and severity in an effort to increase insight and, eventually, improve disease-related outcomes.
INAPPROPRIATE DISPENSING OF ELECTRONICALLY DISCONTINUED MEDICATIONS: AN EMERGING PATIENT SAFETY CONCERN

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BACKGROUND: Electronic medication prescribing is greatly facilitated by the adoption of electronic health records with direct links to pharmacies to initiate prescriptions. These systems do not support the transmission of medication discontinuation orders from the electronic record to the pharmacy, creating the potential for inappropriate dispensing of previously ordered medications.

METHODS: We used electronic data within a large multi-site group practice using a common electronic health record to identify adult patients (≥ 18 years) with an electronically discontinued anti-hypertensive or statin medication during a 12 month period during 2008 to 2009. Pharmacy dispensing records were reviewed to determine if these medications were dispensed in the 12 months following the discontinuation order. Patient demographic and clinical data were obtained from the electronic health record. We fit hierarchical multivariable logistic regression models to identify predictors of dispensing discontinued medications after adjusting for patient sociodemographic characteristics (age, sex, race and insurance status), total number of prescribed medications, and presence of comorbid conditions (diabetes, hypertension, and cardiovascular disease).

RESULTS: We identified 63,615 patients who had 140,245 anti-hypertensive medications and statins discontinued during the study period. 2,565 (1.8%) of these medications were dispensed to 1297 (2%) patients following electronic discontinuation within the electronic health record, including 2% of anti-hypertensive medications and 1.3% of statins. The vast majority (93%) of these medications were dispensed at least 1 day after the medication was discontinued, with 7% being dispensed on the day of the discontinuation order. Among the 2,565 inappropriately dispensed medications, 44% were refilled more than once during the 12 months following the discontinuation order, with an average of 2.0 erroneous refills per medication during this time. Patients with more than 5 medications on the electronic medication list, statin discontinuation, non-white race, and Medicaid insurance were more likely to have had a discontinued medication dispensed by the pharmacy (Table).

CONCLUSION: Dispensing of discontinued medications does occur and poses an important risk to patient safety, particularly among those patients receiving multiple prescription medications. Further work should evaluate patient harm from this dispensing and explore methods to improve communication between physician offices and pharmacies.
The Disconnect between Hemoglobin A1c Values and Patient Perceptions in Poorly Controlled Diabetes

Anjali Gopalan 1; Haley Moss 1; Jingsan Zhu 1; Sarah Windawi 1; Kevin Volpp 1. 1University of Pennsylvania School of Medicine, Philadelphia, Pennsylvania. (Proposal ID # 11446)

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Understanding Transitions in Hospital Care for the Homeless Patient: A Mixed-methods, Community-Based Participatory Approach

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BACKGROUND: Coordinating transitions in hospital care for patients experiencing homelessness is challenging yet there are limited data from the perspective of homeless patients to guide hospital-based and shelter-based interventions to improve transitions in care.

METHODS: We partnered with Columbus House, a large homeless shelter in New Haven, CT to better understand the experience of homeless patients seeking acute care at area hospitals. We conducted two focus groups with homeless clients and twelve in-depth, individual and group interviews with staff at Columbus House to inform our design of a semi-structured interview targeting homeless clients who reported at least one visit to an area hospital in the last 12 months. The interview included questions about socio-demographic factors such as age, gender, race/ethnicity, and reported length of homelessness. We also inquired about total visits to area hospitals in the past year, setting of care for these visits (inpatient vs. ED only), and patient experiences in the hospital. We used mixed-methods to analyze our data: we performed qualitative analysis of responses to open-ended questions with independent coding by a multidisciplinary team using the constant comparative method, and we performed multivariable logistic regression of survey data to determine factors that might identify patients at greatest risk for difficult transitions.

RESULTS: Ninety-eight homeless individuals were enrolled in our study from 3/15-5/15/2010: 78 (80%) were male and reported race/ethnicity was 42% black, 41% white, 16% Hispanic. Average age was 44 years and average reported length of homelessness was 2.8 years. Fifty-two (56%) of respondents reported being admitted for inpatient care whereas 44 (46%) reported receiving care in the ED only.

Fifty-nine (60%) respondents reported that they had delayed seeking care at a hospital after recognizing they needed help. Multivariable analysis showed a significant relationship between delay and increasing number of total hospital visits in the last year (OR 1.2; 95% CI 1.0-1.5).

In both quantitative and qualitative analyses, participants expressed concerns about discharge timing, transportation, and coordination with the shelter. As one participant explained, "they should make sure people don't leave late at night and that they have a safe ride to a safe place to stay." Twenty-six (27%) participants reported being discharged after dark and 61% reported having no plan for safe post-discharge transportation. In multivariable analysis, patients seen in the ED were more likely than inpatients to be discharged after dark (OR 2.7; 95% CI 1.0-7.3) and less likely to have post-discharge transportation arranged (OR 0.16; 95% CI 0.1-0.6).

After discharge from ED or inpatient unit, 64% of participants reported going to a shelter the first night, 10% reported staying with friends or family, and 11% reported staying on the streets with no shelter whatsoever. In multivariable analysis, only discharge after dark was significantly associated with staying on the streets vs. staying in a shelter (OR 8.3; 95% CI 1.9-35.9). One
participant summed the views of many: "sometimes miscommunication between the hospital and shelter is a problem - the hospital sends you there, but then you can't get in."

**CONCLUSION:** Homeless patients report many barriers to seeking acute care and may be more likely to delay care if they have frequently accessed acute care services in the past year. Furthermore, setting of care (emergency department vs. inpatient unit) and time of discharge may be important indicators of ability to access shelter on the first night after discharge. Healthcare providers encountering homeless patients in non-acute settings should be aware of reasons their patients may delay seeking acute care and providers in acute settings should pay particular attention to time of discharge and post-discharge transportation. Both hospital and shelter staff should strive for greater communication to coordinate a safe disposition for patients transitioning from acute care to community settings.
Non-Affordability Barriers and Access to Care for US Adults Jeffrey T Kullgren 1; Catherine G McLaughlin 2; Nandita Mitra 3; Katrina Armstrong 4; Robert Wood Johnson Foundation Clinical Scholars, Philadelphia VA Medical Center and University of Pennsylvania; Leonard Davis Institute of Health Economics, University of Pennsylvania, Philadelphia, Pennsylvania; Mathematica Policy Research, Inc.; Department of Health Management and Policy, University of Michigan School of Public Health, Ann Arbor, Michigan; Department of Biostatistics and Epidemiology, University of Pennsylvania School of Medicine, Philadelphia, Pennsylvania; Abramson Cancer Center and Division of General Internal Medicine, University of Pennsylvania School of Medicine; Leonard Davis Institute of Health Economics, University of Pennsylvania, Philadelphia, Pennsylvania. (Proposal ID # 11809)

BACKGROUND: The Patient Protection and Affordable Care Act (PPACA) seeks to increase access to care for US adults by improving the affordability of health services. While the affordability of health care is a critical element of access, many patients face barriers to care that extend beyond their ability to pay for services. Failure to address these non-affordability barriers may limit the impact of efforts to improve the affordability of care. The objectives of this study were to estimate the prevalence of non-affordability barriers among US adults, assess how frequently those with affordability barriers also experience non-affordability barriers, and identify characteristics associated with higher prevalences of non-affordability barriers.

METHODS: We conducted a cross-sectional analysis of data from the nationally-representative 2007 Health Tracking Household Survey. Reasons for unmet need or delayed care in the previous 12 months were assigned to one dimension in the Penchansky and Thomas model of access to care. Unadjusted prevalences of barriers in each access dimension and any non-affordability access dimension were estimated for all adults (n = 15,197) and for adults with affordability barriers (n = 2,169). We used multivariable logistic regression to estimate associations between individual, household, and insurance characteristics and barriers in each access dimension as well as any non-affordability access dimension for all adults and for adults with affordability barriers. Estimated parameters are reported as adjusted prevalences. Sample weights were applied to obtain nationally-representative estimates.

RESULTS: Among all adults, 18.5% reported affordability barriers and 21.0% reported non-affordability barriers that led to unmet need or delayed care in the previous 12 months. Two-thirds (66.8%) of adults with affordability barriers also experienced non-affordability barriers. In multivariable logistic regression, adults younger than 26 years of age (23.5%) and 40 to 54 years of age (20.8%) had more non-affordability barriers than those 55 years of age or older (14.5%, p < 0.001 for both comparisons). Individuals with household incomes less than $50,000 had more non-affordability barriers than those with incomes of at least $100,000 (21.2% vs. 16.5%, p = 0.001). Persons with at least one chronic illness had more non-affordability barriers than those without a chronic illness (24.3% vs. 14.7%, p < 0.001). Among adults with affordability barriers, individuals younger than 26 years of age (78.9%, p < 0.001) and 40 to 54 years of age (67.9%, p = 0.04) had more non-affordability barriers than those 55 years of age or older (59.7%). Persons with at least one chronic illness had more non-affordability barriers than those without a chronic illness (71.3% vs. 65.1%, p = 0.04).

CONCLUSION: Non-affordability barriers are more common reasons for unmet need or delayed care among US adults than affordability barriers. Further, most adults who experience
affordability barriers that lead to unmet need or delayed care also experience non-affordability barriers. Groups who might benefit most from more affordable care under PPACA have relatively higher rates of non-affordability barriers. These results suggest ways policymakers could address non-affordability barriers to ensure that steps to improve the affordability of care translate into true gains in access.