Dear Colleagues—

We welcome you to our inaugural DOM Quality & Safety Symposium. This event is an opportunity to celebrate all of the great projects that were submitted to the 2010-11 Quality & Safety Innovation Challenge (QSIC), acknowledge the award winners, and appreciate the wide efforts to improve patient care across our DOM clinical sites.

What is the Quality & Safety Innovation Challenge (QSIC) and how did it work?
The QSIC encouraged DOM trainees, staff, and faculty to work collaboratively as teams over the course of 6-9 months to design and implement innovative solutions aimed at improving patient care. The goal of the initiative were to engage trainees to participate in and lead Q/S projects, while providing them guidance and mentorship by faculty. Interested trainees and faculty formed teams and submitted a project proposal to the QSIC last fall. Each team was recommended to choose a project that aligns with one of the thematic focus areas highlighted below that were priority areas for each of our respective medical centers:

1) Improving care transitions
2) Improving access to clinical services
3) Fostering a patient-centered environment
4) Promoting efficient resource utilization
5) Improving teamwork and communication
6) Improving medication safety

How were the QSIC projects evaluated by the award committee?
The basic criteria used to rate each QSIC project submission were the following:

- The magnitude of the problem or quality/safety gap in care
- How well the project is aligned with one of the thematic focus areas
- How creative is the project/approach to the problem
- Generalizability (utilizing improvement processes that could be applicable to other services within DOM, our respective hospitals, and/or other organizations)
- Thoroughness of project evaluation
- Potential sustainability of results

We want to thank our rating committee for their contributions and engagement in the QSIC. They include Alice Chen, Jeff Critchfield, Sei Lee, Seth Landefeld, Ralph Gonzales, and Bob Wachter along with three of our outstanding trainees, Nat Gleason, Krishan Soni, and Delphine Tuot. Three finalists were selected and will be recognized today at the Symposium.

We also want to express our sincere admiration for all of our trainees, staff, and faculty who committed time, energy, and leadership to improve the care we provide to patients across our clinical sites. Your efforts were an inspiration.

Naama Neeman, MSc
Administrative Director for Quality & Safety Programs

Sumant Ranji, MD
Associate Program Director, Residency Program

Niraj Sehgal, MD, MPH
Associate Chair for Quality & Safety
Improving Resident Continuity Clinic Patient Follow-Up and Outcomes through a PCP-MEA Team Model

Basim Khan, MD, MPP1, Jennie Wei, MD, MPH3, Joyce Chong2, Thant Kyaw2, Claire Horton, MD, MPH3
1. San Francisco General Hospital Primary Care Program, Internal Medicine Residency, 2. San Francisco General Hospital, General Medicine Clinic, Medical Assistant, 3. San Francisco General Hospital, General Medicine Clinic, Associate Medical Director

The Problem

Patients often leave clinic visits without a clear understanding of their plan of care. This can lead to medication errors and missed specialty appointments, lab draws and tests. These problems are amplified in resident continuity clinic where resident providers can be away from clinic for weeks. These lapses can delay patient care and even lead to more ED visits and hospital admissions.

Project Goal(s)

The goal of this project is to create a medical assistant – PCP team model in order to improve care in high risk diabetic patients. By helping patients implement their follow up plans, we hope to decrease the number of missed appointments and increase the percentage of diabetic patients with goal HbA1c and LDL levels.

Results / Progress to Date

The Problem

• Large percentage of patients not taking medicines as directed (Documented reasons include: side effects (cough, itching), patient unable to pick up from pharmacy, refills not available, concern for possible side effects)
• Difficult to measure process outcomes: Electronic health record only reported no-show rates in past 12 months, unable to compare show rates pre-intervention
• Patient selection important, not all high risk patients amenable to/benefit from phone call reminders
• Residents feel high risk patients get better care and continuity in team model
• Expanding MEA contact with patients requires additional clinical support (ie RN available to MEA for triage questions)

Next Steps

• Using lessons learned and best practices to develop a care management system for the General Medicine Clinic
• Establish a clinical structure to support the expanded MEA role in patient care
• Expand care to focus on high risk patients with multiple active and chronic medical conditions, not just diabetic patients
• Increase medication adherence through improved communication with outpatient pharmacies, process mapping of prescription refills, and resident education regarding appropriate counseling around medication changes

UCSF Department of Medicine

<table>
<thead>
<tr>
<th>Measure</th>
<th>One year prior to program initiation</th>
<th>One year after program initiation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avg A1C (n = 19)</td>
<td>8.57</td>
<td>7.98</td>
</tr>
<tr>
<td>A1C &lt; 7.5</td>
<td>6 (32%)</td>
<td>6 (32%)</td>
</tr>
<tr>
<td>A1C &gt; 11</td>
<td>3 (16%)</td>
<td>0 (0%)</td>
</tr>
<tr>
<td>Avg LDL (n = 12)</td>
<td>98.7</td>
<td>94.7</td>
</tr>
<tr>
<td>LDL &lt; 100</td>
<td>7 (58%)</td>
<td>9 (75%)</td>
</tr>
<tr>
<td>Number of ED visits</td>
<td>0.55 visits/person</td>
<td>0.38 visits/person</td>
</tr>
</tbody>
</table>

Changes in Outcome Measures Before and After PCP-MEA Team Model Implementation

No. of patients not taking meds correctly (N=35) 16 (46%)

Medicine Adherence Data (Collected from Health Coach Notes)

Patient Follow-Up Plan: Form completed in presence of patient and medical assistant at end of each visit.

Sample of "Health Coach" note entered by medical assistant.

Resident identifies "high risk" diabetic patient

Next Patient visit:
1. PCP will review health coach notes and address any patient concerns.
2. New action plan will be formulated and process will be repeated

Patient visit:
1. Resident introduces MEA to patient
2. Fills out "Patient follow up plan" with MEA present at end of visit
3. Patient keeps original form and MEA keeps carbon copy

One week Pre-visit call:
1. MEA reminds about upcoming PCP appt
2. Reminds patient to obtain lab draws
3. Asks patient to bring in blood sugar log and medications to next appointment

One week Post-visit call:
1. MEA goes over med changes and appropriate counseling around medication changes
2. Reminds patient about upcoming appts, labs
3. Elicits any patient concerns
4. Inputs info in under "Health Coach" note in LCR

UCSF Department of Medicine
Improving Colorectal Cancer Screening in a Vulnerable Adult Population seen at San Francisco General Hospital

Lakin J1, Mukhtar N2, Baxi S1, Drozd D1, Mooney J1, Agbim U1, Hendrickson C1, Jotwani V1, Aragon K1, Burroughs M1, Horton C2 and Ratanawongsa N2

1University of California San Francisco Categorical Internal Medicine Residency Program, 2San Francisco General Hospital General Medicine Clinic

The Problem

- The USPSTF recommends colorectal cancer (CRC) screening with high sensitivity annual fecal occult blood testing (FOBT), sigmoidoscopy every five years (with FOBT every 3 years), or colonoscopy every 10 years.
- Studies demonstrate a mortality benefit for FOBT as a screening method.
- FOBT screening is the cost-effective method of choice for CRC prevention at San Francisco General Hospital (SFGH).
- Pre-intervention rates of CRC screening in the Monday afternoon General Medicine Clinic (GMC) is only 46%.

Project Goals

- Increase CRC screening rates in the GMC Monday afternoon resident clinic by a 10% absolute increase between December 1, 2010 and June 1, 2011.
- Increase physician understanding of the nuances and evidence base for CRC screening in urban, underserved populations.

Project Plan

- Review current clinic data on rates at which FOBT are offered and returned.
- Identify barriers (patient, provider, system) to return of FOBT.
- Investigate best practices implemented in other settings and clinics.
- Consider adapting multimedia educational materials in clinic rooms.
- Investigate broader SFGH and GMC efforts to improve CRC screening rates to identify key stakeholders, potential resources and opportunities to become part of larger initiatives.
- Providers engage patients, in person and via telephone, in CRC screening.
- Assess results and impact of efforts.
- Prepare for sustaining our gains and plan for ongoing improvement.

Results / Progress to Date

- There are currently 187 patients eligible for CRC screening.
- 47% have been designated by residents for phone intervention.
- Of those, 33% have received FOBT cards in the past.

- On target to achieve our goal with a 6.3% increase in eligible patients screened with major outreach efforts yet to take effect.
- During this same period, overall GMC CRC screening rates have remained unchanged at 48%.

Lessons Learned

- Identifying deficient screening can likely in and of itself improve screening via Hawthorne effect.
- Most patients who are not up to date with FOBT CRC screening have at least been offered an opportunity to be screened.
- Frequent re-evaluation of screening rates promotes increases in patient screening.
- Frequent re-evaluation with PDSA cycles promotes quality improvement specifically in the context of CRC screening.

Next Steps

- Our developed script will be implemented across GMC and other clinics for all outreach efforts at SFGH.
- We plan to explore other potential mechanisms for CRC screening including videos, pamphlets and other educational materials.
- Two medical assistants will be CRC screening champions and will provide information to patients to promote it.
- Will continue to evaluate the response of CRC screening rates to phone based intervention in our initial cohort.

UCSF Department of Medicine
The Problem
Effective hypertension control is hard to achieve, in part due to lack of knowledge, lack of self-management skills, and limited time with providers. In addition, many providers work independently with patients to achieve these goals but do not have an opportunity to work together as an integrated team to improve patient care. Group medical visits are a potential adjuvant to traditional one-on-one visits that can address these barriers.

Project Goals
Create a sustainable model for HTN group visits at GMC that
• Increases access to care
• Improves self-management skills
• Facilitates teamwork between a variety of caregivers working at GMC

Project Plan
A multidisciplinary team (NPs, MDs, MSWs, MEAs, Pharmacists) helped coordinate and implement a series of 4 monthly group visits covering
• Basics of HTN
• Diet and exercise
• Stress reduction
• Medication adherence

Group format:
• Participant directed/facilitator mediated
• Skills based learning
• Eg: learning to use a BP cuff
• Eg: learning to develop action plans

Recruitment - PCP and specialist referral within GMC

Results / Progress to Date
Survey data was collected before and after sessions and BP was recorded prior to participation, at each visit, and will be followed at 3, 6, and 12 months out.

<table>
<thead>
<tr>
<th>Round</th>
<th>Participants</th>
<th>Average of 2.3 visits per participant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Round 1</td>
<td>17</td>
<td>1 attended at least 1 visit</td>
</tr>
<tr>
<td>Round 2</td>
<td>13</td>
<td>1 attended at least 1 visit</td>
</tr>
</tbody>
</table>

On a Leikert scale of 1-6
- I am sure that I can reduce stress in my life
  - Avg Pre: 4.00
  - Avg Post: 5.14
- Learning how other people take care of their high blood pressure helps me take better care of my high blood pressure
  - Avg Pre: 4.12
  - Avg Post: 5.85
- I feel sure that I can do things other than take medicine to take care of my high blood pressure
  - Avg Pre: 3.25
  - Avg Post: 5.00

Lessons Learned
The HTN group has just completed its second full cycle and has had time to review successes and challenges and integrate feedback.

- Safe up-titration of anti hypertensive medications during brief 1:1 visits can be very challenging. Additional thought is needed into how to integrate this into the visits.
- Action plans offer important self management skills but can be challenging for some participants in a large group setting. One-on-one support can help mediate these challenges.
- Participants do not like when the monthly session topic is changed last minute. Multiple facilitators should thus be comfortable facilitating all of the session.

Next Steps
- Perform a team assessment to see if staff satisfaction has improved in those participating in the interdisciplinary group visits.
- Assess recruiting strategies and explore what factors encourage some participants to attend visits and what barriers limit access for others.
- Consider strategies to get more residents and other providers involved in group visits.
- Initiate groups visits focused on hypertension in other languages and consider expanding to other medical conditions.
The Problem

In the Central Valley, approximately 48,000 people suffer from diabetes. 32% of these people are uninsured and receive their health care from Community Regional Medical Center (CRMC). 13% of all hospital admissions in 2010 were attributed to diabetes and related complications, costing 16.7 million dollars for inpatient care. Nearly half of these patients are seen by the UCSF Fresno Internal Medicine Clinics. Like most residency clinics, optimal diabetic care is limited by a twelve week waitlist for clinic appointments and a diverse patient population with limited English proficiency and medical literacy.

Project Goal(s)

Our project aims to improve diabetes management in the UCSF Fresno Department of Medicine Residency Program by providing transition of care for diabetics from the inpatient to the outpatient sector through utilization of a multidisciplinary team (physicians and certified diabetic nurse educators) that will provide care for newly discharged diabetics who have poor access to timely care by primary care providers (PCPs). With this new chronic care model, we also expect patients to have improved glycemic control, fewer emergency department visits and hospitalizations over the interim time for patients to see their PCPs.

Project Plan

"Diabetes Medication Management Clinic" (DMMC) was implemented in October 2010 for diabetic patients recently discharged from CRMC, with minimal or no access to healthcare and no PCP follow up appointment. The unique DMMC features are:

- Clinic takes place on two & half (2.5) days per week
- It is staffed by a certified diabetic nurse educator (CDE), a UCSF Fresno faculty and a pharmacist on site. An endocrinologist can be reached for expert advice. The aims during this visit are adjusting diabetic medications, encouraging a healthy lifestyle and teaching patients about diabetic self-management.
- Up to ten (10) patients on an average are seen per clinic half day
- Only diabetes is addressed during this visit
- Patients are seen within two weeks of a hospital discharge or an ED visit and followed up for a maximum duration of three months.
- Simultaneously the patients are encouraged to attend self-management diabetes education classes offered at the CRMC's Diabetes Care Center (DCC); an ADA-accredited center and PCP follow up appointments are scheduled after discharge from DMMC.

Results / Progress to Date

Patients were evaluated from October of 2010 to January of 2011 with at total of 203 appointments, a 62% show rate and an average duration between appointments of approximately 55 days. A total of 82 patients were seen during this period with an ethnic distribution of 82% Hispanic, 9% African American and 9% Caucasian. 54% of patients had follow up and were used in the calculation of average HBA1C's. Initial HBA1C averaged at 10.34% with after visit HBA1C averaging 9.39% a decrease of 8.4%.

Lessons Learned

Along with innovative solutions come new opportunities for improvement. Rather quickly it became apparent that the twice a week half day clinic, although providing a bridge to primary care was unfortunately not enough time to meet the needs of such a large population. Secondly, it was increasingly difficult to obtain appropriate repeat laboratory values specifically HbA1C's. Lastly a multilingual Clinical Diabetic Educator would have been essential to facilitate follow up and diabetic education.

Next Steps

Solutions to these roadblocks have been identified by the team and partially implemented. HbA1c point-of-care (POC) meters have been utilized to obtain HbA1c levels of patients during their visits thus obviating the need to wait for serum Hba1cs by patients. A Full-time CDE and full-time medical assistant need to be employed to accommodate more diabetics that were recently discharged or seen at the ED.

Conclusion

At its core the DMMC is designed to best address the barriers of providing exemplary care to a population of underserved diabetic patients. Our goal is to improve the transition of care from the inpatient to the outpatient sector for underserved diabetic patients through the utilization of a creative teamwork of internist, CDEs and endocrinologist. Given the encouraging results of this unique chronic care model, we are confident that a similar model can be implemented in addressing other chronic conditions such as Congestive Heart Failure, Hypertension and COPD/Asthma.
“Getting on the Same Page”: Creation of a Data Summary Page to Streamline “Pre-Rounding” for Clinic Encounters in the San Francisco Safety Net

Mia Lozada, MD, San Francisco Primary Care Track, R3; Alice Chen, MD, MPH, Department of General Internal Medicine, San Francisco General Hospital; Fred Strauss, MD, IS/Provider Liaison, Staff Physician Castro Mission Health Center; Claire Horton, MD, Department of General Internal Medicine, San Francisco General Hospital

The Problem

- “Pre-rounding” to achieve optimal patient care, has long been an expectation in the world of inpatient medicine, but has not yet been evaluated in the outpatient setting.
- To prepare for clinic, 85% of providers at the General Medical Clinic (GMC) at San Francisco General Hospital (SFGH) were “pre-rounding”.
- The most common deterrent to “pre-rounding” was that it was “too time consuming” in 63% of GMC providers.
- One-third (34%) of GMC providers spent more than 10 minutes per patient gathering interval clinical information because the information was located in separate screens of the SFGH home-grown Electronic Health Record (EHR).

Objectives:

- To create and revise an “Outpatient Summary” screen [Image 1] to prepare for clinic.
- To conduct a survey of GMC providers to assess current practices and barriers to “pre-rounding” before clinic.
- To create and revise an “Outpatient Summary” screen [Image 1] to address the identified barriers to “pre-rounding” with the aim of increasing efficiency [Figure 1] and decreasing the time spent [Figure 2].
- To encourage use as well as elicit feedback in coming months.
- By eliciting provider input, the “Outpatient Summary” was tailored to the needs of the users through various PDSA cycles (i.e., eventually included links to progress notes and a longer history of healthcare maintenance and laboratory data that was clinically appropriate).

To prepare for clinic, 85% of providers at the General Medical Clinic (GMC) at San Francisco General Hospital (SFGH) were “pre-rounding” in 63% of GMC providers.

To conduct a survey of GMC providers to assess current practices and barriers to “pre-rounding” before clinic.

To create and revise an “Outpatient Summary” screen [Image 1] to address the identified barriers to “pre-rounding” with the aim of increasing efficiency [Figure 1] and decreasing the time spent [Figure 2].

Results / Progress to Date

- 96% (n = 27) of respondents believed that it was important for using the Outpatient Summary as well, including Castro-Mission Health Center and Southeast Health Center, and we plan to continue to encourage use as well as elicit feedback in coming months.
- SFGH is adopting a CCHIT-certified ambulatory EHR (eClinicalWorks) and we will continue discussions with the IT Department to ensure that the elements of the “Outpatient Summary” are included on a single screen in the new EHR because:
  - 96% (n = 27) of respondents believed that it was important for eClinicalWorks to have a pre-rounding option to the “Outpatient Summary.”
  - Use of the Out Patient Summary improved clinic experience, and vast majority of users plan to continue using it for future visits [Figures 3 and 4].

Challenges:

- All EHRs have limitations in their ability to customize to user needs, as was encountered in this project, i.e., past/upcoming appointment and medication information cannot be imported into the Outpatient Summary screen given technical limitations.
- Some providers were comfortable in their individual methods to prepare for clinic and didn’t gain additional benefit from an “Outpatient Summary” page [Figure 3].

Opportunities:

- During the implementation phase of the “Outpatient Summary”, sessions to orient providers to the new screen broadened into discussions of “tricks” of how to best use the EHR for common outpatient functions, thus helping to streamline visit workflow.

Lessons Learned

- To conduct a survey of GMC providers to assess current practices and barriers to “pre-rounding” before clinic.
- To create and revise an “Outpatient Summary” screen [Image 1] to address the identified barriers to “pre-rounding” with the aim of increasing efficiency [Figure 1] and decreasing the time spent [Figure 2].
- By eliciting provider input, the “Outpatient Summary” was tailored to the needs of the users through various PDSA cycles (i.e., eventually included links to progress notes and a longer history of healthcare maintenance and laboratory data that was clinically appropriate).

Outpatient Provider Post-Test:

<table>
<thead>
<tr>
<th>Visits</th>
<th>Post-Test</th>
<th>Pre-Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-5</td>
<td>14.3%</td>
<td>10.0%</td>
</tr>
<tr>
<td>6-10</td>
<td>20.0%</td>
<td>15.0%</td>
</tr>
<tr>
<td>11-15</td>
<td>39.3%</td>
<td>30.0%</td>
</tr>
<tr>
<td>16-20</td>
<td>19.5%</td>
<td>25.0%</td>
</tr>
<tr>
<td>21-25</td>
<td>7.1%</td>
<td>20.0%</td>
</tr>
<tr>
<td>26-30</td>
<td>2.5%</td>
<td>5.0%</td>
</tr>
<tr>
<td>31-35</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
</tbody>
</table>

Use of the Out Patient Summary improved clinic experience, and vast majority of users plan to continue using it for future visits [Figures 3 and 4].
**“Keep Me In The Loop!”**: Increasing communication between Internal Medicine residents and primary care providers of admitted patients at San Francisco General Hospital

Mia Lozada, MD, San Francisco Primary Care Track, San Francisco General Hospital; Joseph Pace, MD, Housing and Urban Health; William Huen, MD, MS, MPH, Associate Quality Officer, San Francisco General Hospital

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**The Problem**

- Delayed or inaccurate communication between hospital-based and primary care physicians has been documented to lead to poor continuity of care and adverse outcomes
- A survey of 73 primary care providers (PCPs) from seven community-based clinics in the San Francisco safety net stated that when their patients were admitted, they were contacted by the inpatient medicine residents 58.5% of the time.
- Only 7.3% of PCPs estimating that they were always contacted by the medicine team, and one-third (34%) of PCPs rated the quality of the communication as either fair or poor.
- Survey of 24 Internal Medicine residents rotating at SFGH, revealed that only 37% of residents estimated that they contacted PCPs more than half of the time.

**Project Goal(s)**

Aim is to improve the frequency and quality of communication between inpatient Medicine teams and primary care physicians during the spring of 2011 by encouraging residents to document PCP communication in the SFGH electronic health record. (Image 1)

**Project Plan**

<table>
<thead>
<tr>
<th>Date</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>January 2011</td>
<td>PCP Protocol: Group discussion on how to communicate effectively.</td>
</tr>
</tbody>
</table>
| March 1-15, 2011 | Resident loaded PCP Communication Note template | (POSA code #6)
| Mid-April 2011 | Team-based progress report weekly via email (POSA code #6)          |

**Results / Progress to Date**

- **FIGURE 1:** Over the last 6 months, how would you rate your communication with the inpatient medicine team?
  - 0%: 0%, 10%: 10%, 20%: 20%, 30%: 30%, 40%: 40%, 50%: 50%, 60%: 60%, 70%: 70%, 80%: 80%, 90%: 90%, 100%: 100%

- **FIGURE 2:** Over the last 6 months, how would you rate your communication with the PCPs?
  - 0%: 0%, 20%: 20%, 40%: 40%, 60%: 60%, 80%: 80%, 100%: 100%

- **FIGURE 3:** Resident for 1 day; Currently I contacted the PCP of the patients we admitted 58.5% of the time.

- **FIGURE 4:** SFGH PCP Communication Note Project: Weekly Progress by Team

**Challenges:**

- **Surrogate markers of communication** (i.e., “PCP Communication Notes”) are simpler to track, although may not reflect the true level of communication occurring between inpatient medicine teams and PCPs.
- This project tracked that the team had attempted to contact PCPs and doesn’t ensure that meaningful communication occurred.
- It can be challenging to add another step in an already busy resident workflow, as evidenced by the 60% mean documentation rate.

**Opportunities:**

- **Personalized weekly feedback** (initiated in mid-April) appears to have increased participation with the project independent of any other intervention.
- Financial incentives for residents (as used in another PCP Communication Project at UCSF/Moffitt in 2009-2010) may be a stronger driver to change resident behavior than public reporting or individualized feedback.

**Next Steps**

- In May/June a web-based survey (post-test) of the providers (PCPs) and residents will be administered to gauge their experience with the project.
- Since 95.5% of residents believed that the responsibility of contacting the PCP should fall on R2/R3s leading the team, this should be set as an explicit requirement/expectation for residents during inpatient months to eliminate any ambiguity.
- To establish long-term sustainability of the project, we will develop plans to involve the inpatient team attendees more actively by:
  - emphasizing the importance of PCP communication during attending orientation each month
  - including a section in the attending attestation on admission H+Ps about PCP communication as a prompt to remind the team to contact the community physician.

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**UCSF Department of Medicine**
Signal and noise: applying an automated trigger tool to screen for adverse drug events (ADEs) in the setting of outpatient chronic disease care

Stacey Brenner MD MBA, Alissa Detz MD, Andrea López, Nancy Jin MS, Urmimala Sarkar MD MPH, Claire Horton MD

The Problem

- IOM: Outpatient errors “likely to exceed those in the inpatient setting”
- >75% of medical care occurs in outpatient setting
- Chronic disease management associated with aggressive treatment goals and multiple medications, increasing risk of ADEs
- Trigger tools have been shown to predict ADEs in hospital setting

Project Goals

- Can a 6-item lab-trigger tool successfully identify ADEs in chronically ill patients?
- Which triggers are most advantageous?
- What degree of harm did the patient experience?
- What stage of medication use?
- Which triggers are most advantageous?

Inter-rater agreement of 94%

2 physicians conducted in-depth chart review of any medical records with identified triggers
Determined whether an ADE occurred, stage of the medication process (prescribing, dispensing, patient self administration, or monitoring) and severity of the effect on the patient (none minimal, mild, moderate, severe)
Inter-rater agreement of 94%

Results

Table 1: Patient Characteristics

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>N (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean Age</td>
<td>55 (14)</td>
</tr>
<tr>
<td>Male N=575</td>
<td>369 (64)</td>
</tr>
<tr>
<td>Language N=534</td>
<td></td>
</tr>
<tr>
<td>English</td>
<td>366 (70)</td>
</tr>
<tr>
<td>Spanish</td>
<td>94 (18)</td>
</tr>
<tr>
<td>Cantonese</td>
<td>20 (8)</td>
</tr>
<tr>
<td>Other</td>
<td>33 (8)</td>
</tr>
</tbody>
</table>

Note: Demographic data not available for all patients

Figure 1: Percent of triggers that were ADEs by trigger type

- ALT>84
- AST>80
- BUN>60
- CREA>2.5
- INR>5
- Total

- 9%
- 3%
- 12%
- 8%
- 90%
- 15%

Table 2: Triggers identified

| Trigger identified and reviewed N=2562 (representing 782 unique events) |
| Excluded |
| Included |
| Occurred in the outpatient setting N=1322 |
| Prescribing |
| Dispensing |
| A Patient Self Administration |
| A Monitoring |
| TNA |
| Effect on patient |
| None |
| 65 Minimal |
| 17 Mild |
| 5 Moderate |
| 3 Severe |
| TNA |
| 91 or 15% ADEs identified |

Lessons Learned

- ADEs in outpatient setting are significant
- Utility varied among the 6 triggers with INR>5 successfully identifying ADEs
- Ambulatory ADEs reflect gaps in patient self-management and monitoring
- Opportunity to intervene prior to significant harm

Limitations

- One ambulatory care site
- Chart review
- Safety net setting
- Concomitant chronic disease lowered the yield for other abnormal-laboratory-value triggers

Next Steps

- Developing registry and panel management system for patients on warfarin in GMC
- Created “Anticoagulation QI Champion” (pharmacist)
- Refining current NP lab review protocol to include trigger tool values
- Further research needed on utility of trigger tools in safety net and chronically ill patients
Electronic discharge documentation for admissions of less than 48 hours at San Francisco General Hospital

Larissa Thomas, MD, MPH1; Soraya Azari, MD2; Jennifer Siegel, MD2; Lisa Winston, MD3; Michelle Schneidermann, MD3

1. UCSF Department of Medicine, San Francisco General Hospital Primary Care Residency 2. UCSF Department of Medicine, Chief Resident, San Francisco General Hospital 3. UCSF Department of Medicine, Division of Hospital Medicine, San Francisco General Hospital

The Problem

Regulatory precedent has precluded admissions lasting less than forty eight hours from generating a discharge summary, meaning that there is no electronic record of the patient's admission. This practice lacks clinical rationale, and, more importantly, can adversely affect patient care when patients with brief hospital stays are discharged with new medications, pending studies, and unclear diagnoses that need follow-up by a receiving clinician.

Project Goals

By June 1, 2011, we aim for 95% of patients admitted to medicine and cardiology for less than 48 hours to have a brief discharge note (BDN) written or dictated into the Lifetime Clinical Record (LCR) at SFGH. Starting July 1, 2011, our aim is for the BDN to be standard practice, with 100% of patients admitted to medicine and cardiology for less than 48 hours receiving this note. Secondary goals are that the BDN is perceived by residents and primary care providers to enhance quality of patient care, and that the BDN does not require excessive time commitment by interns and residents.

Project Plan

After hearing anecdotes pointing to communication gaps between inpatient and outpatient providers around patients with brief hospital admissions we examined the rationale for the rule stating that patients admitted for <48 hours did not require a discharge summary.

The source: CMS Conditions of Participation 482.24(c)(2)(v) which states “For patient stays under 48 hours, the final progress notes may serve as the discharge summary.” and Joint Commission standard EM.6.10. EP7 which states “when patients are seen for minor problems or interventions a final progress note may be used in place of the discharge summary.”

We could not find any literature to support the requirements. Furthermore, with current pressures to discharge patients quickly, one can no longer argue that patients with brief admissions have minor problems or interventions. Though there are no studies that we could find examining the care transitions of patients with brief admissions, we believe that the conclusions from existing hospital and emergency department studies can be generalized to those patients with admissions lasting <48 hours.

With that background in place, we inserted a template for a brief discharge note (BDN) into the Lifetime Clinical Record’s note section. Training around the BDN occurred at the monthly SFGH intern orientation, and interns and residents were instructed to complete an electronic BDN for all patients admitted for less than 48 hours instead of a handwritten clinical summary.

To measure uptake of the intervention, we measured the percentage of patients admitted less than 48 hours who had a BDN or discharge summary during the first month of implementation, and two months after implementation.

To gauge resident satisfaction and effect on resident workload, we surveyed the interns and residents who rotated during implementation of the BDN about the relevance, importance, and ease of use of the intervention. We also surveyed primary care providers (PCPs) within the Community Health Network who had patients admitted to either medicine or cardiology for less than 48 hours to assess perceived quality of content of BDNs and their contribution to quality of patient care.

Results

For the first 3 weeks of the intervention in March, 2011, 75 percent of patients admitted to medicine or cardiology for less than 48 hours had a BDN or discharge summary in the LCR. Starting one month after intervention initiation, from mid April to mid-May, 92.6 percent of patients admitted to medicine and 70 percent of patients admitted to cardiology for less than 48 hours had a BDN or discharge summary, with an overall total across both services of 86 percent. 21 residents completed surveys about BDNs, with findings outlined below.

43 PCPs completed surveys about BDNs. The PCP survey data were limited by the short follow up time, with most PCPs having read very few BDNs since project implementation. 60 percent of PCPs felt that they did not have enough experience with BDNs to assess the overall quality of content. Nevertheless, 54 percent of PCPs became aware of a medication change or pending test about which they otherwise would not have known, and 64 percent felt that a BDN had enhanced patient care in the post discharge visit. 100 percent of PCPs who completed the survey felt that BDNs are a useful tool for communicating information about brief admissions to PCPs.

Lessons Learned

1. After 2 months of intervention, the rate of BDN completion <48 hours after discharge was high, though lower than stated goal. A greater proportion of patients admitted to medicine had a BDN/discharge summary when compared to patients admitted to cardiology. The high proportion of patients discharged on the post call day was identified as a major barrier to completion of discharge notes in a timely manner.
2. The discharge note template had a high degree uptake and of acceptability by interns and residents.
3. BDNs were felt by both residents and PCPs to contribute positively to patient care and PCP communication.
4. Primary care providers preferred concise, templated notes.

Next Steps

1. Going forward, we plan to reinforce training on use of template and quality of content for BDNs, and to incorporate training on BDNs into a larger resident curriculum on effective discharge summaries.
2. We will work with residents to troubleshoot perceived barriers to BDN completion, including developing a procedure to ensure note completion for post-call discharges, and providing more training and working with IT to reduce technical difficulties with using the template.
3. Primary care providers will be surveyed again in 3-6 months to assess improvement in quality and utility of BDNs.

UCSF Department of Medicine
Patient wait times for admitted patients in the Moffitt Long emergency department are among the longest in the nation. Research suggests that longer wait times have a deleterious effect on both patient satisfaction and health outcomes. Significant efforts by the medical center to decrease “ED Door-to-Floor time” have fallen short of meaningful results.

**Project Goals**

- Provide a comprehensive analysis of ED door-to-floor time
- Present recommendations for improvements using novel and innovative strategies, culminating in a presentation to the C-Suite
- Improve teamwork and communication, Promote effective resource utilization, and improve care transitions
- Decrease Door-to-Floor times for admitted patients

**Project Methods**

- Process mapping and Failure Modes Effect Analysis
- Comprehensive Literature review
- Interviews with key staff across multiple departments
- Discussion with thought leaders and representatives at peer institutions (Hopkins, Emory, Harvard, Highland, etc.)
- Creation and piloting of a unique staff position: the “Triage Hospitalist,” an MD who facilitates patient admissions
- Data collection and analysis from the Triage Hospitalist pilot
- Presentation of our findings to high-level UCSF Medical Center leadership during a 1-hour PowerPoint presentation with Q&A

**Results and Recommendations**

Three Domains are identified that must be addressed simultaneously to achieve change in a complex system:

- Early emphasis on destination
- One page orders without redundancy
- Team evaluates patient on fluid Unbundle CPOI/TEE

Early triage decision
Shifting tasks upstream
Safe and appropriate environment

Creation of a Triage Hospitalist significantly decreases wait times:

<table>
<thead>
<tr>
<th>Time Period</th>
<th>Median Time (Mins) Decision to Orders</th>
<th>Average Time (Mins) Decision to Orders</th>
<th>Patients with Admit Orders + 116 Mins</th>
</tr>
</thead>
<tbody>
<tr>
<td>July 2010</td>
<td>122</td>
<td>162</td>
<td>42%</td>
</tr>
<tr>
<td>August 2010</td>
<td>129</td>
<td>191</td>
<td>42%</td>
</tr>
<tr>
<td>September 2010</td>
<td>126</td>
<td>160</td>
<td>44%</td>
</tr>
<tr>
<td>October 2010</td>
<td>127</td>
<td>149</td>
<td>44%</td>
</tr>
<tr>
<td>November 2010</td>
<td>162</td>
<td>179</td>
<td>38%</td>
</tr>
<tr>
<td>December 2010</td>
<td>119</td>
<td>119</td>
<td>42%</td>
</tr>
<tr>
<td>Triage Hospitalist Pilot Project</td>
<td>63</td>
<td>64</td>
<td>50%</td>
</tr>
</tbody>
</table>

**Lessons Learned**

- Culture change is critical to achieve meaningful and sustainable systems improvements.
- Culture dictates how UCSF faculty and housestaff interact with each other in a common mission to care for patients. Lack of trust, miscommunication, and other cultural barriers can impede the delivery of safe and efficient patient care. Building a culture of trust and cooperation between services is essential.
- Understanding the incentives and disincentives created by systems change is vital to its success. Implementing system changes may lead to undesirable consequences that distort or destroy the overall goal of the initiative. In designing policies and programs, caution must be taken to understand possible positive and negative implications.

**Next Steps**

- Our presentation was well received and has created a large amount of positive feedback within the leadership.
- Residents from our group will continue to be engaged in the Patient Flow Committee along with UCSF leaders
- Collaboration between the ED and admitting services will be fostered through joint conferences and rotations
- The sign-out process will be standardized and high-yield
- A Triage Hospitalist position with appropriate roles and responsibilities will be further explored
- The executive summary of our recommendations has been widely distributed and will hopefully be implemented
Empowering Hospitalized Patients with Limited English Proficiency (LEP) to Self-Advocate for Professional Interpreter Services

Sam Brondfield, MS4\(^1\), Anisha Chandra, MS4\(^1\), Steve Popper, MS4\(^1\), Leslie Sheu, MS4\(^1\), Saraswati lobst, M.D.\(^2\), Leah Karliner, M.D.\(^2\)

\(^1\)Equal contribution, RSCEES Program, School of Medicine, University of California, San Francisco, Department of Medicine, University of California, San Francisco

The Problem

- Limited English Proficiency (LEP) is an often overlooked risk factor for preventable, adverse events including longer hospital stays, higher readmission rates and decreased satisfaction
- Professional interpreters are an important and effective intervention to improve patient safety and quality of care
- However, <17% language discordant encounters use professional interpreters
- A barrier to utilization is decreased awareness among hospitalized LEP patients of the effectiveness and availability of professional interpreting services

Project Goals

- Increase professional interpreter utilization by creation and implementation of a patient-centered intervention (LEP patient empowerment card) that would:
  1. Educate LEP patients on the effectiveness and availability of free, 24/7 professional interpreter services
  2. Serve as a bridge to the language barrier: LEP patients could give the card to providers to request a professional interpreter

Project Plan

- Meet with key stakeholders: 14M/L, nurses, interpreter services, and patients to gain buy-in and ideas for card design
- Given high prevalence of Chinese-speaking LEP patients, chose to pilot intervention first in this population
- Designed LEP Empowerment card, met with interpreting services for feedback and translation approval
- Obtained pre- and post-intervention quantitative data on interpreter service usage broken down by language, as well as LEP floor census data
- Assessed efficacy of card through spot checks, informal meetings with key stakeholders, and interpreter use data
- Plan to adjust implementation protocol with iterative PDSA cycles based on feedback and first cycle results

Preliminary PDSA Cycle Results

- Patients’ responses to pre-intervention interviews:
  - LEP Patient: “I would ask for an interpreter. I do not know how.”
  - LEP Patient: “The card should be given when you first get admitted and get your paperwork.”
  - LEP Patient: “Many people say that [the hospital will] charge for the service (of professional interpreting).”
  - LEP Patient: “A card would be helpful. [It is] sometimes very difficult to ask for an interpreter when you don’t know how to ask for one in English.”
- Interpreters’ responses to pre-intervention interviews:
  - Interpreter: “Often the family will try to discourage the patient [from asking for an interpreter]. But when we come, the family actually likes it…It lets [the patient] participate directly.”
- Interpreter: “I think many patients don’t even know that [interpreter services are available].”
- Post-intervention feedback from providers given at staff meetings:
  - Nurse: “The cards could be helpful in the ED to identify patients early on who need interpretation.”
  - Nurse: “It doesn’t help to promote interpretation if the interpreters are not available.”
- Post-intervention feedback from patient:
  - LEP Patient: “The card was helpful. I have asked for an interpreter because of it.”

Lessons Learned

- Several-fold increase in in-person interpreter time spent with Chinese patients
- Card distribution was a major limiting factor during implementation phase
- Patient barriers include not knowing about service and having to ask repeatedly
- Interpreters concerned about interpreter availability as a limiting factor
- Group in charge of distribution should be clearly defined; nurses felt primary distribution should be done by nurses or clerks on admission
- Cards should have large print and be easy to locate
- Use future PDSA cycles to fit cards more effectively into admission flow
- Cards may also be effective in other settings (e.g., Emergency)

Next Steps

1. Choose an upcoming month for 2nd cycle of implementation
2. Include 14 M/L clerks next cycle to address card distribution
3. Identify dual-handset phones on 14 M/L so they can be included in our data set
4. Conduct in-person audits of 14 M/L to more accurately assess card distribution
5. Interview clerks, nurses, and patients for feedback prior to next cycle
6. Conduct qualitative assessment of LEP patient awareness and availability of interpreters
7. Conduct qualitative assessment of LEP patient and provider experience with cards
8. Pilot card in other common languages including Spanish and Russian

Acknowledgements

We are indebted to Dr. Somnath Moosikerjee for his guidance, Dr. Leah Karliner for collecting discharge and dual handset phone data, Ellen Kynoch, RN & 14 M/L nursing staff for implementation and feedback, Tanuja Lutskhin & Alyn Wong of Interpreter Services, the Internal Medicine residents, and the patients on 14.
Fostering a Patient-Centered Environment: Condolence Cards in Death Packets

Lawrence Haber, MD1,2, Aparna Goel, MD1, Robert Wirka, MD1, Michelle Mourad, MD1,2
1Department of Medicine, 2Division of Hospital Medicine
University of California, San Francisco

The Problem

• Condolence cards can help provide a sense of closure to both the family and the health care team.
• Physicians and health care providers are in a unique position to provide perspective and comfort after a patient’s passing.
• There is currently a lack of both materials and training to facilitate housestaff in composing condolence cards.

Project Goal(s)

• Increase patient-centered care by increasing the number of condolence cards written by members of the health care team.
• Decrease barriers to condolence letter writing by making materials readily available in the mandatory “death packet”.
• Provide a brief guide to effective condolence letter writing with the materials.

Project Plan

• Determine current perceptions, practices, and barriers to condolence letter writing among internal medicine (IM) housestaff.
• Create condolence cards and brief letter writing instructions (with guidance from palliative care literature, survey responses, Patient Relations, and Risk Management).
• Make cards with envelopes and instructions available in death packets on 13ICU, 14M, and 14L during a 3-month pilot period.

Results / Progress to Date

<table>
<thead>
<tr>
<th>Survey Statement</th>
<th>0</th>
<th>25</th>
<th>50</th>
<th>75</th>
<th>100</th>
</tr>
</thead>
<tbody>
<tr>
<td>I send a condolence letter &gt;25% of the time</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I want to send a condolence letter</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I received condolence letter writing instructions</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I feel comfortable writing a condolence letter</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>I have time in workday to write a letter</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>If materials were available, I would increase frequency of letter writing</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Percentage of medicine residents who agree/ somewhat agree with survey statements

Figure 1. Pre-implementation data from housestaff respondents. Blue bars represent current realities/barriers, orange bars represent opportunities with respect to writing condolence cards. Survey was sent to all current UCSF internal medicine residents with a 52% response rate (n=90).

Figure 2. Front and inside text of the condolence card currently in distribution on pilot floors.

Lessons Learned

• Needs assessment demonstrated a significant gap between IM residents’ current condolence letter writing practices and ideal practices.
• Measurements of performance can be challenging around sensitive issues of patient deaths; surrogate markers (such as housestaff practices and perceptions) can be used instead.
• Within a complex system, improvement efforts require buy-in from diverse stakeholders (physicians, nurses, Patient Relations, Risk Management, Material Services).

Next Steps

• Continue the pilot for three months on 13 ICU, 14 Moffitt and 14 Long, with ongoing housestaff and nursing education.
• In late June 2011, re-survey housestaff to investigate changes in number of letters written, perceived barriers and attitudes, and suggestions for improvements in the process.
• Meet with Patient Relations after pilot completed to discuss any positive or negative feedback received from patient families or providers around the condolence cards.
• Barring unexpected barriers, expand the condolence cards into death packets on all adult inpatient floors and services at the beginning of the 2011 academic year through similar, though larger, education efforts.

UCSF Department of Medicine
Implementation of a Simple Subcutaneous Insulin Algorithm for Management of the NPO Hyperglycemic Patient in the ICU
Sarah Kim MD, Mary Sullivan RN, DNP; Heidemarie Windham PharmD, Robert Rushakoff, MD

The Problem
Diabetes patients who are in the ICU and either NPO, on enteral feedings, or TPN, are often treated with either subcutaneous (SQ) sliding scale insulin (despite an absence of evidence showing benefit) or with intravenous (IV) insulin infusion, a nursing intensive procedure.

Project Goals
Our goal was to assess the efficacy a simple SQ insulin algorithm that titrates insulin needs to the requirements of the individual patient as an intravenous insulin protocol would but requires less frequent blood glucose monitoring and insulin adjustment. Our outcome measurements were % blood glucose above within goal (140-180), rates of hypoglycemia (BG<70) and protocol administration errors compared to IV insulin infusion.

Project Plan
For this study, 12 consecutive hyperglycemic patients (7 with diabetes) admitted to ICU-A were placed on the following protocol. Patients in an identical med-surg ICU-B were treated with the usual IV insulin protocol.

Check blood glucose (BG) q4hr and adjust insulin dose as follows:
- BG <80 mg/dL: Do not administer insulin and call house officer
- BG 80-120: give same amount of insulin as 4 hours earlier - 2 units
- BG 121-180: give same amount of insulin as 4 hours earlier
- BG 181-240: give same amount of insulin as 4 hours earlier + 2 units
- BG >240: give same amount of insulin as 4 hours earlier + 2 units + give additional 4 units X 1 (Do not include this extra 4 units in determination of next dose)

Results / Progress to Date
The glucoses and insulin doses from the patients in ICUs A and B are shown in Figure 1. The average duration on the SQ protocol was 5.8 ± 1.2 days yielding a total of 432 glucose checks in ICU-A. For the SQ group 74% of BGs were within 80-180 and 28% ± 20% were within 140-180. There were 7 (1.6%) episodes of hypoglycemia (BG <70) none of which resulted in a serious adverse event. There were a total of 13 protocol administration errors, averaging 1.0 ± 0.2 per subject.

Lessons Learned
A simple SQ insulin algorithm allows insulin doses to be adjusted to the patient’s needs and may work well enough to meet current ICU standards for glycemic control. Its adoption may allow for elimination of sliding scale insulin and makes possible a SQ insulin protocol to be used every 4 hours instead of hourly as is needed for IV insulin. The hypoglycemic events often surrounded dosing of insulin around the time of large glucose changes.

Next Steps
To further improve this algorithm, we will modify it to include a dose adjustment for large changes in consecutive glucose measurements. This change should decrease the already low incidence of hypoglycemia. This algorithm was initially successfully tested in a small group of non-ICU postoperative patients. In that group, no breaks in protocol were observed. After modification, a more formal study of this simple algorithm will be needed in both the ICU and non-ICU settings.

UCSF Department of Medicine
Health care-associated infections (HCAIs) are a leading cause of medical adverse events, leading to prolonged hospitalizations; increased costs for the health care system; undue patient suffering; and excess death. Poor hand washing has been demonstrated to contribute to HCAIs. Provider compliance with hand hygiene at UCSF has been at an unacceptable 45% and 55% on 14M and 14L, respectively (Data for November 2010, courtesy of UCSF Medical Center).

Project Plan
We used a collaborative approach to improve HH compliance, which involved: 1) Raising and maintaining awareness through intelligent usage of signs, data posting, discussion at resident and Hospital Medicine conferences, and judicious emailing, 2) Obtaining multidisciplinary commitment to providing audit and feedback through “just in time” coaching, 3) Involving patients as their own health-advocates, 4) Ensuring optimal location of gel dispensers, and 5) Engaging Hospital Medicine leadership in these efforts.

Results / Progress to Date

Lessons Learned
1) Audit and feedback (through “just in time” coaching) proved integral in effecting behavioral change.
2) Multidisciplinary collaboration remained essential in efforts to improve compliance across disciplines.
3) Attention to details, such as the intelligent placement of signs and convenient location of gel dispensers, can serve to improve provider compliance.
4) Strong leadership presence and multilevel buy-in are both critical to achieving and sustaining success.

Next Steps
1. Continue to employ audit and feedback through “just in time” coaching on 14M and 14L.
2. Recruit members of the DHM QI Committee to continue these efforts.
3. Spread best practices and lessons learned to other units.

These efforts must persist until hand washing becomes second nature for all providers. As one provider who received positive feedback for his hand washing stated, “Hand washing is like buckling my seatbelt – if I enter or leave a room without washing my hands, something just does not feel right.”
Brown Bag Meds: Improving Transitions in Care
Elizabeth (Lisa) Le MD1, Michelle Mourad MD1, Ellen Kynoch RN2, Catherine Monetta RN2, Vicki Jue PharmD3 & Eunice Tam PharmD3
1Department of Medicine, UCSF 2Department of Nursing, UCSF 3Department of Pharmacy, UCSF

The Problem
Hospital discharge is a chaotic time for patients. Patients may:
• Misunderstand changes to their medication lists
• Minimize the importance of picking up new medications.
• Due to physical or social limitations, may not be able to pick up their meds in a timely manner.

The Problem
Hospital discharge is a chaotic time for patients. Patients may:
• Misunderstand changes to their medication lists
• Minimize the importance of picking up new medications.
• Due to physical or social limitations, may not be able to pick up their meds in a timely manner.

Project Goals
Improve access to medications at discharge via faxing for immediate pick-up or delivery to the bedside.
• Phase 1: Create a workflow for housestaff to fax medication lists to Walgreens Pharmacies for post-discharge pick-up.
• Phase 2: Work with Walgreens to create a workflow for medication delivery to the bedside.

Project Overview

Anticipating Pitfalls

Phase I Project Launch: 14 Moffitt Pilot
• Nursing and Clerk training on the Brown Bag Meds workflow
• Education of and creating buy-in from Housestaff and Attendings on the Medicine Service
• Collection and analysis of the data
• Targeting and implementing workflow improvements
• Planning for the Phase II Launch

UCSF Department of Medicine
Improving timeliness and quality of discharge summaries through a resident incentive program

Aparna Goel, MD, Kara Bischoff, MD, Sumant Ranji, MD, Michelle Mourad, MD
Department of Medicine, Division of Hospital Medicine
University of California, San Francisco

The Problem

- Given complex hospital discharges, late and poor quality discharge summaries have the potential to increase adverse events after discharge.
- Prior to the 2010, only 38% of medicine patients had discharge summaries completed on the day of discharge, and quality was highly variable.

Project Goals

- Educate housestaff about the importance of high-quality, timely discharge summaries.
- Increase the proportion of discharge summaries completed on the day of discharge to >75%.
- Improve discharge summary quality.
- Increase the use of discharge summaries by nurses providing discharge education on the day of discharge.
- Increase the proportion of patients given a copy of their discharge summary to bring to their primary care physician.

Project Plan

- Create an efficient electronic discharge summary (EDCS) template that includes all evidence-based elements of a high-quality discharge summary and pulls information directly from the EMR.
- Decrease redundant work by unifying the EDCS with last hospital day’s progress note.
- Feedback performance data on discharge summaries timeliness to housestaff weekly to biweekly.
- Housestaff were offered a $300 financial incentive for completing at least 75% of discharge summaries on the day of discharge for at least 3 quarters of the year.

Results / Progress to Date

![Timeliness of EDS Completion](image)

<table>
<thead>
<tr>
<th>Key Quality Parameters</th>
<th>Pre-EDS audit (n=80)</th>
<th>Post-EDS audit (n=80)</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discharge diagnoses</td>
<td>69 (86%)</td>
<td>80 (100%)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Discharge med rec.</td>
<td>8 (10%)</td>
<td>70 (88%)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Pending tests</td>
<td>27 (34%)</td>
<td>80 (100%)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Code status</td>
<td>14 (18%)</td>
<td>80 (100%)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Change in functional status/activity</td>
<td>46 (58%)</td>
<td>78 (98%)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>EDCS provided to patient</td>
<td>0 (0%)</td>
<td>28 (35%)</td>
<td>0.028</td>
</tr>
</tbody>
</table>

Figure 1. Completion of discharge summaries on date of discharge: Rate of timely discharge summary completion rose rapidly after implementation of this program and remains above pre-specified goal. Blue line represents percent of discharge summaries completed on the day of discharge. Dotted orange line represents goal set by housestaff.

Figure 2. Quality of electronic discharge summaries compared to dictated discharge summaries. Rate of completion of recommended elements increased significantly following implementation of EDCS, thereby improving the quality of discharge summaries.

Lessons Learned

- Housestaff are integral to care delivery in the academic hospital setting, responsive to education about transition quality and motivated by receiving data on their own performance. They are therefore well suited to participate in patient safety and quality improvement initiatives.
- System improvements can promote rapid behavior change. It is critical to consider system changes in concert with education, data feedback, and incentives to maximize recommended changes.
- Frequent, granular data feedback serves as a powerful motivator.

Next Steps

- Survey housestaff and attendings in order to better understand:
  1) How these groups perceive QI incentive goals
  2) What elements of this project were most effective in motivating the behavior change that we observed
  3) Whether this project caused any unforeseen harms
- Continue to encourage housestaff to complete timely discharge summaries after this academic year; we will perform random data analysis and feedback on an ongoing basis.
- Conclude analyses of the quality of EDCS and revise the EDCS template as needed to promote improved quality of summaries. For example, we want to edit the template to encourage more brief discharge summaries without compromising their quality.
- Implement an electronic discharge summary at all three hospitals.
- Publish and present our project results in order to disseminate information about the effects of templated EDCS and the ability of the Housestaff Incentive Program to harness the energy and central role of residents to improve the quality of care delivered in the hospital.

UCSF Department of Medicine
Safe Transitions: Improving Access to Follow-Up Care for Uninsured Patients Discharged from the Moffitt-Long and Mt. Zion Medicine Services

Catherine Lau MD, Heather Whelan MD, Anneliese Johnson MD, Jonas Hines MD, Stephanie Rennke MD, Kathryn Quinn MPH, Michelle Mourad MD, Anne Marie Molyneaux RN, BSN, Kelly Pfeiffer MD

The Problem

- Timely and adequate follow-up medical care is now considered a best practice to ensure safe transitions of care from the inpatient to outpatient setting and prevent hospital readmissions
- There is currently no reliable process to ensure follow-up care for uninsured patients discharged from the Moffitt-Long and Mt. Zion Medicine

Project Goal

- Establish an effective and reliable process using existing resources to improve access to follow-up medical care for uninsured patients discharged from the ML and MZ Medicine Services

Project Plan

- Partner with the San Francisco Health Plan (SFHP), UCSF Case Management and Financial Services, Medicine Housestaff and Nurses to reliably:
  - Screen for uninsured patients who qualify for Healthy San Francisco (SF)
  - Refer Healthy SF candidates to SFHP and make SFHP appointments prior to discharge for patients to enroll in Healthy SF
  - Ensure medical follow-up appointments within 2 weeks of enrolling in Healthy SF

Results / Progress to Date

- SAFE TRANSITIONS PROJECT: PROCESS MAP
- METRICS TRACKED
  - # uninsured patients admitted to UCSF Medicine service
  - % of above uninsured patients who qualify for Healthy SF
  - Of those qualifying for Healthy SF:
    - # of patients referred to Yolanda Jones
    - # of patients who have apt at d/c
    - # of patients who have d/c summary at d/c
    - # of patients who go to Healthy SF apt
    - # of patients who go to PMD apt

Lessons Learned

- Many identified uninsured residents are not SF residents or have pending Medi-Cal—identifying uninsured SF residents in an efficient, reliable fashion is challenging
- To promote use of the program we must continue to disseminate information to housestaff, attendings, social workers, and patients
- To date we have identified a small number of patients qualifying for Healthy SF—from a cost-benefit perspective, we will evaluate whether our efforts are best focused on this program or elsewhere
- Obstacles to ensuring every qualifying patient has a SFHP apt at discharge include SFHP office security risks and screening, and that appts are only made Mon – Fri during business hours

Next Steps

- Increase “n”: Continue to identify patients and collect data for at least 3 months total (through July 1st)
- Quantify Outcomes: Determine what percentage of referred patients are actually following up with Healthy SF office and then with new primary provider
- Sustain and Embed: Merge our new process with existing Health Advocate Referral with Financial Services
- Spread Change: Consider expanding this service to other populations (cardiology, LTU)

UCSF Department of Medicine
Diabetic Patient Education on Home Foot Exams

**Residents:** Varun Saxena, David Lange, Tilak Sundaresan, Ateet Patel, Sofya Tokman, Brett Ley. **Faculty:** Maya Dulay, Rebecca Shunk, Bonnie Chen. **Staff:** Nursing staff at Medical Practice at the San Francisco VA Medical Center

### The Problem
- 1 in 5 U.S. veterans have diabetes and 70% of those have resultant foot pathology.
- Annual foot exams by a trained clinician are recommended.
- Patient daily home foot exams are recommended.
- Internal survey at the San Francisco VA Medical Center Medical Practice clinic revealed that >70% of patients reported poor understanding of how to do daily foot exams.

### Project Goal(s)
- To annually provide direct clinician education and educational material on foot care to all diabetics that flow through the San Francisco VA Medical Center annually.
- To randomly select veterans who had annual diabetic foot exams annually to provide tailored education regarding home foot exams.
- To impact the information sheet will be assessed by surveying 25 randomly selected veterans who had annual diabetic foot exams during the 1st month of the intervention.

### Project Plan
- When the triage nurse is alerted by the VA's computerized electronic record that a patient is due for an annual foot exam, he/she will attach the "Diabetic Foot Education – Home Foot Care Monitoring" Krames handout to the patient’s triage vital.
- The clinician will then pick up this packet and during the visit will hand the information sheet to the patients and provide tailored education regarding home foot exams.
- Impact of the information sheet will be assessed by surveying 25 randomly selected veterans who had annual diabetic foot exams during the 1st month of the intervention.

### Results / Progress to Date
- **Survey response rate 92%
- 6 out of 25 (24%) reported receiving the handout
- Of those who reported receiving the intervention, 100% reported doing daily foot exams in past two weeks, 50% reported intervention changed habits at home and 67% reported intervention improved their understanding of how or why to do daily foot exams.
- Of those who did not receive the intervention, 47% report daily foot exams

### Lessons Learned
- The intervention was simple and focused and those who received it during the short study period reported excellent adherence to daily home foot exams and improved understanding of how and why to do daily home foot exams.
- A large number of diabetic veterans are seen daily, monthly, and annually at the San Francisco VA Medical Center Medical Practice clinic. As a result, implementing a simple intervention on such a large scale requires a multidisciplinary and collective effort.
- Everyone in our primary care clinic setting is overworked and have many competing priorities. Obtaining buy-in from every member of every team (nurses, nurse practitioners, clinicians, etc.) can be difficult.

### Next Steps
- We aim to continue collecting post-intervention surveys to assess the effectiveness of the intervention.
- We believe the intervention was simple and highly effective. As a result, our future aims are to achieve higher nurse, nurse practitioner and clinician adherence to the intervention and as a result eventually effect every diabetic veteran seen at the San Francisco VA Medical Center Medical Practice clinic.
- We also aim to bring the intervention to the San Francisco VA Medical Center Women’s Clinic.

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*Vet doing daily foot exam
Nurse attaches handout & monofilament to vitals sheet
Clinician provides vet handout and tailored education regarding home foot exam
Vet doing annual diabetic foot exam
Alert that vet is due for annual diabetic foot exam
Check-in Vitals check*

**UCSF Department of Medicine**
San Francisco VA Medical Center

Creation of a multi-disciplinary “Diabetes Board” to address barriers in the primary care management of high-risk diabetics

VA Medical Practice Clinic
San Francisco VA Medical Center, UCSF Department of Internal Medicine

BACKGROUND

• Diabetes affects an estimated 25.8 million Americans, 8.3% of the total population.

• Patients with hemoglobin A1c levels greater than 9.0% are likely at highest risk of developing both microvascular and macrovascular sequelae of diabetes.

• Review of clinic data showed that 17% of diabetic patients managed in the resident-run, primary care Medical Practice Clinic had hemoglobin A1c levels greater than 9.0%.

• In oncology, “Tumor Boards” have long been used as a treatment-planning approach in which experts from different specialties review and discuss the treatment options for complex or difficult-to-manage patients.

PROJECT GOAL

To improve the quality of care for diabetic patients at highest risk of complications.

PROBLEM IDENTIFICATION

• Primary care doctors (PMDs) convened and participated in an ABHM Practice Improvement Module 8—a web-based tool that guides physicians through the collection of patient data to identify gaps in care. Patients were also surveyed about areas of potential improvement.

• After reviewing the module and patient surveys, PMDs identified the high percentage of poorly controlled diabetics (17%) as a key target area to improve quality of care.

PROJECT PLAN

- PMD identifies patients with HbA1c >9

- Chart review to identify barriers to glycemic control

- “Diabetes Board” (PMD, RN, Endocrinologist, Diabetes Nurse Specialist, Mental Health, Dietician)

- PMD/RN implement recommendations from multi-disciplinary panel

- Outcomes assessed

PRELIMINARY RESULTS

Sample size = 9

Mean Age (years) = 63.3 (Range 43-88)

Hemoglobin A1c (%) = 12.0 (Range 9.0-14.8)

Barriers to glycemic control as identified by PMDs

- Lack of follow-up (26%)
- Medication non-adherence (17%)
- Dietary indiscretion (13%)
- Knowledge/Insight gap (13%)
- Financial/Transportation issues (9%)
- Substance abuse (9%)
- Polypharmacy (4%)
- Co-management (4%)
- Needle fear (4%)

Interventions after “Diabetes Board”

- Increased frequency of phone calls (35%)
- Subspecialty/Allied health referral (25%)
- Medication adjustments (20%)
- RN home visits (10%)
- Behavioral therapy (5%)
- Social work referral (5%)

FUTURE DIRECTIONS AND LESSONS LEARNED

- Short-term:
  • Each provider will document the barriers to glycemic control, the interventions recommended, and the interventions successfully completed as part of a “Diabetes Action Plan” in their regular progress notes

- Long-term:
  • Hemoglobin A1c levels will be assessed at regular intervals per standard guidelines (outcomes pending)
  • We plan to convene the “Diabetes Board” on a quarterly/bi-annual basis to provide ongoing, multi-disciplinary recommendations to our resident primary care physicians

- Feedback thus far:
  “One of the most productive groups I’ve ever been a part of” (DM Nurse Specialist)
  “It was a pleasure to be a part of this group and felt it was a great learning opportunity for me, too” (Dietician)
  “Not only provided me with new, creative solutions to challenging problems, but also seemed to engender a sense of personal ‘investment’ on the part of the subspecialists and allied health professionals” (Resident Physician)
Transition of Care from Acute Hospitalization to the Patient Centered Medical Home: An electronic handoff

Nicholas Moy, MD; Edgar Pierluissi, MD; Read Pierce, MD; Adam Templeton, MD

1. VA Quality Scholars Fellow – SFVAMC
2. Assistant Clinical Professor of Medicine - SFVAMC
3. Assistant Professor of Clinical Medicine - SFVAMC
4. Chief Medical Resident - SFVAMC

The Problem

- Transitions of care between the hospital and the patient centered medical home (called Patient Aligned Care Teams-PACT in the VA) is a high risk period for patients
- Discharge summaries are the main tool to communicate the clinical course and post-discharge follow-up needs, but are fraught with problems including timeliness, delivery, and missing information

Project Goal(s)

- Create and implement an easy to use EMR tool that communicates the critical information needed by key stakeholders for the hospital to outpatient transition of care
- Tool must be self-explanatory, requiring no training
- Tool must be in continued use and self-sustaining by goal deadline
  June 1, 2011

Project Plan

The key components required in a handoff were determined through interviews of key stakeholders in the transition of care from inpatient to outpatient care. We then created an electronic tool in the VA’s EMR that communicates critical information from the hospital to the PACT teams. The tool (called the PACT handoff) contains provider contact info, discharge date, follow-up appointments, pending labs/tests/imaging, homecare services, and other information deemed important by housestaff physicians. It is completed by medicine housestaff physicians and is automatically delivered to the PACT RN who then assesses the information and passes on necessary clinical information to the provider.

Results / Progress to Date

- Step 1: Patient Discharged w/ Discharge Instructions Note
  - Procedure/Imaging/Lab Reports
  - Step 2: Discharge View Alert automatically sent to PCP in CPRS
  - Current Information Flow from Inpatient to Outpatient
  - Timeline
  - PCP Assessors Information
  - Step 2: PACT Handoff Note automatically sent to RN case manager in CPRS
  - Handoff Tool Information Flow
  - Step 3: PCP provided with pertinent Handoff information by RN
  - Discharge Summary - Varying Completion Time by Inpatient Teams

Lessons Learned

1. Implementing simple tools that improve the ability to deliver good care while not imposing excessive burdens on stakeholders can have rapid uptake and may be spread effectively.
2. Although EMRs and discharge summaries are comprehensive in nature, meaningful clinical communication depends on efficiently delivering the “need to know” pieces of information.

Next Steps

- Bundling of handoff tool with a medication reconciliation tool
- Wider dissemination with clinics and hospitals outside of the SFVAMC network
- Chart review to determine if handoff leads to improved time to primary care follow-up visit
- Survey of primary care providers, outpatient RN case managers, and inpatient residents on satisfaction of tool

Qualitative Results

Outpatient: RN case managers [10] focus group
  - Response generally positive.
  - Appreciated the alerting function the note served when the patient was discharged.
  - Note prompted the discovery of missing follow-up appointments and long wait times >1 month. Clinic staff able to intervene to correct these issues.

Inpatient: Medicine housestaff [7] focus group
  - Response overwhelmingly positive.
    - Six of the housestaff had readily adopted the tool without any formal training.
    - Reported taking <2 minutes to complete the handoff
    - Felt more reassured that patients would have appropriate follow-up and that important clinical information was being communicated.
    - Unable to elicit any negative aspects of the tool

UCSF Department of Medicine
Increasing Diabetes Education Via A Self-Administered Quiz  
Residents: Christopher Moriates, Ajay Dharia, Lisa Le, Peter Sottle, James Troy, Karen Wong  
Attendings: Bonnie Chen, Maya Dulan, Anne Schafer

The Problem
- Diabetes is common in our clinic population (20% prevalence)
- Many patients lack knowledge about fundamental issues regarding their diagnosis and potential complications
- In an initial questionnaire sent to all diabetic patients in our clinic:
  - 17% (5/30) rated our diabetes care as “excellent”
  - 37% (11/30) answered that our practice is excellent at encouraging questions and answering them clearly

Many patients lack knowledge about fundamental issues. Diabetes is common in our clinic population (20% prevalence). To assess diabetic veteran patients’ basic knowledge about their condition, we provided targeted educational materials and discussed them with patients. These targeted handouts were provided free of charge by learningaboutdiabetes.org.

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To assess diabetic veteran patients’ basic knowledge about their condition, we provided targeted educational materials and discussed them with patients. These targeted handouts were provided free of charge by learningaboutdiabetes.org.

Project Goals
- To assess diabetic veteran patients’ basic knowledge about diabetes complications and management
- To provide targeted real-time educational material when knowledge gaps are present
- Identify trends among patients regarding their knowledge
- Display measurable improvement in specific knowledge areas amongst our patients

Project Plan
- Intervention group: convenience sample of diabetic patients with routine clinic visits between 3/11-5/11
- Intervention:
  - Brief 8 question quiz self-administered during clinic visit
  - Answers reviewed with patients, targeted education provided by MD, selected handouts relevant to the patient’s knowledge gaps provided
  - Knowledge retention will be assessed with repeat administration of the same quiz in 3-4 months

Results / Progress to Date
- Pre-Test Average Overall Score
- N=20
- These targeted handouts were provided to patients and discussed by the provider based on incorrect answers on the quiz. These low-literacy handouts are provided free of charge by learningaboutdiabetes.org.

Lessons Learned
- The short quiz was easy to administer during a regular clinic visit
- Findings provide important insight into specific areas of current knowledge gaps for our diabetes patients

Next Steps
- A repeat quiz will be sent to patients 3-4 months after the initial quiz and intervention
- Data will be collected and compared to initial quiz results
- Subanalyses will include stratifying the data based on:
  - Diabetes control (using patients’ recent HgbA1c measurement)
  - Different medication regimens
  - Pre-test score

UCSF Department of Medicine
Dynamic Advance Directive Documentation: Improving Visibility During Care Transitions

Joshua Lakin, MD1, Aaron Neinstein, MD2, Read Pierce, MD3

1UCSF Internal Medicine Residency Program, 2UCSF Division of General Internal Medicine, 3Division of General Internal Medicine, SF VA Medical Center

The Problem

- System barriers cloud visibility of advance care planning upon transitions of care at UCSF
- Results in frustration and duplicate effort for providers
- Creates risk for actions misaligned with patient’s expressed wishes
- APEX EMR implementation provides unique opportunity for rapid transformation to address these challenges

Project Goal

- To improve care by increasing visibility of advance directives documentation during patient transitions
- We aimed to create a simple process for documenting and sharing patient’s goals of care leveraging existing UCSF initiatives

Project Plan

- Working with the APEX implementation team, we designed new IT elements to augment goals of care discussions and documentation
- Templates are drawn from best practices in the literature
- We created one template to standardize concise documentation of key advance care planning information available immediately upon opening a chart
- We built five flexible templates for use by providers when leading and documenting goals of care discussions

The Flow of Documentation in APEX

- Begins in the Overview section using a standard template to highlight summary information critical for providers at times of care transition
- Creating readily accessible key information that is easily visible upon arrival to the ER or hospital
- Updated during hospitalization to relay changes back to outpatient providers in the same chart location

Lessons Learned

- Implementation of EMR projects in multifaceted systems during large scale roll out requires careful and open communication with a large spectrum of stakeholders
- There is deep expertise on improving goals of care communication at UCSF and it is a significant institutional strength
- Maintaining accurate documentation of advance directives requires invested and trained care givers across all settings of delivery

Next Steps

- Increase awareness across the medical center through:
  - APEX training modules and conferences
  - Specialist and primary care SuperUser groups
  - Operational and departmental staff meetings
  - Housestaff Incentive Program for Medicine residents
- Examine Emergency Department satisfaction with the visibility of advance directives before and after implementation
- Assess the rate of change in documentation of goals of care over time during initial adoption
- Study how the Housestaff Incentive Program alters rates of documentation throughout the medical center
- Assess impact on longitudinal patient outcomes, e.g. whether expressed wishes are followed upon transitions of care and how that changes delivery of care in the hospital
A peer-evaluation program to improve the quality of fellow-written inpatient consultation notes
Delphine Tuot, MD, MDM, Division of Nephrology, UCSF; Niraj Sehgal, MD, MPH, Division of Hospital Medicine, UCSF; Lorraine Ward, Harvard Business School and Harvard Kennedy School, Cambridge, MA; Andrew Auerbach, MD, MPH Division of Hospital Medicine, UCSF

The Problem
- Clear communication between referring and consulting physicians is essential to provide high-quality, safe, cost-effective patient care.
- UCSF Department of Medicine (DOM) fellows spend significant time performing inpatient consultations, yet do not receive instruction in the art of consultation.
- DOM consultations are of variable quality.

Project Goals and Objectives

Goal: improve quality of initial inpatient, fellow-written consult notes

Four objectives:
1. Create a standardized Quality of Consultation Assessment Tool (QCAT), by which consult notes can be objectively, consistently evaluated
2. Determine baseline quality of fellow consult notes
3. Implement a peer evaluation program that allows fellows to review others' notes and provide feedback
4. Improve quality of fellow-written consult notes by 20% over 9 months

Project Plan
- Conducted focus groups and reviewed literature to develop the QCAT.
- Determined baseline quality of fellow-written consult notes by applying the QCAT on a random sample of consult notes written in July-Sept., 2010.
- Developed & distributed a users' guide to the QCAT in Dec. 2010, including a primer that provided rationales for QCAT quality measures
- Implemented a peer evaluation program, in which fellows use the QCAT to blindly evaluate peers' consult notes, written in Nov. 2010 - May 2011.
- Disseminate quarterly results to fellows and Fellowship directors.

Focus groups

Quality Measures:
- Reason for Consult + Ddx
- Diagnostic Plan
  - Rationale for studies
  - Thought process
- Therapeutic Plan
  - Meds + dose, schedule, route
  - Procedures
  - Peri-procedural tasks
- Communication
  - Documenting discussion
  - Eliminating abbreviations
  - Education

Results / Progress to Date

<table>
<thead>
<tr>
<th>Service</th>
<th>Consult and Ddx (by phase)</th>
<th>Diagnostic Plan (by phase)</th>
<th>Therapeutic Plan (by phase)</th>
<th>Communication (by phase)</th>
<th>Educational Value (by phase)</th>
<th>Total Score (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Effector Diseases (n=58)</td>
<td>70 84 95 95 95 93 32 17</td>
<td>64 50</td>
<td>65 67</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rheumatology (n=19)</td>
<td>80 98 92 90 50 0 20 14</td>
<td>79 80</td>
<td>65 67</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gastroenterology (n=48)</td>
<td>64 68 83 78 78 58 34 26</td>
<td>50 19</td>
<td>62 49</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pulmonary (n=26)</td>
<td>67 41 94 39 67 19 33 13</td>
<td>48 40</td>
<td>61 31</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Palliative Care (n=20)</td>
<td>86 63 100 33 75 100 30 39</td>
<td>24 33</td>
<td>60 47</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cardiology (n=89)</td>
<td>64 67 77 59 57 52 34 28</td>
<td>58 60</td>
<td>59 53</td>
<td></td>
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<tr>
<td>Hematology/Onc (n=28)</td>
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<td>45 50</td>
<td>54 53</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nephrology (n=42)</td>
<td>63 66 86 68 65 75 18 20</td>
<td>35 45</td>
<td>52 54</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Endocrinology (n=16)</td>
<td>64 53 89 100 43 100 17 12</td>
<td>100 95</td>
<td>51 73</td>
<td></td>
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</tr>
</tbody>
</table>

Total (n=346) 67 68 85 71 69 61 29 21 52 53 60 55

Lessons Learned
- Early subject engagement and buy-in is key for participation.
- Hospital culture can serve as a barrier to implementation of QI programs.
- Administrative duties always take more time than anticipated!

Next Steps
- Increase sense of unity among UCSF Department of Medicine Fellows
- Conduct interviews in June 2011 among "doers" and "non-doers" to determine ways to increase engagement and unity
- Hold a kick-off event in summer 2011, with early introduction of project goals
- Housestaff Incentive Program, 2011-2011
- Achieve 50% fellow participation
- Achieve a score of 80% in "Communication" and "Education" domains for 9/12 months
- Pilot a mechanism for referring providers to give feedback to fellows?
- Ensure that APEX consult templates include domains pertinent to quality measures

Special thanks to: Arjang Ahmadpour, Zac Martin, Naama Neeman, REDCap services
Assessing and Improving Outpatient Consulting Service at the CHEST Clinic
Michelle M. Milic, MD, Hubert Chen, MD, Nareg Roubianian, MD, Lorriana Leard, MD, Mary Ellen Kleinhenz, MD
UCSF Division of Pulmonary and Critical Care Medicine

The Problem
• Effective communication with referring providers is essential to providing continuity of care and patient centered services.
• The Division of Pulmonary and Critical Care Medicine initiated a program to review experiences of providers who refer patients to the CHEST Clinic at UCSF.
• This assessment is the first step in devising processes to improve communication and provide better services to our referring providers.

Objective
The goal of this improvement effort is to assess our CHEST Clinic consulting practice and referring provider satisfaction. The results of this assessment will be used to identify and target improvement interventions focusing on low performing areas.

Project Plan
• Referring providers with at least three consultations over the past two years were identified as a target group.
• Providers were sub-grouped as internal (referrals within UCSF) vs. external, as communication strategies with these two groups may differ post APEX implementation.
• Both groups were invited to participate in a survey to assess elements of satisfaction with our physicians and staff (the survey was administered online for internal providers and via mail for external providers).
• We report here the results of the survey of the internal group.
• Our multi-phase project will proceed with implementation of various improvement interventions, focusing on low performing areas.

Results / Progress to Date
• 41 internal providers responded to our survey. Most respondents have been in practice for more than 5 years (71%) and have consulted our practice 1-4 times over the past 12 months (51%).
• The mean score (on a scale 1-5) for the quality of consulting services provided by our physicians and quality of our staff was 3.89, and 3.81, respectively.
• Most respondents preferred email as a mode of communication for routine consultations (53%) as well as urgent consultations (60%)
• Below is a summary of low vs. high performance areas:

<table>
<thead>
<tr>
<th>Low Performance Area</th>
<th>Percent Indicating Favorable Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Courtesy and respect shown by CHEST clinic staff</td>
<td>61%</td>
</tr>
<tr>
<td>Get help soon as needed for urgent consultation</td>
<td>23%</td>
</tr>
<tr>
<td>Get help needed for routine consultation</td>
<td>10%</td>
</tr>
<tr>
<td>Improve your diagnostic/therapeutic approach</td>
<td>14%</td>
</tr>
<tr>
<td>CHEST MD provide clear instructions</td>
<td>18%</td>
</tr>
<tr>
<td>Helpfulness of Chest clinic staff</td>
<td>63%</td>
</tr>
<tr>
<td>Informed of pros and cons of treatment</td>
<td>61%</td>
</tr>
<tr>
<td>Informed of diagnosis/therapeutic action</td>
<td>55%</td>
</tr>
<tr>
<td>Informed when referred to another MD</td>
<td>31%</td>
</tr>
<tr>
<td>Received test results in a timely manner</td>
<td>37%</td>
</tr>
</tbody>
</table>

Lessons Learned
• Referring physicians were highly satisfied with staff’s courtesy and respect.
• Providers also reported getting the help that they needed for routine and urgent consultations.
• The most notable areas for improvement focus on communication of test results and timeliness of consultation reports.
• 25% of responders indicated that it takes 4 weeks to receive consultation reports, and 3% indicated that they never received the reports.

Next Steps
• We are currently awaiting the responses of our second survey group (i.e. external providers).
• Based on finding from both surveys, we will work with the CHEST Practice and APEX leadership to devise interventions for improvement.
• Once interventions are identified, agreed upon, and implemented, we will re-survey referring physicians regarding their level of satisfaction with communication of test results and consultation reports.

UCSF Department of Medicine
A Team-Based Primary Care Approach to Increasing Physical Activity in Veterans with Diabetes Mellitus

Kristen Adams MD, Sanket Dhruva MD, Jonathan Holtz MD, Adam Siegel MD, Aparna Goel MD, Andrew Nett MD, Carolyn Wong RN, VA Medical Practice Clinic LVNs, Bonnie Chen MD, Maya Dulay, MD

Patient surveys of diabetic patients at the VA Medical Practice Clinic revealed that very few diabetic veterans engaged in regular physical activity.

Chart review indicated that few diabetic patients had a documented physical activity plan.

To increase the number of discussions with our diabetic patients about the importance of physical activity.

To motivate patients to increase physical activity by allowing them to create their own goals and track progress.

To increase our team-based approach to primary care by increasing involvement of non-physicians in patient care.

To create a new form.

To explore existing clinic resources prior to implementation.

It is important to make patient handouts as easy to use as possible and to explore existing clinic resources prior to designing a new form.

Disseminate handout with instructions for use and suggestion of involving LVNs to all of medical practice.

**The Problem**

<table>
<thead>
<tr>
<th>Project Goal(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Patient surveys of diabetic patients at the VA Medical Practice Clinic revealed that very few diabetic veterans engaged in regular physical activity.</td>
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</tr>
<tr>
<td>• To increase our team-based approach to primary care by increasing involvement of non-physicians in patient care.</td>
</tr>
</tbody>
</table>

**Project Plan**

| Made a handout for providers to use with diabetic patients to document a patient-selected physical activity goal. Included a calendar to log amount of daily activity and weight loss goal. |
| Made handouts with information on local gyms, pools, etc. |
| Worked with our clinic nurse manager and team LVNs to arrange for LVNs to perform a follow-up phone call to check on patients’ progress towards their goals and assess any barriers. |
| We made a template for LVNs to use to structure calls and LVNs were trained in motivational interviewing. |

**Results / Progress to Date**

| PDSA cycle #1 – Small group of providers piloted handout with patients and by using it themselves. Feedback solicited through group discussion. Action taken to improve clarity of handout and decided to try an existing handout already used by our clinic nutritionist. |
| PDSA cycle #2 – A few providers piloted addition of LVN involvement to make follow-up phone calls at one month to check on patients’ progress in meeting exercise goals. Discussion with LVNs and review of LVN conversations with patients revealed that most patients had forgotten goal. Decided to have LVNs make follow-up calls in 1-2 weeks. |
| Current PDSA cycle – Larger group of providers using new form and involving LVNs to make follow-up phone calls at 1-2 weeks to assess patients’ progress towards their goal and any barriers. |

**Lessons Learned**

| Brief exercise goal setting is feasible in some but not all visits with diabetic patients. |
| Enlisting the support of other team members, such as LVNs, to follow-up on patient goals is a valuable resource; however, it takes careful planning and communication to implement. |
| Time frame of LVN follow up on patients’ achievement of goal should be shorter. |
| It is important to make patient handouts as easy to use as possible and to explore existing clinic resources prior to designing a new form. |

**Next Steps**

| Collect data on how many patients have set goals using the handouts and on the outcomes of the LVN follow-up phone calls – i.e. patient had met goal, patient reminded of goal and agreed to try again, goal was modified. |
| Group discussion for further feedback on use of form and results of LVN follow-up calls. Modify plan as necessary. |
| Disseminate handout with instructions for use and suggestion of involving LVNs to all of medical practice. |