Dear Colleagues,

We welcome you to our 4th annual Department of Medicine Quality & Safety Symposium. This event is an opportunity to celebrate all of the great projects that were submitted to the 2013-14 Quality & Safety Innovation Challenge (QSIC), acknowledge the award winners, and appreciate the wide efforts to improve patient care across our diverse clinical settings. This year’s record number of poster presentations reflects the tremendous energy and commitment to transforming our care delivery systems.

**What is the Quality & Safety Innovation Challenge (QSIC) and how did it work?**

The goal of the QSIC was to provide an opportunity for DOM faculty, trainees, and staff to work collaboratively in multidisciplinary teams, and design and implement innovative solutions to improve patient care. Participating teams submitted a project proposal to the QSIC last fall and worked over the past several months to achieve their stated objectives. Each team was encouraged to choose a project that aligned with one of thematic focus areas, which were priorities for our respective medical centers:

1) **Quality Improvement**: improving the quality of care we provide, including adherence to clinical guidelines, achieving quality metrics, improved care transitions, increased access to clinical services, etc.
2) **Patient Safety**: creating a safer environment by promoting medication safety, teamwork and communication, a culture of safety, follow-up of pending tests, etc.
3) **“Choosing Wisely” & Value-based Care**: promoting efficient resource utilization and reducing unnecessary diagnostic testing, procedures and/or other treatments, Choosing Wisely recommended metrics, etc.
4) **The Patient Experience**: A special theme this year focused on fostering a patient-centered environment, engaging patients and their families in care, creative solutions to increasing patient satisfaction, etc.

**How were the QSIC projects evaluated for award selection?**

The criteria used to rate each project centered on:

1) The magnitude of the problem or quality/safety gap in care
2) How creative is the project/approach to the problem
3) Generalizability
4) Thoroughness of project evaluation
5) Potential sustainability of results

Three award-winning projects were selected and will be recognized at today’s symposium, and a special 4th award will also be given to a “Patient Experience” project based on this year’s thematic focus area. We want to express our thanks and appreciation to the rating committee who themselves are key leaders and champions of our quality and safety programs. This year’s committee included Kara Bischoff, Anna Chodos, Henry Crevensten, Jeff Critchfield, Maya Dulay, Nat Gleason, Ralph Gonzales, Adrienne Green, Claire Horton, Will Huen, Sei Lee, David Margolius, Michelle Mourad, Edgar Pierluissi, Krishan Soni and Delphine Tuot. Finally, we also want to express our sincere admiration to all of our trainees, staff, and faculty who committed time, energy, and their leadership to these projects. Your efforts are an inspiration.

Naama Neeman, MSc  
**Administrative Director, Quality & Safety Programs**

Sumant Ranji, MD  
**Associate Program Director, Residency Program**

Emily Gottenborg, MD  
**Chief Resident for Quality & Safety**

Niraj Sehgal, MD, MPH  
**Associate Chair for Quality & Safety**
Quality and Safety Innovation Challenge
2013-14 Project Submissions by Site

San Francisco General Hospital (SFGH)

Improving Post-Discharge Care: MEA-Centered Follow Up Calls
J. Beaman, E. Imbert, S. Wlodarczyk, E. Davis

Big Aims: Improving Statin Adherence in Diabetic Patients with Uncontrolled LDL
Jamie Yao, B.S., Elizabeth Murphy, M.D., Lenny Chan, Pharm.D., C.D.E, Lucia Angel, Grace Chang, Hali Hammer, M.D., Deborah Heuerman, N.P., Sarah Kim, M.D., Jenny Liu, Kelly Quinn, R.N., Audrey Tang, N.P., Claire Horton, M.D.

An Interdisciplinary Model of Outpatient Evaluation for Older Adults with Cognitive Complaints at SFGH:
A. Chodos, E. Pierluissi, A. Nelson, C. Hemphill, D. Pope, C. W. Jamora, A. Boccillari

Incorporation of Feedback and Follow-up into the Night Float Rotation
L. Thomas, B. Gregory, A. Sridhar, S. Ranji, J. Kohlwes, L. Winston

Improving outcomes for admitted heart failure patients through patient education and post-discharge follow up
M. Overland, R. Santana, M. Schneidermann, C. Barnett

Improve Early Access to Malaria Treatment and Primary Care in Mali
A. Johnson, I. Alley, J. Beckerman, I. Kone, D. Diakite, C. Horton

Provision of Intra-Nasal Naloxone to Patients Taking Chronic Opioids at San Francisco General Hospital: Implementation & Challenges
F. Xu, C. Horton, P. Coffin, E. Behar, S. Echaves, S. Azari

Kidney Awareness Registry and Education (KARE) study: Implementing a CKD Registry in safety-net primary care
D. Tuot, A. Velasquez, T. Banerjee, N. Powe

Improving End-Of-Residency Transition to Reduce Gaps in Care
G. Chang, J. Liu, R Gupta, C. Horton

Improving Post-Discharge Follow Up with Primary Care
S. Wlodarczyk, J. Beaman, E. Imbert, E. Davis

Using Patient Advisory Boards to Improve Patient Engagement, Satisfaction, and the Clinic Environment
A. Jimenez; B. Barros, J. Coffey, R. Ferrer, R. Gupta, C. Horton, B. Turner, E. Davis

Can Visual Cue Cards Improve Communication for Limited English Proficiency Patients at SFGH? A Pilot Study
T. Yu, A. Kinderman, S. Jeevanjee, B. Occena, A. Villanueva

Challenges and Innovations in Providing Outpatient Specialty Care in the Safety Net: A Qualitative Study

UCSF Medical Center

Discharge Dashboard: Performance Feedback for Internal Medicine Residents
A. Kwong, E. Gottenborg, M. Mourad, S. Ranji
Improving the Quality of After-Visit Summaries for Inpatients on the Hospital Medicine Service with a Housestaff Incentive Project
M. Wong, S. Sharpton, C. Cho, A. Vaidya, S. Ranji, E. Gottenborg, T. Moriarty, M. Mourad

Hospital-Acquired Venous Thromboembolism and Major Bleeds on the Malignant Hematology/BMT Service
M. Wong, M. Mourad, J. Dzundza, M. Lo, R. Fong, S. Ho, L. Damon, T. Martin

A Safety Culture 2013: Internal Medicine Residents and Attendings Highlight Areas for Improvement in Patient Safety
C. Bowman, S. Ranji, N. Neeman, R. Fazzina, N. Sehgal

Can Patients be Prompted to Ask Questions of their Primary Teams?
J. Burgess, J. Harrison, S. Morduchowicz, M. Mourad

The Discharge Experience: A qualitative analysis of post-discharge patient satisfaction surveys
B. Stewart, H. Patel, MD, S. Morduchowicz, M. Mourad, D. Sliwka

Structured Referrals and eConsults: Downstream Impact on Access, Utilization, and Cost in a Fee-for-Service Setting
N. Gleason, P. Prasad, M. Wang, S. Ackerman, J. Monacelli, C. Ho, D. McKinney, R. Gonzales

Action Research Program: Bridges to Excellence through system redesign and student-integrated care

Post-Discharge Focus Group to Improve the Hospital Experience of Cantonese Speaking Patients and Care-Partners
D. Sliwka, N. Neeman, D. Lau, S. Alves-Rankin, L. Karliner

Improving ACCESS and New Patient Intake using LEAN
L. Damon, J. Smith, L. Vinluan, M. Durham

Improving Referral Timing and Access to Specialty Care
B. Hameed, M. Peters, A. Eppel

Transforming the Patient Experience at the Mission Bay Cardiology Practice
B. Mar, N. Neeman, N. Sehgal, R. Gonzales, R. Rao

Improving Communication and Trust: 360 Performance Evaluations for Staff and Providers
B. Hameed, M. Peters, S. Eppel

Using a Communication Board to Improve Clinic Workflow Efficiencies
M. Peters, B. Hameed, S. Eppel, Hepatology Clinic staff

Design and Measurement of Quality Improvement Indicators in Rheumatology
V. Chernitskiy, A. DeVito, N. Sehgal, N. Neeman, J. Yazdany, A. Gross

Soliciting Patient Feedback for Recognition and Improvements
M. Peters, B. Hameed, S. Eppel, R. Fazzina, N. Neeman, N. Sehgal, Hepatology Clinic Staff

Implementing AIDET to Improve the Patient Experience

Hepatology and Liver Transplant: Improving Wait Times in the Clinic
M. Peters, B. Hameed, S. Eppel, Hepatology Clinic staff
Introducing the New Patient Navigator to Improve the Patient Experience  

Improving After-Visit Summaries’ Utilization and Quality  
N. Neeman, A. DeVito, N. Sehgal

Music as a Tool for Improving the Patient Experience in the Pre-Visit Lounge  

Rounding on Patients for Feedback and Recognition  

A Friendly Competition on Friendliness for Improving the Patient Experience  
N. Neeman, M. Bedrich, U. Masharani, R. Fazzina, N. Sehgal

Taking The Pain Out Of Quality Improvement: Improving Pain In Patients Seen By An Inpatient Palliative Care Service  
K. Bischoff, R. Ruskin, L. Koehn, V. Dzul-Church, A. Bragg, M. Rathfon, F. Beretta, W. Anderson, S. Pantilat

In their Own Words: Exploring Patient Reflections of Physician Communication Using Press Ganey Survey Comments  
G. Tran, J. Harrison, D. Sliwka

CareWeb Messenger: A Facebook/Twitter/Paging Hybrid for Collaborative Care  
L. Santhosh, J. Harrison, R. Khanna

From curbside to EHR: Primary care providers’ and specialists’ experiences with electronic consultations at an academic medical center  
S. Ackerman, G. Intinarelli, N. Gleason, M. Wang, S. Catschegn-Pfab, D. McKinney, R. Gonzales

Discharge By Noon? Exploring Physician Reported Barriers to Early Discharges  
H. Patel, P. Elia, S. Morduchowicz, A. Mazzini, M. Mourad

eConsults: Content analysis of PCP questions, specialist advice, and PCP responses  
K. Wrenn, N. Gleason, S. Catschegn, M. Cruz, R. Gonzales

Establishing Guidelines for Referral to Orthopaedic Specialty Care: Consensus Using the Modified Delphi Method  
M. Otto, C. Senter, C. Boscardin, R. Gonzales, N. Gleason

We need to talk: PCP communication in the era of a shared EMR  
K. Fung, L. Sheu, M. Mourad, S. Ranji, E. Wu

A multi-disciplinary approach to improving vancomycin trough level acquisition and interpretation using a computerized physician order entry system  

How Patient-Centered Are You? The Implementation and Assessment of a Train-the-Trainer Shared Decision-Making Curriculum for Hospital Bedside Rounds  

Delays in entering abnormal temperatures into the EMR  
A. Rajkomar, R. Greysen

Face Cards Improve Patient Perception of Physician Communication  
E. Gottenborg, S. Ludwin, M. Mourad, S. Morduchowitz, D. Sliwka

Training Hospitalists In Communication: Do They Buy It?  
D. Sliwka, J. Harrison, S. Morduchowicz, K. Quinn, M. Mourad
A Resident-Led Campaign to Reduce Telemetry Waste on a Teaching Service  
N. Najafi, C. Bowman, M. Jose Diaz, J. Zapata, M. Mourad

Utility of Repeating a Hemoglobin Level to Detect a Drop in a Single Day  
A. Rajkomar, M. Fang

Echo-ing Change: The effect of an electronic medical record on transthoracic echo-diagram ordering  
E. Stewart, K. Soni, A. Qasim

**Veteran Affairs Medical Center (VAMC)**

Improving Documentation of Chronic Opioid Therapy Plans in a Homeless VA Clinic  
S. Epstein, T. Jensen, E. Kong, L. Petrillo, A Student, K. Yee

Improving the Overnight Radiology Reading Process at the SFVA  
P. Marcus, E. Gottenborg

Increasing Patient Enrollment in My HealtheVet  

Increasing Opioid Agreement Use in the Medical Practice Clinic: A Provider Led Initiative to OpEmize Safe Opioid Prescribing  

Implementing Project RED at a VA Medical Center: Year 1  

Sleep Is “Vital” Use of a MEWS score to minimize unnecessary overnight vitals and maximize patient rest  

PACT Intensive Management: Meeting the Needs of High-Risk Veterans  
J. Eng, R. Strauss, T. Allison, S. Offril, K. Xavier, A. Bodnar, K. Fung, B. Kamholz, J. Yangwas

Becoming Noteworthy: Workshops for Core Clerkship Students at SF-VAMC  
E. L. Price, H. Whelan

Eliminating Hospital-Acquired Clostridium difficile Infections at the San Francisco VA  

Interprofessional Development of an After Visit Summary in a Community-Based Outpatient Clinic to Improve Patient Satisfaction  
C. Bowman, E. Fan, J. Hippensteel, A. Strewler, J. V. Nuys, D. Wheeler, S. Patel, M. Pearson

VOID for OPIOID: Increasing the Rate of Annual Urine Drug Screens Among Patients Receiving Chronic Opioids  
Improving Post-Discharge Care: MEA-Centered Follow Up Calls

Jessica Beaman MD, Elizabeth Imbert MD, Susan Wlodarczyk MD, Elizabeth Davis MD
Division of General Internal Medicine, General Medicine Clinic, San Francisco General Hospital

The Problem

- Each year, roughly 1300 patients from the General Medicine Clinic (GMC) at San Francisco General Hospital (SFGH) are admitted to SFGH, accounting for 1800 admissions.
- The transition from inpatient to outpatient is a vulnerable time for patients and most adverse events occur within 7 days of hospital discharge.
- In December 2013, Wlodarczyk et al. piloted the role of a Medical Assistant Discharge Coordinator responsible for the following:
  - Confirming that patients had follow up appointments within 7 days of discharge.
  - Scheduling appointment if non existent previously.
  - Calling patients to remind them of their appointment identify any further questions.

- Following PDSA Cycle 1, the rate of appointments attended within 7 days of discharge had improved from 15% but remained low at 18%.

Project Goal(s)

- This will serve as PDSA Cycle #2.
- We aim to improve and expand the protocol for the Medical Assistant Discharge Coordinator in February and March of 2014.
- We aim to increase the percentage of patients that are scheduled with their primary care provider (PCP) at GMC clinic within 7 days of discharge.
- We aim to increase the percentage of patients who are seen (“show”) by PCP at GMC clinic within 7 days of discharge.
- We will measure the percentage of GMC patients that are scheduled for and attend their post-discharge appointment with their PCP within 7 days of hospital discharge.

Results / Progress to Date

- Percentage of appointments attended within 7 days: 18%
- Percentage of appointments attended within 14 days: 26%
- Percentage of patients who attended the follow-up call: 56%
- Percentage of patients who scheduled appointments: 61%
- Percentage of patients who attend appointments: 79%

Project Plan

Pilot Interval: 2/7/14 – 3/11/14

1. Implementation of an improved protocol in which the Medical Assistant Discharge Coordinator completed the following steps on a daily basis and was responsible for the following:
   - Identifying which patients from GMC were discharged from the hospital.
   - Making an appointment within 7 days if the patient did not already have an appointment scheduled.
   - Calling the patient to remind them of the appointment.
   - Asking the patient if they had any questions, understood return parameters, and had their medications. The MEA would be responsible for directing concerns regarding medications or their discharge, if they arose, to the RN in charge of telephone advice for the day.
   - Creating and sending a telephone encounter using the electronic medical record to notify the PCP.

2. Evaluate the quantitative data from the implementation.

3. Identify areas of improvement for PDSA Cycle #3 in Spring/Summer 2014.

Lessons Learned & Next Steps

Opportunities

- The implementation of the protocol led to an increased percentage of appointments scheduled within 7 days (79%).
- The implementation of the protocol led to an increased percentage of appointments attended within 7 days of discharge (41%).
- Both the percentage of appointments scheduled within 14 days and attended within 14 days increased as compared to previously.

Challenges

- There remains no user-friendly tool to efficiently identify GMC patients that have been discharged daily and still requires considerable time and effort to compile this list.
- 18% of GMC patients that were discharged were unable to be reached by telephone.

Next Steps

- Identify the underlying reasons for the discrepancy between the high percentage of appointments that are scheduled and the low show rate by contacting individual patients and eliciting qualitative feedback.
- Revise the current protocol to address common issues that patient’s face upon discharge including medication reconciliation.

UCSF Department of Medicine
2013-14 Quality & Safety Innovation Challenge
Big Aims: Improving Statin Adherence in Diabetic Patients with Uncontrolled LDL

Jamie Yao, B.S., Elizabeth Murphy, M.D., Lenny Chan, Pharm.D., C.D.E, Lucia Angel, Grace Chang, Halli Hammer, M.D., Deborah Heeeman, N.P., Sarah Kim, M.D., Jenny Liu, Kelly Quinn, R.N., Audrey Tang, N.P., Claire Horton, M.D.

General Medicine Clinic, San Francisco General Hospital

The Problem

- Elevated LDL levels are a major risk factor for heart disease; particularly for patients with elevated risk states like diabetes
- Statin medications have been shown to be effective in lowering LDL levels (Jones et al. 2012), improving ASCVD risk, and decreasing cardiovascular disease mortality (Baigent et al. 2010)
- 41% of patients take > 80% of their statin therapy five years after the first prescription (Donnelly et al. 2008)
- CMS has established LDL control in diabetes as a "Big AIM" for SFGH’s CMS Incentive Program

Intervention Step 1: Pharmacy Outreach

Project Goal

To increase the percent of GMC patients with diabetes with controlled LDL (< 100) from 41% to 60% by December 31, 2014 by implementing a combined pharmacy / health coach outreach model. For patients with initial telephone health coaching intervention will be used, and success will be measured by patient self-report and >30% decrease in LDL levels from baseline.

Intervention Step 2: Health Coaching for Adherence

- Initial evaluation of patient cohort demographics and medical markers
  - Patient cohort criteria:
    - General Medicine Clinic patients
    - Diabetes mellitus type II
    - Current prescribed a statin medication
  - LDL > 100 with greater than 20% rise since last LDL blood test was the marker we used to approximate non-adherence

Listen

- Assess barriers to statin adherence
- Use reflective listening to better understand patient goals

Interact

- Affirm patient concerns and challenges
- Answer questions and educate on gaps in knowledge

Set goals

- Create a personalized plan of action with patient
- Follow up in two weeks to determine carry-through

Development of outreach protocol and telephone coaching template

Initial Results: Analyzing Registry for Non-Adherence

- LDL levels were statistically different between potentially statin non-adherent patients and adherent patients.
- HbA1C levels were not statistically different between potentially diabetic patients with blood pressure > 160/100.
- There was a higher proportion of non-adherent diabetic patients with normal blood pressure and a lower proportion of these patients with blood pressure < 160/100.

Varying proportions of statin adherence vs. non-adherence exist amongst different language groups

Lessons Learned & Next Steps

Lessons Learned

- LDL control in diabetes is a quality improvement goal with many stakeholders and great clinical relevance
- Large quality improvement initiatives can spur innovative multidisciplinary partnerships
- Statin adherence and LDL testing will require a multi-pronged approach before improvement can be seen
- Statin adherence is likely to be multi-factorial, and a patient-centered coaching approach may yield best results

Next Steps

- Initiate pharmacist outreach to patients in need of statin therapy or adjustment
- Implement health coaching calls to statin non-adherent patients
- Collect and analyze data regarding patient barriers to consistent statin use
- Communicate with Primary Care Providers via huddles and emails regarding progress
- Analyze post-intervention statin adherence and LDL levels to determine effectiveness of approach

UCSF Department of Medicine
2013-14 Quality & Safety Innovation Challenge
An Interdisciplinary Model of Outpatient Evaluation for Older Adults with Cognitive Complaints at SFGH

Anna H. Chodos, MD (Geriatrics), Edgar Pielfulvesi, MD (Geriatrics), Alexandra Nelson, MD (Neurology), Claude Hemphill, MD (Neurology), David Pope, PhD (Neuropsychology), Christina Weyer Jamora, PhD (Neuropsychology), Alicia Bocciari (Neuropsychology)  
University of California, San Francisco and San Francisco General Hospital

The Problem

- There are increasing number of older adults with dementia.
- Interdisciplinary care models for dementia care have been associated with improved quality of care, improved behavioral symptoms, lowered caregiver stress, and lower healthcare costs in safety net settings.
- Clinical and social services for these patients are fragmented and may be difficult to access in a coordinated manner.
  - Neuropsychology: 6-8 month wait
  - Neurology: 1-2 month wait
  - Geriatrics: 1-2 month wait
  - Social work: based at patients’ home clinics, variable

Project Plan

Referral from PCP to Geriatrics or Neurology for an older patient with a cognitive complaint

Geriatrics

Neurology

Neuropsychology

Cognitive Clinic combines 3 disciplines in one half-day clinic per month

Findings and plan discussed with patient and communicated to patient’s PCP and social work or behavioral health team.

Results / Progress to Date

ONE CLINIC = 4 hours

Patient 1

- Neuropsychology Eval (50 min)
- Geriatrics/Neurology Eval Family/Caregiver seen separately

Patient 2

- Neuropsychology Eval (50 min)
- Geriatrics/Neurology Eval Family/Caregiver seen separately

TEAM HUDDLE → Findings & plan discussed w patient

Since September 2013:
- 7 clinics, 14 patients seen
- Diagnoses:
  - 2 had normal cognition
  - 5 had MCI
  - 7 had mild to moderate dementia
  - 2 had no family or social contacts
- Neuropsychological, neurologic and geriatrics review and exam for each.
- Recommendations most often included: labs, imaging, connection to social services and acetylcholinesterase inhibitor if dementia mild or moderate.

Project Goal(s)

1. To meet the needs of growing elderly population with cognitive impairment in the SFDPH by providing a novel clinic model that combines a neurologist, geriatrician, and neuropsychologist who:
   - Provide a diagnosis
   - Create a care plan and work with PCP and home-clinic social work team to implement plan
2. To use this formative clinic to develop the next iteration of clinic processes and expand.
3. To describe processes and findings from inaugural visits.

Lessons Learned & Next Steps

Lessons learned:
We combined 3 services to provide a collaborative evaluation. Social isolation or vulnerability is ubiquitous in these adults.
Having 3 providers co-evaluate and discuss cases adds convenience for patients and adds value to dementia diagnosis and care.

Next Steps:
- Streamline assessments and team huddles.
- Look for resources to bring social work services and case management into our program.
- To conduct a formal evaluation of provider workflow and track diagnosed dementia type and 10 dementia performance measures (e.g. assessing stage, cognition, function, neuropsychiatric symptoms, depression, safety, counselling needs, caregiver needs), track geriatric measures: use of any inappropriate medications, falls, advance care planning
- Health care utilization patterns of patients: outpatient visits, ER, hospitalizations

UCSF Department of Medicine
2013-14 Quality & Safety Innovation Challenge
Incorporation of Feedback and Follow-up into the Nightfloat Rotation

Larissa Thomas MD, MPH, Blake Gregory MD, Archana Sridhar MD, Sumant Ranji MD, Jeff Kohlweg MD, Lisa Winston MD

The Problem

Since the 2011 duty hours reforms, an increased proportion of initial evaluation and management of undifferentiated patients occurs during night shifts, yet there is currently no systematic way for residents to receive feedback and follow-up on these patient encounters.

Lack of an effective and timely feedback system is a missed opportunity for residents to improve or validate the accuracy of their initial workup and management, and to learn ways to improve system-based practice in transitions of care.

We sought to develop a process through which to provide feedback and follow-up for residents during their nightfloat rotation, incorporating qualitative points of feedback from attendings about clinical course and initial management, milestone-based evaluation. We also sought to examine the themes addressed as part of the feedback process, in order to improve future nightfloat curricula and learning objectives.

Project Plan

- In October 2013, attending physicians were given a one page tool (see sample) to use at their discretion when receiving signout about new admissions from the night resident and/or intern.
- Tool was revised after an initial pilot based on feedback to include milestones that align with the nightfloat rotation.
- Attendings completed the tool within 24-48 hours and returned it to the project coordinator, who emailed it confidentially to the resident.
- Residents and attendings were surveyed about their experiences with the tool.

Project Goal(s)

Our goal was to develop a mechanism to provide meaningful feedback during the nightfloat rotation, which would fulfill the following aims:

1. To improve clinical knowledge by providing follow-up on clinical course after admission.
2. To improve practice-based learning by providing feedback on initial workup and management of undifferentiated patients.
3. To enhance skills in ensuring safe patient handoffs during transitions of care.

Results / Progress to Date

Nightfloat Feedback Tool Pilot Data

<table>
<thead>
<tr>
<th>The nightfloat evaluations:</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enabled me to learn information about a patient’s subsequent clinical course that I would have otherwise not known</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Will help me to improve future clinical assessments and decision-making</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Will help me to improve the quality of care I provide to patients</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Will help me to improve my skills in handoffs during transitions of care</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

Overall value

<table>
<thead>
<tr>
<th>Not useful</th>
<th>Neutral Useful</th>
<th>Very Useful</th>
<th>Mean (0-6)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>

Ideal number of evaluations during nightfloat rotation

<table>
<thead>
<tr>
<th>1-2</th>
<th>3-4</th>
<th>4-5</th>
<th>&gt;5</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
</tbody>
</table>

Attending Feedback:

- 4 attendings participated in the initial pilot.
- Attendings reported ease of completion, with average of 10 minutes to complete one evaluation.
- Attendings generally completed evaluations 1-2 days after admission to provide more comprehensive clinical follow-up.
- Themes included recognition of signs and symptoms, appropriateness of specialty consultation, and importance of reassessment and obtaining collateral information for undifferentiated patients.

Resident Feedback:

- 9 residents participated in the initial pilot, of which 6 returned surveys.
- Tool was felt to be most useful when it provided specific feedback.
- All residents wanted 3 or more evaluations during their float rotation.

Lessons Learned & Next Steps

- Attendings reported ease of completion of the tool, but felt the need to complete the tool 1-2 days after admission, creating challenges for operationalizing the tool.
- Common themes of feedback related to initial evaluation and management of undifferentiated patients and facilitation of transition of care present opportunities to improve learning objectives and curricula for the float rotation.
- Residents felt that the tool had potential, but wished for feedback to be more timely and specific.
- Despite limitations of the tool, residents would like to have more feedback during the nightfloat rotation.
- Future directions include exploration of peer-peer/near-peer clinical feedback mechanisms and development and implementation of a formal system for implementing competency-based assessment during the nightfloat rotation.

UCSF Department of Medicine
2013-14 Quality & Safety Innovation Challenge
Our aim is to develop a reproducible and effective set of interventions that improves outcomes for heart failure patients at SFGH with the long-term goal of implementing these interventions throughout the CHN.

Our short term goals for this phase of the project are to:
1. Translate existing written patient education materials into Spanish and Chinese
2. Develop a hands-on skills development kit to supplement the current teaching methods being used by the Transitions team
3. Track the effects of these new materials on readmission rates

We are developing a dedicated management program aimed at improving outcomes for the sickest heart failure patients in the CHN. Our interventions focus on increasing patients’ understanding of their illness and encouraging early contact with primary care. In an attempt to reduce barriers to timely access to care, we provide patients with self-monitoring tools to identify early symptoms of a heart failure exacerbation and with scripts for calling their primary care providers.

Based on materials developed at the Cecil G. Sheps Center for Health Services Research at UNC Chapel Hill, we generated low literacy requirement patient education materials that are tailored to our patient population in the San Francisco CHN. As part of a broader effort by the SFGH Transitions Team, we are currently targeting patients admitted to the Cardiology, Family Medicine, and Internal Medicine services with a diagnosis of heart failure. The Transitions RNs use motivational interviewing and teach-back techniques to assess patients’ post-hospitalization needs, create a personalized discharge plan for each patient, and follow up by phone after discharge. Any issues identified during follow-up conversations are communicated to the patient’s primary care provider.

We are optimizing our efforts at SFGH using rapid cycle outcomes analysis and, once we have identified an effective combination of interventions to reduce ED visits and readmissions, we will distribute our materials to other clinics in the CHN with the goal of improving outcomes for heart failure patients throughout the safety net.

In developing new patient education materials, it quickly became apparent that it was necessary to include all players at an early stage. Not only did this give us valuable insight into the process and help to identify which new interventions would be most likely to have a significant impact on outcomes, but having the support and buy-in of the Transitions RNs was crucial to the project’s success.

Our next steps will be to track rapid cycle outcomes data to test whether the new teaching materials have an objective impact on readmission rates and to incorporate qualitative feedback from patients and the Transitions team as we refine and standardize how these materials are used.
**The Problem**

- In the communities of Yirimadjo, Mali, a combination of financial, geographic, infrastructural, and social barriers delay access to care, particularly for patients living in extreme poverty.
- Malaria, the leading cause of clinical care visits in this area, can progress rapidly to cause irreversible end-organ damage and death.
- While malaria is curable, delayed access to care can lead to increased morbidity and mortality.
- At baseline, only 15% of patients aged 0-59 months initiated effective antimalarial treatment within 24 hours of symptom onset.

**Project Goal(s)**

Initiate effective antimalarial treatment for at least 50% of patients 0-59 months with within 24 hours of symptom onset by June 2014

---

**Intervention Stage I**

<table>
<thead>
<tr>
<th>Intervention</th>
<th>Core Strategies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mobilizing the Health Care Delivery System</td>
<td>• Active door-to-door case finding by Community Health Workers, providing in-home diagnostics, treatment, referral, and follow up</td>
</tr>
<tr>
<td></td>
<td>• Removing user fees at point of care</td>
</tr>
<tr>
<td></td>
<td>• Constructing clinical infrastructure</td>
</tr>
<tr>
<td>Creating Rapid Referral Networks</td>
<td>• Community organizers, mobilize community members to bring children in early for care services</td>
</tr>
<tr>
<td>Overcoming Conditions of Poverty</td>
<td>• Providing a package of programs to prevent childhood illness by addressing conditions of poverty.</td>
</tr>
</tbody>
</table>

**% Initiating Effective Antimalarial Within 24 Hours**

- **Baseline**: 15%
- **Year 1**: 30%
- **Year 2**: 45%
- **Year 3**: 28%

* p<0.05

**Conclusions**

- Early access increased significantly after the intervention launch, by factor of 1.89 by year 3
- Early access peaked in year 2 then down trended from year 2 to year 3
- Qualitative interviews revealed that Community Health Workers, each covering more than 2,000 patients, had been working long overtime hours that they were unable to sustain in year 3, which led to a drop-off in active case finding home visits.

---

**Intervention Stage II**

- **Intervention II**: Triple the number of Community Health Workers to 75, decreasing ratio of CHW: Population to 1:750-1000

**Methods**

- Annual survey of 1200 randomly selected households
- Population-weighted, cluster-based sampling methodology
- Compare early access at baseline and 12 months with chi-squared statistics

**Timeline**

- November 2012 – June 2013: Recruit, hire, and train 75 Community Health Workers
- June 2013: Baseline survey
- July 2013: Expanded CHW team launches
- June 2014: 12-month follow-up survey

---

**References**


Provision of Intra-Nasal Naloxone to Patients Taking Chronic Opioids at San Francisco General Hospital: Implementation & Challenges
Fanny Xu BS, Claire Horton MD, Philip Coffin MD, Emily Behar MS, Steve Echaves PharmD, Soraya Azari MD

The Problem

1. Approximately 308 patients in the General Medicine Clinic (GMC) take opioids for relief of chronic, non-cancer pain (defined as continuous opioid prescriptions ≥3 months).
2. In the past decade (1999-2010), unintentional overdose from prescription opioids has increased 400% in women and 265% in men.
3. Over 22,000 people died from prescription drug overdose in 2010. More people die from prescription opioid than heroin and cocaine combined.

Population Characteristics

Number of Patients in Pain Management Registry= 308
- Mean daily morphine equivalent dose = 229mg
- Demographics:
  - 57.1% Male, 42.9% Female
  - 15.6% below age 45, 62.0% between ages 45 and 64, 22.4% above age 65
  - 39.0% African-American, 31.2% Non-Hispanic White, 20.8% Hispanic, 5.5% Asian, 3.6% Other
- Based on this public health concern, GMC is collaborating with the San Francisco Department of Public Health to offer intra-nasal naloxone to all patients receiving chronic opioid therapy for non-cancer pain.

Project Goal

To prescribe intra-nasal naloxone to all patients in the chronic pain registry and any other at-risk individuals (i.e. patients with active opioid use disorder or history of overdose).

Project Plan

Implementation

Initiative: Prescribe intra-nasal naloxone to all GMC patients in the chronic pain registry.

How to Prescribe Intra-Nasal Naloxone:
1. Provider writes prescription for naloxone pre-filled syringe.
2. Provider educates patient or caregiver on usage of intra-nasal naloxone with demonstration kit.

How to Use Intra-Nasal Naloxone:

Results / Progress to Date

Cumulative Number of Naloxone Prescriptions

Lessons Learned & Next Steps

1. There are multiple barriers to offering intra-nasal naloxone to all patients in the disease management registry, which include provider-specific barriers, patient-specific barriers, and clinic/system barriers.
   - Provider-specific Barriers: lack of knowledge about naloxone, reluctance to discuss overdose and naloxone
   - Patient-specific Barriers: failure to attend pain assessment visit, lack of perceived risk, competing medical problems during visit
   - Clinic-system Barriers: lack of time during visit, inadequate staffing to provide training to patients on use of the medicine (a time-intensive process)

2. Our collaboration with the Department of Public Health includes interviews of patients that have received naloxone. As seen in the following quotations, patients are very interested in learning about the risk of overdose and being able to protect themselves and those around them.
   - "I was very appreciative. Because if I'm gonna stop breathing, I'd like to have the drug available to me at all times"
   - "I felt like [my provider] really cared about me."
   - "I wasn't sure if I'd ever use it. But on the other hand, because I live in Tenderloin...I thought for community reasons, it might be a good thing to have on me…"
   - "When I got it, it's like 'life is real.' You know? This is what you're doing to yourself. Either you gonna live or die […] And it made me really evaluate myself."
   - "I've probably been a little more cautious. Just being careful to take the right amount, count the hours, you know, just thinking more cautiously about dosing."

3. Next Steps: Possible strategies to increase prescribing of intra-nasal naloxone include:
   - Identify and address the factors that cause some patients to decline naloxone
   - Initiate group patient visits for education and prescription of naloxone
   - Recruit another member of the care team (i.e., behavioral health or nursing) to educate patients on use of naloxone
   - Implement provider education sessions that are universally attended (i.e., several providers missed the education session)
   - Advocate for the inclusion of naloxone prescriptions as a formal quality indicator, with attached incentives

UCSF Department of Medicine
2013-14 Quality & Safety Innovation Challenge
Kidney Awareness Registry and Education (KARE) study: Implementing a CKD Registry in safety-net primary care

Delphine S. Tuot¹, Alexandra Velasquez 1.2, Tanushree Banerjee² and Neil R. Powe1.2.3

¹Division of Nephrology at SFGH  ²Division of General Internal Medicine at SFGH  ³Center for Vulnerable Populations at SFGH, San Francisco, CA

The Problem

- CKD affects 20+ million US adults, causing excess morbidity and mortality, particularly among low-income, minority populations.
- Early stage CKD is asymptomatic; detection by primary care providers (PCPs) is critical to prevent disease progression via blood pressure (BP) control, minimization of albuminuria and prescription of angiotensin-converting enzyme inhibitors (ACEI)/angiotensin receptor blockers (ARB), yet this goal remains elusive.
- Safety-net primary care registries have been previously developed to identify chronic diseases such as diabetes and hypertension, and provide guidance for the delivery of guideline-concordant care. This has not been tried for CKD.

Project Plan

- Determine feasibility of developing a CKD registry through interviews with clinical leaders across the San Francisco safety-net
  - Interviewed 20 clinical champions, either clinic medical directors or quality improvement champions, representing all DPH and SFGH primary care clinics in San Francisco.
  - Identified items that would constitute the ideal CKD registry:
    1. Aid in the delivery of team-based high-quality CKD care
    2. Incorporating a protocol that would enable in-reach and out-reach
    3. Provide decision support for CKD care
    4. Registry was aligned with health care delivery strategies including clinic workflow
- Develop an electronic CKD registry using i2itracks software in a federally qualified primary care clinic with a racially/ethnically diverse low-income patient population.
  - In reach: at point of care, the registry identifies patients with CKD, those who need ACEi/ARB prescription, and whose recent BP is not controlled. It also includes standing orders to empower non-physician health care team members to quantify albuminuria and provide appropriate immunizations.
  - Out reach: quarterly feedback with team-based and individual PCP metrics about delivery of CKD care.
- Examine the impact of the registry by randomizing the 4 health care teams in Family Health Center (FHC) to receive the registry or continue usual care.

Project Goal(s)

- Implement a CKD registry in one primary care clinic with quarterly feedback directed at the entire health care team to enhance CKD care. We focused on the following metrics:
  - Identification of patients with CKD who are receiving care as well as those who have fallen out of care
  - Yearly albuminuria quantification
  - Use of ACEi/ARB
  - Achievement of BP control (≤ 140/90)

Results / Progress to Date

- Preliminary data suggest that a CKD registry for population health management can improve processes of care for patients with CKD in a primary care safety net clinic.
- Longer follow-up is needed to determine the impact of the registry on clinical outcomes, such as BP and albuminuria.
- We will invite health care team members (PCPs, nurses, medical assistants, etc…) to focus groups to identify:
  - reasons for variability in registry uptake
  - how to best facilitate change in work flow
  - ways to enhance registry use/implementation
  - how to empower non-physicians to implement standing orders
- We hope to disseminate this CKD registry to other DPH clinics in this upcoming year to standardize and enhance early CKD management in primary care.

Lessons Learned & Next Steps

- Preliminary data suggest that a CKD registry for population health management can improve processes of care for patients with CKD in a primary care safety net clinic.
- Longer follow-up is needed to determine the impact of the registry on clinical outcomes, such as BP and albuminuria.
- We will invite health care team members (PCPs, nurses, medical assistants, etc… ) to focus groups to identify:
  - reasons for variability in registry uptake
  - how to best facilitate change in work flow
  - ways to enhance registry use/implementation
  - how to empower non-physicians to implement standing orders
- We hope to disseminate this CKD registry to other DPH clinics in this upcoming year to standardize and enhance early CKD management in primary care.

UCSF Department of Medicine
2013-14 Quality & Safety Innovation Challenge
Third year resident primary care provider (PCP), according to the Accreditation Council for Graduate Medical Education, hand off their panels to new providers as part of their graduation requirements. Nonetheless, an effective protocol in end-of-residency transfer of care training has not been established nationwide.

According to the Institute of Medicine, about 1 million primary care patients are negatively affected by this transition period through medical errors and poor communication which can compromise patient safety. At the San Francisco General Hospital, our current working protocol is successful in transferring a majority of our patients safely to new PCPs, but there are still a considerable number of patients who are lost to follow-up or, many of whom are considered high-risk patients.

General Medicine Clinic currently uses electronic health records as our main source of communication and documentation, which has proven to be an efficient tool to bridge the gap between providers. However, we have not yet developed a standardized way to communicate patient information between graduating and inheriting PCP, and our staff have been inadequately involved in the process in past years. Identifying gaps are in communication (including patient-to-provider, provider-to-provider, and to clinic staff about the project) may ensure a smoother transfer for staff and providers and a safer transfer for patients during this critical transition period.

Improving working protocol for transitioning patients from their current PCP to new PCP:

**Current Protocol:**
1. Graduating R3s submit their spreadsheet/panels of patients with notes which include high risk, patients in need of attending, etc.
2. Generating open schedules for specific transfer appointments within clinic.
3. Health coaches facilitate transfer process by reviewing patient records, visit history and upcoming scheduled appointments
4. Scheduling patients for transfer appointments with new provider
5. Make reminder phone calls and send patient reminders. Multiple attempts are made to reach out to patients who has missed their appointments.

**Improvements:**
1. Encouraging graduating R3s to create transfer notes on e-Clinical Works (current electronic medical records launched June 2013) for optimal handoff to new PCP
2. Creating a protocol for removing inactive patients from GMC Clinic
3. Meeting with all clerical/administrative workers to clarify different roles in patient handoff, in order to minimize communication error.

---

**Project Plan**

---

**Results / Progress to Date**

**Total Patients in Need of New PCP (1512)**

<table>
<thead>
<tr>
<th>Month</th>
<th>Appointments Attended</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan-13</td>
<td>120</td>
</tr>
<tr>
<td>Feb-13</td>
<td>120</td>
</tr>
<tr>
<td>Mar-13</td>
<td>120</td>
</tr>
<tr>
<td>Apr-13</td>
<td>120</td>
</tr>
<tr>
<td>May-13</td>
<td>120</td>
</tr>
<tr>
<td>Jun-13</td>
<td>120</td>
</tr>
<tr>
<td>Jul-13</td>
<td>120</td>
</tr>
<tr>
<td>Aug-13</td>
<td>120</td>
</tr>
<tr>
<td>Sep-13</td>
<td>120</td>
</tr>
<tr>
<td>Oct-13</td>
<td>120</td>
</tr>
<tr>
<td>Nov-13</td>
<td>120</td>
</tr>
<tr>
<td>Dec-13</td>
<td>120</td>
</tr>
<tr>
<td>Jan-14</td>
<td>120</td>
</tr>
<tr>
<td>Feb-14</td>
<td>120</td>
</tr>
<tr>
<td>Mar-14</td>
<td>120</td>
</tr>
<tr>
<td>Apr-14</td>
<td>120</td>
</tr>
<tr>
<td>May-14</td>
<td>120</td>
</tr>
</tbody>
</table>

**Transfer Appointments Attended by Month**

<table>
<thead>
<tr>
<th>Month</th>
<th># Appointments Attended</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan-13</td>
<td>120</td>
</tr>
<tr>
<td>Feb-13</td>
<td>120</td>
</tr>
<tr>
<td>Mar-13</td>
<td>120</td>
</tr>
<tr>
<td>Apr-13</td>
<td>120</td>
</tr>
<tr>
<td>May-13</td>
<td>120</td>
</tr>
<tr>
<td>Jun-13</td>
<td>120</td>
</tr>
<tr>
<td>Jul-13</td>
<td>120</td>
</tr>
<tr>
<td>Aug-13</td>
<td>120</td>
</tr>
<tr>
<td>Sep-13</td>
<td>120</td>
</tr>
<tr>
<td>Oct-13</td>
<td>120</td>
</tr>
<tr>
<td>Nov-13</td>
<td>120</td>
</tr>
<tr>
<td>Dec-13</td>
<td>120</td>
</tr>
<tr>
<td>Jan-14</td>
<td>120</td>
</tr>
<tr>
<td>Feb-14</td>
<td>120</td>
</tr>
<tr>
<td>Mar-14</td>
<td>120</td>
</tr>
<tr>
<td>Apr-14</td>
<td>120</td>
</tr>
<tr>
<td>May-14</td>
<td>120</td>
</tr>
</tbody>
</table>

**Effectiveness of Mailed Letters**

<table>
<thead>
<tr>
<th>Letters Mailed</th>
<th>Appointments Made/Attended after receiving letter</th>
</tr>
</thead>
<tbody>
<tr>
<td>33%</td>
<td>222%</td>
</tr>
</tbody>
</table>

**Transferring Patients Outcome**

<table>
<thead>
<tr>
<th>Pts Transferred to New PCP (907)</th>
<th>Pts Not Transferred (183)</th>
<th>Pts Deceased/Not at GMC (308)</th>
</tr>
</thead>
<tbody>
<tr>
<td>65%</td>
<td>33%</td>
<td>13%</td>
</tr>
</tbody>
</table>

From July through September of 2013, health workers made transfer appointments, reminder calls (at least once before transfer appointment), and mailed standard transfer letters to patients who had out of date phone contact information. After September, health workers checked for appointment attendance monthly and rescheduled transfer appointments. Letter mailed were not significantly effective method of communication with our patient population ( only 33% of patients called to make appointments).

---

**Lesson Learned & Next Steps**

**Lesson Learned:**
1. A greater emphasis on resident handoff is needed. All residents and patients should be engaged and well informed throughout the process.
2. Better communication within clinic and between providers and patients will improve teamwork, ensure smoother transitions, and keep all parties on the same page.

**Next Steps:**
1. Although time is limited, it is ideal for physicians to personally notify patients about their departure and for inheriting PCPs to introduce themselves prior to new transfer appointment.
2. A meeting or orientation including all residents and workers involved in transfer process may be helpful to fully understand the transfer process and discuss the potential impact this transition may have on patients. Further discussion may include challenges and barriers posed.
3. Increase available transfer appointments ahead of time to allow graduating residents to directly transfer their own patients at their last visits.
4. Face-to-face oral handoffs for high-risk patients are desired.
5. When possible, PCPs periodically check and update patients’ contact numbers to minimize unsuccessful calls for front desk staff.

---

**References**

We aim to increase the percentage of patients seen by their primary care provider within 7 days of hospital discharge by piloting a Medical Assistant Discharge Coordinator who will help facilitate timely patient follow up.

We plan to measure the percentage of GMC patients who are both scheduled and actually attend a post-discharge appointment with their primary care provider within 7 days of hospital discharge before and after the pilot.

Key Observations after 1st PDSA Cycle:
- Most GMC patients are not seen by any provider within 7 days. This is likely both a problem with scheduling post-discharge appointments and patients not attending scheduled visits.
- The MEA discharge coordinator pilot in December 2013 led to an increase in the number of appointments attended within 7 days, but the rate remained low (31%). The MEA found it difficult to reach patients and did not want to change appointments unless she talked to the patient in person. She only did the pilot twice a week, making it easy to miss the 7 day window. She also was not sure if they truly needed to be seen within 7 days and was told by some PCPs that an appointment within 14 days was appropriate.

Next Steps:
- Test and revise the Medical Assistant Discharge Coordinator protocol, and have the Medical Assistant make calls daily.
- Create IT tools that would readily identify GMC patients that have been recently discharged.
- Communicate the goal of an appointment within 7 days of discharge with both inpatient schedulers and primary care providers.

Lessons Learned & Next Steps
- Test and revise the Medical Assistant Discharge Coordinator protocol, and have the Medical Assistant make calls daily.
- Create IT tools that would readily identify GMC patients that have been recently discharged.
- Communicate the goal of an appointment within 7 days of discharge with both inpatient schedulers and primary care providers.
Historically, patient engagement and satisfaction at The General Medicine Clinic (GMC) was low. There was no structured system to address patient concerns.

When patients were asked if they would recommend their providers office at GMC, CG CAHPS analysis from April 2012 to January 2013 showed positive responses were below the NRC average.

The GMC Patient Advisory Board (PAB) was launched in January 2013. Our goal was to continue holding monthly PAB meetings to:

- Increase patient engagement
  - Obtain patient feedback on clinic projects
  - Allow patients to share thoughts & concerns about GMC and ideas on how to improve

- Raise awareness of patient concerns among GMC Management Team
  - Discuss potential strategies to address concerns
  - Implement changes that will improve patient satisfaction

### Project Goal(s)

The Project Goal(s) of the GMC Patient Advisory Board (PAB) were:

1. Increase patient engagement
2. Raise awareness of patient concerns among GMC Management Team
3. Implement changes that will improve patient satisfaction

### Project Plan

Monthly PAB meetings were held with two groups of patients:

1. GMC patients (GMC PAB) and;
2. GMC patients in the Care Management Program (CM PAB)

- Patient feedback obtained at each meeting
- Comments shared with GMC Management Team
- When feasible, action was taken to improve clinic

### Challenges Faced

- Often unable to meet with entire management team directly to discuss patient perspective, lack of patient attendance at CM PAB meetings due to chronic illnesses, time/transportation conflicts.

### Lessons Learned

- Patient advisors bring interesting new perspectives to clinic improvements and often offer great solutions to problems. Quickly following-up on projects after every meeting is crucial and most effective. Staff awareness of patients concerns are important to improve patient experience in clinic. Patient advisory boards are a way to engage patients and improve satisfaction.

### Next Steps

- Continue PAB meetings, outreach to new PAB members and develop a Spanish speaking PAB. Encourage greater participation by assigning advisors projects they are passionate about.

### Lessons Learned & Next Steps

- Increase patient engagement
  - Patient feedback on clinic projects
  - Allow patients to share thoughts & concerns about GMC and ideas on how to improve

- Raise awareness of patient concerns among GMC Management Team
  - Discuss potential strategies to address concerns
  - Implement changes that will improve patient satisfaction

### Results / Progress to Date

<table>
<thead>
<tr>
<th>Month</th>
<th>Phone Access issues/Long waits/walkie-talkie</th>
<th>Educational Materials</th>
<th>Comment Box/Cell phone sign</th>
<th>Chair/wheelchair</th>
<th>Miscellaneous</th>
<th>CM PAB specific</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jul 2013</td>
<td>Recommendations: Magazines and signs requested for waiting areas</td>
<td>Action: Funding for new chairs approved</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aug 2013</td>
<td>Recommendations: Positive feedback on cell phone sign posted to all group meetings</td>
<td>Recommendations: Change wheelchair sign</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sept 2013</td>
<td>Recommendations: Positive feedback on cell phone sign posted in waiting rooms</td>
<td>Action: Change wheelchair sign</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oct 2013</td>
<td>Recommendations: Change wheelchair sign</td>
<td>Action: Change wheelchair sign</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nov 2013</td>
<td>Recommendations: Change wheelchair sign</td>
<td>Action: Change wheelchair sign</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dec 2013</td>
<td>Recommendations: Change wheelchair sign</td>
<td>Action: Change wheelchair sign</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jan 2014</td>
<td>Recommendations: Change wheelchair sign</td>
<td>Action: Change wheelchair sign</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feb 2014</td>
<td>Recommendations: Change wheelchair sign</td>
<td>Action: Change wheelchair sign</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mar-Apr 2014</td>
<td>Recommendations: Change wheelchair sign</td>
<td>Action: Change wheelchair sign</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Challenges Faced

- Often unable to meet with entire management team directly to discuss patient perspective, lack of patient attendance at CM PAB meetings due to chronic illnesses, time/transportation conflicts.

### Lessons Learned

- Patient advisors bring interesting new perspectives to clinic improvements and often offer great solutions to problems. Quickly following-up on projects after every meeting is crucial and most effective. Staff awareness of patients concerns are important to improve patient experience in clinic. Patient advisory boards are a way to engage patients and improve satisfaction.

### Next Steps

- Continue PAB meetings, outreach to new PAB members and develop a Spanish speaking PAB. Encourage greater participation by assigning advisors projects they are passionate about.

### UCSF Department of Medicine 2013-14 Quality & Safety Innovation Challenge
Can Visual Cue Cards Improve Communication for Limited English Proficiency Patients at SFGH? A Pilot Study

Tina M. Yu, MS4, Anne L. Kinderman, MD, Sara Jeevanjee, MD, Bruce Occena, MPH MBA Interpreter Services, Allyson Villanueva, RN, SFGH

1 University of California, San Francisco, School of Medicine, 2UCSF Department of Medicine

The Problem

- Limited English Proficiency (LEP) is often an overlooked risk factor for preventable adverse effects including longer hospital stays, higher readmission rates and decreased patient and provider satisfaction.
- Professional interpreters are an effective resource to improve patient safety and quality of care.
- Unfortunately, San Francisco General Hospital has limited interpreter services including in-house professional interpreters and interpreter phones.

Project Goal(s)

1. Decrease communication barriers between LEP patients and hospital staff
2. Improve quality of care for LEP patients
3. Elicit staff and patient feedback to develop a low-cost, effective communication tool

Project Plan

- Meet with key stakeholders to gain buy in for project: nurse manager of SFGH 5D, interpreter services representatives
- Obtain quantitative data on number of LEP patients admitted to SFGH by ward and language group
- Elicit input from nurses and interpreters to develop communication visual cue cards in the two most commonly spoken non-English languages at SFGH: Spanish and Chinese
- Solicit feedback from ambulatory and hospitalized LEP patients to assess for understanding of communication visual cue card
- Pilot use of communication visual cue cards with LEP patients identified by nursing staff
- Assess patient utilization, attitude toward and satisfaction with communication visual cue card
- Assess nursing staff attitude toward and satisfaction with communication visual cue card
- Refine communication visual cue card based on feedback from LEP patients, focus groups and nurses

Results / Progress to Date

Qualitative Data: Feedback on Card

Pre-intervention feedback
Nurse manager: “This card looks great. I think this will be very useful for patients. A similar one for nurses would be good too.”
Nurse: “This looks great. I think this will help a lot of patients.”
Interpreter: “I like all the pictures, but the universal interpreter logo isn’t very intuitive.”

Post intervention feedback
Spanish LEP patient: “I thought the card was here so I could learn English.”
Chinese LEP patient: “I thought this was very useful and good way to communicate. I would love to have it during future hospitalizations.”
Spanish LEP patient: “This card has all the basic phrases I need to communicate with my nurse.”
Chinese LEP patient: “I don’t read Chinese and some of the pictures were confusing.”
Spanish LEP patient: “I would like to see other phrases like ‘I have chest pain or shortness of breath’ and ‘I need help walking or I want to walk’.”
Spanish and Chinese LEP patient: “I would like to have this card if hospitalized in the future.”
Nurse: “This is a great tool. I would use it if it is available.”

Qualitative Data: Reason for Pilot Refusal

Chinese LEP patient: “My nurse speaks my language.”
Spanish LEP patient: “I can speak English and Spanish fine.”
Chinese LEP patient: “I already know how to say these simple phrases in English.”

Pilot Communication Card

Revised Communication Card

Utilization rate of Communication Card

<table>
<thead>
<tr>
<th>Language</th>
<th>Never</th>
<th>Once</th>
<th>Several Times</th>
<th>Everyday</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spanish</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Chinese</td>
<td>2</td>
<td>3</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Lessons Learned

- The communication visual cue card was seen as a valuable and effective tool by both LEP patients and nursing staff.
- Majority of LEP patients used cards at least once.
- Communication card should be given early in the admission process to maximize use during hospitalization.
- Communication phrases were limited to only basic needs as other phrases would require more detailed conversation.
- Several LEP patients were confused about the purpose of the communication card or forgot to use it.
- Many LEP patients required spot check reminders to use the communication card.
- LEP patients found several of the original images (pain, nausea, and speaking to one’s doctor) confusing when paired with their intended phrases.
- Patients who may derive the most benefit from the cards are those who are able to read in their primary language and have very limited English vocabulary.

Next Steps

1. Work with nursing staff and environmental services to ensure that cue cards remain available and easily accessible throughout a patient’s hospital stay.
2. Revise cue card orientation script and incorporate this into the more comprehensive LEP patient communication orientation, which will be piloted as part of a larger SFGH Language Access Project.
3. Translate and then pilot communication cards in other commonly-spoken languages: Russian, Vietnamese, Tagalog.

Acknowledgements

A huge thank you to the patients, nursing staff and Ally Villanueva, nurse manager at SFGH 5D for all your help and feedback. Thank you Bruce Occena and his interpreters for their help translating our cards. Thank you Joseph Griffin and the CARE Spanish speaking focus group for your feedback. Finally thank you, Dr. Anne Kinderman and Dr. Sara Jeevanjee for all the guidance and support.
Health & Society

We would like to thank Alice Chen MD, Kathryn Horner, and all healthcare systems that participated in this project.

Challenges and Innovations in Providing Outpatient Specialty Care in the Safety Net: A Qualitative Study

Health Systems Leadership Residency Group: Chelsea Bowman MD, Marcus Dahlstrom MD, Manuel Diaz MD, Kevin Duan MD, Kelly Fung MD, Karthik Giridhar MD, Nathan Handley MD, Joseph Huppensteil MD, Lena Makaroun MD, Jennifer Mandal MD, Jonathan Overdevest MD, Heidi Schmidt MD, Lindsey Stephens MD, Daniel Wheeler MD, Kevin Yee MD, Josue Zapata MD; Edgar Pielucci MD

Department of Internal Medicine University of California, San Francisco

Introduction

Safety-net healthcare systems in the US face significant barriers in providing adequate specialty care, and there is little consensus on how to measure and improve access to specialty services.

Objectives

• Understand how safety-net healthcare systems provide access to specialty care
• Propose best practices for delivering ambulatory specialty care

Methods

• Thirty two representative public healthcare systems were selected; eighteen participated in the study
• Semi-structured phone interviews were conducted with leaders from these healthcare systems to learn about current approaches to providing specialty care

Figure 1: A Comprehensive Approach to Providing Specialty Care

Assessing Specialty Care in the Safety Net

- Is access adequate?
- Is productivity adequate?

Results

• All systems report significant challenges in meeting need for specialty services
• There is wide variation in how systems contract for specialty care services
• Most measure adequacy of access to specialty care using patient wait times
• Expanding the role of the PCP and non-physician providers were commonly used to expand access
• Inadequate supply of specialists is a common challenge

Conclusions

• Safety-net healthcare systems face similar challenges to providing specialty care
• None presented a comprehensive framework for evaluating and improving specialty care
• There is a need for a comprehensive approach in evaluating and planning for specialty care
• We propose one such approach (figure 1) based on our study

Acknowledgements

We would like to thank Alice Chen MD, Kathryn Horner, and all healthcare systems that participated in this project.
The Problem

Project Goals

Internal medicine residents have identified performance feedback as a potential area of improvement.

Awareness of these performance metrics and provision of feedback may improve future care delivery by providers.

We chose to focus on metrics relevant to transitions of care — important quality and patient safety measures.

Project Plan

We designed a tool by which inpatient ward residents and interns would receive performance feedback regarding certain metrics related to transitions of care.

Approximately one month after the conclusion of the inpatient medicine month, the residents and attending of each team were provided with team-level data by e-mail. Data are collected monthly from Apex-generated reports.

Metrics include:
- "high-quality" after-visit summaries
- average time of discharge order
- the percentage of patients with a follow-up appointment with a UCSF PCP at 5 days after discharge
- completion of the discharge summary within 24 hours of discharge

A sample is shown below (Figure 1). Goals for each metric were determined by consensus of our team, in keeping with current Division of Hospital Medicine quality metrics. Residents and interns were informed of this intervention at the beginning of the month during orientation. Team-level data from prior months was also shown monthly at our patient safety noon conference.

Results / Progress to Date

We observed trend toward improved timeliness in discharge summary completion.

There were no differences in the rates of follow-up for patients with a PCP at UCSF, time of discharge order entry, or percentage of “high-quality” after-visit summaries.

Strengths:
- encourages personal improvement in the delivery of clinical care for residents and attending physicians through goals and feedback
- venue for sustainability and to support ongoing and past initiatives
- timely feedback

Limitations:
- ongoing efforts in improving these same metrics
- can be time-intensive to aggregate data
- no interim feedback, all feedback provided after the month

Lessons Learned & Next Steps

Next steps:
- continue monthly intervention and feedback
- optimize metrics for feedback
- surveying internal medicine residents regarding performance feedback
- comparing ACGME survey results year-to-year, specifically whether internal medicine residents receive performance feedback
Improving the Quality of After-Visit Summaries for Inpatients on the Hospital Medicine Service with a Housestaff Incentive Project

Melisa Wong MD1, Suzanne Sharpton MD1, Christina Cho MD1, Ajay Vaidya MD1, Sumant Ranji MD1, Emily Gottenberg MD1, Tim Moriarty MBA, MA2, Michelle Mourad MD1
1 UCSF Department of Hospital Medicine 2 Leidos Health Consultants

The Problem
- Discharge from inpatient hospitalization is a critical time for communication about patients’ medical care and follow-up plan
- This transition is highly vulnerable to errors that can lead to lack of recommended follow-up and readmission
- Housestaff use of the APeX After-Visit Summary (AVS) tool is variable and can be standardized to enhance discharge communication

Project Goal
- To provide a high-quality AVS to at least 75% of patients discharged from the Hospital Medicine teaching service between July 2013 and June 2014.
- Required three core elements in every AVS: 1) Principal diagnosis and 2) Patient instructions and 3) Follow-up information

Project Plan
UCSF Medical Center’s Housestaff Incentive Program allows each department to designate a quality improvement objective. Housestaff champions are responsible for the design and execution of these projects. If the objective is met, then housestaff receive a monetary reward. This incentive project was conducted by the Hospital Medicine service for the 2013-2014 academic year.

1) Identified three core elements of a high-quality AVS
2) Housestaff education to raise awareness for the project included:
   - Monthly intern/resident orientation presentations
   - Instructional posters and signs in the resident workrooms
   - Progress updates by email twice a month
3) Collected team-specific data on the percentage of high-quality AVSes twice a month to provide real-time feedback

- When Medicine teams did not meet our goal, we provided additional detail on which core elements were missing from AVSes
- Identified barriers to a high-quality AVS and strategized with teams on how to improve their performance

Results / Progress to Date
- A high-quality AVS was provided to 2,730 of 3,333 patients (82%) discharged from the Hospital Medicine teaching service between July 2013 and March 2014
- We have achieved our goal of 75% for 8 out of 9 months to date
- In October 2013, new APeX improvements were implemented to:
  - Alert providers when principal diagnosis is missing via the daily rounding view
  - Only allow nurses to print AVSes after a principal diagnosis is selected

Lessons Learned & Next Steps
- Medicine housestaff were highly receptive to efforts to enhance the discharge process
- Biweekly team-specific audit and feedback was critical to the success of the project
- System improvements (such as the APeX requirement for a principal diagnosis) are integral to project sustainability

Next steps:
- Survey of patients, ancillary staff, and outpatient providers to determine impact of this intervention and generate ideas for future improvement
- Elucidation of ongoing barriers to high-quality AVS completion
- Expansion of this project to include the Cardiology service, on which Medicine housestaff also rotate
Hospital-Acquired Venous Thromboembolism and Major Bleeds on the Malignant Hematology/BMT Service
Melisa Wong, Michelle Mourad, John Dzundza, Mimi Lo, Richard Fong, Son Ho, Lloyd Damon, Tom Martin
1. Division of Hospital Medicine, 2. Department of Hospital Pharmacy, 3. Division of Hematology & Oncology

The Problem
- Active malignancy is a known risk factor for hospital-acquired venous thromboembolism (HA-VTE)
- However, pharmacologic VTE prophylaxis (VTEP) is rarely used on the Malignant Heme/BMT service due to anticipated thrombocytopenia and concerns about bleeding risk
- PICC lines also increase HA-VTE risk

Project Goals
- To characterize HA-VTE on the Malignant Heme/BMT service from 2009 to 2013 (average 1100 to 1200 discharges per year)
- To characterize hospital-acquired major bleeding from 2012 to 2013
- To design a safe, multidisciplinary VTE prophylaxis pilot to decrease HA-VTE and the associated bleeding risk from therapeutic anticoagulation
- To reassess rates of HA-VTE and major bleeding after pilot implementation

Project Plan
- Developed two retrospective cohorts for HA-VTE and major bleeding cases on Malignant Heme/BMT service:
  - University HealthSystem Consortium (UHC) database, ICD-9 codes, not present on admission
  - Chart review for primary diagnosis, medical history, timing of HA-VTE or major bleed, use of VTEP, HA-VTE management, and platelet count
- Compiled a list of service-specific contraindications for VTEP
- Created a service-specific APeX VTE prophylaxis order set with hold parameters for VTEP when platelets ≤ 50
- Revised APeX note templates to ensure systematic documentation of VTE risk and prophylaxis use or contraindication
- Will design an education campaign to train providers, pharmacists, and nurses on appropriate VTEP use and safety monitoring

Results / Progress to Date

Hospital-Acquired Venous Thromboembolism
- 67 HA-VTE in 60 unique patients from 10/2009 to 12/2013
- Event rate of 14 HA-VTE per 1000 discharges (1.4%)

Table 1. HA-VTE Patient Characteristics

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>N = 67</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age, mean (SD)</td>
<td>55 (15)</td>
</tr>
<tr>
<td>Male, n (%)</td>
<td>38 (57%)</td>
</tr>
<tr>
<td>History of prior VTE, n (%)</td>
<td>14 (21%)</td>
</tr>
<tr>
<td>Platelet count</td>
<td></td>
</tr>
<tr>
<td>On admission, mean (SD)</td>
<td>199 (129)</td>
</tr>
<tr>
<td>On day of HA-VTE, mean (SD)</td>
<td>108 (111)</td>
</tr>
<tr>
<td>Platelet ≤ 50 on day of HA-VTE, n (%)</td>
<td>24 (36%)</td>
</tr>
<tr>
<td>Platelet ≤ 50 within 7 days of HA-VTE, n (%)</td>
<td>31 (46%)</td>
</tr>
</tbody>
</table>

Contraindications for VTEP on Malignant Heme/BMT Service:
- Platelets ≤ 50
- CNS lymphoma, CNS metastases, APML, GVHD
- Active major bleeding

VTEP Pilot:
- On admission, if no contraindications are present, start VTEP
- Document VTEP or contraindication in H&P
- If a contraindication develops, stop VTEP and document in progress note
- Pharmacy will track major bleed events for later review
- Providers will summarize any VTEP, HA-VTE, or bleeding in d/c summary

Lessons Learned & Next Steps
- Hospital-acquired VTE are more common than hospital-acquired major bleeding on the Malignant Hematology/BMT service
- Catheter-associated upper extremity VTE are the most common HA-VTE
- Thrombocytopenia is the most common risk factor for hospital-acquired major bleed
- Data on balancing measures (such as bleeding when implementing VTEP) is vital to obtaining support for a new clinical practice change
- Chart review improved the accuracy of UHC data due to occasional incorrect assignment of not present on admission, highlighting the importance of accurate and thorough documentation for future research
- Next steps: We are currently working with the APeX team to implement the new VTEP note template addendum and order set. We will then train providers, RNs, and pharmacists on our pilot and monitor rates of HA-VTE and major bleeds.
The Problem

- A positive safety culture is essential for patient safety, and is linked to clinical outcomes, such as reduced adverse events and hospital readmissions.
- Frontline providers, including trainees, provide a unique perspective on organizations’ safety culture, and its assessment can highlight current attitudes, identify opportunities for improvement, and establish a baseline prior to targeted interventions.
- Understanding differences between trainees and attendings perspectives can also highlight areas in need of additional curricular development.

Project Plan

Survey Development and Distribution

- A modified Agency of Healthcare Research and Quality (AHRQ) Hospital Survey on Patient Safety Culture with novel resident focused domains (total 62 questions) was electronically distributed and collected.

Participants

- Internal medicine senior residents (R2 & R3) and Division of Hospital Medicine attendings. Resident responses n=45, attending responses n=29.

Analysis

- Percent positive responses on 5-point likert scale adjusted for negative worded questions used in comparison and ranking of responses.

Results / Progress to Date

### Table 1: High performing safety culture questions with at least 90% positive responses by internal medicine residents

<table>
<thead>
<tr>
<th>Question</th>
<th>Residents N=45</th>
<th>Attendings N=29</th>
<th>AHRQ average</th>
</tr>
</thead>
<tbody>
<tr>
<td>People support one another in this work area</td>
<td>100%</td>
<td>100%</td>
<td>86%</td>
</tr>
<tr>
<td>When a lot of work needs to be done quickly, we work together as a team</td>
<td>100%</td>
<td>93%</td>
<td>86%</td>
</tr>
<tr>
<td>In this work area, people treat each other with respect</td>
<td>98%</td>
<td>100%</td>
<td>78%</td>
</tr>
<tr>
<td>We are actively doing things to improve patient safety</td>
<td>96%</td>
<td>93%</td>
<td>84%</td>
</tr>
<tr>
<td>Hospital management provides a work climate that promotes patient safety</td>
<td>93%</td>
<td>96%</td>
<td>81%</td>
</tr>
<tr>
<td>Residents and fellows receive sufficient clinical supervision</td>
<td>92%</td>
<td>93%</td>
<td>NA</td>
</tr>
<tr>
<td>Good communication flow exists up and down the chain of command</td>
<td>92%</td>
<td>93%</td>
<td>NA</td>
</tr>
<tr>
<td>Asking for help is not a sign of incompetence</td>
<td>90%</td>
<td>100%</td>
<td>NA</td>
</tr>
</tbody>
</table>

### Table 2: Low performing safety culture questions with less than 25% positive responses by internal medicine residents

<table>
<thead>
<tr>
<th>Questions</th>
<th>Residents N=45</th>
<th>Attendings N=29</th>
<th>AHRQ Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physician shift changes are problematic for patients</td>
<td>8%</td>
<td>14%</td>
<td>NA</td>
</tr>
<tr>
<td>Things “fall between the cracks” during patient handoffs</td>
<td>10%</td>
<td>17%</td>
<td>NA</td>
</tr>
<tr>
<td>Problems often occur in the exchange of patient information during patient handoffs</td>
<td>15%</td>
<td>17%</td>
<td>NA</td>
</tr>
<tr>
<td>Important patient care information is often lost during shift changes</td>
<td>20%</td>
<td>18%</td>
<td>51%</td>
</tr>
<tr>
<td>Problems often occur in the exchange of information across hospital units</td>
<td>20%</td>
<td>32%</td>
<td>44%</td>
</tr>
<tr>
<td>Patient safety is never sacrificed to get more work done</td>
<td>20%</td>
<td>24%</td>
<td>64%</td>
</tr>
<tr>
<td>Things “fall between the cracks” when transferring patients from one unit to another</td>
<td>23%</td>
<td>21%</td>
<td>41%</td>
</tr>
<tr>
<td>Shift changes are problematic for patients at this hospital</td>
<td>23%</td>
<td>21%</td>
<td>45%</td>
</tr>
</tbody>
</table>

### Table 3: Safety culture questions with at least 50% difference in positive responses between internal medicine residents and attendings

- Physician shift changes are problematic for patients 85% Residents 14% Attendings
- Things “fall between the cracks” during patient handoffs 10% Residents 32% Attendings
- Problems often occur in the exchange of information across hospital units 20% Residents 17% Attendings
- If a physician knowingly violates an established safety rule s/he should be disciplined 37% Residents 72% Attendings
- People in this work area work longer hours than is best for patient care 10% Residents 42% Attendings
- It is often unpleasant to work with physicians from other hospital units (departments) 10% Residents 58% Attendings 89% Attendings

Lessons Learned & Next Steps

- Both internal medicine residents and attendings identify teamwork as a positive contributor to patient safety culture.
- Communication surrounding shift changes and patient transfers need continued improvement. Resident duty hour restrictions may explain the differences seen between residents and attendings in regards to shift changes.
- Overall, residents and attendings had mostly similar perceptions of safety culture. This highlights that trainees are keenly aware of an organization’s safety culture and should be actively engaged as part of the solution to improving patient safety.

UCSF Department of Medicine

2013-14 Quality & Safety Innovation Challenge
Can Patients be Prompted to Ask Questions of their Primary Teams?

Julie Burgess, MD, James Harrison, PhD, Sasha Morduchowicz, Michelle Mourad, MD
Division of Hospital Medicine

The Problem

- Enabling and empowering hospitalized patients to ask questions that concern them and improve communication between patients and their physicians.
- Question Prompt Lists (QPL) have been shown to enhance patient engagement and communication during initial oncology consultations, but to our knowledge have not been employed in the inpatient hospital setting.

Purpose

- To create a hospital medicine QPL, a structured list of questions that serves as a prompt for hospitalized patients and caregivers.

Project Plan

In March 2013, the Division of Hospital Medicine conducted a focus group involving 20 recently hospitalized Medicine patients and caregivers. Patients and caregivers identified 3 areas in need of improved communication:

1. explanation of provider roles on the team
2. engagement of caregivers during and after physician rounds
3. expectations during transitions of care

Based on these results, a QPL was developed to enhance communication around these topics. The QPL contained ten questions and generic answers designed to prompt further questions around the topic.

23 hospitalized Medicine patients and caregivers were presented with the QPL and interviewed with the goal of determining its utility and suggestions for modification.

Results / Progress to Date

- All patients reported feeling comfortable asking any of the QPL questions, the majority (14/23, 61%) agreed they would be more likely to ask one of these questions if they received the list.
- 19 of 23 (83%) patients agreed that receiving these questions would let them know that their team cared about addressing their concerns.

<table>
<thead>
<tr>
<th>Q#</th>
<th>Question Prompt</th>
<th>Asked by the patient on current hospitalization without prompting N=23</th>
<th>Addressed by MDs this hospitalization without patient asking N=23</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Who are the doctors on my medical team?</td>
<td>2 (9%)</td>
<td>20 (91%)</td>
</tr>
<tr>
<td>2</td>
<td>Who is in charge of my care?</td>
<td>4 (17%)</td>
<td>18 (72%)</td>
</tr>
<tr>
<td>3</td>
<td>When will I communicate with my doctors?</td>
<td>2 (9%)</td>
<td>12 (52%)</td>
</tr>
<tr>
<td>4</td>
<td>How can I reach my doctors after rounds?</td>
<td>1 (4%)</td>
<td>4 (17%)</td>
</tr>
<tr>
<td>5</td>
<td>How can I provide feedback to my team and to UCSF regarding my stay?</td>
<td>1 (4%)</td>
<td>0 (0%)</td>
</tr>
<tr>
<td>6</td>
<td>How will I know when I am ready to leave the hospital?</td>
<td>10 (43%)</td>
<td>6 (26%)</td>
</tr>
<tr>
<td>7</td>
<td>Where will I go after I leave the hospital?</td>
<td>2 (9%)</td>
<td>3 (13%)</td>
</tr>
<tr>
<td>8</td>
<td>Will I need any services or medical equipment?</td>
<td>4 (17%)</td>
<td>7 (30%)</td>
</tr>
<tr>
<td>9</td>
<td>What follow up appointments and referrals will I need?</td>
<td>6 (26%)</td>
<td>7 (30%)</td>
</tr>
<tr>
<td>10</td>
<td>Will my medications change after my hospitalization?</td>
<td>3 (13%)</td>
<td>10 (43%)</td>
</tr>
</tbody>
</table>

- Regardless of a history of hospitalization, patients asked questions regarding their care plan without prompting, but were less likely to ask questions about communication and discharge planning needs.
- This feedback has been used to modify the QPL to ensure that the questions are both important to patients and not typically answered by the primary team.
- Based on feedback, we have narrowed the list of questions to the following five, and provided notepads for patients and families to write down additional questions:
  - What are the results of my lab tests and imaging?
  - What tests and treatments are planned for today?
  - When will I be ready to leave the hospital?
  - Will I need any services or medical equipment?
  - What follow-up appointments and referrals will I need?

Lessons Learned & Next Steps

- Regardless of a history of hospitalization, patients asked questions regarding their care plan without prompting, but were less likely to ask questions about communication and discharge planning needs.
- This feedback has been used to modify the QPL to ensure that the questions are both important to patients and not typically answered by the primary team.
- Based on feedback, we have narrowed the list of questions to the following five, and provided notepads for patients and families to write down additional questions:
  - What are the results of my lab tests and imaging?
  - What tests and treatments are planned for today?
  - When will I be ready to leave the hospital?
  - Will I need any services or medical equipment?
  - What follow-up appointments and referrals will I need?

UCSF Department of Medicine
2013-14 Quality & Safety Innovation Challenge
The Discharge Experience: A qualitative analysis of post-discharge patient satisfaction surveys
Beth Stewart, MD, Hemali Patel, MD, Sasha Morduchowicz, Michelle Mourad, MD, Diane Sliwka, MD
Division of Hospital Medicine

The Problem
- Hospitals commonly use quantitative data available post-discharge surveys to inform their patient experience improvement efforts.
- Qualitative survey data are a relatively untapped source of valuable insights into the patients’ experience of care.

Methods
- We analyzed one year of free text comments from hospitalization surveys related to discharge.
- All patients discharged by our hospital medicine teaching service from January-December 2013 were included.
- Two investigators independently categorized the comments into positive and negative themes.
- Many of the comments were categorized into multiple themes including both positive and negative.

Project Outcomes/Goals
- Conduct qualitative data analysis of survey comments:
  - Explore themes and generate specific ideas for improving communication between hospitalists and patients around the discharge process.
  - Use ideas to develop coaching/educational interventions with the ultimate goal of:
    - Increasing the proportion of positive to negative discharge related comments.
    - Achieving above 80% on the HCAHPS Top Box communication score by December 2015.

Results
- Of the total comments from Medicine patients, there were 135 comments related to discharge.
- Of those, 50 were too vague to categorize into distinct themes (e.g. “Good”) and were removed from the analysis.
- There were a total of 29 comments that fit within positive themes, and 86 comments that fit within negative themes.

<table>
<thead>
<tr>
<th>Positive Themes</th>
<th>Examples</th>
<th># of comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Good discharge follow-up</td>
<td>Home care was excellent &amp; helped me monitor how well I was healing, probably keeping from another ER visit!</td>
<td>9</td>
</tr>
<tr>
<td>Good discharge instructions</td>
<td>Nurse made a detailed chart of my meds (dosage &amp; times). Explained how to care for my drain &amp; incision.</td>
<td>7</td>
</tr>
<tr>
<td>Caring; Doing all they can</td>
<td>We are indebted to Dr. G, Dr. W, and Dr. C for their compassionate understanding of our patients condition and spared him prolonged unnecessary painful invasive procedures.</td>
<td>6</td>
</tr>
<tr>
<td>Felt Safe to be Discharged; Patient-centered; Shared-Decision Making</td>
<td>They took my opinion into account when deciding when I’d be discharged - thank you!; Dr. told me I could stay one more night if I thought it was needed.</td>
<td>5</td>
</tr>
<tr>
<td>Good care coordination</td>
<td>Coordination by nurse coordinator. A was great - efficient &amp; caring!</td>
<td>2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Negative Themes</th>
<th>Examples</th>
<th># of comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poor discharge follow-up</td>
<td>They told me to pick up my antibiotic medicine at Walgreen’s, but they forgot to put in the order!!! Walgreen’s called me after a week to let me know that my medicine was ready for pick up!!</td>
<td>19</td>
</tr>
<tr>
<td>Perception of pre-mature discharge</td>
<td>Rushed out. Told need for bed greater than my concerns at discharge.</td>
<td>16</td>
</tr>
<tr>
<td>Broken promise/discharge took too long</td>
<td>Took hours for dr.’s to connect &amp; discharge me on Wed. On Tues they were clear in telling me I could go home Wed. by lunch time. I sat &amp; waited till 4:30 p.m. - w/no medical care.; Notified @ noon, departed at 8:30 p.m.</td>
<td>15</td>
</tr>
<tr>
<td>Lack of care; Concerns not addressed</td>
<td>The same resident took HOURS to write my DC orders. He went to lunch he was talking with other docs, I was under a tight time frame to get a ride home - Obviously the resident did not are about my time crunch on the urgency that the DC orders were needed. Eventually I had to talk to the attending.</td>
<td>14</td>
</tr>
<tr>
<td>Lack of care coordination</td>
<td>We requested a discharge report upon leaving and later but have never received it (requested by my GP &amp; specialists @ home town)!</td>
<td>11</td>
</tr>
<tr>
<td>Poor discharge instructions</td>
<td>Discharge instructions for pain mediation were poor. Was told I could take every 4 hours, but they did not tell me to not exceed 4 pills a day. As a result, took very nigh dosage of Tylenol for 4 days.</td>
<td>11</td>
</tr>
</tbody>
</table>

Lessons Learned & Next Steps
- We found that overall negative themes outnumber the positive themes. The most frequent categories identified could be high yield areas to focus our efforts.
- Many comments provided specific actionable ideas for improving the experience of care around discharge. We plan to expand the study to analyze additional years of comments in order to gain a deeper understanding of the themes. Our next steps include leading patient and physician focus groups to refine our intervention ideas.
- Initial thoughts include developing a series of educational videos around best practices for communicating with patients around the discharge process (e.g. how to avoid the “Broken Promise,” how to communicate with patients who do not feel ready to discharged, how to use shared decision making with patients around discharge).

UCSF Department of Medicine
2013-14 Quality & Safety Innovation Challenge
Develop a structured referral process, with an eConsult option for which specialist and PCP are reimbursed, to achieve the following:

- Improve PCP referral rate
- Improve timely access to specialty care
- Improve the total value of care delivered

**Project Plan**

**Measures:**
- **PCP Referral Rate**
  - Referrals per 100 primary care visits, per month
  - The proportion sent as eConsult
  - Linear spline analysis to account for variability in the referral rate
- **Compare referrals to medicine vs non-medicine (non-participating) specialties**
  (with ≥ 20 total referrals: n=83 practices)

**Access to Specialty Care**
- Proportion receiving specialty care within 14-days, via office visit or eConsult

**Utilization and Cost:**
- During the 120-days following each referral or eConsult
- Mean monthly ambulatory, ED visit, & hospital utilization, and professional fee costs
- Cost data were log transformed to minimize effect of outliers

**Results**

**Structured Referrals and eConsults:**
Downstream Impact on Access, Utilization, and Cost in a Fee-for-Service Setting

**Structured Referrals and eConsults:**

- Demand for specialty care exceeds supply at many Academic Medical Centers (AMCs), leading to delays in access to specialty care
- Asynchronous electronic specialty consultation (eConsults) improves access in closed delivery systems (in which reimbursement not tied to office visits)
- Implementation of eConsults in fee-for-service settings is limited by current payment incentives

**Project Goals**

Develop a structured referral process, with an eConsult option for which specialist and PCP are reimbursed, to achieve the following:

- Multi-site Academic Medical Center
- 8 primary care practice sites
- 178 PCPs
  - 50% Residents & Fellows
  - 62% in clinic 1-2 half-days per week
- 64,846 empaneled adult primary care patients
- All 12 Medicine Subspecialty practices participated

**Program Setting**

- **Referrals to Medicine Subspecialties per 100 Primary Care Visits**
  - Baseline
  - Full Intervention
  - Structured Referral
  - eConsult

- **Referrals to Medicine Subspecialties per 100 Primary Care Visits**
  - Mean ±1 SD (n=13,738)
  - ED visits decreased 12% (9.8% to 8.6%)
  - Pro fee costs decreased 17% (p = 0.016)
  - Admissions decreased 10.8% (6.6% to 5.9%)
  - Pro fee costs decreased 9.5% (NS)

**Conclusions:**

- Robust adoption of eConsults, which did not induce overall demand for specialist input
- Significant impact on
  - Referral rate
  - Specialty care access
  - Utilization
- The significant impact on ED use warrants further scrutiny and may represent a downstream benefit of improved access

**Next Steps:**

- Design and implementation in Orthopaedics, Neurology, Psychiatry, and other specialities

**Lessons Learned & Next Steps**

**UCSF Department of Medicine 2013-14 Quality & Safety Innovation Challenge**
The Problems

1. Low patient satisfaction and experience in outpatient specialty care, particularly related to clinical services.
2. Lack of experiential learning opportunities for MS1s: A. clinical care delivery B. systems improvement C. implementation science
3. Clinical care environments are under increasing pressure to deliver high-quality, patient-centered care at lower cost (triple aim)
4. Traditionally, experiential clinical care learning models for MS1/MS2 reduce clinical efficiency/productivity.

Project Plan

Action Research Program (ARP) Team

<table>
<thead>
<tr>
<th>Implementation Science</th>
<th>Faculty &amp; Staff</th>
<th>Trainees</th>
<th>Cardiology Team</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Pre-Visit Phone Calls</td>
<td>Patient Intervening</td>
<td>APEX Training</td>
<td>QEE Training</td>
</tr>
<tr>
<td>2. Check-in, vital signs and medication reconciliation</td>
<td>Patient Intervening</td>
<td>APEX Training</td>
<td>Medical Reconciliation Training</td>
</tr>
<tr>
<td>3. EKG administration</td>
<td>EKG Training</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. After-visit Summary &amp; Follow-up Calls</td>
<td>Health Coaching</td>
<td>APEX Training</td>
<td></td>
</tr>
<tr>
<td>5. Post-clinic Reflections</td>
<td>Reflective Observation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Develop new patient questionnaire</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Develop education videos</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Create inviting, waiting room space</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Clinical Activities Performed by Students During Rotation

- Interview patients about utility/value of Pre-Visit phone calls, and ways to add more value.
- Interview staff about utility/value of Pre-Visit phone calls by students (did they notice anything different?)
- Monitor Cancelations and No Shows (did they change?)
- Examine changes in check-in wait times for patients
- Interview clinic team about utility/value of check-in support provided by students.
- Interview clinic team about utility/value of EKG support provided by students.
- Interview patients, staff, and providers about utility/value of APEX utility/Experience of After-Visit Summary and ways to add more value.
- Patient satisfaction survey

Student Training for Clinical Activities

- Patient interviews
- Staff interviews
- Interview providers about utility/value of Pre-Visit phone calls

Implementation Science Activities

- Interview patients, staff, and providers about utility/value of APEX utility/Experience of After-Visit Summary and ways to add more value.
- Patient satisfaction survey

Project Goals

1. Establish partnership between Cardiology Division at UCSF Medical Center and the Action Research Program (ARP) team
2. Using iterative change cycles, to develop an MS1 rotation to understand and improve how patients experience the health care system by giving MS1s authentic clinical roles in the cardiology delivery system
3. To integrate trainees into the implementation science team for data collection, analysis, interpretation and system redesign

Results / Progress to Date

- Students gained patient interviewing skills
- Students gained patient engagement and systems thinking skills
- Improved patient experience

Lessons Learned & Next Steps

Lessons Learned:

- Provide staff training to improve MA roles as clinical teachers
- Provide additional APEX training for students using simulated environments prior to rotation
- Strong interest in MS1s supporting clinic visits with greater role in APEX documentation
- Need to balance clinic service activities with clinical teaching
- Reflection notes written by students after each clinical session are a valuable tool to increase practice-based learning.
- Clinic champions are critical to success of the program

Next Steps:

- Continue data collection and analysis of the impact on patient experience; present final report to the Cardiology Clinic and School of Medicine Curriculum Committee
- Work with UCSF Bridges curriculum redesign to include medical students in delivery system operations
- Implement adapted program in SFGH Rheumatology Clinic

UCSF Department of Medicine
Post-Discharge Focus Group to Improve the Hospital Experience of Cantonese Speaking Patients and Care-Partners

Diane Sliwka, MD, Naama Neeman, MSC, Diana Lau, RN, MS, Susan Alves-Rankin, RN, MS, Leah Karliner, MD

The Problem

✓ Targeting improvement in patient satisfaction is challenging as providers often lack the patient and family perspective.
✓ Multiple studies show that clinician perceptions of patients’ priorities do not match actual patient priorities with regard to patient centered care.
✓ Patient satisfaction surveys are limited in providing specific information to drive improvement, and we have even more limited information available from non-English speaking patients who often have unique needs.
✓ More detail about the most salient areas and specific ideas for improvement can better be obtained from patient and care-partners focus groups or individual interviews.

Project Plan

✓ A facilitated focus group was conducted with Cantonese speaking patients and care-partners to learn about their views of an ideal hospital experience and solicit ideas to better meet their needs and hopes.
✓ The framework was adapted from an English-speaking focus group which was conducted in the same service (hospital medicine) in the previous year (Sliwka D. et al. Post-discharge Focus Groups to Improve the Hospital Experience. Am J Med Qual. 2013)
✓ Inclusion criteria for patients included: physical and cognitive ability to participate; proximity of residency to the hospital; and length of stay of 2 days or more within the past year. Eligible care-partners were individuals who identified themselves (or were identified by patients) as the primary family / friend support person during their hospitalization.
✓ The focus group included 9 participants (5 women and 4 men), who identified 44 improvement suggestions. These suggestions were later voted upon to identify the most powerful interventions for improving the patient experience.

Results / Progress to Date

Top Priorities for Improvement

**English Speaking Patients and Care-Partners**

- Improve care-partners’ comfort and address care-partners’ emotional needs
- Better explain the provider team roles (e.g. who is the point person; who is responsible for what)
- Improve communication within the primary team and across teams (specialties, inpatient/outpatient, etc.)
- Improve communication with patients during transitions of care, including: inpatient stay, discharge, and post-discharge follow-up
- Improve communication with care-partners (e.g. contact the primary care-partner with meaningful updates of illness; balance between patients’ and families’ needs)

**Cantonese Speaking Patients and Care-Partners**

- Improve wait time (and responsiveness) for both information (e.g. test results) and care (e.g. seeing the attending)
- Improve bilingual communication of both translators (e.g. lack of medical terminology proficiency) and staff
- Improve communication between providers, departments and patients (including across teams – specialties, inpatient /outpatient, etc.)
- Improve transportation options for patients (e.g. allow patients to use the UCSF shuttles and have schedules available in different languages).
- Improve patient empowerment and education (e.g. include patients in decision making regarding their treatment plan)
Improving ACCESS and New Patient Intake using LEAN

Hematology BMT Clinic: Lloyd Damon, MD, Janelle Smith, Lizzie Vinluan, Mary Durham
Department of Medicine, Ambulatory QI Working Group

The Problem

- The Hematology Clinic was challenged with processing the increased number of patient referrals. It was causing staff and patient dissatisfaction. The issues included:
  - Significant rework and waste in the process
  - Frustrated patients, staff, and physicians due to delays and variable processes by staff in scheduling new patients
  - Unnecessary calls to Hematology MDs from referring MDs because the intake process was not progressing in a timely way

- Transition to APEX highlighted the deficiencies of the initial process such as:
  - No documented standard workflow on processing referrals and information needed to schedule new patient appointments
  - No centralized system of tracking, documenting, and communicating referral status

Project Plan

- In July 2013, we collaborated with front line staff (Administrative Assistants) and used LEAN methodology to:
  - Map out initial and ideal state of all front office workflows and process owners
  - Collect baseline data on volume, processes, turn-around time, and process owners
  - Identify waste/non-value added processes
  - Identify gaps and root cause analysis
  - Implement and monitor rapid solution experiments using continuous process improvement (Plan-Study-Do-Act )

- Mandatory APEX and PRIDE (customer service) refresher training for all front office staff

- Involved all team members in workgroups to develop standard work

- Interviewed physicians and solicited their input on their experience and expectations for the new patient intake process

- Implemented daily/weekly huddles for better communication and immediate “team” problem solving

- Cross trained staff and created virtual pods/teams for better cross coverage

- Optimized APEX functionality by having staff utilize the Referral WQ to track, measure, and document all referrals

Project Goal(s)

- Use LEAN methodology to streamline front office workflows with a focus on referrals

- Improve the new patient intake process to:
  - Create standard work
  - Optimize APEX functionality with the referral queue

- Target state: schedule patients within seven (7) days of receiving the referral:
  - Without adding additional staff
  - Without negatively impacting other front office workflows

Results / Progress to Date

- Initial State: New Patient Intake Average Processing Days: 16
- Current State: New Patient Intake Average Processing Days: 8

Lessons Learned & Next Steps

- After initial anxiety, the front office team became engaged in the process during this project. Due to the extensive team participation in developing standard work, the team took pride in the process and held each other accountable to maintain the on-going success and standard work. There was more appreciation and support of streamlining operational workflows to “work smarter and not harder.” The team also shifted their focus to improving the patient experience and creating a “seamless” customer service approach to our internal customers (physicians and nurses).

- Staff who are overwhelmed do not necessarily know what kind of help they need- a LEAN leader can often help identify issues by using the “5 Why” methodology of LEAN.

- Being able to openly discuss and rationalize with other team members on how to optimize a process provided opportunities to explore better ways.

- Next Steps:
  - Continue using LEAN to further streamline the new patient intake process and authorizations
  - Identify opportunities to better improve “next available” physician appointment slots

UCSF Department of Medicine
2013-14 Quality & Safety Innovation Challenge
Improving Referral Timing and Access to Specialty Care
Bilal Hameed, MD, Marion Peters, M.D. and Aleksandrina Eppel, MBA.
Department of Medicine, Ambulatory QI Working Group

The Problem

- Hepatology has a large internal and external referral base with limited new patient slots.
- About 20-30% new referrals were scheduled within 2 weeks time in our clinic.
- There are currently no guidelines on how quickly patients with liver cirrhosis, liver cancer, or viral hepatitis need to be seen by a specialist.
- Our aim was to improve referral timing and access to align with the Medical Center’s goals, as well as improve the patients and referring physicians experience throughout the process.

Project Goal(s)

- Schedule all new internal referrals within 2 weeks.
- Schedule 75% of new and established internal referrals (baseline: 20-30%) within 2 weeks time.

Project Plan

- We developed a pilot program and implemented Phase I of the project to improve the timing of all internal referrals and scheduling. The main stakeholders have been the Hepatologists, clinic staff and managers.
- The most important step was to get buy-in from the stakeholders into our vision and project goals. To accomplish this, we have shared our patient satisfaction data, our referral timing, and Medical Center expectations with our group.
- Our plan was to improve the referral review system by having the clinic chiefs review and make decisions quickly. After decision, clinic staffs would contact patients in timely manner. We also blocked times in providers schedules to accommodate internal referrals.
- Moving forward we will hold monthly meetings with the clinic manager and outpatient clinic chiefs to monitor progress. We will conduct 3 months improvement cycles and use PDSA improvement model to re-evaluate.

Results / Progress to Date

Our pilot project data collection started in September 2013. We looked at the data from September and October 2013. Our initial data suggests that average time to review the referral and contacting the patient has improved significantly. However, we were surprised by patients non-response to our call which negatively impacted ability to reach our goals.

Lessons Learned & Next Steps

Lessons Learned:
- Obtaining stakeholders input and having regular meetings with them helps with building relationships and trust which is essential in achieving desired goals.
- Patients’ preferences and compliance are also critical variables which should not be over-looked.

Next Steps:
- Review the reasons behind patients non-response and look for ways decrease these.
- Determine how many patients want appointments later than 2 weeks.
- Work on direct access for appointment via primary care.
- Increase our e-consults utilization.
- Phase II of the project includes implementation of timely appointments for external referrals, focusing on patients needing earlier intervention, such as hepatocellular cancer or transplant evaluation.

UCSF Department of Medicine
2013-14 Quality & Safety Innovation Challenge
Transforming the Patient Experience at the Mission Bay Cardiology Practice
Brenda Mar, Naama Neeman, Niraj Sehgal, Ralph Gonzales and Rajni Rao
Department of Medicine, Ambulatory QI Working Group

The Problem
The UCSF General Cardiology practice at Mission Bay has been struggling with below optimal patient satisfaction scores, in particular with regards to questions relating to interactions with staff and the pre-visit experience.

To address this and foster a service oriented culture while promoting teamwork among staff and providers, the practice leadership has devised a comprehensive program aimed at transforming the patient experience.

Project Goal(s)
By the end of 2014 the practice leadership aims to:

- Reach a National Percentile Ranking of > 50 for questions relating to the pre-visit experience and interactions with staff.
- Reach a National Percentile Ranking of > 65 for likelihood of recommending practice.

Project Plan
The Cardiology Patient Experience Transformation Program

<table>
<thead>
<tr>
<th>Initiative</th>
<th>Start Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information about delays: training and education of staff to help inform patients of duration/delays/clinical processes</td>
<td>Nov. 2013</td>
</tr>
<tr>
<td>Rounding on patients (by clinic supervisor) during check-out using a pre-developed script</td>
<td>Apr. 2014</td>
</tr>
<tr>
<td>Music and educational videos in pre-visit lounge and slideshows with professional photographs of the clinic staff</td>
<td>May 2014</td>
</tr>
<tr>
<td>Snacks and beverages to be provided to patients in the pre-visit lounge</td>
<td>Jun. 2014</td>
</tr>
</tbody>
</table>

Welcome video which explains the location of the clinic, how to prepare for the visit, where to park/transportation, what to expect during the visit, and orients patients to the care team (MAs, students/residents/fellows, etc.)

Patient intake questionnaire, which includes review of symptoms and goals for the visit / questions for provider for the patients to fill out while they wait

New clinic orientation for incoming fellows (including customer service and After Visit Summaries utilization)

360 Performance evaluations for providers and staff

Restructuring schedules to increase on-time rooming and on-time provider visits

Results / Progress to Date
Welcome Video
Patient Intake Questionnaire
Rounding at Check-Out Script
Snacks in the waiting area

Lessons Learned & Next Steps
- We are currently finalizing the details of the interventions listed above, and plan to launch the majority of these in the summer (June-Aug. 2014). Performance data will be tracked on a monthly basis and input from staff will be solicited on an on-going basis during staff meetings.
- Our initial efforts suggest that fostering a cultural change is a complex process that requires facing and publicly admitting "harsh realities" (e.g. below-optimal patient satisfaction scores); a commitment to identifying "hot spot" areas that require relatively few resources but have the potential to result in large change (e.g. pre-visit experience and interactions with staff); and getting the right people involved in the planning and execution of improvement initiatives.

UCSF Department of Medicine
2013-14 Quality & Safety Innovation Challenge

- Acknowledgement -
  The initiatives described here were conducted in collaboration with the ARP Team, including:
  - Faculty: Ralph Gonzales, MD, MSPh, Sera Ashtarian, PhD MPH, Chinyi Bianchini, PhD, and Leah Karliner, MD
  - Students: Sarah Cheng, Tom Gaither, Alisa Bocarius, Sarah Cheng, Tom Gaither, Jill Hagey, Margaret Handley, PhD, MPH, Lauren Hennessy, Pascale M bulls, Brian Shave, Norver Trindade, and Greg Zahrner.
  - Cardiology Team: Alisa Bocarius, Lindsey Johnson, Brenda Mac, and Rajni Rao, MD
The Problem

- The Hepatology practice consistently had low patient-satisfaction scores.
- To improve this, our vision was to focus initially on communication and trust within the healthcare team.
- We believed that if providers and staff work better together, then patients will benefit from an improved and more efficient care-environment.
- To do this, we formed a unified leadership team and invested time and effort with the clinic staff.
- We began by conducting monthly leadership meetings with staff. Once we have acquired their trust we engaged them as well as providers in performing 360 anonymous performance evaluations, in which staff assessed providers and providers assessed staff.

Project Goal(s)

Conduct 360 performance evaluations for all clinic staff and providers and increase individuals’ awareness of personal development needs around teamwork and communication.

Project Plan

A 10 questions online survey was sent to 8 staff members and 11 physicians at the beginning of October 2013. We had 100 % completion rate. We used similar questions with slight modifications for staff and physicians.

Questions:
1. Shows empathy to patients and family members.
2. Displays friendliness and enthusiasm at work.
3. Willing to help each other and staff.
4. Makes a concerted effort to make team members feel comfortable.
5. Takes responsibility for actions.
6. Honors commitments to patients.
7. Open to new ideas and suggestions/ offers constructive suggestions for improvement.
8. Manages conflicts with staff and patients in a professional manner.
9. Gives clear instructions with assignments.
10. Follows through with tasks in a timely manner/responds to questions in a timely manner...

Answer options: Exceptional (5), Exceeds requirements (4), Meets requirements (3), Marginal (2), Unsatisfactory(1), N/A (0)

Results / Progress to Date

Responses were analyzed and physicians and staff were given their results compared to the groups’ average with a narrative about the areas in which they performed particularly high or low.

The practice Service Chiefs met with staff individually to discuss the results of their personal review and ask for feedback.

For physicians, Individual results were sent by email and they were offered to meet in person to discuss this further if preferred.

Lessons Learned & Next Steps

- We were impressed by faculty’s willingness and participation, not only to evaluate but also be evaluated by the staff.
- Before implementing the survey we discussed and got input from the providers and clinic staff on the questions to be included which was a key success factor.
- Building trust with staff was the first and most important step before implementing 360 surveys.
- Meeting with staff and giving feedback also helped us in understanding them better.
- Staff and providers were made clear that the evaluations are for self-reflection and growth and there will be no records in the file.
- Our plan is to perform these surveys yearly. Some of the questions we chose could have been better and we plan to revise the survey for our next 360 implementation in late summer 2014.
- We were pleasantly surprised by the positive feedback and interest from other divisions in this project.
Using a Communication Board to Improve Clinic Workflow Efficiencies
Marion Peters, Bilal Hameed, Sasha Eppel, Hepatology Clinic staff
Department of Medicine, Ambulatory QI Working Group

The Problem

- The Liver Transplant Hepatology Practice was experiencing issues with staff—physician communication in the office.
- The physicians came in and left unnoticed and front desk never knew whether the physicians scheduled to be in the office actually arrived or left for the day.
- There were several instances when patients were sitting in the exam rooms for over an hour with no knowledge on the staff side that the physician had already left.

Project Plan

- All physicians were instructed to check in and check out at the front desk, using an existing white board.
- The staff would write the name of the physicians who were scheduled for clinics each day.
- Once the physician checks in, staff put a check mark next to their name.
- If a physician has not checked in at the start of the clinic, the MA would send a page.
- At the end of the clinic session the physician will stop at the front desk to say goodbye and the check mark will be erased.
- The whiteboard has also been used as a wait time notification. Throughout the day the MA will put in estimated wait time for the MD next to his/her name.

Project Goal(s)

- Eliminate “Is Dr. in house?” questions
- Foster a culture of teamwork, among all team members
- Increase patient awareness regarding delays

Results / Progress to Date

Press Ganey Pre- and Post- National Percentile Ranking

<table>
<thead>
<tr>
<th></th>
<th>Pre-Intervention (1/1 - 10/31/2013)</th>
<th>Post Intervention (11/1 - 3/31/14)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Staff worked well together</td>
<td>26</td>
<td>39</td>
</tr>
<tr>
<td>Likelihood of recommending practice</td>
<td>9</td>
<td>53</td>
</tr>
</tbody>
</table>

Lessons Learned & Next Steps

- Every practitioner is now accounted for. This significantly improves workflow efficiencies and staff satisfaction.
- The intervention made it easier for staff to identify and anticipate delays and better inform patients on these.
- This project, in combination with additional efforts to provide individual-provider and clinic-level data on check-in to check-out time, resulted in a reduction of 15 min time a patient spent in clinic on average.
- Based on informal feedback from staff and providers, this project also resulted in a better work environment for all just by having providers greet staff as they sign in and out.
- Next Steps: Add fellows to the provider list on the board to foster collaboration between trainees and office staff

UCSF Department of Medicine
2013-14 Quality & Safety Innovation Challenge
The Problem

- Currently the default design within the UCSF electronic medical record (Epic) may not be optimal for collecting structured data regarding important quality metrics. With much of our IT department staff focused on the build, implementation, and development of the record, few resources have been allocated for quality metrics and data analysis.
- As we aim to enhance our Quality Improvement (QI) efforts in the ambulatory setting, solutions for the documentation of QI metrics, design of analysis reports, and built of panel management tools, need to be provided in an efficient and actionable manner.

Project Goals

To develop and implement a comprehensive Rheumatology Quality Improvement (QI) program, including the identification of mutually agreed upon quality metrics, streamlining of the documentation processes, providing relevant and timely data analysis reports, and creating actionable populations management solutions for patients with Rheumatology Arthritis (RA) and Lupus.

Project Plan

1. Metrics selection - Metrics were developed based on best-practice disease management guidelines and were reviewed and approved by Rheumatology providers prior to program implementation. The RA metrics were also validated in collaboration with the American College of Rheumatology (ACR). The selected QI metrics include:
   - For patients with RA: Disease activity levels and documentation of CDAI, DAS28-ESR, DAS28-CRP, PROMIS SF10a, Patient Global, MD Global, Tender Joint, and Swollen Joint counts.
   - For patients with Lupus: Disease activity levels, documentation of PROMIS SF10a and SLEDAI scores, as well as use of the SDI template.

2. Documentation - The Rheumatology practice has worked with the APEX IT team to design and build customized RA and Lupus flowsheets, which allow for QI metrics to be recorded at every visit. Data from the flowsheets can be easily imported into the medical note and are accessible on the backend for Clarity report writing.

3. QI Reports - Our in-house data team trained in EPIC Report writing built customized analysis reports using data pulled directly from the Clarity Database. Data is analyzed on a monthly basis with a drill down at the provider level, and is disseminated to the Rheumatology faculty with full transparency.

4. Panel Management - We are currently at the final stages of building a Report Work-Bench (RWB) for patients with RA. The RWB is an actionable tool that allows real-time management of patient populations (e.g. identifying patients by certain criteria and sending messages for follow up care via MyChart or mail).

Results / Progress to Date

Documentation (Flowsheet)

QI Reports (RA)

QI Reports (Lupus)

Panel Management (Reporting Work-Bench)

Lessons Learned & Next Steps

Lessons Learned - Effectively implementing QI Programs in the ambulatory setting (which typically lacks regulatory external pressures) is challenging and requires a multi-faced approach. In addition to technical tools and having the right personnel involved (e.g. physician champions, Epic report writers, analysts and project managers), successful implementation requires strong buy-in from frontline providers. This can be accelerated by a consensus-driven approach for metric selection, objective documentation and analysis of the areas needing improvement, and provision of transparent and timely audit and feedback data at the provider level.

Next Steps - We are in the final stages of building and validating the RA RWB. Once built, our group will provide 1:1 training to providers on how to use the tool. In FY2015 we plan to add new QI metrics to our RA clarity reports and RWB (e.g. safety lab monitoring for patients on Methotrexate), as well as build a new RWB for patients with Lupus.
The Problem

- The Hepatology practice has been struggling with consistently low scores on the Press Ganey’s questions relating to friendliness and courtesy of providers and staff.
- Staff and providers were disappointed when scores were reviewed since they did not know what specifically they can do to improve.
- Existing patient satisfaction surveys (Press Ganey and CG-CAHPS) are limited in providing valuable input on desired behaviors also due to patient recall bias and prolonged data processing time, which limits the ability to address patients’ needs in a timely manner.

Project Goal(s)

- Allow patients to provide real-time feedback to the practice and act upon patient expressed needs promptly
- Reinforce to patients that the practice is committed to providing a positive experience
- Increase staff satisfaction by recognizing them with the positive feedback on the practice and individual level

Project Plan

- A recognition wall with all names and pictures of providers and staff was introduced in the waiting area.
- Each patient was asked to fill out a comment card during check-out and drop it in a designated box. The card included the following text:

  Dear Patient,

  Thank you for visiting with us today. We hope we provided you with an excellent experience at our practice.
  Is there anything we could do differently to improve your experience with us?
  Is there anyone you would like to thank or recognize today for exceeding your expectations?

  Hepatology Care Provider:
  Staff Member(s):
  Today’s Date:
  Thank you again for your time and we appreciate your comments.

- The practice manager has been collecting the cards every week; Thank you notes have been sent to staff members who are recognized.
- Constructive feedback is provided and discussed during staff and faculty meetings, and action plans are subsequently created.

Results / Progress to Date

Examples of Patients Comments

Positive:
- “Excellent customer service – very friendly”
- “Everyone here is very courteous and encouraging.
- “Office staff is great!”
- “Already great – nothing to do more”
- “You all are so wonderful”

Negative (or Mixed):
- “Busy at check in but still staff was helpful and pleasant to all”
- “Larger waiting area – need more seats”
- “Would like to be able to use stairs – hate elevators!”

Mean # of cards per week: 30

Lessons Learned & Next Steps

- The interventions described here were part of a comprehensive patient experience improvement program which was implemented in our practices. The program also included a strong focus on team-building activities and clinic workflow efficiencies (e.g. reducing referral time and wait time in clinic)
- The program has resulted in remarkable improvements in our friendliness and courtesy ranking – from the 6th national percentile rank to the 85th.
- Feedback from front desk staff reveals that they now feel more appreciated and less “invisible”.
- The next step is to have a wall where patient comments can be displayed in the waiting area.

UCSF Department of Medicine
2013-14 Quality & Safety Innovation Challenge
Implementing AIDET to Improve the Patient Experience
DGIM Ops Team: Eva Turner; Dan Null, MD; Don Ng, MD; Miranda Dunlop, MD; Michelle Guy, MD; Brent Kobashi, MD; Savina Briggs; Taruna Kumar; Drew Babcock; Mai Giang; Jenny Pacholuk, RN; Robin Helmsreit, LVN; Anais Borjal, LVN

Department of Medicine, Ambulatory QI Working Group

The Problem
The Division of General Internal Medicine (DGIM) has been struggling with a consistently low national percentile ranking on the Press Ganey Friendliness/Courtesy of Registration Staff and Nurse/Assistant questions.

Project Goal(s)
On the combined result of the Friendliness/Courtesy of Registration Staff & of Nurse/Assistant questions, achieve a national percentile ranking of: Threshold: 50th percentile; Target: 52nd percentile; Outstanding: 55th percentile

Project Plan
✓ Press Ganey results are being reported at staff meetings monthly and practices created a public display of reports for staff to review. The Cleveland Clinic empathy video was also shown to staff during the first all-staff meeting of the fiscal year.
✓ The new patient welcome protocol has been revised (model after Women’s Health Primary Care).
✓ Management support staff all have friendliness and courtesy as part of their IAP incentive program goal.
✓ The AIDET Audit Plan Program has been implemented and a monthly AIDET Champions board was created. The board is posted in common areas with recipient awarded a certificate and BEAR Hug prize.
✓ Rounding on patients and staff have been implemented by practice leadership and action plans devised according to feedback.
✓ In addition, DGIM has partnered with another practice who has a lower score to help improve their score through creative teamwork (mentorship, secret shopping, feedback, a day in the life, etc.)

DGIM AIDET Audit Plan
1. Management Team will use the AIDET Observation Feedback to observe in person and telephone interactions with staff. Each member of the management team will perform one audit per week. Audits will be performed cross-practice and cross-role (For example: Nurse Manager may audit a clerical staff person).
2. Any deficiencies observed during the audit will be coached one on one with staff. Audits will also serve to inform scoring of AIDET adherence for future staff evaluations.
3. Each member of the management team will introduce themselves to a patient and ask about their practice experience. Managers will record these discussions and discuss with staff involved with the patient care at that appointment.
4. Once per month each member of the management team will shadow a patient through the entire appointment experience from beginning to end. Observations and learnings from these shadowing events will be shared with the staff and issues related to AIDET and workflow adherence will be reviewed with staff.
5. AIDET forms will be reviewed weekly at the Ops Meeting and once per month an AIDET champ will be selected from one of the DGIM sites by management vote. AIDET champs will be recognized with their picture and a certificate in the common areas along with a Bear Hug.
6. Senior Leadership (Dave Morgan, Executive Director Ambulatory Services & Ken Jones, Chief Operating Officer) will make rounds in practices asking staff about AIDET and Press Ganey scores.

Results / Progress to Date

• Increase in Press Ganey survey positive comments:
  ✓ “The entire staff from Receptionist to Doctor were friendly, courteous and highly professional. I could not have had a better experience.”
  ✓ “5 stars… I continue to be very impressed with the quality of care I receive from UCSF. I am in customer service and would not hesitate to give a critical review if it were appropriate. A very solid experience. Your people are well trained, friendly, professional and courteous.”
  ✓ “Even though I was ill, it was a smooth and comforting experience in all aspects. I felt cared for and I was. Thank you.”
  ✓ “Nice funny staff members – like that!! Over the top good!”
  ✓ “Dedicated, courteous, helpful beyond my expectations!”

Lessons Learned & Next Steps
✓ Since implementation of the AIDET project, there has been an increase in positive comments made in Press Ganey surveys for the DGIM 1545 Practice. Positive comments were shared during a DGIM All Staff meeting, and the group felt energized by the results.
✓ Staff have reported feeling more appreciated for being recognized and have found the awards and positive comments motivational.
✓ Providers report increase in positive staff interactions.
✓ Although we have made gains in our friendliness and courtesy scores, we are still experiencing deficiencies in other areas, such as hold times and delays.

UCSF Department of Medicine
2013-14 Quality & Safety Innovation Challenge
Hepatology and Liver Transplant: Improving Wait Times in the Clinic
Marion Peters, Bilal Hameed, Sasha Eppel, Hepatology Clinic staff
Department of Medicine, Ambulatory QI Working Group

The Problem

- Prolong wait times in the Hepatology and Liver Transplant practices have been a major cause of patient dissatisfaction
- This has been an area of:
  - Low-scores and frequent complaints in Press Ganey surveys (e.g. “great provider but I spent 2 hours in your clinic!”);
  - A major stress factor for the front desk staff clinic;
  - A constant disruption for the clinic’s efficient workflow.

Objective information was essential in order to find out which clinical sessions were delayed, look for trends and potential areas for improvement, and estimate the average time a patient can expect to spend in the clinic.

Project Plan

- We have measured check-in and check-out time of each appointment for 2 clinics within a 2 weeks time for each provider.
- We then compared our findings against scheduled appointment time.
- Patients who arrived 15 minutes or more after the appointment time were removed from the reports.
- Time between appointment time an check out time was calculated on an individual provider level.
- Clinic data was shared with providers in monthly meetings and individual data was fed-back to each provider with a comparison to the clinic average.

Results / Progress to Date

<table>
<thead>
<tr>
<th>Hepatology and Liver Transplant Practices</th>
<th>Time from Check-in to Check-out</th>
<th>(Mean Data by Individual Provider)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oct 2012</td>
<td>February 2013</td>
<td>October 2013</td>
</tr>
<tr>
<td>1:37</td>
<td>1:33</td>
<td>1:27</td>
</tr>
<tr>
<td>0.49</td>
<td>0.47</td>
<td>0.38</td>
</tr>
<tr>
<td>1:32</td>
<td>1:10</td>
<td>0.51</td>
</tr>
<tr>
<td>0.50</td>
<td>0.48</td>
<td>0.40</td>
</tr>
<tr>
<td>1:13</td>
<td>1:08</td>
<td>1:02</td>
</tr>
<tr>
<td>1:02</td>
<td>0.53</td>
<td>0.33</td>
</tr>
<tr>
<td>0.33</td>
<td>0.53</td>
<td>1:02</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Hepatology and Liver Transplant Practices</th>
<th>Time from Check-in to Check-out</th>
<th>(Mean for the Two Practices in Minutes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>52</td>
<td>63.11</td>
<td>67.56</td>
</tr>
</tbody>
</table>

Lessons Learned & Next Steps

- In a year the average time a patient spends in the clinic decreased by 15 minutes.
- Anecdotal data and staff observations were confirmed with numbers: patients spent over 90 minutes on average waiting for some providers known for consistently running late.
- Even the most efficient clinic had an average of 50 minutes from appointment time to check out.
- The new patient letter was updated to inform the patient of an average time they should expect to spend in the clinic.
- Next steps: conduct another wait study and differentiate between new and follow-up patients to assess if the schedule templates need to be modified.
Introducing the New Patient Navigator to Improve the Patient Experience
Eva-Marie Turner, Dan Null, MD, Joanna LaFey, Katherine Welty, MD, Daniel Pound, MD, Seema Moudgil, William DeGoff, MD, Colleen Monfross, David Buchholz, MD, Amy Rosenhaus, and Anne Chang, MD
Department of Medicine, Ambulatory Quality Working Group

The Problem

UCSF has six primary care practice sites:

- Center for Geriatric Care
- Family Medicine at Lakeshore
- General Internal Medicine (1545 & 1701)
- Pediatric Primary Care
- Primary Care at Laurel Village
- Women’s Health Primary Care (WHPC)

Currently, there is no uniform way for a new patient to choose a primary care provider or for specialists to refer patients who are in need of a primary care provider.

The UCSF primary care website: [http://www.ucsfhealth.org/primarycare/](http://www.ucsfhealth.org/primarycare/) does list practice addresses and providers accepting new patients, but it does not comprehensively address patient preferences and answer patient questions about location or neighborhood, parking and transit need, types of primary care (internal medicine vs. family medicine), faculty vs. resident practices, etc.

Project Goal(s)

- Better match patients to primary care providers based on their preferences
- Increase patient satisfaction in choice of primary care provider and practice

Project Plan

Creation of a New Patient Navigator position embedded in the UCSF Call Center

Primary Care Screening Questions to be asked by New Patient Navigator:

1. Do you have a specific request for a physician?
2. Where do you live or work in relation to where you would like to be seen? What is the most convenient location or part of the city for you?
3. Do you prefer to see a male / female provider?
4. Adult patients: Are you okay with being seen in a practice where children are seen?
5. Pediatric patients: Are you okay with your child being seen where adults are also seen?
6. Would you like care for your entire family in one location?
7. If the patient schedules for themselves and their family members: Are you okay with your family all seeing the same provider? (May apply to some Family Medicine docs or Internal Medicine all adult appointments)
8. Are you okay with paying for parking or being assigned to an area where parking can be challenging?
9. Are you okay with residents and medical students taking part in your care?
10. Do you want your first visit to be an annual check up / preventive visit or do you need to be seen for a specific health condition?
11. If the patient brings it up: special requests for LGBT care or Transgender expertise.
12. Do you require special services as diabetes, sports medicine, or behavioral health.

Results / Progress to Date

- The Call center workflow has been delineated and screening questions have been devised and vetted.
- New patient navigator job description has been drafted (awaiting final review and approval) and internal candidate from UCSF call center identified.
- New patient navigator toll-free phone number was established: 1-844-PCP-UCSF (727-8273)
- Referral work-queues for new patients have been developed and approved.
- New patient packets are currently being created for all primary care practices.

Lessons Learned & Next Steps

Lessons Learned: The process of collaborating with six different primary practices highlighted the importance of consensus building. Through open communication and on-going dialog we were able to efficiently devise a mutually acceptable plan for the creation of the new navigator position.

Next Steps:

- Go-live is scheduled for May 15th, 2014.
- We are currently putting together a marketing campaign to introduce the patient navigator role and perceived benefits to our patients.

UCSF Department of Medicine
2013-14 Quality & Safety Innovation Challenge
The Problem

- Patients often struggle with comprehending and recalling medical information discussed during office visits; it has been estimated that patients forget 40-80% of clinical information shared by their care providers.
- This gap in comprehension and recall of medical information may result in significant negative consequences, including decreased satisfaction with the medical encounter and lack of adherence to recommended treatment plans with associated adverse health outcomes.
- Meanwhile, written health information has been demonstrated to improve patients’ recall of important information. In comparison to general information (such as disease-related information leaflets), personalized materials (such as After-Visit Summaries - AVS) tend to result in better health and service-related outcomes and are more highly valued by patients themselves.

Project Goal(s)

FY2014 goals for all Department of Medicine’s (DOM) Divisions in the ambulatory setting include:

- **TARGET I: 90% AVS Utilization**
  (defined as AVS printed OR patient is active on MyChart and can access their AVS online)
- **TARGET II: 50% AVS completed and provided with patient instructions**
- **OUTSTANDING: 70% AVS completed and provided with patient instructions**

Project Plan

- We have implemented an audit and feedback project in which AVS utilization data was provided to all DOM divisions on a monthly basis (project began on July 2013 and is still ongoing).
- Data was provided with the option to drill down to the individual practice and provider. However, until the end of 2013 most divisions have opted to receive their AVS data at the Division level only.
- Starting from January 2014, we began pushing provider level data to all Divisional Service Chiefs and Practice Managers/Administrative Directors and encouraged them to share this with their providers.
- Data at the provider level allowed easy identification of outliers (i.e., defined as providers who fall well-below AVS utilization targets). Some divisions opted to address this by conducting individual and confidential conversation with outlier providers, while others plan to share the data with full transparency with their group.

Results / Progress to Date

<table>
<thead>
<tr>
<th>Service</th>
<th>FY2013 (Baseline)</th>
<th>FY2014 YTD*</th>
<th>% Improvement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cardiology</td>
<td>57%</td>
<td>69%</td>
<td>19.9%</td>
</tr>
<tr>
<td>Endocrine</td>
<td>33%</td>
<td>67%</td>
<td>103.8%</td>
</tr>
<tr>
<td>Gastroenterology</td>
<td>73%</td>
<td>80%</td>
<td>8.6%</td>
</tr>
<tr>
<td>General Internal Medicine</td>
<td>51%</td>
<td>52%</td>
<td>0.1%</td>
</tr>
<tr>
<td>Hematology</td>
<td>14%</td>
<td>25%</td>
<td>75.6%</td>
</tr>
<tr>
<td>Hepatology</td>
<td>94%</td>
<td>96%</td>
<td>1.8%</td>
</tr>
<tr>
<td>Infectious Disease</td>
<td>51%</td>
<td>53%</td>
<td>3.7%</td>
</tr>
<tr>
<td>Nephrology</td>
<td>80%</td>
<td>90%</td>
<td>11.6%</td>
</tr>
<tr>
<td>Occupational Medicine</td>
<td>48%</td>
<td>82%</td>
<td>72.8%</td>
</tr>
<tr>
<td>Oncology</td>
<td>33%</td>
<td>40%</td>
<td>20.5%</td>
</tr>
<tr>
<td>Pulmonary/Allergy</td>
<td>77%</td>
<td>83%</td>
<td>5.8%</td>
</tr>
<tr>
<td>Rheumatology</td>
<td>63%</td>
<td>69%</td>
<td>10.9%</td>
</tr>
<tr>
<td>DOM Mean</td>
<td>56%</td>
<td>67%</td>
<td>19.0%</td>
</tr>
</tbody>
</table>

* Fiscal year, as of 4/1/2014

Lessons Learned & Next Steps

- Frequent (monthly) audit and feedback coupled with effective and consistent communication resulted in significant improvements in AVS utilization and quality across all DOM division.
- The most impressive improvements were seen in the Division of Endocrine, which under the leadership of Dr. Umesh Masharani (Service Chief) and Marlene Bedrich (Practice Manager), have implemented a .dot phrase in Epic with patient instructions, as well as opt to receiving and disseminating AVS utilization data at the provider level early on.
- This initiative has emphasized the importance of drilling down to the individual level data and creating tools (such as the .dot phrase) to simplify providers’ workflow processes. These interventions facilitated a culture of improvement and transparency, allowed for effective identification of and communication with outlier performers, and improved provider accountability.
Music as a Tool for Improving the Patient Experience in the Pre-Visit Lounge

Naama Neeman, Melinda Simpson, John Malcolm, Rossana Fazzina, Andre DeVito, Zachary Martin, Pegi Walker, James Harrison, Niraj Sehgal

Department of Medicine, Ambulatory QI Working Group

The Problem

- Patients diagnosed with HIV/AIDS often suffer from a wide-range of co-morbidities, including depression and anxiety.
- The use of music as an intervention for treatment of a multitude of conditions has been increasing in recent years, and was shown to effectively reduce anxiety for patients.
- Most of these studies have been conducted in the inpatient setting, and limited data is available on the effect of music in an ambulatory setting and/or on patients with the diagnosis of HIV/AIDS.

Project Plan

- We have implemented an 8-week pilot project in the Positive Health practice to evaluate the effect of music in the waiting area on the patient experience, mood, and perception of wait time.
- Once a week a member of the Department of Medicine’s Quality and Safety group, who is also a musician, would play the acoustic guitar in the pre-visit lounge.
- Observations and surveys (n=39) were conducted and data was compared with two controlled groups: 1) patients who waited in the pre-visit lounge without any entertainment (n=40); and 2) patients who listened to recorded music while waiting to be seen by their medical team (n=40).

Project Goal(s)

- To evaluate the impact of live and recorded music on:
  - The general experience in the pre-visit lounge
  - Patients’ perception of wait time
  - Patients’ reported mood

Results / Progress to Date

As soon as he started playing it (“the music), the atmosphere changed. Music gives me strength.”

“I liked it a lot! I enjoyed it. It made me feel happy”

“IT (*music) made me feel more comfortable and relaxed”

“I think it’s wonderful. There should be music all the time!”

“It was a little angry earlier, but now I feel better going to the doctor. Music is always good, it makes me feel good anytime.”

“It (the music) really takes my mind off the fact that I’m just here waiting”

“It’s comforting, relaxing... sometimes when you go get care you feel that the waiting area is “cold”, with the music it’s different. Who doesn’t like music?”

“It’s a great idea! I hope this guy sticks around. It’s turning the experience pleasant... now thanks to him I don’t want to leave!”

“I was a bit stressed but the music is helping me. I like the acoustic guitar.”

“I like this! I feel like I haven’t waited a minute!”

“I love music, I sing in a chorus. It’s soothing... it’s making me happy”

“It changes things, keeps your mind off the fact that you are in a hospital because of your disease”

Patient Reported Mood in the Pre-Visit Lounge

<table>
<thead>
<tr>
<th>Live Music</th>
<th>Recorded Music</th>
<th>No Music</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive</td>
<td>36%</td>
<td>40%</td>
</tr>
<tr>
<td>Negative</td>
<td>2%</td>
<td>15%</td>
</tr>
</tbody>
</table>

UCSF Department of Medicine
2013-14 Quality & Safety Innovation Challenge

Lessons Learned & Next Steps

- Music is an easy and worthwhile way to decrease the anxiety, improve the patient mood and his/her experience in the waiting area.
- Although live music was shown to have the most positive effect, patients also appreciated listening to recorded music, and reported better moods and a more positive experience compared with patients who waited in the pre-visit lounge without any entertainment.
- The results of this project will be shared with all Department of Medicine’s ambulatory practices, with the recommendation to play live (to the extent possible) and recorded music in their pre-visit lounge.
- We will also survey providers and staff to learn about their experiences with and reactions to the music.
Rounding on Patients for Feedback and Recognition
Naama Neeman, Susan Alvis-Rankin, Darlene Lee, Andrew Gross, Brenda Mar, Rajiv Rao, Rossana Fazzina, Zachary Martin, Zareh Gasper and Niraj Sehgal
Department of Medicine, Ambulatory QI Working Group

Background & Goals

- Obtaining timely feedback is essential for understanding the patient experience and how it can be improved.
- Post-care patient satisfaction surveys provide important insight into the patient’s perspective, however these are limited by a number of factors, including:
  - Recall bias (especially with regards to mailed surveys); and
  - Prolonged data processing time, which limits the ability to respond promptly to patients’ expressed desires and needs.
- To address this, we have implemented Patient Rounding with the goals of:
  - Soliciting real time feedback from patients.
  - Demonstrating our commitment to delivering high quality care.
  - Proactively managing the patient experience to assure expectations are met.

Project Plan

- The Department of Medicine’s Quality and Safety team in collaboration with the Department of Service Excellence have completed a pilot project in the Rheumatology and Cardiac EP practices, which involved rounding on patients after their appointments to capture what is working well vs. opportunities for improvement.
- Rounding on patients provided a nice opportunity to recognize and reward both providers and staff for their efforts to improve the patient experience.
- We have provided each practice with patient feedback on a weekly basis to recognize individuals who have exceeded patients’ expectations as well as highlight potential areas for improvement.

Rounding Survey Tool

1. How would you rate your overall experience in the [practice] today on a scale of 1-10 (with 1 being very poor and 10 outstanding)?
2. What was the best part of your experience?
3. Is there anything that we could have done better for you? What is one thing that you would suggest to improve your experience in the practice moving forward?
4. Has anyone in the practice (medical provider or staff) exceeded your expectations today? Is there anyone that you would like to thank or recognize?

Results

- During this 8 week pilot project a total of 155 patients were rounded upon (75 in Rheumatology and 80 in Cardiac EP) and provided a total of 455 (231 and 224 respectively) comments.
- The overall experience rating was 9.79 in Rheumatology and 9.62 in Cardiac EP (mean score on a scale of 0-10), with 87% and 86% positive comments, of which 61% and 55% included specific recognition of providers and staff.
- Suggestions for improvement in both practices were focused on wait time in the pre-visit lounge as well as issues with calling the practice and scheduling appointments (see detailed analysis below).

Rheumatology – Improvement Suggestions

- Stop surveying on behalf of pain
- Parking
- Reviewing Medication
- Copayment
- Communication

Cardiac EP – Improvement Suggestions

- Waiting Time (in the Pre-Visit Lounge)
- Communication

Cardiac EP – Patient Satisfaction Data (National Percentile Rank) Prior to and During Intervention *

<table>
<thead>
<tr>
<th>Year</th>
<th>Likelihood of recommending practice</th>
<th>Likelihood of recommending CP</th>
<th>Friendliness/courtesy of CP</th>
<th>Friendliness/courtesy of nurse/assistant</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY 2013-14</td>
<td>76</td>
<td>20</td>
<td>82</td>
<td>20</td>
</tr>
<tr>
<td>Intervention</td>
<td>90</td>
<td>32</td>
<td>97</td>
<td>32</td>
</tr>
</tbody>
</table>

* Notes:
1. Press Ganey data was not available in Rheumatology due to coding error.
2. No other interventions aimed at improving the patient experience were implemented in Cardiac EP (or Rheumatology) during this pilot project.
3. National Percentile Ranking represents our percentile ranking as compared to all peer groups that also use the Press Ganey survey.

Lessons Learned & Next Steps

- Survey findings indicate that patients are generally satisfied with their experience at both the Rheumatology and Cardiac EP practices and are appreciative of staff and providers’ efforts to deliver a positive experience. The most frequently commented upon areas for improvement were wait time in the clinic as well as phone services and access.
- We are currently implementing several process improvement projects to address these areas. The Department of Medicine’s Quality and Safety group is working with the Clinical Systems Department to build a Radar Dashboard in Epic which will inform patients on their expected wait time. At the same time, the Department of Medicine’s Ambulatory Operations working group has already made significant strides in reducing time to appointment and allowing patients to book their appointments using MyChart.
- Our experience suggests that providing real-time patient feedback while recognizing specific individuals who have exceeded the patients expectations, can have a profound and positive impact on the culture, norms, and behaviors of provider and staff which in return result in an improved experience for patients.
- With regards to expanding this initiative to other areas, manpower considerations should be taken into account. For other practices interested in engaging in similar efforts we recommend doing this during leader rounds. This may compromise the sample size to some degree, nonetheless will overall improve workflow efficiencies and cost.
Lipid Endocrine - Mount Zion Diabetes

Pre and Post “Friendliness and Courtesy”: National Percentile Rank

Pre and Post “Friendliness and Courtesy”: %Top Box

Lessons Learned & Next Steps

Introducing a “friendly performance competition” can be a fun and engaging way to establish shared-goals, increase performance awareness, encourage a productive dialog on best-practice strategies and eventually improve performance.

Our experience suggests that in this audit and feedback exercise the numbers mattered but the discussion around them mattered even more.

Moving forward, the Division of Endocrine will continue to use data from multiple sources (Press Ganey scores, patients’ comments, real-time surveys, etc.) along with educational interventions to engage providers and staff in working together to consistently provide the best possible patient experience.

UCSF Department of Medicine 2013-14 Quality Safety Innovation Challenge
Taking The Pain Out Of Quality Improvement: Improving Pain In Patients Seen By An Inpatient Palliative Care Service

Kara Bischoff MD, Rachel Ruskin MD, Laura Koehn MD, Virginia Dzul-Church MD, Ashley Bragg, Megan Pantilat MD, Steven Pantilat MD

BACKGROUND

The prevalence of pain in hospitalized adults is high and has been associated with reduced quality of life, lower patient satisfaction, and longer length of stay. Refractory pain is a common reason for hospitalization and for palliative care consultation. Effective pain control is a core competency for hospital medicine and palliative care teams.

PURPOSE

We sought to improve pain management in patients seen by the Palliative Care Service (PCS). We selected a goal that met the Specific, Measureable, Achievable, Relevant and Time-Bound (SMART) criteria. Specifically, we aimed to increase the proportion of patients who experienced an improvement in their pain within 1 day of PCS consultation by 25% during at least 3 of 4 quarters of the academic year.

BASELINE DATA

We recorded patients' self-reported pain level on a 0-10 scale (0, no pain; 10, worst pain imaginable) during a baseline period from January to June 2013. An average of 46% of patients with pain on the day of initial PCS consultation had at least a 1-point improvement in their pain by the next day.

We were behind some of our peers in the Palliative Care Quality Network, based on available data.

A goal of 25% increase in the proportion of patients who had an improvement in their pain meant that we aimed to improve pain in at least 57% of patients.

PLANNING

During the first three months of the year, while providing usual care, we observed the steps required for pain assessment and management. We created a process map of the steps involved in treating pain. We analyzed specific patient cases in which pain had not improved to identify steps in the process that had failed. We sought to identify steps that were quality gaps which the PCS could directly impact. We sought advice from providers who had been on the consult service during exceptionally successful months to expand the population of patients who might benefit from our intervention. We are investigating reasons for the initial decrement in pain improvement in the hospital to assist in distributing the patient education cards, as this may not be a physician level task. We are considering involving nurses and other disciplines in the hospital to assist in distributing the patient education cards, as this may not be a physician level task. We are partnering with existing committees focused on pain improvement in the hospital, to share our work and expand the population of patients who might benefit from our intervention. We are working with next year’s fellows to continue this project, so that they may work towards even greater gains in pain improvement.

INTERVENTION

We formulated a three-part intervention to address steps in the process that were both quality gaps and directly actionable.

1. First, we made educational cards for patients that emphasized key concepts of pain control including the appropriate use of "as needed" medications and the importance of treating pain before it becomes severe.
2. Second, when we saw a patient with uncontrolled pain, we immediately discussed our concern with the patient’s nurse and solicited the nurse’s help with assessment and treatment of pain.
3. Third, we communicated recommendations for pain management with primary teams immediately after seeing a patient with pain, prior to seeing other patients.

As your palliative care team, we want to improve your pain and other symptoms.

You have been prescribed an "as needed" pain medication, ____________, which you can ask for every hours. If you have pain, push your call button to ask for this medication. If that medicine does not work within 1 hour, please see your nurse.

It is generally easier to stay out of pain than to get out of pain once it is severe. Please let your nurse know early when your pain is worsening.

If you want to talk with our team directly, ask your nurse to page the palliative care team. We are committed to working with your primary team to help you feel better.

RESULTS

Though we saw a decrement in the percentage of patients who had an improvement in their pain during our planning period, since enacting our intervention our rate of pain control has improved steadily and is now above our goal.

We found that patients who had severe pain on the day of initial PCS consultation were more likely to have an improvement in their pain (86%) than were patients with mild pain on the day of initial consultation (6%).

CONCLUSIONS

We selected a quality improvement goal that was relevant to patients and the healthcare system and met SMART criteria.

Through process mapping, we identified modifiable gaps in quality at the patient, nurse, and physician level and implemented a targeted, three-part plan for improvement.

We observed a substantial 47% increase in the percentage of patients who experience pain relief within 1 day of PCS consultation.

We continue to monitor progress and seek additional opportunities to improve practice.

NEXT STEPS

We are investigating reasons for the initial decrement in pain improvement that we observed between July and September, including whether the “July Effect” exists for pain control in the hospital.

We are considering involving nurses and other disciplines in the hospital to assist in distributing the patient education cards, as this may not be a physician level task.

We are partnering with existing committees focused on pain improvement in the hospital, to share our work and expand the population of patients who might benefit from our intervention.

We are working with next year’s fellows to continue this project, so that they may work towards even greater gains in pain improvement.

REFERENCES


2. SMART Objectives. The Smart Bites Toolkit. Institute of Medicine. Available at: http://www.iom.edu/About-IOM/Making-a-Difference/Community-Outreach/%7emiaafiles%20%7e%7e92012%7e%7eSmart%20Bites%20%7e%7ePlanning%20%7e%7eSMART%20Objectives.aspx

3. Palliative Care Quality Network. Available at: https://www.pcn.org/

4. SIPOC. Available at: http://en.wikipedia.org/wiki/SIPOC
In their Own Words: Exploring Patient Reflections of Physician Communication Using Press Ganey Survey Comments

Geraldine Tran¹, James D Harrison², Diane Sliwka³
1 School of Medicine, University of California San Francisco
2 Division of Hospital Medicine, University of California San Francisco

BACKGROUND

• Surveys such as the Press Ganey and Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) provide quantitative data about patient perceptions of care.
• Understanding the drivers of numeric scores is important to improvement efforts.
• Free text patient comments already available at many institutions may provide such important information.

OBJECTIVES

• We sought to identify actionable themes regarding patient perceptions of communication with physicians on an inpatient Medicine service using survey comment analysis.

METHODS

• Patients admitted to our institution between July 2010 and June 2013 were mailed surveys with combined Press Ganey/HCAHPS questions within one week of discharge.
• Free text comments relating to physician communication were extracted from 1511 inpatient Medicine patient surveys and qualitatively analyzed using content analysis.
• Two investigators independently analyzed the data.
• Responses were organized into themes and the frequency of each theme recorded.

RESULTS

• 285 (18.9%) of patients made comments specifically related to physician communication.
• 164 (58%) were positive, 72 (25%) negative, 15 (5%) neutral and 34 (12%) a mixture of positive and negative.
• Table 1 describes themes and frequencies of comment types.

Table 1: Summary of Themes and Quotations Related To Patient Perceptions of Communication with Physicians

<table>
<thead>
<tr>
<th>Positive Theme</th>
<th>Examples of Patient Quotations</th>
<th># Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physicians demonstrating professionalism and respect</td>
<td>“The physicians treat you with respect and listen to and discuss all your concerns.” “They cared about my every concern and treated my family &amp; I with utmost care &amp; respect.” “Dr. F was fantastic, respectful and professional.”</td>
<td>52</td>
</tr>
<tr>
<td>Physicians consistently communicating treatment and care processes</td>
<td>“They explained in detail, answering all my questions and making sure I was ready to go home.” “She expressed genuine care, and went above and beyond in every way possible.” “I was very lucky in that they each displayed an overall concern for the best outcome to my health. Each very loyal to their profession &amp; their patient.”</td>
<td>23</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Negative Theme</th>
<th>Examples of Patient Quotations</th>
<th># Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of direct physician contact and communication</td>
<td>“I saw the attending maybe twice in my days spent there.” “I saw the attending maybe twice in my days spent there.”</td>
<td>25</td>
</tr>
<tr>
<td>Difficulties recognizing and keeping track of multiple team members</td>
<td>“I had so many different doctors, I didn’t know who my main attending was.” “Too many doctors. Too hard to keep track of all of them.” “I was there 5 days; I had a different doctor every day, never any one of them to be seen again. NO continuity.”</td>
<td>20</td>
</tr>
<tr>
<td>Lack of communication regarding treatment plan and care processes</td>
<td>“I just did not get enough information about what was going on.” “They never told me anything about my condition.”</td>
<td>14</td>
</tr>
<tr>
<td>Miscommunication between the multi-disciplinary team</td>
<td>“Communication between the teams was excellent at times, negatively impacting my care.” “Each individual was excellent, however, it is clear that cross discipline and cross service communication is poor.” “First doctor said: probably wouldn’t go home. Second doctor said: I could go home. The third (attending) doctor said: I should probably stay another night. It was a little confusing and pretty disheartening.”</td>
<td>10</td>
</tr>
<tr>
<td>Conflicting information from physicians</td>
<td></td>
<td>6</td>
</tr>
</tbody>
</table>

DISCUSSION

• Comment review for this time period elucidates that professionalism and respect account for most positive perceptions, followed by empathy and high quality of explanations.
• Numerous providers, limited perceived access to providers and information, and poor or conflicting explanations account for the majority of negative perceptions.
• The richness of such information allows for targeted improvement efforts, such as use of white boards or face cards to address difficulties identifying physicians.

CONCLUSIONS

• Patient comments from existing survey data can provide supportive detail, illuminating patient perceptions of care.
• Summarizing themes helps to separate “one off” items from recurring observations which may warrant more attention.
• Specificity of comment themes can help to focus on organizational and individual efforts to improve how physicians communicate with patients.

FURTHER RESEARCH

• Future work includes a broader review of comments across the organization’s different departments to demonstrate common versus specific trends by service.
• Interventions targeted at specific problem areas will be followed by further observation for score improvement and changes in comment trends over time.
**BACKGROUND**

- Electronic communication in the hospital is integral to patient care
- However, it is often inefficient, siloed, and error-prone
- Sending & receiving pages is time-consuming and burdensome

**PRE-INTERRUPTION ASSESSMENT**

- March 2013 survey of UCSF MDs and RNs and a time-and-motion audit to assess pager burden and workflow
- 43% of 101 MDs and RNs felt paging was a burden
- 75% reported encountering errors, adverse events, or near-misses as a result of paging technology
- ~50% of MD time spent on communication (9.6 hrs) & documentation (11.4 hrs) out of 41 hours observed

**OBJECTIVES**

- Redesigning the current paging system by creating CareWeb Messenger to:
  - Reduce page burden
  - Improve hospital efficiency
  - Improve interdisciplinary communication

**CAREWEB MESSENGER**

- CareWeb is a team-based collaborative care platform utilizing social network & mobile technologies
- It hybridizes Facebook and Twitter functions with the electronic health record and existing paging technology
- Users send, receive, view, search and store messages on a patient’s “wall” – both desktop & mobile interfaces
- Routes messages to pagers, Wi-Fi & smart phones
- Multidisciplinary – MDs, RNs, social work, case management, PT/OT, & pharmacy all communicate along a flattened hierarchy

**POST-INTERVENTION RESULTS**

- CareWeb pilot launched successfully at UCSF in October 2013 and is still ongoing
- 346 users have sent 14,526 pages
- 17% of those surveyed use CareWeb for 80% of their paging needs, so adoption is still a work in progress
- Post-survey showed CareWeb preferred to the existing paging system for sharing and reviewing communication (65%) and overall (55%)

**CONCLUSIONS**

- CareWeb provides a platform for sending, receiving, and searching messages that integrates with existing technology, thus improving retrieval and review of clinical communications
- It promotes multidisciplinary clinical communication in the inpatient setting and reduces redundant workflow
- We successfully piloted CareWeb on Medicine Wards and have slowly expanded it to other services

**FUTURE DIRECTIONS**

- To expand CareWeb to the entire UCSF hospital system
- To study its impact on clinical efficiency using post-CareWeb time and motion data
- To message patients via CareWeb (LionShare videos)
- To study the impact on clinical outcomes such as length of stay and 30-day readmission rate

**ACKNOWLEDGMENTS**

We thank Tammy Tran and David Dutton for their research assistance as time-and-motion volunteer observers.

**CONTACT**

Email Lekshmi.Santhosh@ucsf.edu
"Initially PCPs did not actually know what it was for and their real question was 'can you see this patient in...'
I remember [the design team] at one point was sending out monthly e-referral samples. I really liked them
and regular meetings in which PCPs and specialists discuss patient management.

Participation is voluntary. At present, 11 medicine subspecialties provide specialists via a shared electronic health record (EHR).

Sixteen of 19 possible PCPs were approached but four declined because of limited time. Of those who agreed to participate, 14 agreed to be interviewed and completed the interviews (response rate 74%)

Conclusions
• Our results suggest that eConsults have become a popular alternative to curbside consultations and in-person subspecialty visits for appropriate, low-complexity patients. Update of eConsults on UCSF has been strongly influenced by subspecialties and the design/implementation team.

Limitations of our study include the lack of patient perspectives about the acceptability of eConsults. In addition, our study setting was an academic medical center with a fee-for-service payment structure, so our results may be less relevant to private practice and non-fee-for-service settings.

We are grateful to the clinicians who generously shared their time and perspectives with us.
**BACKGROUND**

- Problems with late afternoon patient discharges:
  - Create admission bottlenecks in the ED
  - Slow elective admissions and delay transfers out of the ICU and PACU
  - Are a major dissatisfier for patients
- >50% of hospitals nationally have an average discharge time of 3pm or later
- Physicians are key stakeholders yet their perspectives have not been explored

**OBJECTIVES**

Evaluate physician perspectives on barriers to discharge before noon to identify targets for improvement

**METHODS**

- We surveyed the attending or senior resident of 8 medical teams daily in person over a one month period at an academic Internal Medicine service on barriers they faced for every patient discharged after noon
- Physician responses were coded into 5 primary pre-specified domains with multiple subcategories (outlined in Table)

**EXAMPLES OF BARRIERS TO DISCHARGE BEFORE NOON BY CATEGORY**

- **Clinical Decision Making**
  - Awaiting consultant recs
  - Monitoring on day of discharge
  - Awaiting test results
- **Discharge Planning Logistics**
  - Placement bed not available
  - Transportation not arranged in time
  - Delay in determining DC needs
- **Team Workflow**
  - Patient admitted overnight
  - High volume of morning admissions
  - Poor interdisciplinary communication
- **Patient Factors**
  - Family cannot pick patient up in time
  - Patient with ongoing questions
  - Patient resistant to leaving
- **Clinical Logistics**
  - PICC not placed in time
  - Awaiting procedure
  - F/u appointments pending

**PHYSICIAN RESPONSES FOR BARRIERS TO DISCHARGE BY NOON**

- “We didn’t hear back from ID until the afternoon”
- “The SNF bed wasn’t ready until 2pm”
- “The patient was just admitted at 3 am”
- “Her daughter could only pick her up after work”
- “The PICC wasn’t placed until late morning”

**DISCUSSION**

- Understanding institution specific barriers to early discharge can help guide process improvements
- According to physicians, 39% of late discharges were unavoidable: related to test results, consult recommendations and changes in patient status.
- Other areas such as patient factors and discharge planning logistics offer attractive targets for improvement

**TARGETS FOR IMPROVEMENT**

- **Patient Factors:**
  - Use of whiteboards & standard communication to inform patients of impending discharge date and time
- **Discharge Planning and Clinical Logistics:**
  - Alerting ancillary staff: radiology scheduling, physical therapists, PICC RN, transport, etc. of planned discharges (Clinical logistics)
- **Discharge preparation checklist**
- **Team Workflow:**
  - **Tee time:** short afternoon meeting with case managers to review potential discharges for the next day

---

**UCSF Division of Hospital Medicine**

**Exploring Physician Reported Barriers to Early Discharges**

Hemali Patel, Pierre Elias, Sasha Morduchowicz, Andrea Mazzini, Michelle Mourad
eConsults: Content analysis of PCP questions, specialist advice, and PCP responses

Katherine Wrenn, MD; Nathaniel Gleason, MD; Serena Catschegn, MD; Marisa Cruz, MD; and Ralph Gonzales, MD, MSPH
University of California San Francisco School of Medicine - Division of General Internal Medicine

STATEMENT OF THE PROBLEM

Ambulatory referrals to specialists are increasing at a rapid rate, resulting in longer wait times to access specialist care and rising health care costs, when certain questions raised by primary care physicians (PCPs) can often be answered without in-person specialist consultation.

BACKGROUND

The eConsult program implemented at University of California, San Francisco (UCSF) in September 2012

OBJECTIVES

Describe the types of questions PCPs are asking in eConsults

Describe the types of responses specialists are providing to PCPs

Determine to what extent PCPs are implementing specialist recommendations

METHODS

• Study conducted at University of California, San Francisco (UCSF)
  • Multi-specialty academic medical center
  • Shared electronic health record (EHR)
  • Analysis of first 200 eConsults completed between March 2013 and September 2013

RESULTS

Table 1. Types of Questions asked by PCPs and Content of Responses from Specialists Completing eConsults, by Specialty of Requested Consult.

<table>
<thead>
<tr>
<th>Specialty</th>
<th>PCP Questions</th>
<th>Specialist Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medicine</td>
<td>45.5%</td>
<td>72.6%</td>
</tr>
<tr>
<td>Pediatrics</td>
<td>31.0%</td>
<td>6.6%</td>
</tr>
<tr>
<td>Infectious Diseases</td>
<td>4.0%</td>
<td>16.0%</td>
</tr>
<tr>
<td>Psychiatry</td>
<td>3.0%</td>
<td>1.0%</td>
</tr>
<tr>
<td>Geriatrics</td>
<td>2.0%</td>
<td>3.0%</td>
</tr>
</tbody>
</table>

Table 2. Percentage of Specialist Recommendations Ordered by PCPs in the 6 Months Following Completion of the eConsult (n=200 eConsults).

<table>
<thead>
<tr>
<th>Specialty</th>
<th>Cardiology</th>
<th>Dermatology</th>
<th>Endocrinology</th>
<th>Family Medicine</th>
<th>Gastroenterology</th>
<th>Geriatrics</th>
<th>Infectious Diseases</th>
<th>Internal Medicine</th>
<th>Neurology</th>
<th>Neurosurgery</th>
<th>Obstetrics/Gynecology</th>
<th>Orthopedics</th>
<th>Otolaryngology</th>
<th>Pulmonary Medicine</th>
<th>Radiology</th>
<th>Surgery</th>
<th>Urology</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>PCP Questions</td>
<td>40.0%</td>
<td>40.0%</td>
<td>30.0%</td>
<td>25.0%</td>
<td>20.0%</td>
<td>15.0%</td>
<td>15.0%</td>
<td>10.0%</td>
<td>10.0%</td>
<td>10.0%</td>
<td>10.0%</td>
<td>10.0%</td>
<td>10.0%</td>
<td>10.0%</td>
<td>10.0%</td>
<td>10.0%</td>
<td>10.0%</td>
<td>10.0%</td>
</tr>
<tr>
<td>Specialist Responses</td>
<td>45.5%</td>
<td>45.5%</td>
<td>45.5%</td>
<td>45.5%</td>
<td>45.5%</td>
<td>45.5%</td>
<td>45.5%</td>
<td>45.5%</td>
<td>45.5%</td>
<td>45.5%</td>
<td>45.5%</td>
<td>45.5%</td>
<td>45.5%</td>
<td>45.5%</td>
<td>45.5%</td>
<td>45.5%</td>
<td>45.5%</td>
<td>45.5%</td>
</tr>
</tbody>
</table>

CONCLUSIONS

• eConsults include clinical questions across the spectrum of patient care: diagnosis, treatment, and monitoring of multiple different medical conditions

• PCPs implement specialists’ recommendations in the large majority of cases

• Very few patients subsequently require specialist care or ED visits related to the reason for eConsult

LIMITATIONS

• Single center study

• Single consultant responded to all eConsults for each specialty during first 3 months

• Only analyzed health care utilization post-eConsult that occurred within UCSF system

Funding/support for this project was provided by:

• Office of the Dean, University of California, San Francisco

Figure 1. Types of Questions asked by PCPs in eConsults and Content of Responses from Specialists Completing eConsults (n=200).

Figure 2. Content of PCP Questions vs. Specialist Responses (n=200).

Figure 3. Health Care Utilization in the 6 Months Following Completion of the eConsult (n=196 eConsults).
Establishing Guidelines for Referral to Orthopaedic Specialty Care: Consensus Using the Modified Delphi Method

Maria Otto, MD; Carlin Senter, MD; Christy Boscardin, PhD; Ralph Gonzales, MD, MSPH; Nathaniel Gleason, MD
Department of Medicine, University of California San Francisco (UCSF)

Background

- Long wait times for orthopaedic appointments require that we improve the efficiency and quality of the referral process (1st visit > 14 days for 28-40% of patients)
- Referral guidelines for orthopaedic conditions are limited
- Structured referrals and non-face-to-face consultations (eConsult): Improve pre-referral evaluation and management; Provide decision support at point-of-care; Improve timely access (goal 1st visit ≤ 14 days)
- Support principles of the Patient-Centered Medical Home-Neighborhood

Objective

Identify consensus between primary and specialty providers using the modified Delphi method in order to establish meaningful orthopaedic referral guidelines and inform development of structured referrals and eConsults.

Methods

Expert Panel Recruitment
- To represent broad range of expertise, all UCSF Orthopaedic providers (MDs, PAs, NPs) asked to participate (n = 24)
- Primary care providers (PCPs) volunteered (n = 22) in response to email sent to all UCSF adult PCPs (n = 178)

Modified Delphi Method
- Two rounds of anonymous electronic surveys over four weeks with median response from the 1st round provided in 2nd round
- Surveys composed of clinical scenarios for commonly referred orthopaedic conditions
- PCPs answered all questions (n = 214); orthopaedists only their joint-specific questions
- Consensus: ≥ 70% orthopaedists and PCPs strongly agree/agree or strongly disagree/disagree

Results

Consensus for Common Foot Conditions*

<table>
<thead>
<tr>
<th>Condition</th>
<th>X-ray</th>
<th>MRI</th>
<th>Conserv.</th>
<th>PT</th>
<th>Open ID</th>
<th>eConsult</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stable ankle sprain</td>
<td>+</td>
<td>-</td>
<td>-</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Chronic pain after ankle sprain</td>
<td>+</td>
<td>-</td>
<td>-</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Achilles tendinitis</td>
<td>-</td>
<td>-</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Plantar fasciitis</td>
<td>-</td>
<td>-</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Lateral sprain</td>
<td>+</td>
<td>-</td>
<td>+</td>
<td>-</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Low risk foot fracture</td>
<td>+</td>
<td>-</td>
<td>+</td>
<td>-</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Low risk toe fracture</td>
<td>+</td>
<td>-</td>
<td>+</td>
<td>-</td>
<td>+</td>
<td>+</td>
</tr>
</tbody>
</table>

*Results were similar for hand, hip, knee, shoulder, & spine conditions

Key Clinical Findings

- X-ray should be performed in advance of referral for most conditions
- Pre-referral MRI recommended only in select conditions
- Trial of conservative management and physical therapy recommended prior to referral in most conditions
- eConsult could be appropriate for many conditions, including:
  - Degenerative meniscal tear
  - Intractable low back or neck pain
  - Osteoarthritis
  - Shoulder impingement syndrome
  - Trochanteric bursitis

Conclusions

- Consensus identified in 146 (68%) of items
  - 107 (50%) in round 1
  - 68 (18%) in round 2
- Results have informed the development of structured referrals and eConsults at UCSF
We need to talk: PCP communication in the era of a shared EMR

Kelly Fung MD, Leslie Sheu MD, Michelle Mourad MD, Sumant Ranji MD, Ethel Wu MD

BACKGROUND

• Shared EMRs offer outpatient providers better access to patient information during hospitalizations.
• Despite a shared EMR, PCPs at our institution expressed continued dissatisfaction with discharge communication.
• Ideal discharge communication practices in the shared EMR era have yet to be defined.

OBJECTIVES

• Understand current discharge communication practices.
• Determine current satisfaction with discharge communication.
• Identify key areas in which communication can be improved for safer transitions of care.

METHODS

• Design: Prospective cohort study
• Population: PCPs (residents and attendings) in the Division of General Medicine at UCSF (n=124)
• Survey: anonymous 17-question electronic survey

RESULTS

<table>
<thead>
<tr>
<th>Current discharge communication practices</th>
</tr>
</thead>
<tbody>
<tr>
<td>PCPs reported:</td>
</tr>
<tr>
<td>Receiving notification at discharge</td>
</tr>
<tr>
<td>Receiving direct contact from inpatient teams</td>
</tr>
<tr>
<td>Difficulty contacting inpatient teams</td>
</tr>
<tr>
<td>%</td>
</tr>
<tr>
<td>-----------------</td>
</tr>
<tr>
<td>Receiving notification at discharge</td>
</tr>
<tr>
<td>Receiving direct contact from inpatient teams</td>
</tr>
<tr>
<td>Difficulty contacting inpatient teams</td>
</tr>
</tbody>
</table>

Satisfaction with current discharge communication practices

• 52% PCPs satisfied with current practices.
• 55% wanted additional email or verbal communication.

A majority of PCPs (>75%) felt many patients warrant additional communication* at discharge.

Patients with:

• Multiple readmissions
• Multiple active comorbidities
• Goals of care changes
• High risk medications (changed or new)
• Time-sensitive follow-up needs

* Additional communication = personalized email, voice, or in-person contact

DISCUSSION AND CONCLUSIONS

• Approximately 50% of PCPs want personalized communication.
• There are few patients for which PCPs felt a discharge summary was sufficient for safe transition of care.
• Key communication elements for safe transitions of care were identified:
  • Medication changes
  • Follow-up items
  • Highlighting ongoing active issues

IMPLICATIONS AND NEXT STEPS

• Standardization of ‘high-touch’ communication at discharge is needed.
• Targeted interventions with real-time PCP feedback on discharge communication will establish best practices.

ACKNOWLEDGEMENTS

• Sarah Summerville, MD • Margaret Fang, MD, MPH
A multi-disciplinary approach to improving vancomycin trough level acquisition and interpretation using a computerized physician order entry system

Alicia Harvey1,2; Candy Tsourounis3; Stephanie Rennenke2; Melissa Wong3; Tina Mammone4; Mandy Eckhaus5; Melissa Lee6; Joanne Foster3; Deborah French5; Steven Ludwig5; Dominic Chan1
1UCSF Medical Center; 2UCSF School of Pharmacy; 3UCSF Department of Medicine; 4UCSF Department of Nursing; 5UCSF Department of Laboratory Medicine
Contact person: Alicia Harvey Email: alicia.harvey@ucsf.edu

BACKGROUND

- Vancomycin efficacy is dependent on therapeutic serum concentrations that increase bacterium exposure to time-dependent bactericidal activity (AUC:MIC)4-3
- Trough levels are utilized as surrogate measures to assess AUC:MIC; obtaining a trough prior to the 4th dose is ideal4,5
- Correct timing of trough levels is a challenge due to lack of process standardization and computerized physician order entry (CPOE) support
- A prior quality assurance (QA) evaluation at University of California, San Francisco (UCSF) Medical Center revealed that 13% were drawn appropriately (correct dose and timing)6

OBJECTIVE

- To increase accuracy of vancomycin trough levels through process changes within a CPOE system (EPIC®, Verona, WI)

METHODS

- A single center, multi-phase, prospective quality improvement project to assess the accuracy of vancomycin trough level acquisition after a pilot of medical center staff workflow changes on 2 acute care floors

RESULTS

- Figure 1. Accuracy of Vancomycin Trough Levels
  - Pre-Intervention: Oct 1, 2012 → Dec 31, 2012
  - Post-Intervention: Jan 21, 2014 → Feb 27, 2014
  - N=1,578
  - N=45

- Figure 2. Provider Order Priority, N=52
  - Levels ordered as peaks, troughs, and random
  - Order priority = Routine
  - Timing of lab draw not based on administration data
  - Standardized order entry instructions:
    - Order as TIMED draw
    - Specify ACTUAL DATE for trough draw
    - Start time 0000
    - Click “before the 4th dose”
  - MAR NOTE documentation not required
  - No standard process to identify the 4th dose
  - Phlebotomy acquired level without verifying with RN
  - MAR NOTE documentation of due time at order acknowledgment
  - MAR NOTE updated with dosing schedule changes
  - MAR NOTE checked before dose administration
  - Phlebotomy verifies with RN before trough draws

- Figure 3. Nurse MAR Note Documentation of Trough Timing, N=52
  - Instructed to:
    - Order troughs as TIMED
    - ROUTINE results in the lab order appearing immediately in the RN work list
  - Order Priority:
    - Timed
    - Stat
    - Routine
  - MAR Note Documentation (%)
    - 90%
    - 87%

- Figure 4. Pharmacist Interventions
  - Contacted RN: Correct/document MAR Note
  - Contacted Provider: Correct erroneous level order
  - Levels ordered
    - Instructed to:
      - Order level if missing and indicated
      - Contacted RN to correct/document MAR Note

DISCUSSION

- 52 levels were ordered: 21 on 13L and 31 on 14M/S
- 7 levels were discontinued prior to acquisition
- >90% of levels in the pilot were acquired at steady state, within 30minutes of the 4th dose, versus 13% during the QA audit
- Providers uniformly specified the date the level was due in the order; however, only 27% of orders were correctly prioritized as “timed”
- In a post-pilot survey, >70% of nurses believed the MAR Note documentation increased accuracy of level draws
- Pharmacists ordered 2 vancomycin trough levels

CONCLUSIONS

- A multi-disciplinary quality improvement approach increased the accuracy of vancomycin trough level acquisition
- Future initiatives will involve the expansion of the pilot hospital-wide and the roll out of the 2012 P&T decision to have pharmacists order vancomycin trough levels
- A cost saving and hospital outcomes analysis will be conducted after the pilot is expanded hospital-wide
- Limitations:
  - Small sample size, the lack of a comparison to a non-pilot medical unit

REFERENCES


Inclusion Criteria: Patients receiving vancomycin IV for empiric treatment or surgical prophylaxis, and treated for >48hrs
Primary outcome: Percentage of accurate levels acquired at steady state
Secondary outcome: Compliance of disciplines to new workflow
Background

- Patient-centered medical care remains a primary goal of all health care providers and medical centers.
- Improving patient-centered outcomes and patient satisfaction includes involving patients in a more active role in their own healthcare.
- One of the primary means for improving the patient-centeredness of the care we provide is through patient engagement and shared decision-making (SDM).

Curricular Developments

We developed a patient engagement and SDM curriculum as a multimodal strategy with three parts:

1. A series of train-the-trainer workshops for residents, chief residents and hospitalist faculty, with interactive exercises and videotaped role plays on SDM using the ASK-INFORM-ASK model.
2. An educational "campaign" including pocket cards, announcements, posters, reminders.
3. Expert faculty observations with real-time assessment with audit and feedback to the inpatient teams.

A validated instrument, the Rochester Participatory Decision Making Scale (RPAD), is being used as a pedagogical tool and as a means to assess physician engagement in SDM. Program evaluation will include retrospective pre-post workshop questionnaires, RPAD ratings, and pre-post patient surveys.

Discussion

- A multimodal train-the-trainer curriculum, including an educational "campaign" and use of a validated instrument to evaluate SDM, is a novel approach to medical education and faculty development and improves learner self-efficacy.
- Participants were recruited to disseminate SDM and to actively engage other trainees and faculty by role modeling best practices and teaching SDM to the inpatient teams.
- Lessons learned: It is always best to have someone in a leadership role advocate workshops.

Objective

To improve patient engagement and SDM using multi-modal interventions including train-the-trainer workshops, educational campaign and a real time feedback and audit system.

Setting and Participants

Pilot over a six month period during 2013-2014 at two large academic medical centers with hospitalists, chief residents, and residents from internal medicine and pediatrics.

Evaluation

Survey Items

1 = Actively asking for parent/family agreement with the decision
2 = Trying to obtain a commitment from the patient/family treatment plan
3 = Actively examining patients'/families' concerns or problems with following through with treatment plan
4 = Inviting patient/family participation in shared decision making
5 = Presenting alternatives (diagnosis, work-up, treatment, etc. alternatives) to a patient/family.

Acknowledgements

This project was supported by NIH/NCCAM grant R25 AT006573 awarded to Jason Satterfield, PhD.
Delays in entering abnormal temperatures into the EMR

Alvin Rajkomar, MD and Ryan Greysen, MD
University of California, San Francisco, San Francisco, CA

BACKGROUND

- Delays between measuring and recording temperatures in the electronic medical record (EMR) can delay timely recognition of conditions like sepsis.

OBJECTIVES

- Characterize the frequency and duration of delays of entering temperature data into the EMR.

METHODS

- Identified all temperature readings from adult inpatients admitted to UCSF Medical Center from June 1, 2012 to February 28, 2014 taken in the emergency department or nursing units.
- Restricted analysis to temperature readings from patients on major adult services: medical, cardiology, neurology, surgical, liver/kidney transplant, and malignant hematology.
- Entry delay was defined as the difference between the computer generated time-stamp of when a temperature was taken and the manually entered field of when the temperature was entered into the EMR.

RESULTS

- There were 1,457,904 temperature readings in the study. There were 84,946 fevers readings of which 23,507 indicated new fevers (fever starts).
- There were 308,204 (21%) entries with greater than or equal to an hour delay. Of those, 14,903 indicated fevers and 4,796 indicated fever starts.
- The median delay of entering a temperature was 10 minutes (IQR 2-48) for all readings, 13 (IQR 3-40) for fevers, and 12 (2-46) for fever starts.
- There was significant difference in delay time between ICU and non-ICU units (median 16 vs 5 minutes, p<0.0001) and between different ICU units (p<0.0001) and different non-ICU units (p<0.0001).
- There was minimal correlation between the actual temperature reading and the entry delay (correlation coefficient =-0.02).
- Temperature readings were collected by 2,333 staff members, mostly nurses, and there were differences between entry times between different nurses.

CONCLUSIONS

- There are significant delays in entering vital signs into the electronic medical record system for normal and abnormal vital signs.
- The is significant variation in entry delays between different nursing units and staff.

IMPLICATIONS / FURTHER RESEARCH

- Delayed entry of abnormal vital signs may delay the diagnosis of time sensitive conditions like sepsis, creating a patient safety concern.
- Health systems should consider ways to improve data entry of time-sensitive data into the EMR.
Effective patient-physician communication is associated with improved patient experience and superior clinical outcomes. Designing interventions that have a measurable impact on physician communication scores has been challenging.

Patient satisfaction is an increasingly important measure of high quality care, but it has been challenging to design interventions that demonstrably improve scores on physician communication.

Implementation of physician face cards is:
- Feasible
- Low-cost
- Associated with improved patient perception of physician communication

Sustainability of the positive effects of this tool requires ongoing provider education and feedback, and institutional support.

Study Design and Participants:
- A physician identification tool, the face card, was designed and distributed to each Medicine resident and attending starting in January, 2013.
- Attendings received guidance on use of the card to introduce their name and role on the team, and were encouraged to model the behavior for residents, who received frequent email reminders regarding the intervention.
- Thirty-eight English speaking, cognitively intact medicine inpatients and forty-three physicians participating in the first three months were surveyed regarding their experience.

Data Analysis:
- Responses from a patient survey, Hospital Consumer Assessment of Healthcare Provider and Systems (HCAHPS), regarding physician communication were obtained for February, 2012 to December, 2013.
- Top box scores were analyzed using statistical process control charts, a methodology to differentiate if variation in a data set is attributed to a stable process or if a special cause occurred.

Objectives:
- To evaluate whether a physician identification tool used in an academic medical center would improve patient perceptions of physician communication

Methods:
- A series of rules exist to detect special cause, indicated in red:
  1) Six upward trending data points identifies special cause correlating with the roll out of this intervention
  2) One data point lying outside the control limits

Discussion:
- Patient satisfaction is an increasingly important measure of high quality care, but it has been challenging to design interventions that demonstrably improve scores on physician communication.
- Implementation of physician face cards is:
  - Feasible
  - Low-cost
  - Associated with improved patient perception of physician communication
- Sustainability of the positive effects of this tool requires ongoing provider education and feedback, and institutional support.

Next Steps:
- The face card intervention should be considered for all members of the healthcare team, including other disciplines such as nursing, physical therapy, social work and case management, to enhance patient perception of team communication.
BACKGROUND

• Increased transparency of patient feedback for physicians via HCAHPS (Hospital Consumer Assessment of Healthcare Providers and Systems) surveys has prioritized communication improvement for hospital based physicians.

• Provider engagement in communication improvement efforts is not well described.

OBJECTIVES

• We sought to assess faculty engagement and perceptions of a communication improvement intervention using a survey tool.

METHODS

• A 29-item list of patient communication best practices was compiled based on literature review.

• Hospitalist faculty voted on elements they felt were 1) essential to effective communication and 2) allowed for objective measurable feedback on performance.

• A nine-item checklist was created through consensus decision-making. (Table)

• Starting October 2011, faculty participated in one-hour training sessions with didactic and role play components.

• Faculty were observed at bedside to assess performance on checklist elements and for individual coaching.

• A year after the start of the intervention, faculty were surveyed to assess engagement and perceived adoption of the communication elements.

RESULTS

• 42 (75%) faculty attended training, while 22 (52%) received at least one observation.

• 31/42 (74%) hospitalists completed the survey.

• 28/32 (90%) believed using the communication elements improved both patient experience and quality of time spent with patients.

• 26/32 (84%) felt all communication elements were effective or very effective for improving communication experience.

• Although most faculty found the communication elements very effective, several were performed less frequently (Figure).

• 24 (77%) respondents had taught residents on their team about the communication elements.

DISCUSSION

• Hospitals believe these communication elements improve not only the patients’ experience, but also the quality of time spent with patients. A majority even taught the content to their housestaff teams.

• In combination, these support a high level of buy-in by faculty hospitalists.

• Lower self-reporting of specific element use compared to a high level of perceived effectiveness shows there may be barriers to the application of some elements beyond engagement.

CONCLUSIONS

• Engaging hospitalists in developing their own communication checklist and offering training and structured observations with coaching appears to result in engaged providers a year following training.

FURTHER RESEARCH

• Further work aims to assess barriers to hospitalist consistent performance of several communication elements with high perceived effectiveness.
Overuse of telemetric cardiac monitoring is a target of the ABIM Foundation’s “Choosing Wisely” campaign, which recommends that hospitals develop a protocol for telemetry use. The American Heart Association has published guidelines on appropriate indications and duration for telemetry.

A four-part campaign was launched in October 2013:

- One hour presentations at three hospitals describing evidence-based telemetry use to fellow housestaff
- A messaging campaign consisting of widely distributed posters and project-branded reference cards
- E-mail feedback to housestaff on service featuring their team’s telemetry metrics
- Planning for a change to our EMR (Epic) to introduce indication-driven expiration times for telemetry orders based on AHA guidelines and team consensus opinion

Data was collected from the EMR. Our total telemetry hours data excludes patients on telemetry for > 342 hours (~2 weeks) as we wished to examine usual telemetry practice and exclude outliers who were left on telemetry for weeks to months. The 324 hour number is equal to two standard deviations above the mean for hours on telemetry, per monitored patient, in fiscal year 2013.

**OBJECTIVES**

- Sustain a 15% reduction in total telemetry hours on the Medicine Teaching Service
- Sustain a 15% reduction in the proportion of telemetry-monitored patients who remain on monitor until the moment of discharge (who have a length of stay greater than 48 hours)
- Organize a resident-led team to lead the intervention

**METHODS**

A four-part campaign was launched in October 2013:

- One hour presentations at three hospitals describing evidence-based telemetry use to fellow housestaff
- A messaging campaign consisting of widely distributed posters and project-branded reference cards
- E-mail feedback to housestaff on service featuring their team’s telemetry metrics
- Planning for a change to our EMR (Epic) to introduce indication-driven expiration times for telemetry orders based on AHA guidelines and team consensus opinion

Indications and recommended monitoring duration reflect AHA guidelines. When a common diagnosis was not addressed by AHA guidelines, such as pulmonary embolism, the opinions of hospitalists both at UCSF Medical Center and San Francisco General Hospital were used to inform a consensus guideline.

**DISCUSSION**

- The variability in telemetry hours used per month suggests an elasticity to the use of this resource – often an important criteria for targets of quality control measures.
- A similar drop in telemetry use from July to September 2012 suggests this may be an effect of new interns’ clinical practice.
- In an attempt to achieve maximum buy-in from the providers who write most telemetry orders, housestaff designed and lead this initiative aimed at fellow housestaff. Hospital medicine faculty were also informed of the project’s goals and metrics but on an informal basis.

**CONCLUSIONS**

Hospitals can effectively reduce wasteful telemetry use through a resident-led educational, messaging, and feedback intervention as detailed in this study.

**ACKNOWLEDGEMENTS**

Special thanks to Victoria Valencia, UCSF DHM High-Value Care Project Manager.
Clinicians often repeat hemoglobin tests within a 24 hour period to detect or monitor anemia. However, it is unknown how often repeat testing leads to clinically actionable data.

To determine the likelihood that repeating a hemoglobin test within a single hospital day provides clinically actionable information:

- Over 10% of hospital days have two or more hemoglobin values checked.
- The hemoglobin level dropped ≥ 1 g/dL in 13.5% of days when the hemoglobin was checked twice and no transfusion was administered.
- Repeating the hemoglobin after the day of admission rarely identified a clinically significant drop (≥ 1 g/dL) in patients with a hemoglobin < 10 g/dL.
- Significant predictors of a drop included the initial hemoglobin of the day, a test on the day of admission, and patient location in the ICU.

Clinicians are unlikely to discover hemoglobin drops by rechecking levels in the same day. Clinicians should use the pre-test probability of detecting a hemoglobin drop in a single day before ordering a same-day repeat.

**METHODS**

- Identified all adult medical or surgical patients (age ≥ 18 years) who hospitalized for at least 24 hours at the University of California, San Francisco Medical Center and discharged between dates September 1, 2012 and September 1, 2013.
- Obtained the date, time, and final value of all hemoglobin test results and patient information through the electronic medical record system.
- Restricted analysis to hospital days in which exactly 2 hemoglobin levels were obtained, because patients who had 3 or more levels obtained within a single day were likely to have strong indications for repeat testing.
- Excluded hospitalization days in which a transfusion was administered, as transfusions would be expected to directly alter hemoglobin levels.
- Defined significant hemoglobin drop as greater than or equal to 1 g/dL, and analyzed percent of hemoglobin results below a threshold of 7 g/dL.
- Multivariable logistic regression was used to identify independent predictors of a hemoglobin drop ≥ 1 g/dL, using generalized estimating equations to account for clustering by patient.

**RESULTS**

- Over 10% of hospital days have two or more hemoglobin values checked.
- The hemoglobin level dropped ≥ 1 g/dL in 13.5% of days when the hemoglobin was checked twice and no transfusion was administered.
- Repeating the hemoglobin after the day of admission rarely identified a clinically significant drop (≥ 1 g/dL) in patients with a hemoglobin < 10 g/dL.
- Significant predictors of a drop included the initial hemoglobin of the day, a test on the day of admission, and patient location in the ICU.

**CONCLUSIONS**

- Less than 14% of repeat hemoglobin levels identify a drop of ≥ 1 g/dL.
- After admission, less than 3% of repeat tests demonstrate significant drops in patients whose initial hemoglobin is < 10 g/dL.

**IMPLICATIONS / FURTHER RESEARCH**

- Clinicians are unlikely to discover hemoglobin drops by rechecking levels in the same day.
- Clinicians should use the pre-test probability of detecting a hemoglobin drop in a single day before ordering a same-day repeat.

**LIMITATIONS**

- Repeat testing may have been for other clinical indications, such as monitoring white-blood-cell or platelet counts.
The use of transthoracic echocardiograms (TTEs) has increased dramatically. There is a perceived lack of harm in performing a non-invasive TTE, though high cost and overdiagnosis are important downsides. Appropriate use guidelines for echocardiograms have been developed but have not changed the pace at which TTE use is increasing. To study the changes in TTE ordering that occurred at our institution following implementation of an electronic medical record. To identify high-yield areas for interventions to reduce inappropriate TTEs.

**METHODS**

**Step 1: Database Analysis**
- Analyzed inpatient and outpatient TTE ordering practices at our institution over a two-year period during the time our Epic EMR was implemented.
- Excluded TEEs and stress echocardiograms.

**Step 2: Chart Review**
- 100 sequential Medicine and Cardiology patients who had repeat TTEs performed within 30 days of a prior TTE.
- Indication for the repeat TTE was categorized as either appropriate, uncertain or inappropriate according to the 2011 Appropriate Use Criteria for Echocardiography (AUC).

**RESULTS**

![Chart showing the number of TTEs on Cardiology and Medicine](chart)

Table 1. Examples from the 2011 Appropriate Use Criteria for Echocardiography.

<table>
<thead>
<tr>
<th>Indication</th>
<th>2011 AUC Designation</th>
<th>2011 AUC Appropriate (%)</th>
<th>2011 AUC Inappropriate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heart Failure</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Re-evaluation of known HF (systolic or diastolic) with a change in clinical status or cardiac exam without a clear precipitating change in medication or diet.</td>
<td>Appropriate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Re-evaluation of known HF (systolic or diastolic) to guide therapy.</td>
<td>Appropriate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ischemia Evaluation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Suspected complication of myocardial ischemia/infarction.</td>
<td>Appropriate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pulmonary Embolism</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Suspected pulmonary embolism.</td>
<td>Inappropriate</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**CONCLUSIONS**

- Implementation of an EMR was associated with a large increase in the number of total TTEs performed, likely due to increased ease of ordering.
- The number of repeat TTEs did not increase, likely because of increased ease of viewing prior TTEs on an EMR.
- The appropriateness of 30 day repeat TTEs varies highly based on both indication and awareness of prior TTE.
- Areas associated with low rates of appropriateness might be high-yield targets for quality improvement efforts.

**ACKNOWLEDGEMENTS**

Thank you to Matt Boegerman and Margaret Fang for your assistance with the TTE database and project design.
Opioids are powerful medications used to treat pain. They also have high potential for abuse. Challenges exist regarding opioid prescriptions for chronic pain, including appropriate treatment of pain symptoms, early refills and the risk for diversion, and maintaining the patient-provider relationship (Department of Veterans Affairs (VA) and The Department of Defense (DoD), 2010).

Opioid pain care agreements (OPCAs) are treatment plans between patients and providers that explain the risks and benefits of opioid therapy and outline patient responsibility surrounding prescription of these medications. Narcotic instruction notes (NINs) outline the plan of care to be followed when patients present in between scheduled clinic appointments.

At the SF Downtown Clinic, we aimed to increase the use of OPCAs and NINs for our patients on chronic opiates to promote patient safety and responsibility.

**Lessons Learned:**

- **Early engagement** with all key stakeholders interested parties is essential. In our case, we did not involve the clinic medical director soon enough in this quality improvement process.
- **Verifying data collection methods,** especially ones that are automated before dissemination is important. In our case, automated dashboard results of opiate-related documentation did not accurately reflect true absence of OPCAs and NINs. This was our major stumbling block. If we are unable to accurately measure our outcome, we will not be able to assess the effectiveness of our interventions.
- **Mere discussion with key stakeholders** (in this case, nursing staff, primary care providers) raised increased awareness of the problem and improved documentation of OPCA and NINs.

**Next Steps:** Although PDSA cycles 1-3 did not yield results, the accumulation of these interventions contributed to the overall improvement in OPCA and NINs documentation. Given the increase in OPCA documentation from 20% to 47% and NIN documentation from 24% to 48% after the last PDSA cycle, it would be beneficial for the clinic to explore an inherent notification and/or reminder process for OPCA and NINs documentation for the primary care providers.
**The Problem**

- Medicine residents have difficulty obtaining imaging overnight while at the SFVA
  - No overnight radiologists on site at the SFVA
  - Imaging needs to be transmitted (i.e. “pushed”) from the SFVA to UCSF to have a Radiology resident at UCSF interpret images
- Adverse patient outcomes have occurred when Radiology had difficulty contacting Medicine after preliminary Radiology resident reads were later revised by a Radiology attending
- Both Medicine and Radiology residents express frustration at the inefficiency of communication between services which impacts their ability to pursue their clinical responsibilities

**Project Goal**

**Overall Aim:**

To improve communication between the Radiology and Medicine services to allow more accurate and efficient interpretation and dissemination of radiologic studies obtained overnight at the SFVA hospital

**Objective:**

In a two month time period from the start of the first intervention, decrease by 50% the amount of survey respondents stating “unsatisfied” with any aspect of the overnight radiology reading process

**Results / Progress to Date**

- Will repeat initial surveys to assess for improvement after a two month interval following the initial intervention
- Will continue monitoring for adverse events related to the overnight radiology reading process

**Lessons Learned & Next Steps**

**Lessons Learned:**

1. Taking the extra time to fully map out a process allows later interventions to be more likely to succeed and facilitates buy in from leadership amongst various departments

**Next Steps:**

1. Gather feedback from Medicine and Radiology residents via repeat surveys to assess if the intervention is meeting its intended goals
2. Perform further PDSA cycles to act on other aspects of the process map

**Acknowledgements:**

Thank you to John-Paul J. Yu, MD, PhD and Hriday Shah, MD of the UCSF Department of Radiology for their assistance with this project.

---

**Improving the Overnight Radiology Reading Process at the SFVA**

Paul Marcus, MD and Emily Gittenborg, MD -- UCSF Department of Internal Medicine

**Project Plan**

- Surveyed Medicine residents (N=6) and SFVA Medicine Hospitalists (N=8)
  - Two of 14 respondents (14%) stated they were unsatisfied with the ease of ordering radiology studies and 4 of 14 (29%) respondents stated they were unsatisfied with the ease of obtaining interpretations of radiology studies
  - Sample survey comments:
    - “Difficult to contact radiology overnight in general”
    - “On a couple of random studies I was unable to push the image to PACS so was unable to get a prelim read”
  - Contacted Radiology Department to help create a process map (Figure 1) and then performed FMEA (Failure Modes and Effect Analysis)
    - The highest RPN (risk priority number) as part of the process map involved steps “A” and “B”
  - Intervened upon step “B” and provided Radiology with callback pager numbers to use in case of an inability to contact the ordering physician
    - SFVA Resident MOD 1st call
    - SFVA Hospitalist Overnight Attending 2nd call

**Process Map (Figure 1)**

Blue Boxes = Steps in Process Map; Red Octagons=Examples of Potential Errors/Inefficiencies at Various Points in Process Map; Green Circle = Intervention Performed; Orange Letters “A” and “B” = Processes with Highest RPN

---

**UCSF Department of Medicine**

2013-14 Quality & Safety Innovation Challenge
Increasing Patient Enrollment in My HealtheVet

Rebecca Conroy, Brooke Finkmoore, Katie Wysam, Tom Cascino, Sarah Simpson, Payal Mapara, Karthik Giridhar, Stephen Chapman, Melissa Bachhuber, Varsha Singh, Kristin Weaver, Maya Doley
Centers of Excellence in Primary Care Education, San Francisco Veterans Affairs Medical Center, San Francisco, CA

Background

My HealtheVet (MHV) is an online personal health record and communication system for patients at the Veterans Affairs (VA) clinics.

Through MHV, patients can:
- Access personal health records
- Refill prescriptions
- Schedule appointments
- Communicate to healthcare team via secure messaging

The mission of MHV is to improve health care for all veterans by providing one-stop online access to better manage health, make informed health decisions and store important health and military history information. Giving patients access to their electronic health record has been shown to have a positive impact on patient satisfaction because it allows patients to feel more involved in their treatment and improves communication.

The Problem

The San Francisco VA Medical Practice Clinic delivers primary care to 23,430 veterans. Enrollment in MHV is not automatic. A patient needs to both register online and verify their identity to a VA staff member. This verification step ensures security and is called authentication.

Authentication at the in MHV at the Medical Practice clinic was only 23% in September 2013.

Project Goal(s)

The U.S. Department of Veterans Affairs has asked that 35% of patients seen in VA clinics be authenticated to use MHV by September 2014.

The overall goal of this project was to identify barriers to MHV enrollment, and develop an intervention to increase authentication.

The aim of this project was to increase MHV authentication at the San Francisco Medical Practice clinic from 23% to 35% by May 2014.

Essential steps to enroll in My HealtheVet

1) Start registration: Create an account online at www.myhealth.va.gov

2) Authentication: Patient signs authentication form and shows a photo ID to VA staff member

3) Complete registration: In 1-2 days, patients receive an email to their existing email account with instructions on how to log on to MHV

Promising interventions:

(1) Trained LVNs discuss the three steps of enrollment in MHV with patients during their new patient orientation;
(2) LVNs ask patients who are interested in MHV to sign the authentication form and check a photo ID during the orientation;
(3) LVNs perform a warm hand-off to the MHV coordinator after new patient orientation so that patients can have one-on-one help registering account online.

Results / Progress to Date

- Percent of Patients in Medical Practice Clinic with authenticated MHV accounts.

- VA Target 6/2014: 25%
- Pre-Intervention: 20%
- Post-Intervention: 28%

Lessons Learned & Next Steps

Interventions that worked and why:

The most recent PDSA cycle, the 5th in the project, is still underway. This intervention has three components (above) and has the potential to increase the percentage of new patients enrolled in MHV. During this cycle, we found that a significantly higher number of authentication forms were signed by the patients who were introduced to MHV in their clinic orientation and given the authentication forms in this setting than those who were not exposed to this.

Interventions that were low yield and why:
- Provider-led efforts to authenticate patients were low yield due to time constraints in clinical visits
- Authenticated forms and an outline of the three steps to MHV enrollment will be included with clinic orientation materials, LVNs will review with patients
- Team members will continue to go to the weekly clinic meeting to discuss successes and setbacks with LVNs and clinic leadership

Acknowledgements: Marbling Pablico, Marilyn Oblanca, Myla Tuason, Donna Soriano

UCSF Department of Medicine and School of Nursing
2013-14 Quality & Safety Innovation Challenge
Increasing Opioid Agreement Use in the Medical Practice Clinic: A Provider Led Initiative to Optimize Safe Opioid Prescribing

Caitlin Garvey RN AGNP-c, Rachel Greenblat MD, Amy Berger MD PhD, Eleni Romano PhD, Anil Mallya PharmD, Josue Zapata MBA, Paul Larsen MD, Manuel Diaz MD, Reza Sedighi Manesh MD
Faculty Mentors: Maya Dulay MD, Emily Hurstak MD, & Joanne Saxe RN ANP MS DNP

The Problem

• Chronic non-malignant pain affects at least 100 million adults in the US with a prevalence of 25% - 50% in primary care settings.1
• The treatment of chronic pain is complicated by many issues including limited efficacy of long term opioid use for pain, the safety profile of available medications, and availability of complementary methods.
• The VA/DoD recommends the use of Opioid Agreements (OA) as part of standard care for individuals taking opioids for chronic pain.
• The use of OAs is also a performance measure for this fiscal year in this setting.
• In the Medical Practice Clinic (MP) at Ft. Miley, 24% of chronic opioid users were identified as having a signed opioid agreement (OA) in their chart on February 26, 2014.

Project Plan

1. Identify barriers to OA completion:
   • Circulated needs assessment questionnaire to all primary care providers
2. Increasing provider awareness:
   • Provided education on baseline % of patients on chronic opioids with correctly filed OAs
   • Sent announcement emails to clinic providers describing the OA initiative
   • Promoted use of OAs as part of pre-clinic huddle checklists
3. Improving ease of OA completion:
   • Displayed OA informational folder containing patient handouts and OA forms in exam rooms
   • Eliminated additional steps in process of uploading OAs to CPRS
   • Created psychologist-pharmacy led Opioid Education Class including completion of OAs
4. Providing feedback:
   • Sent provider notification emails with % of patients seen in last month on chronic opioids who had signed OA forms

Results / Progress to Date

• Needs assessment questionnaire circulated to all primary care providers in MP
• Thirty-one primary care providers responded to needs assessment (faculty, medical residents, and nurse practitioner students)
• Overall, providers indicated that completion of OAs are “highly important”
• 94% indicated that limited appointment time is a barrier to completion of agreements.

Lessons Learned & Next Steps

Lessons Learned
• Providers identified lack of time during appointments as the greatest barrier to OA completion.
• Providers want personalized performance data to track their progress.
• The Opioid Education Class (OEC) has been well received by patients who attend.
• PCP advocacy is instrumental in improving enrollment in the OEC.
• There is general consensus that the OEC provides a valuable service beyond improving rates of agreement completion.
• Providers continue to have concerns about the utility of the current agreement in isolation.

Next Steps
• Provide PCP’s with personalized metrics and lists of patients who need OAs.
• Partner with clinic LVNs to flag incoming patients who need OAs during the scrubbing and check-in process.
• Attach flyers about the OEC to the OA packets stocked in each exam room and increase email advertising to providers.
• Consider focused interventions for OA completion among high risk patients.

References

UCSF Department of Medicine
2013-14 Quality & Safety Innovation Challenge
Project Plan

• Care transitions are multi-step process that create numerous opportunities for human and system failures in care handoffs
• Standardized care transition models have demonstrated reductions in readmissions
• Project RED (PR) reduced readmissions by 30% at Boston University
• We implemented RED at the SF-VAMC with a goal of reducing preventable readmissions among Veterans at risk for readmission
• Project RED launched on December 1, 2012
• 6 PR nurse care coordinators were each assigned to 6 medicine teams
• Patients at high risk for readmission were specifically targeted for enrollment

Patients Targeted for Project RED:
• Marginally housed/homeless
• Polysubstance abuse
• Living alone
• Age > 65 years
• Polypharmacy (>10 meds)
• >3 ER visits in last 6 months
• Mental health comorbidity
• Re-admitted in the last 90 days
• No primary care physician (PCP)
• Admission diagnosis of congestive heart failure, pneumonia, or acute myocardial infarction

Goals:
• To evaluate Project RED one year after implementation to reduce hospital readmissions
• Project RED launched on December 1, 2012
• 6 PR nurse care coordinators were each assigned to 6 medicine teams
• Patients at high risk for readmission were specifically targeted for enrollment

Key Components of Project RED:
1. Patient Education
2. Follow-Up Appointment
3. Post-discharge Services
4. Medication Reconciliation
5. Comparison to National Guidelines
6. After Hospital Care Plan
7. Plan for Pending Tests
8. Post-Discharge Telephone Call
9. After Hours Care Plan
10. Discharge Summary to PCP
11. Teach-Back

Baseline Characteristics (n=416):
- Age: 70 ±12 years
- Sex: 96% Men, 4% Women
- Mental Health Comorbidity: 40%; Polysubstance Abuse: 20%; Both 11%
- Survival Status: 19% deceased; Mean # days after discharge: 103 days

Goal Percent vs Actual Percent

Balancing Measure:
Average LOS for Project Red Admissions (Dec 2012-Mar 2013): 6.8 days

Lessons Learned & Next Steps
• Unadjusted year 1 data suggests a reduction in 30 day and 90 day readmissions
• PR nurses selected patients who were older, sicker, and 1 in 5 were at end of life
• 90% or more of patients received medication reconciliation prior to discharge and follow up telephone calls
• However, only 57% of patients attended a scheduled follow-up visit with any provider within 14 days of discharge, and only 59% received an after hospital care plan
• Future directions will aim to improve process measures to 80% or greater in all categories and achieve a sustained improvement in primary outcome measures

UCSF Department of Medicine
2013-14 Quality and Safety Innovation Challenge
Use of a MEWS score to minimize unnecessary overnight vitals and maximize patient rest

Erika Leemann Price MD, MPH; Abigail Eastburn MD; Henry Crevensten MD; Greg Burrell MD; Heather Whelan MD, MSc
San Francisco Veterans Affairs Medical Center Hospitalist Group

The Problem
Sleep deprivation is bad.
• Sleep deprivation is common in the medical inpatient setting
• Numerous known adverse effects on physical health, mental health, and cognitive function
• Waking patients at night for monitoring of vital signs is a major but often unrecognized contributor to sleep deprivation in inpatients

Eliminating overnight vital sign monitoring in low-risk patients may contribute to improved sleep.
• THE MODIFIED EARLY WARNING SCORE (MEWS) is a validated tool to identify patients at risk for clinical deterioration (Figure 1)
• Recent literature suggests good negative predictive value for low MEWS scores
• Stable patients with low MEWS scores may not require overnight monitoring of vitals (Yoder et al JAMA Intern Med 173(16):1554-5)

Project Goal
Decrease sleep interruptions and minimize the adverse effects of sleep deprivation by eliminating overnight vital signs in medically stable patients at low risk for deterioration

Project Plan
We used the MEWS (Modified Early Warning Score) risk stratification tool to identify medical inpatients at low risk for clinical deterioration in whom it would be safe to eliminate overnight vital signs.
• Hospitalists tracked daily MEWS scores (Figure 1) for all non-telemetry patients on the faculty hospitalist service (FHS) over ~5 weeks
• Generally low medical acuity, but psychiatric/cognitive/behavioral issues common
• Patients with MEWS 0-1 and no other reason for checking overnight vitals: orders entered to have no vitals checked between 10pm and 6am
• Additional data collected:
  • Whether and why vitals were checked overnight
  • Hours of sleep (when available in nursing notes)
  • Adverse events, including ICU/tele transfer, RRT, code, death
  • Code Greens (psychiatric/behavioral codes)
• Prior to project start and after initiation: meetings with nursing staff to review project and goals.

Results / Progress to Date
Data collected for 25 patients; 183 patient-days. MEWS score could be calculated for 175 patient-days.

Table. MEWS data, vital signs orders, and adverse events

<table>
<thead>
<tr>
<th>Patient-Days</th>
<th>MEWS Score</th>
<th>Average MEWS Score</th>
<th>N=25 patients</th>
</tr>
</thead>
<tbody>
<tr>
<td>25 patients</td>
<td>3.19</td>
<td>1.39</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Orders</td>
<td>2</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Adverse events</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

* There were 19 incidents of patients having vital signs checked overnight despite existing order. No reason was apparent for any of these vital signs checks.

Sleep data
• Inconsistent recording in nursing notes
• Hours of sleep were documented on 72 nights for 18 patients
• Average sleep per patient was 0 to 5.3 hours; range, 0 to 7 hours
• Overall average 2.45 hours of sleep

Lessons Learned & Next Steps

What we learned:
• Overnight vital signs are unnecessary in a subset of stable, hospitalized patients.
• Tracking MEWS scores raised awareness among hospitalists and nursing staff of need to assess whether or not overnight vitals are necessary.
• A collaborative and iterative approach including nursing and CNA’s was helpful.
• Though documentation of sleep was limited, available data suggest substantial nighttime sleep deprivation in our patient population.
• As the FHS service is fairly medically stable with a very low incidence of clinical decompensation, medical adverse events are very rare at baseline and it was not possible to assess for any effect of our intervention.

Next steps:
• Continued implementation of no overnight vital signs and tracking of sleep on FHS
• Disseminate findings to non-MD providers (RNs, CNAs, etc) to increase comfort with this new practice; encourage nursing staff to communicate with providers if they identify patients with low MEWS scores who would benefit from “no vitals overnight” orders
• Consider implementation on a housestaff team to increase resident/trainee awareness and target similar patients who might benefit from decreased overnight VS.

UCSF Department of Medicine
2013-14 Quality & Safety Innovation Challenge
PACT Intensive Management: Meeting the Needs of High-Risk Veterans

SPVAMC Team Lead: Jessica Eng (Geriatrics)
Leadership Team: Ronald Strauss (Ambulatory Care); Theresa Allison (Geriatrics); Sharon Offrill (Nursing); Karen Xavier, (Social Work)
Project Team: Angela Bodnar (Social Work); Kathy Fung (Geriatrics); Barbara Kamholz (Psychiatry); Jenah Yangwas (Social Work)

The Problem

- Fifty percent of health care costs are attributed to five percent of patients
- These patients needs may be too complex for the traditional primary care team
- Complex needs can lead to fractured care among specialists, emergency rooms, and inpatient hospitalizations
- The VA has developed the Care Assessment Needs (CAN) score to identify patients at high-risk of hospitalization in the next 90 days
- San Francisco VA Medical Center is one of 5 sites chosen through a competitive process to develop an intervention to meet these Veterans’ needs, reduce acute care utilization and reduce costs

Project Goal(s)

- Determine the unmet needs of Veterans with high CAN scores
- Develop structured telephone interview to match patient needs to available resources
- Develop interdisciplinary team that has capacity to perform home visits and support primary care teams
- Decrease emergency department and inpatient utilization among Veterans with high CAN scores

Results / Progress to Date

Table 1. Characteristics of Veterans with High CAN Score

<table>
<thead>
<tr>
<th>Race</th>
<th>Male Gender</th>
<th>Age</th>
<th>Outreach Team</th>
<th>Primary Care Team</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asian</td>
<td>Male</td>
<td>12873</td>
<td>12905</td>
<td>12873 (88)</td>
</tr>
<tr>
<td>White</td>
<td>Female</td>
<td>1392</td>
<td>2257</td>
<td>12905 (88)</td>
</tr>
<tr>
<td>Black</td>
<td>Female</td>
<td>14138</td>
<td>9738</td>
<td>12873 (88)</td>
</tr>
</tbody>
</table>

Team Progress to Date

- 1/26: Medical Director Hired
- 2/9: 2 Social Workers, 1 part-time Psychiatrist hired
- 3/17: First patient enrolled
- 5/4/14: First Nurse hired
- Currently 5 patients enrolled

Lessons Learned

- Veterans at highest risk for hospitalization have a mix of chronic medical and mental health issues
- Home visits and Veteran knowledge of PCP support of program are essential for quickly building rapport with Veterans
- Working with high-risk Veterans requires a flexible team with a flexible approach
- Intervention for high-risk veterans is difficult to implement without full interdisciplinary team hired

UCSF Department of Medicine
2013-14 Quality & Safety Innovation Challenge
The Problem

Medical student notes vary in quality, and students express desire for feedback

- Student note quality varies in content, organization, length, representation of clinical reasoning
- Students get little training or direct feedback during clerkship
- Improving medical note quality may improve provider communication, patient safety, and overall quality of care

Project Goals

Improve student comfort and skill at organizing information and representing clinical reasoning in medical notes

- Provide nonjudgmental forum for student peer mentoring in note writing
- Reflect on use of Electronic Health Record (EHR)
  - Use of templated data
  - Responsible approach to copy/paste

Project Plan

Notewriting workshops for students on core internal medicine clerkships at SF-VAMC

- Two sequential one-hour workshops for all core clerkship students at SF-VAMC, starting August 2013
- Structure for both sessions:
  - Introduction/brief didactics
  - Elicitation of student questions and concerns
  - Critical review of existing note
  - Wrap-up/debrief
- Session 1:
  - Focus on history and physical (H&P)
  - Earlier in year: critical review of existing "before" and "after" H&P
  - Later in year: critical review of a student volunteer's H&P
- Session 2:
  - Focus on daily progress note with emphasis on assessment/plan
  - Particular attention to responsible use of copy and paste
  - Peer review of student progress notes
- Evaluation:
  - Standardized Med 110 evaluations
  - Post-session paper evaluation forms
  - Pre- and post-session questionnaires re student confidence with note writing

Lessons Learned & Next Steps

Lessons Learned

- Overall strongly positive response to sessions
- Significant improvements in confidence with multiple aspects of note writing
- Students want clear guidelines – discomfort with stylistic differences
- Students enjoy peer feedback and dedicated time to reflect on notewriting
- Students would like real-time feedback from attendings on service
- Need to tailor to needs of group, stage of development in the year

Next Steps

- Continue workshops in 2014-15 academic year
- Continue to refine workshop structure based on feedback
- Feedback to ward attendings and clerkship directors regarding student desire for review of students' notes

Results / Progress to Date

Representative student concerns about notewriting

- How to deal with overlapping/closely related problems?
- Can we get a patient into legal trouble?
- Can I use the "shortcuts" (e.g. saying "noncontributory") that I see other people using?
- Do older/less active issues need to stay in the problem list?
- Is it okay to copy/paste my own or others' text?

Pre-/Post-session questionnaire results

**Pre/post-session questions for Session 1 (H&P); N=6 students**

Please rate your level of confidence in these aspects of writing a history and physical exam on a scale from 1 to 5...

<table>
<thead>
<tr>
<th>Pre-session</th>
<th>Post-session</th>
</tr>
</thead>
<tbody>
<tr>
<td>Presenting a coherent chronology of events in the HPI</td>
<td>3.67</td>
</tr>
<tr>
<td>Deciding whether to put information in ROS vs. HPI**</td>
<td>3.67</td>
</tr>
<tr>
<td>Developing a complete problem list</td>
<td>4.33</td>
</tr>
<tr>
<td>Developing and communicating a differential diagnosis*</td>
<td>2.92</td>
</tr>
<tr>
<td>Developing and communicating a treatment plan</td>
<td>2.17</td>
</tr>
<tr>
<td>Completing and completeness</td>
<td>2.83</td>
</tr>
</tbody>
</table>
| *P<.005 for paired t-test **P<.005 for paired t-test

**Pre/post questions, Session 2 (progress notes); N=9 students**

Please rate your level of confidence in these aspects of writing a daily progress note on a scale from 1 to 5...

<table>
<thead>
<tr>
<th>Pre-session</th>
<th>Post-session</th>
</tr>
</thead>
<tbody>
<tr>
<td>Determining which overnight events should be reported*</td>
<td>3.44</td>
</tr>
<tr>
<td>Selecting labs/studies to report</td>
<td>3.77</td>
</tr>
<tr>
<td>Selecting which labs/studies to report</td>
<td>4.28</td>
</tr>
<tr>
<td>Selecting which overnight events should be reported (paired t-test)</td>
<td>3.61</td>
</tr>
<tr>
<td>Selecting which overnight events should be reported (paired t-test)</td>
<td>3.78</td>
</tr>
<tr>
<td>Selecting when to use copy and paste</td>
<td>3.22</td>
</tr>
<tr>
<td>Editing notes to ensure it is accurate and up to date</td>
<td>4</td>
</tr>
<tr>
<td>Completing and completeness</td>
<td>3.00</td>
</tr>
</tbody>
</table>

Edileta of student questions and concerns

Positive comments:

- Many positive comments about peer review and support: "talking with other students to see similar struggles..."..."great to hear what other people write in notes and present..."..."really enjoyed partnering up for feedback"
- Liked "example of good notes, example of bad notes"
- Appreciated discussion of what information should go into which section of the note
- "I loved the format"..."I thought it was all helpful"

Constructive feedback:

- Theme of wanting more concrete guidance: "seems like it all depends on the resident’s or attending’s style..." "a summary sheet of do’s and don’ts might be helpful..." "maybe more concrete info re recommended format"...
- Requests for session early in year and early in block
- Many requests for attending feedback, "having the attending say what they prefer", "find out whose style to tailor to"
### Problem

The number of *Clostridium difficile* infections is on the rise from 3.82/1000 discharges in 2000 to 8.75/1000 discharges in 2008.

*Clostridium difficile* infections lead to increased morbidity and mortality: 9.1% of hospitalized patients with CDI died compared to <2% in patients without CDI.

*Clostridium difficile* infections lead to increased hospital costs: estimated at an additional $15,000 per case.

The San Francisco VA consistently has around 3-4 cases of hospital-acquired* *Clostridium difficile* infections per month.

### Project Plan

1. **Renewed emphasis on environment of care**
   - Ensuring protective equipment availability; auditing compliance
   - Ensuring terminal clean of rooms with bleach, including equipment

2. **Restore intestinal flora using probiotics:**
   - Biok 1 tab PO BID for patients on antibiotics (based on recent meta-analysis)

3. **Standardize treatment of *Clostridium difficile* using oral vancomycin (instead of flagyl) and tapering to improve cure rates and prevent relapses**

4. **Continue antibiotic stewardship**

### Project Goal

Reduce hospital-acquired *Clostridium difficile* infections to zero per month for three months by July 2015

### Results / Progress to Date

#### Timeline:

- **August 2013**
  - Interprofessional meeting with QI, nursing, infection control, pharmacy, nutrition to discuss interventions
  - Sept 2013
    - Changed treatment protocol
    - Reviewed environment of care concerns, addressed by RN manager
  - Nov 2013
    - Feasibility pilot of probiotic drink (not currently used)
  - Dec 2013
    - Resident/RN handwashing review.
    - Probiotic order set developed.
  - Feb 2014
    - MD educational conference.
    - Promotional posters created.
    - Biok probiotic approved and in use.
- **Ongoing**
  - Monitoring infection rate, Biok use

#### SFVAMC Hospital-Acquired *Clostridium difficile* cases per month

![Graph showing *Clostridium difficile* infection rates from January 2011 to April 2014](image)

### Lessons Learned & Next Steps

- **What we learned:**
  - We were able to reduce the rate of Hospital Acquired *Clostridium difficile* infections, although we have not achieved our goal of zero.
  - However, this reduction may be due to random variation. We need more data in order to make this determination.
  - Estimated cases avoided: 14. Estimated costs reduced ~$200,000.
  - Decreasing the rate of *Clostridium difficile* infections is a challenging and interprofessional process.
  - Changing provider behavior and maintaining change is difficult. The evidence behind using probiotics is uneven and contributed to provider avoidance. Also, our contraindications for probiotic use are quite strict.

**Next Steps:**

1. Continue to educate providers about the use of probiotics and expand to surgical services
2. Develop surgical and GI referral guidelines for severe cases
3. Decrease inappropriate use of PPIs (increases gastric pH, possible link to *Clostridium difficile* infection)

---

* *Clostridium difficile* onset of diarrhea/loose stools >48 hours after admission and positive *Clostridium difficile* PCR. Recurrences and treatment failures are not counted as new hospital acquired cases.

---

*By Nelson Rules for control charts although our average is lower, we did not meet criteria for a change in process. Thus we need more data to ensure our lower rate is not due to random variation.*

Since Feb 2014, 60 courses of Biok prescribed, out of at least 207 courses of eligible antibiotics

---

**UCSF Department of Medicine**

2013-14 Quality & Safety Innovation Challenge
Interprofessional Development of an After Visit Summary in a Community-Based Outpatient Clinic to Improve Patient Satisfaction

Chelsea Bowman MD1, Eugene Fan MD1, Joseph Hippensteel MD1, Anna Strewler RN2, Jonathan Van Nuys NP2, Daniel Wheeler MD1, Shalini Patel MD1,2, Meg Pearson MD1,2
1. University of California, San Francisco Department of Medicine 2. San Francisco Veterans Affair Medical Center

BACKGROUND

• Providing an After Visit Summary (AVS) has been shown to increase patient satisfaction in the primary care setting
• Individualized instructions enhance patients’ understanding of their treatment plan and encourages self-management of chronic diseases
• While provision of AVS is designated “meaningful use” criteria for electronic medical records (EMR), alternative AVS forms have not been well described in the literature

OBJECTIVES

• Develop a written AVS for an outpatient community-based clinic
• Increase percentage of patients that receive written instructions from 73% to 95%
• Increase percentage of patients who are satisfied overall with their understanding of care plan from 81% to 95%

AVS DEVELOPMENT

1. Clinic staff and providers surveyed to identify baseline standards and key content areas to include in an AVS
2. Patients completed pre-AVS survey to establish baseline practices of written communication and understanding of treatment plan
3. Prototype AVS created, revised and piloted to determine ease of use
4. Final AVS distributed to all clinic providers including 5 internal medicine attendings, 12 internal medicine residents and 1 nurse practitioner trainee.
5. Patients completed post-AVS survey for program evaluation

RESULTS

Figure 1: Patient survey regarding whether treatment plan was communicated during visit

Figure 2: Patient survey regarding preferred method of communication of treatment plan

Figure 3: Patient survey regarding understanding of treatment plan, pre and post-AVS implementation

Figure 4: Provider survey regarding how often written instructions were provided to patients

LESSONS LEARNED

• Development of an AVS requires provider and staff input for key content areas, ease of use, and feasibility
• Implementation of efficient written AVSs can occur outside of EMR systems to improve patient understanding
• Some patients may paradoxically become more aware of gaps in their understanding of the treatment plan when provided a written AVS

CONCLUSIONS

Outpatient community clinics can create efficient and effective AVSs to improve patient satisfaction with their understanding of treatment plans.

ACKNOWLEDGEMENTS

This project has been funded in whole or in part by the Centers of Excellence in Primary Care Education of the Office of Academic Affiliations, US Department of Veterans Affairs

Preparation of some written materials was assisted by San Francisco VA Medical Center AVS working group of 2012-2013
Increasing the Rate of Annual Urine Drug Screens Among Patients Receiving Chronic Opioids

K. Gager, RN, NP Trainee; M. Henry, RN, NP Trainee; D. Nguyen, MD; L. Le, MD; H. Duong, MD, Z. Anklesaria, MD; S. Nigro, PharmD, M. Dulay, MD, T. Keene, NP; R. Shunk, MD; and L. Wu, PharmD

The Problem
- Deaths from drug overdose have quadrupled since 1999
- Opioids are the most common cause of drug-related deaths
- Routine urine drug screens may help to ensure safe opioid prescribing
- The Medical Practice (MP) Clinic at the San Francisco VA Medical Center (SFVAMC) uses a scheduled refill program for patients receiving a stable dose of chronic opioids
- Beginning in August 2013, 100% of scheduled refill patients were required to have an annual urine drug screen (UDS)
- The majority of enrolled patients were without a UDS within the past year

Project Goal
Increase the number of patients in the original SFVAMC MP Chronic Opioid Refill Program with an annual UDS from 35% to 65% by April 2014

Project Plan
PDSA Cycles

Cycle #1 Date of last UDS added to prescription reminder forms and an email sent to clinic providers to alert them to clinic policy and updated reminder forms

Cycle #2 Reminders of policy attached to prescription reminder forms

Cycle #3 Survey of clinic providers to assess knowledge, barriers, and suggestions for improvement

Cycle #4 Providers given a printed list of all patients in the program with date of last UDS; Providers emailed individually regarding their patients without up to date UDS

Results & Progress to Date

![Graph showing progression of UDS compliance with each PDSA cycle](image)

- Cycle 1: Enrolled: 45, Removed: med/dose change, patient moved, deceased, refused UDS, lost to follow-up
- Cycle 2: Enrolled: 45, Removed: med/dose change, patient moved, deceased, refused UDS, lost to follow-up
- Cycle 3: Enrolled: 45, Removed: med/dose change, patient moved, deceased, refused UDS, lost to follow-up
- Cycle 4: Enrolled: 45, Removed: med/dose change, patient moved, deceased, refused UDS, lost to follow-up

Lessons Learned
- Utilizing prescription reminders proved to be an effective method to communicate information to providers about the new UDS policy
- Larger visual reminders about the annual UDS policy on each monthly refill reminder had a larger impact than simply adding the last UDS date for each patient
- Giving positive feedback to providers with 100% completion rates was found to be both rewarding and motivating for providers
- UDS monitoring successfully identified patients who required closer monitoring or cessation of chronic opioid prescriptions

Next Steps
- Comprehensive chart review of patients with missing UDS to better assess patient and provider actions to date
- Review providers with higher rates of missing UDS to evaluate if they have similar characteristics (e.g., providers with more patients in the refill program, trainees, etc.)
- Interviews with providers with low completion rates to identify barriers
- Establish a standardized protocol to update prescription renewal forms with date of most recent UDS
- Determine a feasible plan to maintain annual UDS rates for patients receiving chronic opioids

For more information contact: Krista Gager, krista.gager@ucsf.edu

UCSF Department of Medicine & School of Nursing
2013-14 Quality & Safety Innovation Challenge