Dear Colleagues,

We welcome you to our 5th annual Department of Medicine Quality & Safety Symposium. This event is an opportunity to celebrate all of the great projects that were submitted to the 2014-15 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**: 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?
1) Clear definition and/or context for the problem being addressed
2) Effectiveness and/or creativity in approaching the identified problem
3) Generalizability of the improvement initiative
4) Thoroughness of project evaluation
5) Potential sustainability of results

Three award-winning projects were selected and will be recognized at today’s symposium. 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.

Niraj Sehgal, MD, MPH
*Associate Chair for Quality & Safety*

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

David Margolius, MD
*Chief Resident for Quality & Safety*

Talmadge King, MD
*Chair, Department of Medicine*
Quality & Safety Symposium Day Event Schedule

Special Quality & Safety Grand Rounds (HSW 300 from 12-1p)

Title: Learning from our Patients: Reflections on Improving Care in the Ambulatory Setting

Please join us for a panel discussion with invited members of our DOM Patient and Family Advisory Council. They will share their stories and experiences in being cared for in our DOM ambulatory practices at UCSF Medical Center. We're grateful for their participation in this special event.

Quality & Safety Symposium (Milberry Union’s Golden Gate and City Lights Room)

4:30-5:45p:   Poster Viewing and Reception

5:45-6:00p:   Awards for Top Rated Projects

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, Lukejohn Day, Maya Duluiay, Jessica Eng, Adrienne Green, Claire Horton, Will Huen, Leah Karliner, Sei Lee, Rachael Lucatorto, Christopher Moriates, Michelle Mourad, Edgar Pierluissi, Erika Price, Urmimala Sarkar, Leslie Sheu, Rebecca Shunk, Krishan Soni, Delphine Tuot, Daniel Wheeler, and Jinoos Yazdany.

6:00p:        Invited Panel Discussion

Title: How do we create and foster new partnerships with patients, communities, and other facilities to improve our healthcare system? Different lenses into a shared call for action.

Distinguished DOM Faculty Panelists:
- Josh Adler: Chief Medical Officer, UCSF Health
- Michelle Schneidermann: Medical Director, SFDPH Medical Respite & Sobering Center
- Brie Williams: Director, SFVA Geriatrics Clinics & The Community Aging Health Project
Quality and Safety Innovation Challenge
2014-2015 Projects by Site

San Francisco General Hospital (SFGH)

Using Group Medical Visits and a Novel Website to Help Diverse Older Adults Engage in Advance Care Planning in Primary Care
E. Wister, C. Benner, C. Horton, A. Jimenez, and R. Sudore

No More No Shows @ SFGH: Improving Appointment Reminder Systems at a County Hospital Outpatient Specialty Clinic
S. Beach, J. Brandon, A. Potok, B. Mei Wang, C. Jackson Jr., S. Yin Li, K. Paz, M. Flores, S. Goglin, M. Margaretten, L. Trupin, and J. Yazdany

Post-Discharge Care Coordination from the Safety Net Medical Home: A Health Worker Phone Call Intervention

New Frontiers: Teaching Quality Improvement to First Year Medical Students in the SFGH Rheumatology Clinical Microsystem
S. Goglin, M. Margaretten, S. Beach, J. Brandon, A. Potok, B. Mei Wang, L. Trupin, and J. Yazdany

Reducing Fractures: Implementing the FRAX in SFGH Rheumatology Clinics
J. Brandon, S. Beach, B. Mei Wang, A. Potok, S. Goglin, J. Yazdany, L. Trupin, and M. Margaretten

A Safety Dashboard for Rheumatology Clinics at San Francisco General Hospital (SFGH)
M. Margaretten, L. Trupin, J. Noh, S. Goglin, and J. Yazdany

Closing the Gap: Using Health Coaching Strategies to Improve Patient-Clinician Communication in Low SES, Limited English Proficient Populations
B. Mei Wang, A. Potok, S. Beach, J. Brandon, S. Goglin, J. Yazdany, M. Margaretten, L. Trupin, J. Noh, and S. Li

Bridging the Gap: Health Coaching to Address Patient Safety Risks Among Vulnerable Patients on Long-Term Immunosuppressants
A. Potok, B. Mei Wang, S. Beach, J. Brandon, M. Margaretten, L. Trupin, J. Noh, S. Li, J. Yazdany, and S. Goglin

Establishing Quality Measures in the Management of Chronic Kidney Disease
J. Kim, S. Ranji, and D. Tuot

Development of a Mental Health and Cognitive Screening Protocol for Older Patients at a Safety Net Primary Care Clinic: A Student’s Experience
J. Bullock, A. Rosenthal, J. Coyne, A. Petersen, D. Yang, K. Williams, L. Kimberg, and A. Chodos

Improving Screening for Elder Abuse in Nursing Home Residents
A. Chodos, C. Riley, M. Valencia, J. Gillen, and L. Kimberg
Nutrition Education and Services for Providers and Patients among Low Income Patient Populations
K. Nguyen, D. Schlanger, and R. Gupta

Provision of Intra-Nasal Naloxone on Discharge to Inpatients at High Risk of Overdose at San Francisco General Hospital
L. Ryan, J. Hippensteel, L. Imbert, S. Azari, and E. Tinloy

Process Mapping for Quality Improvement on a Mobile Homeless Outreach Clinic
C. Lee, L. Newin, B. Rittenhouse-Dhesi, and D. Wlodarczk

Implementation of Fecal Immunochemical Testing is Associated with Higher Screening Rates in a Safety-Net Population
M. Singh, L. Golden, E. Chen, N. L. Lukejohn, and M. Somsouk

Creation of a Controlled Substance Review Committee for Patients on Chronic Opioids at General Medicine Clinic: Implementation & Challenges
G. Saffi, C. Horton, B. Turner, M. Kirkpatrick, M. Bldwal, L. Evans, and S. Azari

Implementing a Workflow to Identify, Treat, and Refer Hospitalized Patients with Alcohol Use Disorder
Z. Matthay, J. Feeney, A. Nadler, J. Huizar, M. Martin, J. Clement, and S. Shah

Eyes on the Prize: Improving Diabetic Retinal Screening in an Urban, Underserved Safety Net Hospital
G. Chang, C. Horton, K. Quinn, J. Larson, G. Su, H. Hammer, and C. Chiu

Diabetes Prevention Program Pilot at SFGH

Bring It Down GMC: Hypertension Management Initiative
O. Sacks, G. Chang, S. Richardson, P. Chatterjee, R. Gupta, K. Bibbins-Domingo, D. Guzman, T. Defries, and V. Fontil

Assessment of Time in Therapeutic Range for Anticoagulation Therapy
I. Ly, S. Lee, C. Wang, D. Kazi, C. Horton, and U. Sarkar

Coaching to Coach: Integrating Early Medical Students into SFGH’s General Medicine Clinic
G. Stetson, N. Gupta, N. Mohammed, and R. Gupta

Enhancing Patient Care: GMC Health Coach and Scribe Program
R. Gupta, C. Briones, O. Sacks, I. Ly, and A. Roldan

UCSF Medical Center

Chronic Benzodiazepine Prescribing in an Academic Primary Care Clinic
M. Fan and S. Steiger
Improving the Interactions of Patients and Providers in the General Cardiology Practice
B. Mar, K. Mendoza-Dungo, K. Tolentino, N. Neeman, and R. Rao

Meaningful Utilization of After Visit Summaries in the Ambulatory Setting
N. Neeman, A. DeVito, and N. Sehgal

Improving Patient Wait Times in the Ambulatory Setting
N. Neeman, A. DeVito, and N. Sehgal

Understanding and Bettering the Staff Experience to Drive Improvements in Service and Care
M. Bedrich, N. Neeman, D. Portillo, N. Sehgal, and U. Masharani

Improving Information about Delays in the Endocrinology Practices
M. Bedrich, N. Neeman, D. Portillo, N. Sehgal, and U. Masharani

Improving the Quality and Patient Centeredness of After Visit Summaries
M. Singh, C. Sherman, N. Sehgal, N. Neeman, U. Vintmyr, and A. Singh

Focusing on Successful Communication and Team-Based Leadership to Improve the Experience of Patients, Providers, and Staff
S. Eppel, B. Hameed, M. Peters, and Hepatology Clinic Staff

Establishing an Ambulatory Patient and Family Advisory Council
N. Gleason, N. Neeman, D. Portillo, and N. Sehgal

Fostering Staff Engagement and Team Building to Improve the Patient Experience
D. Lee, B. Mar, R. Rao, and A. Gross

Think Twice, Stick Once: An Internal Medicine Housestaff Incentive Project to Reduce Phlebotomy

The Patient Engagement Project: Developing a Curriculum for Improving Shared Decision-Making (SDM) in the Inpatient Setting

Get Fit for Surgery: An Interdisciplinary Geriatric Surgery Wellness Program

The “Discharge Time Out” Project: Improving Discharge Through Provider Communication

Tobacco Cessation in General Medicine: A Multidisciplinary Effort to Improve Counseling on Smoking Cessation
M. Bui-Duy, E. Perez-Stable, S. Sankaran, J. Pacholuk, S. Harris, and E. Tong
Increasing Use of the Patient Instructions Section of the After Visit Summary in UCSF Primary Care Clinics

Impact of Provider Performance Feedback on Rates of Liver Cancer Screening
N. Mukhtar, A. DeVito, N. Neeman, W. Chacra, T. Leventhal, and B. Hameed

Improving Cervical Cancer Screening Rates at UCSF Mt. Zion
S. Knish, R. Porlaris, R. Lam, and D. Margolius

Initiative to Increase Completion of Opioid Informed Consents for Patients on Long Term Opioid Therapy in a Primary Care Clinic

Controlled Substances Review Committee at the Mt. Zion General Medicine Clinic: The First Year

Improving Care Transitions and Inpatient Utilization in an Accountable Care Organization
L. Wu, S. Coleman, A. Agbay, E. Polek, A. Green, and A. Parekh

It Can Be as Easy as “ABC”: A Multi-Center Collaborative to Standardize and Improve Neurosurgery Patient Care Using the ABC Hospitalized Patient Checklist
C. Lau, S. Imershein, N. Afsarmanesh, A. Amin, G. Seymann, J. Uppington, M. Berger, and J. Harrison

Holdover Signout: Characteristics of New Overnight Admission Handoffs
J. Duong, T. Jensen, J. Harrison, S. Morduchowicz, S. Rennke, L. Santhosh, S. Schaeffer, B. Sharpe, and S. Ranji

Development of a Team-Based Dashboard: Delivering Performance Feedback to Residents Around Safe Discharges
E. Gottenborg, A. Kwong, M. Mourad, D. Margolius, S. Morduchowicz, and S. Ranji

The Patient Passport: Enabling Patients to Organize Their Health Information and Prepare for Discharge
S. Morduchowicz, E. Kynoch, J. Harrison, and M. Mourad

Development of a Tool to Improve Inpatient Consult Communication
J. Duong, J. Harrison, C. Lai, and M. Fang

If You Want to Go Far, Go Together: Development of a Multi-Site Quality Improvement Collaborative
K. Bischoff, M. Mourad, A. Bragg, D. O’Riordan, and S. Pantilat

Keep Safe, Keep Serving: Facility-Based Infection Prevention and Control Training with Mentoring and Enhanced Supervision in Rural Liberia as a part of Ebola
A. Waters, E. Wu, P. Le, E.J. Ly, and S. Shamasunder

Med Rec: A Skill-Based Educational Tool for First Year Medical Students
K. Dow, M. Yukawa, J. Rivera, J. Abrams, A. Chang, and S. Rennke
Increasing Breast Cancer Screening in DGIM Primary Care Practice
L. Karliner, C. Kaplan, J. Pacholuk, R. Lam, D. Jones, R. Limbachia, S. Nisha, and R. Porlaris

Standardizing Operating Room (OR) Communication with the Post-Operative Debrief
S. Imershein, N. Afsarmanesh, A. Amin, G. Seymann, J. Uppington, M. Berger, J. Harrison, and C. Lau

MOST Need a POLST: Increasing POLSTs Among Palliative Care Consult Patients

Enhancing Informed Consent Prior to Cardiac Cath Procedures Using the EMMI Video

Improving Patient-Centered Communication After Coronary Angiogram Procedures

Reducing Contrast Induced Nephropathy After Coronary Angiogram Procedures
K. Soni, R. Szuba, Cardiac Cath Lab Nursing Staff, V. Mahadevan, T. Ports, and Y. Yeghiazarians

Virtual Pharmacist Pilot: Enhancing Medication Safety by Leveraging the EMR and Technology
M. Bui-Duy and K. Nguyen

Veteran Affairs Medical Center (VAMC)

VOID for OPIOID: Increasing the Rate of Annual Urine Drug Screens Among Patients Receiving Chronic Opioids

Eliminating Hospital-Acquired C. Difficile Infections at the San Francisco VA, Part Deux: Sustaining the Intervention
H. Crevensten, P. Henry, H. Lampiris, D. Maddix, E. Price, and A. Shergill

Everybody Moves: Maintaining Functional Capacity for Inpatients at the San Francisco VA
L. Chetaitis, H. Crevensten, S. Frias, S. Main, D. Moisant, E. Price, and C. Weissensee

Helping Patients & Providers Safely COAP with Pain: SFVAHCS Pharmacist-Led Chronic Opioid Assessment (COAP)
S. Jacobs, C. Tat, E. Son, P. Chiao, M. Dulay, and A. Ludwig

Using Bed Management Solution to Improve Discharge Communication
K. Giridhar, A. O'Shea, K. Babcock, SFVA Office of Systems Improvement, SFVA Discharge RPIW Team, and E. Price

Implementation of Disease Activity Measures
A. Bays, E. Wahl, D. Daikh, and G. Schmajuk

SF VAMC Veteran’s Access to Primary Care: Reducing Low Acuity Emergency Room Visits
Improving Lipid Control in Patients with Diabetes Through Statin Therapy at SFVAMC Medical Practice Clinic
R. Jeffers, B. Muegge, T. Weinkam, G. Judson, J. Huang, M. Dulay, C. Garvey, and J. Saxe

Improving Quality and Safety of Outpatient IV Antibiotic Administration at the SFVA

A Quality Improvement Project to Increase Telephone Visit Usage

Improving Rates of Physical Therapy Attendance of a Marginally-Housed Primary Care Population
M. Nair, H. Crowl, J. Berchuck, K. Yee, S. Epstein, K. Raffel, E. Kong, S. Patel, and C Kim

Data-Driven Huddles to Improve Diabetes Management
L. Rettberg, A. Strewler, K. Thomas, S. Ascher, M. Jame, S. Jame, N. Ewigman, A. Eastburn, M. Pearson, and S. Patel

Statin Use in Patients with Ischemic Heart Disease Inaccurately Represented by VA Dashboard
R. Tubbs, N. Parekh, R. Conroy, P. Moore, M. Ko, T. Martyn, M. Dulay, and R. Shunk

How Often Does Cystatin C Measurement Change Anticoagulation Choices?
J. Kim, T. Minichello, T. Rubenstein, M. Shilpak, and E. Price

Right-Sizing WiFi at SFVAMC
E. Price, J. B. Davoren, H. Nye, and K. Lee

Inferior Vena Cava Filters at SFVAMC
E. Price, T. Minichielo, and SFVAMC Anticoagulation and Thrombosis Service

UCSF at Fresno

A Case-Control Study of Risk Predictors for Opioid Oversode: Morphine and Other Opioid Associated Unresponsiveness due to Respiratory Depression Requiring Naloxone Treatment

Kaiser Permanente (Oakland Medical Center)

Listening Beyond Auscultating: A Quality Initiative to Improve HCAHPS Communication Scores at Kaiser Oakland Medical Center
Using Group Medical Visits and a Novel Website to Help Diverse Older Adults Engage in Advance Care Planning in Primary Care

Emily Wistar MD (Department of Medicine, SFGH), Carly Benner MD MPH (Department of Medicine, SFGH), Claire Horton MD MPH (Department of Medicine, SFGH), Antonella Jimenez BA (Department of Medicine, SFGH), Rebecca L. Sudore, MD  (Department of Geriatrics, SF VAMC)

Project Plan

Design: Pre-post pilot QI group medical visit program.
Setting: Two urban primary care clinics in the San Francisco safety net.
Participants: English-speaking primary care patients:
• ≥55 years of age, ≥2 chronic medical conditions
• Excluded if deaf, blind, had dementia or active psychosis

Intervention: Two 90-minute group medical visits of 5-15 participants per group using informational videos from the PREPARE website about:
• Choosing a medical decision maker
• Deciding what matters most in life
• Choosing flexibility for a surrogate decision maker
• Telling others about their wishes
• Asking doctors appropriate questions

Participants given PREPARE booklets and an advance directive form.

Assessment: Pre-to-one week post differences of percentages using Fisher’s exact test:
• ACP knowledge, 30 multiple choice questions
• Designation of a surrogate decision maker
• Completion of an advance directive

Ease-of-use of program materials (1-10 point scale).

Results / Progress to Date

Participant Characteristics (n= 21):
Mean age of 63.5 years (± 7.2), 54% women, 73% non-white, 32% less than high school education, 41% rated their health as fair-to-poor.

Preliminary Results:
1. Significantly improved patient knowledge about ACP
2. High ease of use: average of 8.8 on a 10 point scale
3. Participant satisfaction: 90% likely or very likely to recommend

Next Steps

• Develop a plan for ongoing ACP group visits and for long term sustainability
• Develop a strategy for outreach and enrollment in future ACP group medical visits
• Design and conduct group medical visits in additional languages for non-English speaking patients

GMV increased participant engagement in ACP

GMV Improved knowledge about medical decision makers and informing others about medical wishes

1. To determine the feasibility and acceptability of group medical visits for ACP that utilize the PREPARE website.
2. To evaluate whether GMV improved patients’ knowledge about and engagement in ACP and medical decision-making.

The Problem

• Advance care planning (ACP) is essential to honoring patients’ wishes, yet clinicians often do not have time or resources to effectively discuss ACP during clinic visits.
• ACP is especially challenging among older adults and those with low health literacy and multiple comorbidities.
• Group medical visits efficiently provide health education for chronic conditions, but little is known about their use for ACP in primary care.
• A website helps diverse older adults engage in ACP, but has not been studied in group medical visits (GMV). (prepareforyourcare.org)

Project Goals

• It is feasible to conduct group medical visits for ACP using the PREPARE website.
• GMV and PREPARE were highly rated, improved ACP knowledge, and increased confidence in choosing a surrogate and completing an advance directive.
• Group medical visits using PREPARE could be an effective tool for ACP in the primary care safety net.

UCSF Department of Medicine
2014-15 Quality & Safety Innovation Challenge

Participant Comments

“I appreciate being able to come to the class. I really enjoyed it... and it made me feel more comfortable to think and talk about this topic with others. I’m planning to talk with my family more about this tomorrow.”

“Wow! Its about time a class like this has been given!”

“We need more lessons for this ... thank you! I will be talking with my doctor more about this topic.”

Lessons Learned

• It is feasible to conduct group medical visits for ACP using the PREPARE website.
• GMV and PREPARE were highly rated, improved ACP knowledge, and increased confidence in choosing a surrogate and completing an advance directive.
• Group medical visits using PREPARE could be an effective tool for ACP in the primary care safety net.
No More No Shows @ SFGH
Improving Appointment Reminder Systems at a County Hospital Outpatient Specialty Clinic

Shire Beach, Jonathan Brandon, Amalia Potok, Bing Mei Wang, Cedric Jackson Jr., Su Yin Li MA, Karla Paz MA, Melina Flores, Sarah Goglin MD, Mary Margaretten MD MAS, Laura Trupin MPH, Jinoos Yazdany MD MPH

Introduction

- The average no show rate across all San Francisco General Hospital (SFGH) outpatient specialty clinics in 2014 was 31.6%
- Out of the 21 total outpatient specialty clinics, 6 had no-show rates greater than 40% (endocrinology, neurology, neurosurgery, oral and maxillofacial surgery, pulmonary, and urology)
- High no-show rates result in disrupted delivery of care to patients living with chronic illnesses as well as inefficient use of resources – a problem particularly concerning in the setting of a low-resource county hospital system such as SFGH
- This project focused specifically on improving the appointment reminder systems used in the SFGH outpatient rheumatology clinic, which had an average no show rate of 24% in 2014

Aim

- Reduce the percentage of no show appointments at the SFGH rheumatology clinic from 24% to 15% by May 2015

Methods & Materials

- Preliminary work involved creating a survey in three languages (Spanish, Chinese, and English) to determine how clinic patients were reminded of their most recent appointment and how they prefer to be reminded in the future; the clinic’s current reminder system work flow was also mapped
- PDSA (Plan-Do-Study-Act) cycles have so far focused on improving the clinic’s appointment reminder phone call system
- A multilingual clinic staff team (Spanish, Chinese, and English speaking members) has been involved in making reminder phone calls to best accommodate the clinic’s diverse patient population

Outcome Measures:
(1) Weekly no show rate (# no shows by week/total # SFGH rheumatology appointments by week)
(2) Differences in no show rate among patients who receive appointment phone reminders directly, by voicemail, or by message left with family
(3) Differences in no show rate among Chinese, Spanish, and English speaking patients who receive phone reminders

Process Measures: Number of phone contacts attempted weekly; outcome of phone contacts (patient directly contacted, voicemail, message left with family, unable to contact patient/leave message)

Balance Measures: Time required to generate and distribute weekly reminder call lists; time required to complete reminder calls in Spanish, Chinese, and English

Intervention: Appointment reminder calls to patients

PDSA 1: contact 1-5 English speaking patients with upcoming follow up (F/U) appointments
PDSA 2: contact 15-25 patients with upcoming F/U appointments; include English, Spanish, and Chinese speaking patients
PDSA 3: use computer generated call lists; contact all English, Spanish, and Chinese speaking patients with F/U appointments
PDSA 4: include new patient appointments in weekly call lists - attempt to contact every English, Spanish, and Chinese speaking clinic patient

Results

<table>
<thead>
<tr>
<th>Type of Reminder Received (for Most Recent Appointment)</th>
<th>Phone and Letter</th>
<th>Phone</th>
<th>Letter</th>
<th>No Reminder</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phone and Letter</td>
<td>13.0%</td>
<td>27.0%</td>
<td>60.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Letter</td>
<td>68.0%</td>
<td>50.0%</td>
<td>25.0%</td>
<td>14.0%</td>
</tr>
</tbody>
</table>

Balance Measures

- One hour to generate and distribute weekly reminder call lists
- 3-4 hours to make ~70 total calls weekly (divided among four person clinic staff team)

Conclusions

- The median no show rate at the SFGH rheumatology clinic was 12.3% during the four PDSA cycles, exceeding the initial goal of reducing the no show rate to 15%
- The no show rate was lowest for patients who were contacted directly and those for whom a message was left with a family member
- Among patients who received phone reminders (either via direct contact, voicemail, or a message left with family), the Cantonese and Spanish speaking patients had lower no show rates (4.5% and 6.7%, respectively) compared to the no show rate of English speaking patients (13.8%)

Next steps:
(1) Incorporate appointment reminder calls into revised MA workflows
(2) Explore the effectiveness of text message appointment reminders (26% of patients surveyed indicated an interest in receiving appointment reminders via text)
(3) Present study results to other outpatient specialty clinics to address the high SFGH no show rate on a larger scale

Acknowledgements

Many thanks to the UCSF Foundation, the Action Research Program, and the UCSF Office of Undergraduate Medical Education for their support of this work. Thanks also to the SFGH Rheumatology patients who participated in study surveys and helped us understand what types of appointment reminders would be most useful. And, a sincere thanks to the ARP faculty mentors for their patience and guidance throughout this entire process.

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Acknowledgements

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Post-discharge care coordination from the safety net medical home: a health worker phone call intervention


The Problem
• Safety net hospitals are 30% more likely to have 30-day hospital readmission rates higher than the national average (1).
• These higher readmission rates are multifactorial and due in part to a disproportionate share of vulnerable patients who are uninsured or underinsured and who have higher rates of complex medical conditions (1).
• In the San Francisco Health Network (SFHN), safety net primary care practices have low appointment attendance rates post discharge and often do not have systems in place for comprehensive post-discharge care.

Objectives of Program
Create a system for primary care-based post-discharge care that:
• Improves care coordination upon discharge from San Francisco General Hospital (SFGH).
• Increases the number of patients seen in SFHN within seven days of discharge.
• Decreases readmission rates in SFHN.

Description of Program
Each business day, a designated health worker (HW) at each clinic queries the electronic medical record to identify patients who were discharged from SFGH.
• The HW calls the patient using a script that reviews appointments, medications, red flags, urgent access, and transportation.
• The HW has nurse and provider back up for all clinical questions.
• The readmission rate for SFHN did not decrease within 7 days of discharge is 5%, compared to SFGH average of 13.5%.

Lessons Learned
• The proportion of patients attending post-hospital discharge appointments has increased from 33% (December 2013) to 50% (March 2015) across the San Francisco Health Network.
• In one clinic with the highest numbers of hospitalized patients, the percentage of post-discharge phone calls requiring nursing involvement is 5%.
• The readmission rate for SFHN patients seen within 7 days of discharge is 5%, compared to SFGH average of 13.5%.
• The readmission rate for SFHN did not decrease throughout 2014. No data yet for 2015.

References

Acknowledgments
The Gordon & Betty Moore Foundation and the California Quality Collaborative TAACT Collaborative for their support.

For more information, please visit:
Post-discharge care coordination from the safety net medical home: a health worker phone call intervention

Department of Medicine and Family Medicine | University of California, San Francisco
SAN FRANCISCO GENERAL HOSPITAL AND TRAUMA CENTER
New Frontiers: Teaching Quality Improvement to First Year Medical Students in the SFGH Rheumatology Clinical Microsystem

Sarah Goglin MD, Mary Margaretten MD, Shire Beach, Jonathan Brandon, Amalia Potok, Bing Mei Wang, Laura Trupin MPH, Jinoos Yazdany MD MPH

Overview

• The UCSF Action Research Program (ARP) is a year-long experiential training course in Implementation Science started in 2012 for first and second year medical students that has created a platform for faculty to engage with UCSF medical students around critical issues in health care quality and safety.
• Aims are:
  1. To create a novel experiential learning program integrating a traditional preceptorship with education about health care quality and safety in the SFGH Rheumatology clinic for four first year medical students in 2014-2015.
  2. To integrate first year medical students into the care delivery team
  3. To increase student knowledge about QI and systems-based practice
  4. To have each student design and implement a unique QI project in the SFGH Rheumatology clinic based on their interests under the leadership of a faculty mentor
  5. To improve health care delivery for patients in the SFGH Rheumatology clinic

Methods

Setting: Tuesday afternoon SFGH Rheumatology Clinic

Team

• 2 rheumatology faculty members and 1 rheumatology fellow
• 1 research analyst
• 4 UCSF first year medical students
• SFGH rheumatology clinic staff

Structure

• 24 four-hour clinic sessions from September 2014 – June 2015
• Faculty provided 5 to 30 minute pre-clinic “chalk talks” on QI or clinical medicine
• Students participated in team huddle at start of clinic
• Students focused each week on learning clinical skills or working on their QI projects
• Faculty saw patients with the students and assisted with QI project as needed during the clinic session
• Faculty were available on an as needed basis to assist with projects outside of clinic

September – December 2014

• Students performed independent H&Ps and oral presentations
• Students observed clinic operations, from patient check-in to check-out
• Areas of unmet need identified by students to inform QI projects

January 2015

• Students refined their ideas for QI projects and developed SMART AIMs with assistance of a faculty mentor
• Faculty used Model for Improvement to help students structure projects
• Research analyst provided methodologic support and help with data queries and analysis

February – May 2015

• Students designed and executed PDSA cycles for their independent projects, working closely with faculty and clinic staff
• Students analyzed results, designed posters, and presented their projects at the UCSF QIQC conference

Results

Student-led QI Projects | Primary Outcome
---|---

*No More No Shows at SFGH: Improving Appointment Reminder Systems at a County Hospital Outpatient Specialty Clinic*
Reduced no show rate from 24% to 12% in 2 months

*Reducing Fractures at SFGH Rheumatology Clinic*
Integrated FRAX tool into SFGH EMR. Improved fracture risk assessment from 0% to 27%.

*Closing the gap: Using health coaching strategies to improve patient-clinician communication in low SES, limited English proficient populations*
Created a health coaching intervention to help patients with agenda setting prior to seeing their rheumatologist and implemented this intervention in 5 languages

*Bridgeing the gap: Health coaching to address patient safety risks among vulnerable patients on long-term immunosuppressants*
Identified information needs among patients taking high-risk medications and designed and implemented a health coaching intervention and tool to address these needs in 5 languages

What worked well

• Student were well integrated into clinic and worked collaboratively in interprofessional teams to implement QI project
• Students had a significant impact through their projects
• Faculty enjoyed opportunity to mentor and teach early medical students

Challenges

• Students’ exam and break schedules at times conflicted with maintaining momentum in projects
• Clinic space and patient flow occasionally conflicted with maintaining momentum in projects
• Students performed independent H&Ps and oral presentations
• Students observed clinic operations, from patient check-in to check-out
• Areas of unmet need identified by students to inform QI projects

Student Feedback

“ARP has been an incredible experience this year – I’ve had the opportunity to define an independent project, work as part of the clinic staff team to achieve its aims, and witness the impact of this work...A year ago I had no idea what quality improvement in the clinical setting meant; now that I’ve been introduced to this area of active and rich research, I’m excited to continue exploring it during medical school.”

“Although many of my classmates have reported positive or productive experiences in their selectives and preceptorships, I feel as if I am actually a member of the clinic team. Showing up week after week has allowed me to work with the support staff in a meaningful way and to understand the satisfaction of longitudinal patient relationships.”

“I am excited that I have been able to participate in projects that immediately and directly influence patient care. We learn the science in the morning and implement change in the afternoon.”

“Over the course of my preceptorship, I witnessed how difficult it is to provide quality care for a complex chronic disorder in a resource limited setting; but in executing my QI project, I discovered how health coaching with an interpreter can begin to bridge the gaps in care experienced by our most vulnerable patient populations.”

Conclusion

• We created a novel experiential learning program for first year medical students that integrates a traditional clinical preceptorship with education about health care quality and safety in the SFGH rheumatology clinic
• Students added value to the clinic and made strides in improving quality in multiple areas
• Students and faculty reported high levels of satisfaction with the experience
• Primary challenge is to address the need for significant faculty time commitment to ensure a sustainable program that can be carried out in other clinical settings

Acknowledgements

UCSF Foundation and the Action Research Program
UCSF Office of Undergraduate Medical Education
Patients in the SFHG Rheumatology clinic
THE PROBLEM

- Oral glucocorticoid use increases the risk of osteoporosis and subsequent fracture.
- Glucocorticoid-induced osteoporosis screening is endorsed by the American College of Rheumatology, National Osteoporosis Foundation, and US Preventative Services Task Force recommendations.
- Studies show that less than one-third of patients on chronic oral glucocorticoids received bone mineral density testing by x-ray absorptiometry (DXA) and/or the Fracture Risk Assessment (FRAX™) tool nationally.
- San Francisco General Hospital lacks a DXA scanner; patients must travel to UCSF to receive this test, creating an additional challenge to bone health screening and low DXA screening rates. The FRAX™ tool holds promise in improving osteoporosis risk assessment, given barriers to DXA screening at SFGH. However, the tool is currently not used in clinic.
- Increasing the use of FRAX™ in rheumatology clinic could help identify low bone mass or osteoporosis, and facilitate evidence-based prophylaxis and treatment.

PROJECT GOALS

- SMART AIM: To increase the assessment of osteoporotic fracture risk with FRAX™ tool, from 0% to 35% of patients at San Francisco General Hospital (SFGH) Rheumatology Clinic by June 1, 2015.

RESULTS/PROGRESS TO DATE

- Provider visit was determined to be the ideal time and place to conduct a fracture risk assessment (not during vitals or phlebotomy).
  - Less than 30 seconds during the provider visit compared with > 120 seconds at other times due to EMR access, interpreter availability, and existing dialogue.
  - 60 seconds was the average total time required to address osteoporotic fracture risk, including: determining a FRAX™ score, developing a plan of action, and preserving information in the electronic medical record.
  - Most of the information required to obtain a FRAX score was available in the patient record. However, it was faster to directly query the patients.

- Piloting the integrated FRAX template with one provider increased the rate of fracture risk assessment from 0 to 27%.

NEXT STEPS

- Continue to measure FRAX assessment use in rheumatology clinics at SFGH and further refine workflows.
- Increase physician use of FRAX assessment to assist with clinical-decision and prevent osteoporotic fractures in high-risk population.
- Development of “Rheumatology Safety Dashboard” which will include bone health as safety measure in medical record.

Acknowledgements

- UCSF Foundation and the Action Research Program
- UCSF Office of Undergraduate Medical Education

References

1. Osteoporosis Screening and Risk Management: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2685263/
2. FRAX Assessment for men and women from the UK: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2267485/
A Safety Dashboard for Rheumatology Clinics at San Francisco General Hospital (SFGH)

Mary Margaretten1,2 MD, MAS; Laura Trupin2 MPH, Jung-He Noh1 RN, Sarah Goglin MD1,2, Jinoos Yazdany1,2 MD, MPH
San Francisco General Hospital1, University of California San Francisco2

The Problem

- Patient safety problems are increasing in rheumatology given the growing use of high-risk immunosuppressive drugs
- Health care “dashboards” have been utilized in research and quality improvement to capture provider performance on quality measures.
- Like the dashboard of an automobile giving the driver an at-a-glance view how the vehicle is operating, electronic dashboards guide decision making by communicating warnings, action notices, next steps, and up-to-date summaries with minimal distraction.
- Safety dashboards for rheumatic diseases are lacking, despite the availability of quality measures and numerous studies indicating significant gaps in care.

Project Goals

- To develop a rheumatology electronic safety dashboard for use at SFGH outpatient rheumatology care settings by July 2016.
- To use data stored in the electronic health record (EHR) to inform clinicians about evidence-based, high-priority, clinically actionable metrics that are known rheumatic safety risks:
  1. suboptimal rates of pneumococcal vaccination in patients using high-risk immunosuppressive medications
  2. inadequate bone health monitoring in patients taking oral glucocorticoids
  3. inadequate screening and treatment for latent tuberculosis prior to initiation of tumor-necrosis-factor-alpha (TNF) antagonists

Results/Progress To Date

Data Analyst Completed Training to Access SFGH Data Warehouse

Identified Numerator & Denominator Populations on High-Risk Immunosuppressive Medication Using Standardized, Coded Terminologies

Will Validate Through Chart Review

Quality Measure 1: Pneumococcal Vaccinations:
- eMeasure construction ongoing
- Initial data pull reveals rising rates of pneumococcal vaccine for RA patients on immunosuppressive medications at SFGH

Quality Measure 2: Bone Health Assessment:
- Screen for osteoporosis using FRAX assessment (see poster)
- eMeasure construction ongoing
- Apply to all rheumatology patients on chronic oral glucocorticoids

Quality Measure 3: TB Screening Prior To Initiation of Biologic Medication:
- Screen for LTBI in patients with RA prior to initiation of anti-TNF medication
- Create an electronic form embedded in rheumatology progress note that reminds clinicians to place PPD and/or obtain chest X-ray when starting anti-TNF
- Evaluate if clinicians screen for LTBI and use the electronic form using run charts; obtain feedback from rheumatologists
- Apply to all rheumatology patients (not just those with RA)

Next Steps

Timeline: 2 month intervals with anticipated milestones

<table>
<thead>
<tr>
<th>Milestones</th>
<th>1-2 months</th>
<th>3-4 months</th>
<th>5-6 months</th>
<th>7-8 months</th>
<th>9-10 months</th>
<th>11-12 months</th>
</tr>
</thead>
</table>
| Design and develop dashboard and alerts tailored to the care of rheumatology patients,
  including data from all rheumatology patients who are 40+ years of age,
  with osteoarthritis and/or RA, and are on biologic medications. | | | | | | |
| Develop clinical workflows and alerts, with education of rheumatology staff on the
  importance of implementing the dashboard. | | | | | | |
| Quality improvement efforts include sending alerts to specific patient populations,
  piloting feedback from clinicians, and developing and implementing
  educational materials to ensure maximum impact. | | | | | | |

Acknowledgements

- UCSF Foundation and the Action Research Program
- National Center for Advancing Translational Sciences, NIH, through UCSF-CTSI
- Patients in the SFGH Rheumatology clinic
Introduction

Background & Justification
- Over 50% of SFGH rheumatology patients have limited English proficiency, a majority have limited health literacy,
- Patients suffer from complex chronic diseases that require rigorous self management, often comorbid with other chronic conditions (HTN, DM, COPD)
- For these patients, studies have shown that health coaching can improve health-related behaviors, self-efficacy, and health status

Aim
1. To design a 15-minute health coaching intervention that incorporates the communication principles of Agenda Setting, Ask-Tell-Ask, and Close-The-Loop.
2. To increase the number of patients who receive a health-coaching session from 0% to 5% by May 2015.

Methods & Materials

Health Coaching Intervention:
- Use principles from the health coaching curriculum – specifically agenda setting to prioritize patient issues for the visit, Ask-Tell-Ask information sharing about immunosuppressant therapy, and Close-The-Loop questioning to reinforce knowledge – to design a health coaching intervention
- Consultation with health coaching experts to refine written health coaching script
- Checklist and patient tracker to ensure all steps of health intervention were carried out, verify follow-up number, and track follow-up answers

Quality Improvement Methods:
- Implemented and iteratively tested the health coaching intervention in the SFGH rheumatoid arthritis clinic from January through April 2015 using the Institute for Health Care Improvement’s Model of Improvement
- Process measures include: health coaching total time, agenda setting time, ask-tell-ask time, number of coaching sessions

Results

Subject Demographics
- Total Number of Interventions: 19
- Interpreter Used: 16
- Primary language:
  - Chinese (Mandarin or Cantonese): 7
  - Spanish: 7
  - English: 3
  - Tagalog: 1
  - Vietnamese: 1

Soundbites:
- “I’ve never used a Spanish interpreter with my provider before because I was afraid it would be an inconvenience.”
- “I’m not sure why I am here – I am just told to come every 3 months.”

Conclusion

- Pre-visit health coaching interventions can help patients get the most out of their clinic experience by helping them set an agenda for their visit
- These sessions, when used in conjunction with an interpreter, may also give Limited English Proficient patients a space to voice concerns about their conditions, the side effects of their medications, their medical management, and their overall quality of life
- The drawback is that using an interpreter makes sessions much longer.
- Over the course of several PDSA cycles, we recognized the utility of using checklists to increase efficiency and reduce the time of sessions
- Finally, health coaching sessions become more effective with practice, as coaches become more confident and have greater ease developing rapport with patients in the difficult situation of using a telephone interpreter.

Next Steps

- Continue monitoring the efficacy and efficiency of interpreter use with health coaching across different languages, especially Tagalog and Vietnamese
- Qualitatively assess patient communication modalities as they differ across language and culture
- Conduct follow-up calls to determine effect of health coaching on patient visit and self-management

Acknowledgements
UCSF Foundation and the Action Research Program
UCSF Office of Undergraduate Medical Education
Patients in the SFGH Rheumatology clinic
Bridging the gap: health coaching to address patient safety risks among vulnerable patients on long-term immunosuppressants

Amalia Polok; Bing Mei Wang; Shiree Beach; Jonathan Brandon; Mary Margaretten; MD; Laura Trupin, MPH; Jung Hee Noh, RN; Suvin Li, MEA; Jinoos Yazdany, MD MPH; Sarah Goglin, MD
University of California San Francisco, School of Medicine; UCSF Medical Center; San Francisco General Hospital

Introduction

Background and Justification:
- The majority of SFGH Rheumatology clinic patients take immunosuppressive disease modifying antirheumatic drugs (DMARDs) which carry significant risk of serious infection.
- Limited English proficiency and low health literacy may further compound patient safety risks associated with complex immunosuppressive drug regimens.
- Interventions designed specifically for at-risk populations are needed that address unmet needs around immunosuppressive medication safety.

Overarching Aim: To evaluate information needs of patients around medication safety in the SFGH Rheumatology clinic and to design an intervention to address these needs by June 2015.

1. Aim 1: To use patient interviews to understand specific patient information needs around immunosuppressive medication safety.
2. Aim 2: To create a language and literacy-level appropriate intervention to address these patient information needs.

Methods & Materials

- Needs Assessment:
  - EMR Data Analysis: We performed an EMR data analysis to understand the denominator of populations with RA using immunosuppressive medications who were regularly seen (at least 2 visits in the last year) in the SFGH Rheumatology clinic.
  - Patient Interviews: We interviewed patients to understand their information needs around their immunosuppressive medication regimen.
    - 14 patients interviewed to assess knowledge regarding their chronic condition and medications.
    - Interviews performed in English, Spanish, Cantonese, Tagalog
    - Examples of questions asked: “What medical problems do you have? What medications do you take for this condition?”
  - Health Coaching Intervention:
    - Use close-the-loop health coaching strategies to design an intervention script that included how to recognize signs and symptoms of an infection, how/when to contact one’s rheumatologist, and how/why to use the med-info card.
    - Solicited guidance and feedback from interdepartmental health coaching leaders.

- SMART AIM: To administer health coaching and supply medication information cards to 10% of all RA clinic patients by June 2015.

  - Process (Measure 1): Percent of eligible patients receiving health coaching intervention.
  - Outcome (Measure 2): Patient satisfaction with health coaching intervention (survey).
  - Outcome (Measure 3): Patient knowledge about immunosuppressive medications after intervention.
  - Balance (Measures 4, 5): Time to complete intervention in each language; Impact on clinic workflow.

Results

Figure 1. Eligible population for intervention from EMR Data Analysis.

Patient Interviews:
- Condition knowledge: 6/5 low English proficiency patients identified RA as their diagnosis compared with 7/9 English-speaking patients.
- Medication knowledge: 10/14 patients could provide either a list of medications or a bag with bottles of medications; 4 of these 10 could identify their RA medications.
- Medication information card pilot: 4/6 patients (of whom 4 had low English proficiency) expressed interest in a pocket-sized card that listed their RA medications.

Table 1. PDSA Cycles to Develop and Implement Intervention.

<table>
<thead>
<tr>
<th>PDSA Cycle</th>
<th>Date</th>
<th>Change in Intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>24-Feb</td>
<td>Pilot Health Coaching Script and distribute medication information cards (n=5)</td>
</tr>
<tr>
<td>2</td>
<td>3-Mar</td>
<td>Room patients pre-visit for intervention (n=5)</td>
</tr>
<tr>
<td>3</td>
<td>24-Mar</td>
<td>Use of separate, designated room for intervention (n=4)</td>
</tr>
<tr>
<td>4</td>
<td>31-Mar</td>
<td>Use of standardized forms to track data (n=4)</td>
</tr>
</tbody>
</table>

Table 2. Demographic/language characteristics of individuals receiving initial health coaching interventions.

<table>
<thead>
<tr>
<th>Interpreter Used</th>
<th>Chinese (Mandarin or Cantonese)</th>
<th>Spanish</th>
<th>English</th>
<th>Tagalog</th>
<th>Vietnamese</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Number of Health Coaching Interventions</td>
<td>19</td>
<td>7</td>
<td>7</td>
<td>3</td>
<td>1</td>
</tr>
</tbody>
</table>

Conclusion

- We identified specific information needs among patients taking high-risk immunosuppressive medications in the SFGH Rheumatology clinic.
  - Among the sample of patients interviewed, those with low English proficiency had lower knowledge about their condition and medications.

- We designed a simple health coaching intervention and tool (a medication information card) to address these information needs.

- Initial patient reactions to both health coaching and the cards have been positive.
  - Over the course of four PDSA cycles, we were consistently able to offer 4-5 full health coaching sessions. This required the cooperation of two MS1s.

- Our plan is to collect the process, outcome and balance measures listed above in the coming months to more fully understand the impact of the intervention.

Future Directions

- Testing and further refinement of our intervention will continue throughout the Spring of 2015, and I will continue working in the clinic over the summer to administer the intervention.
- Funding has been secured to design the medication information card in three languages – English, Chinese, and Spanish – and to print it double-sided on cardstock.
- Our long-term goal is to work towards an effective and sustainable intervention to improve patient safety around medication risks using health coaching as a key strategy.

Acknowledgements

UCSF Foundation and the Action Research Program
UCSF Office of Undergraduate Medical Education
Patients in the SFGH Rheumatology clinic
Establishing Quality Measures in the Management of Chronic Kidney Disease

Julie Kim1, Sumant Ranji1, and Delphine Tuot2

1 Department of Medicine, University of California San Francisco, 2 Division of Nephrology, San Francisco General Hospital

The Problem

- The management of chronic kidney disease (CKD) involves the management of various clinical components including, but not limited to:
  - Hypertension
  - Proteinuria
  - Advanced renal replacement planning
- Although there are consensus guidelines on CKD management, these guidelines do not necessarily translate into performance measures in the nephrology outpatient setting.
  - A number of the recommendations are based on expert consensus rather than strong evidence.
  - Providers can be wary of quality measures that intrude upon their practice and that may result in unintended consequences.
- There is no existing consensus on quality measures in CKD management.

Project Goals

Aim:
- To develop CKD quality measures that are appropriate and meaningful in the nephrology outpatient setting

Objectives:
- To critically assess the literature on CKD guidelines and performance measures
- To obtain input from practicing nephrologists on potential performance measures
- To develop a list of prioritized measures to further pursue with data collection and to ultimately identify areas of quality gaps

Project Plan

- Review literature on CKD management and performance measures
- Develop and pilot an online survey of CKD quality measures
- Invite faculty clinical nephrologists to complete survey
- Analyze results of survey
- Share survey results with providers

Results

<table>
<thead>
<tr>
<th>% of patients with:</th>
<th>I would want to see my personal performance on this metric</th>
<th>I am able to improve performance on this metric for my patients</th>
<th>Improving performance on this metric could result in harm to patients</th>
<th>Performance on this metric is useful for evaluating the overall quality of care provided in my clinic</th>
<th>Overall order of importance to providers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hypertension and proteinuria who are prescribed an ACE inhibitor or ARB*</td>
<td>91%</td>
<td>91%</td>
<td>36%</td>
<td>64%</td>
<td>1</td>
</tr>
<tr>
<td>Blood pressure &gt;140/90 mmHg*</td>
<td>91%</td>
<td>73%</td>
<td>27%</td>
<td>82%</td>
<td>2</td>
</tr>
<tr>
<td>Proteinuria only who are prescribed an ACE inhibitor or ARB*</td>
<td>91%</td>
<td>82%</td>
<td>40%</td>
<td>46%</td>
<td>3</td>
</tr>
<tr>
<td>High &lt;9g/dl who are not on ESA therapy</td>
<td>73%</td>
<td>82%</td>
<td>18%</td>
<td>55%</td>
<td>4</td>
</tr>
<tr>
<td>Following testing ordered at least once in the last year: calcium, phosphorus, intact PTH, and lipid profile</td>
<td>64%</td>
<td>64%</td>
<td>9%</td>
<td>36%</td>
<td>5</td>
</tr>
<tr>
<td>Received influenza immunization during the last flu season</td>
<td>64%</td>
<td>64%</td>
<td>0%</td>
<td>55%</td>
<td>6</td>
</tr>
<tr>
<td>eGFR &lt;20mL/min/1.73m2 who have been referred for AV fistula evaluation at least once</td>
<td>64%</td>
<td>55%</td>
<td>55%</td>
<td>36%</td>
<td>7</td>
</tr>
<tr>
<td>Calendar months in which patient receiving ESA therapy have a hemoglobin &lt;12g/dl</td>
<td>40%</td>
<td>60%</td>
<td>0%</td>
<td>5%</td>
<td>8</td>
</tr>
</tbody>
</table>

* Options included: strongly agree, agree, disagree, or strongly disagree. * Or has a documented plan of care

11 respondents out of 20 clinically active faculty nephrologists (response rate = 55%)

Qualitative comments included the following themes:
- Concerns about identifying the appropriate population – for example, different blood pressure goals in the elderly
- Overlap of primary care responsibilities in lipid management and influenza immunization
- Lack of strong evidence in what to do with laboratory testing
- Emphasis on advanced renal replacement education, and not necessarily AV fistula evaluation
- Interest in other immunizations (Hep B and Pneumovax)

Lessons Learned & Next Steps

Lessons Learned:
- There can be considerable differences from what guidelines suggest for clinical management to what providers find meaningful for performance measures.
- This highlights the importance of obtaining input from the front line providers.

Next Steps:
- Request data from SFGH Quality Data Center for the following metrics for percent of patients seen in the SFGH nephrology clinic with:
  - Hypertension and proteinuria on ACE/ARB
  - Uncontrolled hypertension (age > 65)
  - Uncontrolled hypertension (age > 65)
  - eGFR < 15 who have been referred for renal replacement education
  - eGFR < 15 who have been referred for transplant
  - Appropriate pneumococcal vaccination
  - Appropriate hepatitis B vaccination

References:
AIM: Improve screening and management for depression and cognitive impairment for older adults cared for at Maxine Hall Health Center.

GOALS:

By June 2015, establish a protocol for providers and behavioral health clinicians to screen for and begin initial management of depression and cognitive impairment for patients 80 years old and older at Maxine Hall and screen one quarter of eligible patients.

By December 2015, expand protocol to be used by providers and behavioral health clinicians to screen for and begin initial management of depression and cognitive impairment for patients 60 years old and older at Maxine Hall.

Lessons Learned:

- Our preliminary chart review revealed many areas for potential improvement of quality of care for older adults, including dementia screening, depression screening, advance directives documentation, and medication reconciliation (given the average of 11 medications). This is consistent with national findings.
- Screening for dementia and depression appeared to be an area that could use the most improvement.
- As an interdisciplinary process involving behavioral health clinicians, physicians, clinic leadership, and medical assistants, it was essential that a representative from each member of the clinic team participate in protocol design.
- A first-year medical student can play a critical role in all aspects of this large and multicomponent quality improvement initiative.

Next Steps:

In the remaining 3 months of this project, do PDSA, collect data on screening implementation and results, solicit provider feedback, and improve protocol for next PDSA cycle in Summer 2015.

The Problem

The context:

- As part of an educational innovation, the Primary Care Innovations Collaborative, a first year medical student started at Maxine Hall Health Center to do quality improvement in an interprofessional environment.
- Quality measures for vulnerable older adults (ACOVE-3) recommend screening for many geriatric conditions routinely, including for depression and dementia.

The quality challenge:

- Few measures on quality of care for geriatric conditions are tracked.
- The oldest patients, those 80 and older, are a highly vulnerable group.
- A chart review could be conducted in a short time frame to find quality gaps in detecting and recording geriatric conditions.
- A protocol to improve process of care for the highest risk conditions could be developed and later expanded to more patients.

Project Plan

Step 1: Identifying the Gaps - Chart review performed on adults 80 and older to determine demographics, medical conditions, diagnosis of dementia, number of visits in last two years, number of current medications, if advance directives recorded, if phq9 recorded.

Step 2: Select a Target for Quality Improvement Project - consensus based on chart review data was to improve mental health and cognitive screening in older adults -> See AIM

Step 3: Observe and Map Clinical Workflow - Observed medical assistants, primary care providers and behavioral health clinicians (BHC) in their daily routine.

Step 4: Design Protocol - A team of BHCs, providers, and clinical leadership designed a protocol to screen for depression and cognitive impairment and act upon findings (see RESULTS section)

Step 5: PD and Cycles - FUTURE STEP - Implement protocol, collect and analyze data on screening results, solicit provider feedback, and improve protocol.

Results / Progress to Date

<table>
<thead>
<tr>
<th>Characteristics of Adults ≥80 Years Old</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Patients</td>
<td>41</td>
</tr>
<tr>
<td>Age, mean (SD)</td>
<td>83.8 years (± 3.77)</td>
</tr>
<tr>
<td>Female, N (%)</td>
<td>29 (71%)</td>
</tr>
<tr>
<td>Visits in last 2 years, Mean (Range)</td>
<td>8.7 (1-19)*</td>
</tr>
<tr>
<td>Lost to Follow-Up, N (%)</td>
<td>7 (17%)</td>
</tr>
<tr>
<td>Number of meds, Mean (Range)</td>
<td>11.0 (0-28)</td>
</tr>
<tr>
<td>Advance Directives Done, N (%)</td>
<td>10 (24%)</td>
</tr>
</tbody>
</table>

* excluding one patient with 32 visits

Lessons Learned & Next Steps

Lessons Learned:

- Our preliminary chart review revealed many areas for potential improvement of quality of care for older adults, including dementia screening, depression screening, advance directives documentation, and medication reconciliation (given the average of 11 medications). This is consistent with national findings.
- Screening for dementia and depression appeared to be an area that could use the most improvement.
- As an interdisciplinary process involving behavioral health clinicians, physicians, clinic leadership, and medical assistants, it was essential that a representative from each member of the clinic team participate in protocol design.
- A first-year medical student can play a critical role in all aspects of this large and multicomponent quality improvement initiative.

Next Steps:

In the remaining 3 months of this project, do PDSA, collect data on screening implementation and results, solicit team’s feedback, and improve protocol for next PDSA cycle in Summer 2015.

UCSF Department of Medicine
2014-15 Quality & Safety Innovation Challenge
AIM: Improve all disciplines’ knowledge of detecting, assessing reporting and managing elder abuse at Laguna Honda Hospital.

GOALS:
• Review current available data on elder abuse reports from LHH.
• Build consensus on target areas for abuse protocol development.
• By December 2015, have protocols in place for elder abuse screening, detection, and management for all disciplines (RN, SW, MD), and have 3-month prevalence data on abuse by type.

Lessons Learned:
• There are many opportunities for several disciplines to detect elder abuse when an at-risk adult is a resident at Laguna Honda Hospital.
• We have a motivated group of stakeholders invested in improving processes of detection and assessment of elder abuse.

Next Steps:
• Identify current prevalence of reported cases of elder abuse.
• Develop protocols for detection for each discipline and pilot.
• Using PDSA, assess success of protocols in detecting, assessing, and reporting abuse to appropriate agencies.

UCSF Department of Medicine
2014-15 Quality & Safety Innovation Challenge

Improving Screening for Elder Abuse in Nursing Home Residents

Anna Chodos MD1, Colleen Riley, MD2, Madonna Valencia, RN, MS7, Janet Gillen, LCSW2, Leigh Kimberg, MD1
1 Division of General Internal Medicine, SFGH, UCSF, 2 Laguna Honda Hospital

The Problem

• Current prevalence of elder abuse is estimated at 11% per year, but is known to be underreported.
  • It may be as high as 1 in 3 adults in nursing homes.
• Adults admitted to nursing homes are at high risk of abuse because of higher prevalence of risk factors such as cognitive impairment and functional limitations.
• Abuse is reported to Adult Protective Services (APS) if it occurred in the community, or the San Francisco Long Term Care (LTC) Ombudsman Program.
• Nursing home staff are mandated reporters for elder abuse. However, there is no routine and universal protocol for screening for abuse among any of the disciplines.

The Project

GP: Stakeholder meeting to reach consensus RN, MD, SW leadership at LHH
• Begin data gathering on current state of abuse reporting from APS, LTC Ombudsman, LHH Quality Management.
• Review intra-disciplinary and inter-disciplinary process for detecting, reporting and managing abuse [see chart in Results]

GP: May-June 2015
• Inter-professional trainings on abuse detection and reporting
• Review available data
• Identify specific processes as areas for improvement
• Develop protocols and/or process modifications to implement

GP: First PDSA: Implement new protocols, measure outcomes (process and outputs), review findings
• Identify areas for further improvement and plan next PDSA
• Prepare preliminary findings for larger stakeholder meeting: SFPH, LTC Ombudsman, APS, LHH Leadership

GP: Sept-Oct 2015

Project Goal(s)

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Results / Progress to Date

Identified Areas for Elder Abuse Detection in LHH Current Processes, by Discipline

Lessons Learned & Next Steps

Lessons Learned:
• There are many opportunities for several disciplines to detect elder abuse when an at-risk adult is a resident at Laguna Honda Hospital.
• We have a motivated group of stakeholders invested in improving processes of detection and assessment of elder abuse.

Next Steps:
• Identify current prevalence of reported cases of elder abuse.
• Develop protocols for detection for each discipline and pilot.
• Using PDSA, assess success of protocols in detecting, assessing, and reporting abuse to appropriate agencies.
Nutrition Education and Services for Providers and Patients Among Low Income Patient Populations

Kim Nguyen, MD, Debby Schlanger, M.S, R.D., Reena Gupta, MD
San Francisco General Hospital Division of General Internal Medicine UCSF

The Problem

Patients with complex medical problems require food security and nutrition counseling to optimize their healthcare. In addition, in the underserved patient population at San Francisco General Hospital, food insecurity is a significant issue (a survey of the pediatric and women’s health clinics at SFGH showed that 15% of patients were food insecure). The medical and social complexity of these patients warrant careful nutritional counseling. However, this is a significant gap in their medical care for the following reasons:

• When nutrition referrals are made during a primary care appointment, they are made for a separate appointment, and patients often do not show up for a separate visit
• Providers lack the time and knowledge to provide concise, appropriate and problem-based nutrition counseling to patients during their own appointments

Results & Progress to Date

Increased Nutritional Resources for Patients

Project Goals

- Increase resident education regarding nutrition and nutrition services for underserved populations
  - Create nutrition curriculum for primary care residents
  - Increase amount of nutrition services received by patients
  - Create a better transition between primary care and nutrition services
  - Provide more nutrition resources in clinic

Project Plan

- To increase resident education:
  - Design a nutrition curriculum during outpatient months that include lectures by nutritionists and nonprofit nutrition education programs
- To increase nutrition services:
  - Warm hand-offs to nutrition during primary care clinic, where providers can call the nutrition office to see if there is an open appointment at that time, and patients are able to see nutritionists after seeing their primary care providers
  - Provide nutrition props in clinic rooms, as well as a cookbook with recipes designed for patients in single room occupancy hotels or other low-resource housing

Lessons Learned & Next Steps

Challenges Faced:

- Integrating

Lessons Learned:

Next Steps:
Provision of Intra-Nasal Naloxone on Discharge to Inpatients at High Risk of Overdose at San Francisco General Hospital

Lindsay Ryan, MD, Joe Hippensteel, MD, Liz Imbert, MD, Soraya Azari MD, Elena Tinloy, Pharm.D.

1. There are multiple barriers to offering intra-nasal naloxone to at-risk inpatients on discharge, which include provider-specific barriers, patient-specific barriers, and hospital/system barriers.

   • Provider-specific Barriers: lack of knowledge about naloxone, time constraints, other pressing medical issues, discomfort delving into substance use
   • Patient-specific Barriers: competing priorities during acute hospitalization, lack of perceived risk
   • Hospital Barriers: staffing constraints, time for nurses to educate patients, turnover in residents monthly, technological barriers to automated prompts for naloxone prescription

2. The broader SFGH/DPH naloxone collaboration has involved patient interviews. 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:

   • Better strategies to identify the total at-risk population of eligible inpatients, perhaps with involvement from social work or the alcohol use disorders team
   • Expansion beyond the medicine service, particularly to the emergency department
   • Incorporation of prompts for naloxone prescription into admission orders

In the past decade (1999-2010), unintentional overdose from prescription opioids has increased 400% in women and 265% in men. Over 22,000 people died from prescription drug overdose in 2010. More people die from prescription opioids than heroin and cocaine combined.

UCSF Department of Medicine
2014-15 Quality & Safety Innovation Challenge
Street Outreach Services (SOS) is the mobile component of SFCCC’s Healthcare for the Homeless program. The goal of the SOS medical van is to “provide a bridge to connect homeless clients with primary care services.”

Given the broad scope of services rendered for clients, there exists significant variability in what services are offered to clients. To reduce variability we intend on using a process mapping strategy to create an objective-driven protocol for the SOS van.

Project Goals

1. Align activities with the objective of connecting homeless clients to primary care
2. Standardize processes and roles so that all clients are given access to the same services
3. Improve efficiency of client flow

Lessons Learned

• Quality improvement must be driven by a desire by all team members, and cannot be imposed upon a team
• All team members must be listened to and heard
• Sustainability should be assessed from project outset
• Rapid piloting allows for early troubleshooting
• Logistical challenges to implementation can be addressed readily with rapid piloting and good communication.

Results / Progress to Date

1. A Process Map was generated to document a standardized procedure for client flow

2. The Process Mapping activity led to the Identification of “Things a Client Should Not Leave Without”
   • Primary Care assessment for all clients approaching the van for services (opt-out)
   • Screening for Risk Factors: Intravenous drug use, intimate partner violence, medical conditions and medications
   • Referral mechanism for patients without insurance or a medical home

3. The session was well-received by participants
100% of participants in the process mapping activity agreed (14%) or strongly agreed (86%) that it was a useful exercise (n=7). There were no significant changes in post-mapping attitudes or perceptions.

Lessons Learned & Next Steps

Lessons Learned
• Quality improvement must be driven by a desire by all team members, and cannot be imposed upon a team
• All team members must be listened to and heard
• Sustainability should be assessed from project outset
• Rapid piloting allows for early troubleshooting
• Logistical challenges to implementation can be addressed readily with rapid piloting and good communication.

Next Steps
• Development of revised process map
• Implementation of new processes, field-testing, and modification
• Stakeholder input from clients and assessment of client satisfaction
• Training of new providers and SOS staff on standardized processes
• Streamlining referrals for patients without insurance or primary care medical home
Introduction

The San Francisco Health Network is an integrated safety-net system of primary care clinics and one central medical center providing specialty services to a vulnerable population. The system provided services to over 107,000 patients in 2011-2012 with over 40,000 active patients in primary care clinics. There are over 100 primary care providers included in the 10 unique community health centers (Katz MH et al. Health Aff., 2011).

Colorectal cancer (CRC) screening is underutilized by the general population and even more so in the safety-net. Patients at the San Francisco General Hospital (SFGH) tend to present with later stage CRC when compared to the nationwide Surveillance, Epidemiology, and End Results (SEER) cohort (Ho C et al. Am J Public Health, 2012). Fecal immunochemical testing (FIT) was adopted as the primary form of CRC screening for average risk individuals in 2012. ColonoScan is performed in response to a positive FIT test.

We hypothesized that FIT, as a simpler test than FOBT, would be more widely adopted. We also hypothesized that uptake of screening would vary by clinic based on individual factors (i.e., socioeconomic status, income), clinic resources, and provider support.

Materials & Methods

Design: A retrospective cohort study of patients aged 50-75 years who were active members of 10 community health centers in the San Francisco safety-net system before, during, and after the full implementation of FIT.

Fecal occult blood tests (FOBT) were performed during 2011 and FIT was fully implemented across clinics by 2013.

Patients were designated “active” if they had a visit to their primary care clinic (PC) at least once during the preceding 2 years and inactive if they were registered but had no PC visits in that time.

For each patient, we evaluated the exposure to CRC screening including FIT or FOBT within one year, sigmoidoscopy within 5 years, or colonoscopy within 10 years, and their association with demographics, language, insurance, and socioeconomic status.

For those who had a positive FOBT or FIT we evaluated the rate of completion of subsequent colonoscopy.

Acknowledgements

Jacobsen Fund for Excellence; CDC Prevention Research Center U48DP004998; NIH/NIGMS K23CA137929

Table 1: Demographics of patients age 50-75 years seen in the San Francisco safety-net during 2014

<table>
<thead>
<tr>
<th>Age</th>
<th>Active Patients (n=21,284)</th>
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<tbody>
<tr>
<td>&gt;65</td>
<td>11,461 (54%)</td>
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<tr>
<td>&lt;65</td>
<td>9823 (46%)</td>
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<tr>
<td>Year of Birth</td>
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<td>1930-1939</td>
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<tr>
<td>Asian</td>
<td>6198 (29%)</td>
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<tr>
<td>White</td>
<td>5993 (29%)</td>
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<tr>
<td>Black</td>
<td>1734 (8%)</td>
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<tr>
<td>Hispanic</td>
<td>614 (3%)</td>
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<tr>
<td>Native American</td>
<td>98 (0.5%)</td>
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<tr>
<td>Other</td>
<td>430 (2%)</td>
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<tr>
<td>Unknown</td>
<td>124 (0.6%)</td>
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<table>
<thead>
<tr>
<th>Language</th>
<th>Active Patients (n=21,284)</th>
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<tr>
<td>English</td>
<td>16600 (78%)</td>
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<tr>
<td>Spanish</td>
<td>4684 (22%)</td>
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<th>Gender</th>
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<tr>
<td>Male</td>
<td>11743 (55%)</td>
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<tr>
<td>Female</td>
<td>9541 (45%)</td>
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<th>Marital Status</th>
<th>Active Patients (n=21,284)</th>
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<tr>
<td>Married</td>
<td>12723 (59%)</td>
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<tr>
<td>Widowed</td>
<td>1198 (5%)</td>
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<tr>
<td>Separated</td>
<td>1645 (8%)</td>
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<tr>
<td>Divorced</td>
<td>1219 (6%)</td>
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<tr>
<td>Single</td>
<td>646 (3%)</td>
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<table>
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<th>Income</th>
<th>Active Patients (n=21,284)</th>
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<td>&lt;$20,000</td>
<td>6626 (31%)</td>
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<tr>
<td>20,001-$49,999</td>
<td>7544 (35%)</td>
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<td>50,000-$99,999</td>
<td>4128 (19%)</td>
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<td>$100,000+</td>
<td>1386 (7%)</td>
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Results

Of 26,190 patients eligible for CRC screening in 2011, 13,004 (49.7%) were active. A total of 30,570 patients were eligible for screening in 2014 with 20,606 (67%) active (Table 1).

Being up-to-date with CRC screening increased by 8% (51% in 2011 to 59% in 2014, P<0.001) after a adoption of FIT (Figure 2). FIT accounted for 65% of screening tests compared with 34% by colonoscopy and 1% by sigmoidoscopy.

Rate of CRC screening varied across the 10 community health centers during the FOBT era (median 50.5%, range 24-61%) and improved in the FIT era (median 62%, range 36-77%) (Figure 3).

Increase in CRC screening was seen across all races (median 8.5%, range 3-14%), self-identification with non-English language was associated with being up-to-date (76% for Chinese, 67% for Spanish, and 54% for English) (Figure 4; Table 2).

Increased patient encounters and decline in proportion of “inactive” patients was associated with increased CRC screening (Figure 5).

Clinic B engaged in outreach to “inactive” patients and FIT-inreach, which increased unique patient visits, increased stool-based testing, and led to an increase in overall screening rate. Stool-based testing outpaced growth of unique patient encounters (Figure 6).

The positivity was 4.1% for FOBT and 8.8% for FIT. Only 57% of patients with a positive FIT during 2014 have a documented colonoscopy within our system.

Conclusion

Adoption of FIT-based CRC screening and patient outreach was associated with overall improvement in CRC screening. Electronic records allow for care coordination, utilization, and quality.

In-depth analysis of other clinic-specific interventions that contributed to the observed improvement in screening rates and identification of patient subgroups to target outreach are warranted.

Although CRC screening rates approved, close to half of positive tests did not have a documented colonoscopy within our system. Further study of this at-risk population is warranted.

Limitations

CRC screening rates could have been affected by ongoing quality improvement initiatives such as use panel management.

CRC screening could be underestimated due to utilization of out-of-network services especially in patients > 65 years who qualify for Medicare and overestimated based on our definition of active members.
Introduction

- Chronic opioid therapy for non-cancer pain is common, with an estimated 4% of the population receiving this treatment.
- Increasing use of opioids for treatment of chronic pain has been associated with societal harm, including a rise in unintentional overdose death (CDC).
- Chronic pain sufferers on opioid therapy commonly exhibit “concerning behaviors” that can be difficult for primary care providers to manage.
- Peer review of challenging cases has become a novel method to assist providers in the management of chronic pain patients.
- General Medicine Clinic (GMC) at SFGH began a multi-disciplinary peer review committee in 2014 ("CSI" or Controlled Substance Issues” Committee) for provider support.
- The Committee meets once per month and reviews 1-3 cases.
- We also conducted a survey of providers to assess their needs of the committee.

Chronic Pain Patients in GMC

- 266 (of ~5000 clinic patients)
  - Gender: 47% Female, 52% Male
  - Age: 13% (<45yo), 58% (45-64yo), 29% (>65yo)
  - Ethnicity: Asian/PI (7%), African-American (40%), Hispanic (21%), White (30%), Other (1.5%)
  - Mean daily morphine equivalent dosage = 180mg
  - Median daily morphine equivalent dosage = 60mg

Results: Who Follows the Recommendations?

<table>
<thead>
<tr>
<th>Number of Patients Reviewed by Full Committee</th>
<th>Percent That Followed Recommendations</th>
<th>Percentage That Did Not Follow Recommendations</th>
</tr>
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<tbody>
<tr>
<td>9</td>
<td>33.33%</td>
<td>66.66%</td>
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</table>

Results: What Do Providers Want from the Committee?

- When clinic providers are surveyed anonymously, they perceive high value to having a controlled substance review committee.
- Despite high-perceived value, the majority of providers do NOT follow the recommendations of the peer review committee.
- More commonly, providers have followed clinic policy - for example, stopping medication because of urine toxicology testing that is positive for cocaine – as opposed to the recommendations of the committee, which may indicate that clinic “policy” or “guidelines” carry more perceived weight.
- Implementation Challenges
  - Reviewing cases is time-intensive for both the committee and for providers.
  - Having the primary care provider present is difficult.
  - Providers often want suggestions on alternative treatments, but given the payer source, options may be limited for patients.

Next Steps:
1. Creation of more clinic-wide guidelines
2. Build on additional resources for patients (including buprenorphine-naloxone)
3. Consider provider barriers to implementing recommendations including time in visit, expertise with difficult conversations, and alternative treatment ideas.

CSI Formation & Work Flow

- Controlled Substance Issues (CSI) Committee Members: Nurse, Behavioral Health Clinician, Physician, Member of Clinic Management Team.
- Committee Solicits VOLUNTARY referrals.
- Committee discusses case and drafts a list of voluntary recommendations (see example).
- Committee follows up on patient case.
- Providers make decision to follow recommendations and/or place recs in chart.

Example of Recommendations Not Being Followed

- Urine toxicology screen positive for cocaine in April 2014.
- Patient should not be reinstated for opioids even after clean urine toxicology screens, and poor adherence to treatment plan.

Outcome from Chart Biopsy

- Patient reinstated for opioids.
- Patient continues to have concerning behavior, abnormal urine toxicology screens, and poor adherence to treatment plan.

The Controlled Substance Issues (CSI) Committee in GMC: Reflections & Next Steps

- When clinic providers are surveyed anonymously, they perceive high value to having a controlled substance review committee.
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UCSF Department of Medicine 2015-16 Quality & Safety Innovation Challenge
Implementing a Workflow to Identify, Treat, and Refer Hospitalized Patients with Alcohol Use Disorder

Zachary Matthay; Jimmy Feeney; Adam Nadler; John Huizar; Marlene Martin MD; Joseph Clement MS, RN, CCNS, Shilpa Shah MD

The Problem

- 25% of inpatients at San Francisco General Hospital (SFGH) suffer from alcohol use disorder (AUD)
- Hospitalization provides a unique opportunity to address this chronic problem
- No standardized method for identification, counseling or referral to treatment exists
- Prior interventions focused on resident education have resulted in increased naltrexone prescribing and reduced readmission rates
- These interventions have not been sustained due to their reliance upon rotating trainees

Project Goals

- Pilot a workflow to identify, counsel and treat hospitalized patients with AUD on the Internal Medicine, Cardiology, and Family Medicine services at SFGH in two 5-day cycles
- Determine the staff full time equivalent (FTE) required to sustain this workflow
- Improve linkage to community-based alcohol treatment programs at time of discharge

Metrics used to evaluate this program are:
- Time required to identify, counsel, and recommend treatment to patients and their providers
- Contact rate for patients with AUD
- Rate of naltrexone prescribing to patients eligible for the medication
- Rate of follow-up with community-based substance use counselor

Data

- Average time spent per task per day
  - Screening: 20 minutes
  - Counseling: 40 minutes
  - Communicating: 5.6 minutes

- Time spent counseling each patient
  - Average: 12.5 minutes
  - SD: 8.9 minutes

- Patient outcome following intervention
  - Patients screened but not contacted: 13
  - Patients contacted but without AUD: 12
  - Patients not interested in treatment: 24
  - Patients interested in naltrexone only: 7
  - Patients referred to TAP who did not follow up: 13
  - Patients who followed up at TAP within one week: 1

Summary of Results

- An average of 29 minutes were spent per patient:
  - 8.1 minutes on screening and chart review
  - 15.3 minutes on counseling
  - 5.6 minutes communicating with the patient’s primary team

- 70 patients screened positive for at-risk drinking and 57 (81%) were contacted
- 12 (21%) of the patients contacted did not have AUD upon further evaluation
- Of the 45 with AUD, 21 (47%) were interested in further treatment
  - 14 patients were highly motivated and referred to a substance use counselor (only 1 followed up)
  - Of the 10 patients interested and eligible for naltrexone, 4 (40%) were prescribed the medication at discharge

Lessons Learned & Next Steps

- This pilot supports the feasibility of identifying, counseling, and offering treatment to all inpatients with AUD
- Based on the time required to complete these tasks, it is feasible for a dedicated staff member to fill this role
- Prior work has depended upon rotating trainees and has not been sustained; fully staffing this role would make the workflow sustainable
- Linkage to outpatient treatment remains a challenge; further work needs to be dedicated to identifying patient barriers to follow up and to addressing these
- In the future, this workflow may be expanded to include the identification and treatment of patients with all substance use disorders
- Continuing an academic setting, this workflow also provides significant opportunities for education about substance use treatment and motivational interviewing

UCSF Department of Medicine
2014-15 Quality & Safety Innovation Challenge
Background / Problem

• Retinopathy is the leading cause of diabetic eye disease and a leading cause of blindness in the US.
• Diabetic retinopathy is more common in vulnerable populations (low income, low health literacy, older).
• Despite known preventative strategies, morbidity from diabetic retinopathy in the US is not decreasing.
• Even patients with routine sources of primary care can lack easily accessible retinal screening.

Setting

• San Francisco General Hospital (SFGH) is an urban safety net hospital with highly vulnerable patients.
• Family Health Center and General Medicine Clinic are two large primary care teaching clinics at SFGH.

Program Description

• Over a four year period, FHC and GMC partnered closely with the Ophthalmology clinic at SFGH to create a warm handoff system for diabetic retinal screening.
• A retinal camera was purchased for Ophthalmology clinic and technicians trained to take photographic retinal images.
• Optometrists and ophthalmologists analyze images, report to primary care providers, and take appropriate next steps (ie, recommend appropriate screening intervals and/or recommend therapy).
• Medical assistants in primary care assess all patients with diabetes for up-to-date retinal screening and refer directly to Ophthalmology for same-day services.
• Primary care providers refer patients who cannot be seen same-day for screening on a subsequent day.

Key Lessons for Dissemination

• Specialty-primary care collaborations are necessary to address poor rates of retinopathy screening.
• Retinal cameras and ancillary staff training can improve rates of diabetic retinal screening.
• The warm-handoff model increases access for patients who may not attend traditional ophthalmology referrals.
• Stored teleretinopathy images allow providers to track disease progression through time.
• Once workflows are established for diabetic retinopathy camera-based screening, further innovation and spread is possible.

Next steps

• Teleretinopathy screening will be expanded to HIV clinic and other ambulatory clinics at SFGH.
• A “teleretinopathy van” is being outfitted for community-based DPH primary care clinics.
• Two additional cameras will be purchased for community-based DPH clinics.
• Primary care staff will be trained to take and submit retinal images.
Diabetes Prevention Program Pilot at SFGH

Audrey Tang1, NP, Emily Turpin2, Sally Sexton2, Edith Garcia2, Erik Halaas2, Sarah Kim, MD1
1. San Francisco General Hospital, 2. YMCA of San Francisco

**The Problem**
Type 2 Diabetes Mellitus (T2DM) is a major health problem in the San Francisco Safety Net. As diabetes providers at SFGH, we have recognized that diabetes is costly to both patient and health care system, difficult to control despite the availability of resources, and results in significant morbidity and mortality. Randomized controlled trials such as the Diabetes Prevention Program (DPP) have proven that T2DM is preventable with intensive lifestyle changes. Cardinal features to the 1 year DPP is preventable with intensive lifestyle and 10 English speaking participants. Target enrollment will be 10 Spanish provider referral. Participants screened by phone 8/2014-Start of recruitment through flyers and morbidity and mortality. availability of resources, and results in significant improvements. In order to determine the volume of patients who would potentially benefit from diabetes prevention, we performed a database search for the prevalence of pre-diabetes by HbA1c criteria among patients actively seen in DPH primary care clinics throughout San Francisco. The search yielded >4500 patients who met the criteria for pre-diabetes by A1c criteria alone. Since A1c only captures a fraction of those at high risk, it was clear that there is a sizeable population who would benefit from delaying or preventing the onset of T2DM. Recognizing this need, the Diabetes Center for High Risk Populations at SFGH applied for and received a $50000 SFHG Hearts Foundation Grant to pilot 1 Spanish and 1 English DPP class. Working closely leadership at the YMCA, we decided to hold the classes at the SFHG Wellness Center on Saturday mornings in order to reduce conflicts with patients’ work obligations. Holding the classes at the Wellness Center offered the opportunity for patients to become more familiar with other free health-promoting programs hosted there. We advertised the program by posting flyers in the hospital as well as through provider newsletters distributed throughout the Department of Public Health. We screened the patients for eligibility based on the YMCA criteria (an algorithm based on age, family history, pre-diabetes on laboratory testing, BMI, history of gestational diabetes and lack of exercise). We then generated a list of interested patients and enrolled approximately 10 per group.

**Project Plan**
The Diabetes Center for High Risk Populations is constantly working on efforts to improve the lives of patients with diabetes within the San Francisco Safety Net. Through years of work with this population, it has become apparent that T2DM is a disease in which treatment is extremely labor intensive and prevention, if can be achieved, would result in better health outcomes. In order to determine the volume of patients who would potentially benefit from diabetes prevention, we performed a database search for the prevalence of pre-diabetes by HbA1c criteria among patients actively seen in DPH primary care clinics throughout San Francisco. The search yielded >4500 patients who met the criteria for pre-diabetes by A1c criteria alone. Since A1c only captures a fraction of those at high risk, it was clear that there is a sizeable population who would benefit from delaying or preventing the onset of T2DM.

**Project Goal(s)**
8/2014-Start of recruitment through flyers and provider referral. Participants screened by phone for eligibility. Target enrollment will be 10 Spanish and 10 English speaking participants. 9/2014- Reached target enrollment for both groups 11/2014- Launched the Spanish group 1/2015- Launched the Spanish group (delayed due to unavailability of bilingual instructor and wanting to avoid launch during holidays) 4/2015- Completion of 16 weekly core classes in English and transition to monthly maintenance sessions 5/2015- Planned completion of 16 weekly classes in Spanish and transition to monthly maintenance sessions 6/2015- Assessment of acceptability of the DPP at SFGH among the target population and impact of the DPP on various outcomes including weight loss, physical activity level, portion sizes, energy level and self-esteem. In addition, we plan to use qualitative methods to assess what specific lifestyle changes were accomplished, barriers to success, and ways to improve the program for future DPP courses at SFGH.

**Results / Progress to Date**
57 patients were referred to the program. 20 English and 15 Spanish speaking patients expressed confirmed interest in participating over the phone. Of these, 10 English and 13 Spanish speaking patients attended at least 1 class. Among these, 6 English and 4 Spanish speaking patients have come on a regular basis (attended >50% of classes).

<table>
<thead>
<tr>
<th>English Group (N=10)</th>
<th>Age (avg +/- SD)</th>
<th>Male Gender</th>
<th>Race</th>
<th>Referred By</th>
<th>Primary Clinic</th>
<th>A1c (avg +/- SD)</th>
<th>BMI (avg +/- SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>58 +/- 6</td>
<td>30%</td>
<td>4-White</td>
<td>5-PCP</td>
<td>3-Other provider</td>
<td>5-GMC</td>
<td>5.8 +/- 0.4</td>
<td>31 +/- 4</td>
</tr>
<tr>
<td>3-Other provider</td>
<td>1-self</td>
<td>1-family member</td>
<td>1-PHHC</td>
<td>5-PCP</td>
<td>2-Other provider</td>
<td>10-GMC</td>
<td>5.9 +/- 0.4</td>
</tr>
</tbody>
</table>

Spanish Group (N=13)

<table>
<thead>
<tr>
<th>Age (avg +/- SD)</th>
<th>Male Gender</th>
<th>Race</th>
<th>Referred By</th>
<th>Primary Clinic</th>
<th>A1c (avg +/- SD)</th>
<th>BMI (avg +/- SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>52 +/- 10</td>
<td>30%</td>
<td>All Hispanic</td>
<td>11-PCP</td>
<td>2-Other provider</td>
<td>10-GMC</td>
<td>5.9 +/- 0.4</td>
</tr>
</tbody>
</table>

Weight loss results: Among the Spanish speaking patients, 4 have lost weight (average 1.5 lbs), 2 have gained (average 7 lbs), 1 had no weight change and 2 did not have a second weight measurement. Among the English speaking patients, 7 lost weight (average 3.7 lbs), 1 gained (6 lbs) and 1 had no weight change.

**Lessons Learned & Next Steps**
Lessons Learned: Referral to the DPP was high (57 patients in 1 month) which supports the need of and interest in such a program. Ultimately, however, the rate of regular attendance was low (60% in the English Group and 23% in the Spanish) and the amount of weight change varied widely from weight loss to weight gain. The national attrition rate for Medicaid insured participants in YMCA DPPs approximately 50% which is close to what we have seen with the English group. These results may be a reflection of a small sample size rather than being truly representative of the acceptability and efficacy of a diabetes prevention program in this population. We obtained feedback from the English class instructor who thought that the positive aspects of the DPP at SFGH included the physical space and the Wellness Center staff. In terms of areas for improvement, she also thought that both over-enrollment and early identification of people who are committed to the rigors of attending a 16 weekly program would yield better attendance rates. She did not think that the curriculum was too complex for this population.

Next Steps: As next steps, we will continue to track attendance, weight loss and exercise for the remainder of the program. We will obtain feedback from the Spanish instructor and also feedback from participants. We will then decide whether to make efforts to continue the DPP at SFHG and if so, whether we need to make improvements to the program based on feedback. Ways to improve the program might include change in location, timing and modifications to the curriculum to better fit the population we serve.

UCSF Department of Medicine
2014-15 Quality & Safety Innovation Challenge
Bring it Down GMC: Hypertension Management Initiative

Olivia Sacks; Grace Chang; Sarah Richardson MS; Purba Chatterjee, MSc; Reena Gupta, MD; David Guzman, MS; Triveni Defries, MPH, MD; Valy Fortii, MD, MAS

1. UCSF, Division of General Internal Medicine & Center for Vulnerable Populations at San Francisco General Hospital

BACKGROUND

- Hypertension (HTN) remains uncontrolled in nearly half of affected individuals in the U.S.
- Uncontrolled HTN is even more prevalent in patient populations that receive care in safety-net clinics
- The Kaiser Permanente Northern California (KPNC) hypertension control program increased BP control from 44% to 90%

OBJECTIVE

- Adapt lessons from KPNC's HTN control program to improve HTN control at the General Medicine Clinic (GMC)
- Create model for expansion to all primary care clinics in the San Francisco Health Network

TARGET POPULATION

- Active GMC patients with hypertension defined as a HTN diagnosis listed in the EHR or two elevated BP measurements (<140/90 mmHg) in the last 12 months

PROGRAM DEVELOPMENT

- Designed HTN treatment intensification algorithm to adapt to clinic and patient needs
- The hypertension control program for patients 44 to 80 years of age, <150/90 for adults ≥60 years of age without DM, CKD, or albuminuria

PRELIMINARY RESULTS

- Percent control:
  - <60 years: 61%
  - All ages: 64%

OUTREACH PANEL

- Hypertension Panel (MD, RN, Pharmacist)
- Standardized BP measurement protocols
- Outreach panel visits
- Nurse blood pressure visits
- Treatment intensification algorithm
- Hypertension control performance metrics

FIGURE 1. COMPONENTS OF THE INTERVENTION

FIGURE 2. TREATMENT INTENSIFICATION ALGORITHM

POCKET GMC HYPERTENSION GUIDELINE for patients with LVFEZ 40% and eGFR ≥30

BLOOD PRESSURE GOALS:

- <140/90 mmHg: for all adults with DM, CKD, or <60 years of age
- <120/80 mmHg: for adults ≥60 years of age without DM, CKD, or albuminuria

CALCIUM CHANNEL BLOCKER

ACE-INHIBITOR/THIAZIDE DIURETIC

PREGNANCY POTENTIAL: AVOID ACE-INHIBITORS

ACE-INHIBITOR/THIAZIDE DIURETIC

1. Initial monotherapy with CCB is not recommended for patients with CKD. An ACE-I or ARB is preferred.
2. ACE-Inhibitors are contraindicated in pregnancy and not recommended in most child-bearing age women.

ACE-INHIBITOR/THIAZIDE DIURETIC

CINCAHNTION:

- Consider non-adherence, interfering agents, white coat effect, dosing one medication at bedtime
- Junior, other providers, pharmacists, and other health professionals

INCREASED BLOOD PRESSURE:

- Increase blood pressure: Add amlodipine 5mg daily --> titrate to 10mg daily
- OR
- For patients with persistent proteinuria or microalbuminuria, may consider titrating to benazepril 40mg by using:
  - Benazepril / HCTZ 10/12.5 mg 2 tabs daily

SPIRONOLACTONE

- Add spironolactone 12.5 mg daily --> 25 mg daily

NEXT STEPS

- Extend medication algorithm and program components to other primary care clinics across the S.F. Health Network
- Provide ongoing online case-based trainings to new interns and other healthcare providers
- Expand outreach and increase capacity for nurse blood pressure visits
- Conduct evaluation of effectiveness of initiative components

UCSF Center for Vulnerable Populations

AT SAN FRANCISCO GENERAL HOSPITAL AND TRAUMA CENTER
We assessed anticoagulation control via retrospective chart review of all patients seen in clinic within a three-month period. By tracking these patients’ INR values over a one-year period, we will then calculate the clinic’s TTR value for the first time since its inception twenty years ago.

The TTR, along with preliminary characterization of the 1M Anticoagulation Clinic, will provide a baseline to assess newly implemented services and discover additional strategies to improve patient safety.

Lessons Learned:
- Standardizing documentation significantly improved communication with patients’ primary care providers by ensuring quality of assessment and plan
- Ongoing review of indication(s) for anticoagulation and appropriately discontinuing warfarin prevents adverse events
- Initiating telephone clinic potentially prevents patients from being lost to follow-up
- Collaborating with Health-at-Home RNs with dedicated appointment times
- No show rates have overall decreased with usage of a registry for outreach calls

Next Steps:
- Calculating TTR (versus % of therapeutic INRs) with the collected data from 2014 - 2015
- Collect new data from 2015-2016 to assess impact of QI changes on TTR
- Implement point-of-care (POC) INR testing to reduce wait times and increase patient satisfaction

Warfarin is one of the most commonly prescribed anticoagulant agents for protection against thromboembolic disease. However, inadequate warfarin monitoring and assessment have been identified as etiologies for failure to achieve appropriate time in therapeutic range (TTR) and implicated in adverse drug events such as significant bleeds.

Although the TTR in the United States nears 66%, it may be even lower in publicly funded health centers where limited health literacy and socioeconomic barriers provide additional challenges to care.

As there has been no previously documented quality improvement project completed at the 1M Anticoagulation clinic, a historic effort was made to address the above challenges and identify areas of improvement. The primary motivators for this project were to assess the current quality of anticoagulation services and implement new strategies to improve safety and therapeutic benefits for patients on warfarin.

Lessons Learned & Next Steps

Since August 2014:
- New note documentation template in eClinical Works
- New workflow to triage appointment no-shows
- Implementing weekly telephone clinic for stable patients

Starting April 2015:
- Introducing NOAC clinic services
- Implementing i2iTracks registry to manage outreach calls and anticoagulation clinic discharges

UCSF Department of Medicine
2014-15 Quality & Safety Innovation Challenge

Assessment of time in therapeutic range for anticoagulation therapy
Irene Ly, BS; Shin-Yu Lee, PharmD, BCACP; Christina S. Wang, PharmD; Dhruv Kazi, MD; Claire Horton, MD, MPH; Urmimala Sarkar, MD, MPH

The Problem
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Project Plan
We assessed anticoagulation control via retrospective chart review of all patients seen in clinic within a three-month period. By tracking these patients’ INR values over a one-year period, we will then calculate the clinic’s TTR value for the first time since its inception twenty years ago.

The TTR, along with preliminary characterization of the 1M Anticoagulation Clinic, will provide a baseline to assess newly implemented services and discover additional strategies to improve patient safety.

Results / Progress to Date

Lessons Learned:
- Actively review indications for anticoagulation therapy and discontinue when appropriate
- Create and implement a standardized template for documentation
- Improve no-show rates by identifying patients lost to care
- Implement use of an anticoagulation registry
- Offer telephone clinic as an alternative options to follow-up
- Identify potential patients for the novel oral anticoagulants (NOACs)
Coaching to coach: Integrating early medical students into SFGH’s General Medicine Clinic

Geoffrey Stetson1, Neha Gupta1, Nebil Mohammed2, Reena Gupta1
1Department of Medicine, 2School of Medicine, University of California San Francisco

The Project

The Problem

• Declining numbers of medical graduates choose careers in primary care
• Exposure to mentors in primary care increases likelihood of choosing primary care careers

A Solution

• General Medicine Clinic (GMC) at SFGH is a major training site for residents...
• And could increase medical student exposure to underserved primary care settings

The Opportunity

• UCSF School of Medicine is pioneering “Selectives” which expand students’ clinical exposure and active learning experiences...
• With plans to implement the Bridges Curriculum, which embeds early medical students into clinical settings to practice clinical skills and systems-based practice

The Issue

• GMC represents an ideal workplace for early medical students through these “Selectives” and, ultimately, the Bridges Curriculum

Project Plan

• We designed a selective course that consisted of eight sessions at GMC
• The sessions were scheduled for Tuesday and Thursday afternoons, which are resident clinic sessions at GMC.
• We determined that the time that residents precepted with attending providers would give the students time to work with patients.
• After an orientation, we asked students to do two things during that time:
  o “Discovery” – work with patients to learn more about their social determinants of health, such as specific barriers, disabilities, beliefs of their own illness, food insecurity etc. – an important part of motivational interviewing.
  o “Coaching” – with their resident supervisor, identify a health issue specific to that patient; one, that through some education the patient may have improved health outcomes. Then spend the time using the “ask-tell-ask” method of health coaching to try to educate and change attitudes.

Project Goals

1. Create meaningful clinical experiences for early medical students at GMC to gain skills in primary care, with an emphasis in health coaching, for an underserved population
2. Foster culture of “residents as teachers” in ambulatory practice
3. Improve the value of patients’ time in clinic while residents are precepting
4. Pilot GMC as a workplace learning site for early medical students through these “Selectives”
5. Prepare for implementation of The UCSF Bridges Curriculum in 2016

Results: Representative Quotes from Interviews

Exposure to primary care at GMC

“I learned about the delivery of primary care by observing residents interact with patients. Joining huddles and observing precepting made me appreciate the planning and teamwork that goes into primary care” – MS1
“One patient commented that they liked having students because it made [the patients] feel like they were teaching and giving back to the clinic” – R3

“Discovery”

“My medical student explored barriers to insulin use and discovered my patient struggled with food insecurity, which I never knew about” – R3
“I developed my skills talking to actual patients...and asking the right questions to get valuable information in a timely manner” – MS1

“Coaching”

“I worked with a few patients to develop ways to control their blood pressure.” – MS1
“I printed material from UpToDate on diverticulitis, and then my medical student reviewed it with my patient” – R3
“I wish there was some continuity and opportunities to see patients when they came back for follow-up visits” – MS1

Residents as teachers

“I wished I worked with the MS1 more than once so we could have strengthened our teaching relationship” – R2
“I find residents who recently finished medical school more relatable... aside from being great role models, they gave great career tips.” – MS1

Areas for Improvement

• Use of “precepting time” was an effective way to increase value-added time for patients during clinic visits
• Resident educators may be “more relatable” to early medical students, and create a less intimidating learning environment
• GMC is a unique setting, with many providers at different levels (residents, nurse practitioners, academic and volunteer faculty) and diverse patients who are clinically and socially complex
• Closer coordination with the UCSF Selective team to seamlessly integrate clinical site education within the larger curriculum
• Earlier assignment of medical students to the GMC Selective
• Development of an orientation and/or formal didactics with access to the electronic medical records for Selective participants
• Consistency of resident/MS1 schedules to improve continuity
• Medication reconciliation did not represent a high-yield activity

Next Steps

• Refine Selective curriculum and objectives utilizing feedback and evaluations from Selective sessions this year
• Develop curriculum guides for resident educators and medical students to formalize the Selective curriculum
• Survey patients to evaluate if health coaching by medical students improves their clinic experience
• Use this and next year’s GMC Selective experience to develop GMC as an educational workplace site for early medical students for the roll-out of the Bridges Curriculum the following year

UCSF Department of Medicine

2014-15 Quality & Safety Innovation Challenge
Introduction
- Few studies have evaluated US chronic benzodiazepine use
- Chronic benzodiazepine use associated with dementia, falls, hip fractures, cancer, and higher mortality, particularly in the elderly and patients with certain co-morbidities
- No standardized prescribing guidelines in the US to assist providers in safe prescribing of benzodiazepines

Objectives
- Describe characteristics of patients prescribed chronic benzodiazepines in an academic primary care clinic
- Describe provider attitudes toward chronic benzodiazepine prescribing and openness to standardized guidelines

Methods
- Cross-sectional, quality improvement study of patients at the UCSF General Internal Medicine clinic
- Electronic health record query to identify patients receiving chronic benzodiazepines, defined as ≥2 outpatient prescriptions for any benzodiazepine from 7/1/13 – 8/25/14
- Comparison to the clinic population as a whole
- Comparison to clinic registry of patients receiving chronic opiates
- Online survey of all providers caring for patients at the clinic, including attendings, NPs, and residents
- Frequencies and means calculated for patient demographics, co-morbid conditions, and provider attitudes
- Standard deviations for means
- 95 percent confidence intervals for frequencies

References
- Weich et al. BMJ. 2014; 348: g1996.

Results

Patient demographics

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Benzodiazepine cohort (N=634)</th>
<th>Clinic overall (N=26,805)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female sex</td>
<td>60%</td>
<td>53%</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;55</td>
<td>9%</td>
<td>20%</td>
</tr>
<tr>
<td>35-64</td>
<td>57%</td>
<td>53%</td>
</tr>
<tr>
<td>≥65</td>
<td>34%</td>
<td>27%</td>
</tr>
<tr>
<td>Race</td>
<td></td>
<td></td>
</tr>
<tr>
<td>White or Caucasian</td>
<td>65%</td>
<td>46%</td>
</tr>
<tr>
<td>Asian</td>
<td>7%</td>
<td>20%</td>
</tr>
<tr>
<td>Black or African American</td>
<td>13%</td>
<td>9%</td>
</tr>
<tr>
<td>Ethnicity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hispanic</td>
<td>8%</td>
<td>9%</td>
</tr>
<tr>
<td>Financial payer</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medicaid</td>
<td>15%</td>
<td>13%</td>
</tr>
<tr>
<td>Medicare</td>
<td>43%</td>
<td>38%</td>
</tr>
<tr>
<td>Other private managed care</td>
<td>41%</td>
<td>54%</td>
</tr>
</tbody>
</table>

Concomitant opiate prescriptions

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Benzodiazepine cohort (N=634)</th>
<th>Clinic overall (N=26,805)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohol use disorder</td>
<td>3%</td>
<td>3%</td>
</tr>
</tbody>
</table>

Provider attitudes toward benzodiazepine prescribing

<table>
<thead>
<tr>
<th>Provider attitudes</th>
<th>Attending/NPs (94% response)</th>
<th>Residents (78% response)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Helpful for certain indications</td>
<td>53%</td>
<td>44%</td>
</tr>
<tr>
<td>Have rules for prescribing benzodiazepines</td>
<td>68%</td>
<td>36%</td>
</tr>
<tr>
<td>Feel satisfied with training to prescribe benzodiazepines</td>
<td>28%</td>
<td>4%</td>
</tr>
<tr>
<td>Uncomfortable prescribing benzodiazepines</td>
<td>22%</td>
<td>74%</td>
</tr>
<tr>
<td>Dissatisfied with current clinic prescribing guidelines</td>
<td>26%</td>
<td>34%</td>
</tr>
<tr>
<td>Satisfied regarding current clinic prescribing guidelines</td>
<td>2%</td>
<td>4%</td>
</tr>
<tr>
<td>In favor of standardized clinic guidelines</td>
<td>84%</td>
<td>33%</td>
</tr>
<tr>
<td>Against standardized clinic guidelines</td>
<td>12%</td>
<td>3%</td>
</tr>
</tbody>
</table>

Conclusions
- Prevalence of chronic benzodiazepine use in older patients consistent with larger US dataset, identifies key area for potential quality improvement
- Benzodiazepines are being prescribed to groups that have increased risk of harm:
  - Elderly patients
  - Co-morbid cognitive impairment or fall risk
  - Concomitant opiate prescriptions
- Patients receiving chronic benzodiazepines may have increased healthcare utilization
- Provider physicians less commonly prescribe chronic benzodiazepines, report higher discomfort with prescribing and less satisfaction with training to prescribe
- Providers likely to be receptive to standardized clinic protocols
- Next steps to include targeted educational messages to high risk patients and their providers, creating standardized clinic protocols to improve patient safety

Limitations
- Low threshold for defining chronic benzodiazepine use
- Daily doses calculated based on prescriptions, not fills
- Co-morbities extracted through EHR query, not manually reviewed

References
- O’Hanlon et al. JAMA Psychiatry. 2015; 72 (2): 136-142
- Weich et al. BMJ. 2014; 348: g1996.
- Longo et al. AFP. 2010; 61 (1): 2121-8
The UCSF General Cardiology practice at Mission Bay (MB) has experienced below the national average rating of patients’ satisfaction with their providers. The practice’s leadership has addressed that by implementing a variety of interventions aimed at improving staff-provider communication and teamwork; provider-patient communication and rapport; and provider workflows efficiency.

Project Goal(s)

Reach a National Percentile Ranking (NPR) of > 50 for all Press Ganey patient satisfaction questions relating to the care-provider

Results / Progress to Date

Cardiology MB: AVS Provided with Patient Instructions

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>FY13-FY14 (Baseline)</td>
<td>FY15YTD</td>
<td>Trend</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>%Top Box</td>
<td>NPR</td>
<td>%Top Box</td>
<td>NPR</td>
<td>%Top Box</td>
<td>NPR</td>
</tr>
<tr>
<td>Friendliness/courtesy of CP</td>
<td>85.6</td>
<td>42</td>
<td>89.1</td>
<td>77</td>
<td>↑</td>
</tr>
<tr>
<td>CP explanations of prob/condition</td>
<td>81.8</td>
<td>42</td>
<td>85.4</td>
<td>65</td>
<td>↑</td>
</tr>
<tr>
<td>CP concern for questions/worries</td>
<td>82.0</td>
<td>44</td>
<td>86.1</td>
<td>76</td>
<td>↑</td>
</tr>
<tr>
<td>CP efforts to include in decisions</td>
<td>80.1</td>
<td>40</td>
<td>84.1</td>
<td>69</td>
<td>↑</td>
</tr>
<tr>
<td>CP information about medications</td>
<td>79.6</td>
<td>47</td>
<td>83.0</td>
<td>59</td>
<td>↑</td>
</tr>
<tr>
<td>CP instructions for follow-up care</td>
<td>81.2</td>
<td>42</td>
<td>81.3</td>
<td>54</td>
<td>↑</td>
</tr>
<tr>
<td>CP spoke using clear language</td>
<td>86.2</td>
<td>59</td>
<td>86.5</td>
<td>63</td>
<td>↑</td>
</tr>
<tr>
<td>Time CP spent with patient</td>
<td>80.0</td>
<td>55</td>
<td>83.8</td>
<td>78</td>
<td>↑</td>
</tr>
<tr>
<td>Patients’ confidence in CP</td>
<td>85.7</td>
<td>46</td>
<td>90.1</td>
<td>77</td>
<td>↑</td>
</tr>
<tr>
<td>Likelihood of recommending CP</td>
<td>85.4</td>
<td>38</td>
<td>88.1</td>
<td>71</td>
<td>↑</td>
</tr>
<tr>
<td>FY14</td>
<td>74%</td>
<td>88%</td>
<td>74%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FY15-YTD</td>
<td>88%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Lessons Learned & Next Steps

Our multifaceted approach for improving the patient-provider interaction, while enhancing providers’ workflow efficiencies and collaboration with staff, has resulted in vast improvements in all Press Ganey questions related to satisfaction with the care provider.

Moving forward the practice will continue to apply the interventions reported here, as well as constantly and proactively assess how to improve the patient experience even further. In the process of doing so, much attention will be given to all forms of patient feedback, including patient satisfaction surveys, patients’ comments, and feedback from patient interviews and rounds.
Building on a project that started in FY2014, our goals this year for all Department of Medicine’s (DOM) Divisions in the ambulatory setting included:

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

A multifaceted program was implemented to improve AVS utilization. While the utilization targets were set as a common goal, each DOM practice determined the specific improvement interventions based on their local needs and visit workflows.

Examples of interventions implemented include the installation of printers in exam rooms, increasing the registration of patients on MyChart, and the inclusion of “smart phrases” in Epic for commonly used patient instructions.

Additionally, all DOM divisions have been involved in an audit and feedback initiative, in which data on AVS utilization was provided on a monthly basis, with the ability to drill down to the individual provider level’s performance data.

### Results / Progress to Date

<table>
<thead>
<tr>
<th>Need Improvement</th>
<th>%50s Inst</th>
<th>FY2013</th>
<th>FY2014</th>
<th>FY2015YTD*</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cardiology</strong></td>
<td>92%</td>
<td>57%</td>
<td>97%</td>
<td>74%</td>
</tr>
<tr>
<td><strong>Endocrine</strong></td>
<td>91%</td>
<td>33%</td>
<td>96%</td>
<td>73%</td>
</tr>
<tr>
<td><strong>Gastroenterology</strong></td>
<td>98%</td>
<td>73%</td>
<td>99%</td>
<td>72%</td>
</tr>
<tr>
<td><strong>General Internal Medicine</strong></td>
<td>94%</td>
<td>51%</td>
<td>94%</td>
<td>51%</td>
</tr>
<tr>
<td><strong>Hematology</strong></td>
<td>74%</td>
<td>14%</td>
<td>88%</td>
<td>30%</td>
</tr>
<tr>
<td><strong>Hepatology</strong></td>
<td>99%</td>
<td>94%</td>
<td>99%</td>
<td>97%</td>
</tr>
<tr>
<td><strong>Infectious Disease</strong></td>
<td>88%</td>
<td>51%</td>
<td>93%</td>
<td>63%</td>
</tr>
<tr>
<td><strong>Nephrology</strong></td>
<td>95%</td>
<td>80%</td>
<td>98%</td>
<td>92%</td>
</tr>
<tr>
<td><strong>Occupational Medicine</strong></td>
<td>57%</td>
<td>48%</td>
<td>84%</td>
<td>79%</td>
</tr>
<tr>
<td><strong>Oncology</strong></td>
<td>87%</td>
<td>33%</td>
<td>91%</td>
<td>39%</td>
</tr>
<tr>
<td><strong>Pulmonary/Allergy</strong></td>
<td>96%</td>
<td>77%</td>
<td>96%</td>
<td>81%</td>
</tr>
<tr>
<td><strong>Rheumatology</strong></td>
<td>96%</td>
<td>63%</td>
<td>96%</td>
<td>74%</td>
</tr>
<tr>
<td><strong>Mean DOM Divisional Score</strong></td>
<td>89%</td>
<td>56%</td>
<td>94%</td>
<td>68%</td>
</tr>
</tbody>
</table>

*As of Feb. 2015

### Lessons Learned & Next Steps

- Designing a multifaceted intervention to improve the utilization of after-visit summaries is a feasible goal. Setting shared targets across our department’s practices fostered important learning and sharing, but this was facilitated by deliberately allowing for local practice solutions.
- Future improvement efforts will continue to leverage EHRs and technology more broadly to provide methods to improve patients’ understanding and retention of medical information. This will include improving the quality (and not just utilization) of AVS to support patient engagement through more effective use of personalized health information.
Reduce patients' wait times in clinic across Internal Medicine subspecialty practices

Project Plan

- We have implemented an audit and feedback project in which wait time data was provided to 14 Department of Medicine's (DOM) practices on a monthly basis (project began on July 2014 and is still ongoing).
- Data was provided with a drill down to the individual practice and provider, with the goal of raising awareness to wide variations in performance.
- Divisional Service Chiefs and Practice Managers / Administrative Directors were encouraged to share the data with their providers.
- Data at the provider level allowed easy identification of outliers (i.e. defined as providers whose patients consistently have prolong wait times.).
- Some divisions opted to address this by conducting individual and confidential conversation with outlier providers, while others share the data with full transparency with their group.

<table>
<thead>
<tr>
<th>Average Minutes from Check-In to AVS Print-time</th>
</tr>
</thead>
<tbody>
<tr>
<td>DOM PRACTICE NAME</td>
</tr>
<tr>
<td>360 POSITIVE HEALTH</td>
</tr>
<tr>
<td>ALLERGY PARN</td>
</tr>
<tr>
<td>DIAB PARN</td>
</tr>
<tr>
<td>ENDO PARN</td>
</tr>
<tr>
<td>GI MZ</td>
</tr>
<tr>
<td>HEPATOLOGY PARN</td>
</tr>
<tr>
<td>ID PARN</td>
</tr>
<tr>
<td>LIPID PARN</td>
</tr>
<tr>
<td>LIVER TR PARN 350</td>
</tr>
<tr>
<td>NEPHROLOGY PARN</td>
</tr>
<tr>
<td>PULMONARY PARN</td>
</tr>
<tr>
<td>RHEUM PARN</td>
</tr>
<tr>
<td>THYROID PARN</td>
</tr>
<tr>
<td>WOMENS SPECIALTY</td>
</tr>
<tr>
<td>Grand Total</td>
</tr>
</tbody>
</table>

*Through 1/31/2015

Similarly, very minor / insignificant improvements were noted across DOM divisions with regards to patient satisfaction with wait time at clinic

Lessons Learned & Next Steps

- Our initiative did not result in the anticipated improvements. Our experience suggests that improving actual wait times in clinic is a complex process that involves multiple stakeholders and requires advanced interventions, beyond raising performance awareness.
- Attention should be given not only to the actual wait time, but also to the waiting experience. Aside from the inconvenience of having to wait to see a provider, patients are dissatisfied when they are made to wait in a physical environment that is neither comfortable nor relaxing.
- Our practices are now working with the DOM Ambulatory Patient and Family Advisory Council to devise and implement strategies to address both wait times and the waiting experience. Proposed future interventions are centered around clinic workflows, provider and staff behaviors, customer service skills, the physical environment, entertainment and education opportunities during waits, and information about delays.

UCSF Department of Medicine
2014-15 Quality & Safety Innovation Challenge
A high quality work environment, defined by elated job satisfaction, exceptional performance and constructive attitudes towards work, often translate into a positive and memorable experience for our patients.

Within the Division of Endocrinology, a recent Gallup survey revealed that staff job satisfaction scores have significantly increased in the past year, compared to previous data.

To better understand this positive trend and potential contributing factors, we conducted in-person interviews with all Endocrinology staff members.

Nine staff members were interviewed to solicit feedback on their overall work experience within the Division of Endocrinology.

Specific attention was given to what they enjoyed the most and least about their job responsibilities, work environment, perception of recognition, and suggestions on improving the patient experience.

- Dates of Project: February – March 2015
- Total number of staff: 9 (7 Parnassus; 2 MZ)
- Female/Male: 6/3; Full/Part-time: 6/3

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Specific attention was given to what they enjoyed the most and least about their job responsibilities, work environment, perception of recognition, and suggestions on improving the patient experience.

- Dates of Project: February – March 2015
- Total number of staff: 9 (7 Parnassus; 2 MZ)
- Female/Male: 6/3; Full/Part-time: 6/3

Strong positive relationships with patients and other Endocrine staff, including the supervisor, were noted as the most enjoyable part of the job. This was closely followed by relationships with providers. The telephone system, phone conversations with frustrated patients, and understaffed personnel to attend the calls, as well as back-office responsibilities, such as insurance pre-authorization and other computer and paperwork, were reported as the least enjoyable parts of staff’s jobs.

All staff members felt that they were recognized for their efforts. Forms of recognition mostly include feedback from patients (in person or via patient satisfaction reports) and the supervisor (e.g. recognition during staff meetings, team lunches, birthday celebrations and holiday gift card). Recognition from providers was also noted, although less prevalent. Staff members also reported that the best form of appreciation is one that comes directly from the patients they serve.

Moving forward, deliberate efforts will be made to sustain the culture of collaboration and recognition among staff, while encouraging providers to demonstrate appreciation more frequently. At the same time, the division of work would be re-examined, especially with regards to back-office and phone answering services.

Improving interactions over the phone: bringing back the old phone support system/voicemail tree, transfer phone calls to the call center or get more help with answering and returning calls

Improve the physical environment by masking noise (e.g. adding white noise) and remodeling the waiting area and front desk

Allow patients to schedule their appointments online, including “pre-check-in” activities, such as entering their contact and insurance information; alternatively - use electronic devices at the practice (e.g., ipads) to expedite the check-in process while protecting patient privacy

Reduce patients wait times in the clinic by improving workflows and providers’ punctuality

Provide better orientation to new patients about UCSF in general and the practice in particular

Improve cost transparency to patients (in accordance with their insurance plan)

Provide better directions to the practice, including parking options (and vouchers if possible)

Continuously train providers and staff on demonstrating empathy and active listening

Continue to review patient satisfaction data during staff meetings, and disseminate the date to providers on a regular basis
The Problem

- Patients are often required to wait for prolonged time periods to be seen by a provider in the ambulatory setting.
- Waiting can seem longer when there is no clarity regarding the reason for the wait and the expected wait time. This can subsequently have a negative effect on the patient's overall experience and satisfaction with their care.
- In FY2014, the Division of Endocrinology ranked poorly on the “information about delays” question in the Press Ganey survey, with a mean national percentile rank of 25.3%tile.

Project Goals

- Raise staff awareness regarding patients’ perceptions of their wait time and their waiting experience, and convey the importance of reliably informing patients about anticipated delays.
- Achieve 60th national percentile rank on the “information about delays” question in the Press Ganey survey.

Project Plan

- We have implemented a five months pilot project in which data on “information on delays” scores were shared on a monthly basis.
- The project was designed in a similar way to a successful FY14 Endocrinology initiative to improve friendliness and courtesy of staff.
- Data was shared in a transparent manner, comparing scores by practice, to encourage a “friendly competition” among the various practices.
- Scores were reviewed monthly during all-site staff meetings, which included an active discussion on best-practice behaviors and possible barriers in informing patients about delays in a consistent manner.
- During these meetings the groups with highest scores were asked to share their strategies in providing a positive patient experience.

Results

<table>
<thead>
<tr>
<th>Division of Endocrinology</th>
<th>&quot;Information about delays&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Goal: NPR &gt; 60</td>
</tr>
<tr>
<td></td>
<td>FY 2014</td>
</tr>
<tr>
<td></td>
<td>Mean</td>
</tr>
<tr>
<td>Endocrinology Parnassus</td>
<td>72.6</td>
</tr>
<tr>
<td>Diabetes Parnassus</td>
<td>79.0</td>
</tr>
<tr>
<td>Lipid Parnassus</td>
<td>79.3</td>
</tr>
<tr>
<td>Thyroid</td>
<td>82.8</td>
</tr>
<tr>
<td>MEAN SCORE</td>
<td>78.4</td>
</tr>
</tbody>
</table>

Lessons Learned & Next Steps

- Improving the quality and timeliness on information about delays is feasible. It entails raising awareness of the importance of the practice, on-going review of performance data, establishing shared-goals, and encouraging a productive dialog on strategies to 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 Endocrinology is continuously working on improving the waiting experience as well as shorten delays. The interventions that are being explored are based on direct patient feedback from our Departmental Patient and Family Advisory Council, as well as feedback that has been provided by staff during in-person interviews.

UCSF Department of Medicine
2014-15 Quality & Safety Innovation Challenge
To improve the quality and patient-centeredness of the AVS through a qualitative assessment tool based on patient interviews developed to raise awareness and a peer evaluation project that foster practice-based learning.

- Based on feedback from patient interviews as well as the DOM PFAC, we have created a draft “AVS Quality Checklist”. The checklist will be reviewed, edited and vetted by key stakeholders (i.e., GI faculty, fellows and staff) and the DOM PFAC by the end of FY15.

- The fellows peer evaluation program will take place in FY16, using the above mentioned checklist. The outcomes of the program will be evaluated based on the scoring of the following questions from the Press Ganey survey: 1) Information the care provider gave you about medications; 2) Instructions the care provider gave you about follow-up care; and 3) Likelihood of your recommending this provider to others.

An after visit summary (AVS) is a written summary that provides patients with relevant and actionable medical information and instructions.

The main purpose of an AVS is threefold:

I) Enhance patients’ ability to remember, and, if necessary, convey to family members, the content of interactions with their care team.

II) Foster greater patient engagement in making appropriate choices about healthy behaviors and the self-management of chronic conditions, which is essential to improving clinical- and patient-related quality outcomes.

III) Improve the quality of information in the medical record through transparency, by giving patients an opportunity to see information in their records so they can help the care team identify and correct data errors.

The GI practice at Mt. Zion designed a multifaceted intervention for the development of an AVS assessment tool and a peer-review program. This includes an iterative process building on input from patients, as well as the GI specialty fellows, faculty providers and staff.

**Step 1** (reported here): we interviewed 20 GI patients to solicit feedback on their most recent AVS. Specific attention was given to the provider instructions section, including whether the instructions are sufficiently detailed, actionable, comprehensive and clear.

**Step 2:** we developed a draft criteria (i.e. checklist) for AVS evaluation based on feedback from patient interviews’ as well as feedback from the Department of Medicine’s Patient and Family Advisory Council (DOM PFAC).

**Step 3** (to be completed by July 2014): we will assess the validity of the checklist by comparing independent reviewers’ scoring (including providers, staff and patients).

**Step 4** (to start in July 2015): a 1-year peer evaluation program in which the GI specialty fellows assess on a monthly basis the quality of their peers’ AVS based on the pre-developed checklist.

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**UCSF Department of Medicine**

**2014-15 Quality & Safety Innovation Challenge**

**Improving the Quality and Patient Centeredness of After Visit Summaries**

Maneesh Singh, Courtney Sherman, Niraj L. Sehgal, Naama Neeman, Ulrika Vintmyr, and Apni Singh

Department of Medicine, Ambulatory QI Working Group

**The Problem**

- An after visit summary (AVS) is a written summary that provides patients with relevant and actionable medical information and instructions.

- The main purpose of an AVS is threefold:

  I) Enhance patients’ ability to remember, and, if necessary, convey to family members, the content of interactions with their care team.

  II) Foster greater patient engagement in making appropriate choices about healthy behaviors and the self-management of chronic conditions, which is essential to improving clinical- and patient-related quality outcomes.

  III) Improve the quality of information in the medical record through transparency, by giving patients an opportunity to see information in their records so they can help the care team identify and correct data errors.

**Project Plan**

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**Step 1** (reported here): we interviewed 20 GI patients to solicit feedback on their most recent AVS. Specific attention was given to the provider instructions section, including whether the instructions are sufficiently detailed, actionable, comprehensive and clear.

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**Step 3** (to be completed by July 2014): we will assess the validity of the checklist by comparing independent reviewers’ scoring (including providers, staff and patients).

**Step 4** (to start in July 2015): a 1-year peer evaluation program in which the GI specialty fellows assess on a monthly basis the quality of their peers’ AVS based on the pre-developed checklist.

**Objectives**

To improve the quality and patient-centeredness of the AVS through a qualitative assessment tool based on patient interviews developed to raise awareness and a peer evaluation project that foster practice-based learning.

**Results from the Patient Interviews**

- Patients Comments and Suggestions on How the AVS Can Be Improved:

  **Including diagnosis in the printed AVS raises patient concern for privacy**

  **Provider instructions could be more emphasized (e.g. font or formatting)**

  **Errors in AVS (e.g. meds list) not updated are a cause for confusion**

  **Steps for getting test(s) should be outlined and clarified in greater detail**

  **Test results are sometimes difficult to interpret and need further clarification**

  **Headings in AVS should be numbered to clearly separate different sections and make it easier to discuss the AVS with provider**

  **Keep it short, actionable and clear. Avoid medical jargon and lengthy descriptions.**

  **Tracking of health status trends and test results visually over time (graphs) would be a nice addition to the AVS.**

- **Next appointments / follow up tests should be on top of the first page of the AVS**

- **Contacts for provider for clarifications**

  - BY PHONE
  - VIA MYCHART
  - BOTH MYCHART & PHONE

- **How patients want to receive AVS**

  - PRINTOUT
  - MYCHART
  - N/A
  - BOTH

- **AVS Increased level of satisfaction with provider**

  - YES
  - NO
  - SOMEWHAT
  - N/A

- **AVS helpful to understanding plan of care**

  - SOMEWHAT HELPFUL
  - VERY HELPFUL
  - NOT HELPFUL

**Lessons Learned & Next Steps**

- Based on feedback from patient interviews as well as the DOM PFAC, we have created a draft “AVS Quality Checklist”. The checklist will be reviewed, edited and vetted by key stakeholders (i.e., GI faculty, fellows and staff) and the DOM PFAC by the end of FY15.

- The fellows peer evaluation program will take place in FY16, using the above mentioned checklist. The outcomes of the program will be evaluated based on the scoring of the following questions from the Press Ganey survey: 1) Information the care provider gave you about medications; 2) Instructions the care provider gave you about follow-up care; and 3) Likelihood of your recommending this provider to others.
The Problem

- The Hepatology practice was experiencing issues with staff-physician communication resulting in low patient-satisfaction scores.
- Starting in 2013, the Hepatology leadership team introduced five intervention tools intended to improve staff-physician communication as well as the general experience for the entire practice.
- In FY15 these efforts have continued with the aim of sustaining the momentum and continuously improving the experience of patients, providers and staff.

Project Goal(s)

Achieve and sustain a National Percentile Ranking (NPR) of > 50 for patient satisfaction questions relating to the courtesy and friendliness of staff, staff working well together, as well as likelihood of recommending the care-provider and the practice.

Project Plan

Improving Patient, Provider, and Staff Experience

Practice Leadership Team:
- Fostering a common set of objectives focused on improving cooperation and communication
- Introducing monthly staff meetings to discuss current operational and quality issues and yearly goals
- Including staff in team building activities, QI projects and efforts to improve the patient experience

Provider White Board:
- Improving communication and hand-off by placing a “check in and out” whiteboard next to the reception desk
- Providers were asked to greet front-desk staff when they check in or out, and communicate any specific needs for the day. Knowing which providers are in clinic at any given time also improved patient flow

Mini - University:
- Conducting educational sessions to teach staff on clinical topics related to the patients seen in the practice
- A schedule was created and the Hepatology providers took turns in teaching topics such as, Hep. C, Fatty Liver Disease, Ascites and Liver Imaging.

Recognition from Patients:
- Photos and names of the entire healthcare team have been placed visibly in the waiting area along with blank comment cards asking to recognize anyone who provides excellent care.
- Hepatology leadership collects the feedback and disseminates it to recognize staff and providers

360° Feedback Surveys:
- All practice members, including providers, fill-out and receive confidential feedback from their peers.
- Everyone is given their results compared to average, with a narrative about their performance
- This resulted in improved individual performance awareness, as well as building greater trust within the team

Results / Progress to Date

<table>
<thead>
<tr>
<th>Needs Improvement: NPR 0-24</th>
<th>Hepatology Practice</th>
</tr>
</thead>
<tbody>
<tr>
<td>Target: NPR 25-49</td>
<td>Goal: NPR &gt; 50</td>
</tr>
<tr>
<td>Outstanding: NPR &gt; 50</td>
<td></td>
</tr>
<tr>
<td></td>
<td>FY13-FY14 (Baseline)</td>
</tr>
<tr>
<td>%Top Box</td>
<td>NPR</td>
</tr>
<tr>
<td>Courtesy of registration staff</td>
<td>68.5</td>
</tr>
<tr>
<td>Friendliness/courtesy of nurse/asst</td>
<td>72.0</td>
</tr>
<tr>
<td>Likelihood of recommending CP</td>
<td>84.3</td>
</tr>
<tr>
<td>Staff worked together</td>
<td>75.7</td>
</tr>
<tr>
<td>Likelihood of recommending practice</td>
<td>83.7</td>
</tr>
</tbody>
</table>

YTD = as of 2/25/2015

Lessons Learned & Next Steps

- The program has resulted in notable improvements in patient satisfaction scores, in all 5 areas.
- The Hepatology leadership team has noticed overtime significant improvements in staff-provider communication as well as improved collegiality and job satisfaction among both providers and staff.
- The Mini-University training is now being extended also to the Liver Transplant staff. Moreover, staff are pitching more study topics and holding each other accountable for achieving learning targets.
- In addition to the interventions noted above, the Hepatology leadership team is now devising new interventions to further improve front-desk customer service skills, including phone etiquette.
Developing patient and family advisory councils (PFAC) is one strategy organizations adopt to both engage and learn from the very patients whom they serve.

The Department of Medicine (DOM) has established an ambulatory PFAC, with the goals of:

- Educating and informing DOM patient and family members on the patient experience in our practices, and providing feedback on prior/ongoing initiatives aimed at improving the patient experience in these settings
- Identifying “Bright Spots” – areas in which certain clinics excel – to inform sharing and learning of best practices across our DOM
- Providing feedback and serving an advisory function on planned initiatives in selected focus areas.
- Generating new focus areas that articulate an idealized patient experience
- Rewarding, recognizing & celebrating PFAC members’ contributions to improving care delivery and the patient experience in our practices

UCSF Department of Medicine
2014-15 Quality & Safety Innovation Challenge
Establishing an Ambulatory Patient and Family Advisory Council
Nat Gleason, Naama Neeman, Donna Portillo, and Niraj L. Sehgal
Department of Medicine, Ambulatory QI Working Group

Background and Objectives

Project Plan

Spring 2014
- Recruitment of a faculty director to lead PFAC efforts
- Obtaining proposed patients and family members lists from the DOM Service Chiefs
- Developing the PFAC Charter, including the vision, mission, roles and membership terms
- Determining a 2-year budget for PFAC activities

Summer 2014
- Implementing a formal application process to select and screen council members, including in person interviews.
- Recruitment of 16 patients and family members, with equal gender distribution, age range : 59-74
- Most patients seen in multiple UCSF medical specialties with wide-range experiences, and a clear vision of UCSF’s strengths and weaknesses

October 2014 Onwards
- First DOM PFAC meeting was held on Oct. 2nd 2014 and included community building and goal setting activities
- The PFAC now meets on a bi-monthly basis, to address areas identified during the initial meeting.
- DOM providers, trainees & staff are invited to provide input and receive feedback on specific topics or improvement initiatives.

Results / Progress to Date

"Our vision is to create a compassionate, innovative, and learning community that collaborates with and is inspired by patients and their family members"

First Meeting (Oct. 2014): Goals Setting Activity

<table>
<thead>
<tr>
<th>Potential PFAC Focus Areas</th>
<th>Setting Meetings Up for Success</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provider-patient communication</td>
<td>Align with senior leadership’s priorities</td>
</tr>
<tr>
<td>Navigating the UCSF system</td>
<td>Focus on high-impact items</td>
</tr>
<tr>
<td>Written materials for new patients</td>
<td>Identify “SMART” objectives</td>
</tr>
<tr>
<td>Communication among departments</td>
<td>Provide data and track progress</td>
</tr>
<tr>
<td>Waiting room environment</td>
<td>Streamline internal communications</td>
</tr>
<tr>
<td>Wait time in clinic</td>
<td>Encourage honest discussions</td>
</tr>
<tr>
<td>Information about delays</td>
<td>Keep logs when seen here as patients</td>
</tr>
</tbody>
</table>

Lessons Learned & Next Steps

- PFACs provide an effective mechanism for receiving and responding to consumers input, and can promote respectful and fruitful partnerships between patients, families and healthcare professionals.
- When establishing a new PFAC much attention should be given to:
  - Determining the vision and scope of the PFAC through a bi-directional communication process
  - Getting the right people on the PFAC bus, both in-terms of patient and family advisors as well as members and invited guests from the host organization
  - Building productive relationships - setting the right tone, building trust and rapport, balancing autonomy and community building
- Moving forward, it would be essential to devote time to planning and evaluation of council efforts, while continuously setting priorities and focusing the efforts on meaningful collaborative initiatives.
The Cardiology Electrophysiology and Rheumatology practices share a reception desk with designated departmental staff and supervision. This has compromised the patient experience in several ways:

- Patients were often redirected back to respective front desk counters as the staff were not cross-trained to cover each other’s department.
- Staff received inconsistent messages about the provision of care and services.
- Lack of staff flexibility caused patient backlogs at front desk and back office.

These issues have been reflected in our patient satisfaction survey results with patients’ ranking our staff poorly and often commenting on the lack of coordination and efficiency at the front desk and waiting area.

Moving forward we plan to implement a variety of interventions to push the envelope even further in terms of staff customer service skills and spirit of collegiality within the two practices.

These interventions include staff peer to peer evaluations, scenario training, reinforcement of communication skills, continued efforts to build trust and rapport among staff, and finding additional and creative ways to reward and recognize staff for their efforts to improve the patient experience.

The Problem

Project Goal(s)

- Achieve and sustain a National Percentile Ranking (NPR) of > 50 for patient satisfaction questions relating to staff behaviors, in both the Rheumatology and Cardiology EP practices

Results / Progress to Date

<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>FY2012 - 2015</td>
<td>FY2012 - 2015</td>
</tr>
<tr>
<td>Courtesy of registration staff</td>
<td>Courtesy of registration staff</td>
</tr>
<tr>
<td>Information about delays</td>
<td>Information about delays</td>
</tr>
<tr>
<td>Efficient courtesy of nurse/nurse</td>
<td>Efficient courtesy of nurse/nurse</td>
</tr>
<tr>
<td>Concerns about wait for problem</td>
<td>Concerns about wait for problem</td>
</tr>
<tr>
<td>Staff worked together</td>
<td>Staff worked together</td>
</tr>
</tbody>
</table>

* YTD = as of 2/25/2015

Lessons Learned & Next Steps

- Our efforts thus far resulted in improved patient satisfaction scores in both practices, however, room for improvement remains.
- Moving forward we plan to implement a variety of interventions to push the envelope even further in terms of staff customer service skills and spirit of collegiality within the two practice.
- These interventions include staff peer to peer evaluations, scenario training, reinforcement of communication skills, continued efforts to build trust and rapport among staff, and finding additional and creative ways to reward and recognize staff for their efforts to improve the patient experience.
Think Twice, Stick Once: An Internal Medicine Housestaff Incentive Project to Reduce Phlebotomy

Excessive inpatient laboratory testing can lead to:
- Unnecessary health care costs
- Uncomfortable blood draws
- False-positive results
- Unwarranted interventions
- Hospital-acquired anemia

Many groups are interested in reducing inpatient lab utilization, but there are challenges in operationalizing this endeavor.

To reduce the number of phlebotomy draws per patient per day by at least 5%:
- Objectives

The project was designed and led by Internal Medicine residents with support from Hospital Medicine faculty.

The average phlebotomy usage over time for all 8 teams on the Internal Medicine service can be seen in Figure 2.

During the academic year prior to project implementation (Jul '13 – Jul '14), the average phlebotomy usage was 2.10 draws per patient per day.

In the first three months of the 2014-2015 academic year (Jul '14 – Sep '14), there was minimal change in average phlebotomy use as the average rate was 2.07 draws per patient per day.

During the subsequent five months (Oct '14 – Feb '15), the average dropped to 1.90 draws per patient per day, a reduction of 9.5% from the baseline established in 2013-2014.

The phlebotomy reduction goal has been met in 5 of 8 months; the project is ongoing.

Choosing to measure phlebotomy frequency rather than number of lab tests ordered may help frame the problem from a patient-centered perspective and provide clinicians with a compelling reason to reduce unnecessary testing.

Resident-led educational campaigns and financial incentives can also be used to change the culture of inpatient laboratory testing.

We present a novel, resident-led approach to phlebotomy reduction that features a system of timely, regular, team-based performance feedback.

The project was adopted by the medical center’s “QI Incentive Teams,” including data from peer teams for comparison (Figure 1).

Team-based phlebotomy data abstracted from Epic 2012 was reported twice monthly to members of all 8 Internal Medicine teams, including data from peer teams for comparison (Figure 1).

The project was publicized to housestaff, nurses, and faculty with support from Hospital Medicine faculty.

The project was designed and led by Internal Medicine residents with support from Hospital Medicine faculty.

We would like to thank the Lown Institute for their support of the project through the RightCare Alliance Young Innovator grant.

UCSF Division of Hospital Medicine
The Patient Engagement Project: Developing a Curriculum for Improving Shared Decision-Making (SDM) in the Inpatient Setting


Background

- Improving shared decision-making (SDM) by refining the communication strategies of inpatient medical teams can improve patient satisfaction & health outcomes1
- There are no established guidelines on how to promote SDM in inpatient settings

Objectives

To develop a multifaceted SDM curriculum for internal medicine (IM) & peds teams

Methods

- Systematic literature review of SDM curricula & assessment tools
- Needs assessment: n=262 direct observations of SDM behaviors on 95 inpatient IM & peds rounds, scored using the Rochester Participatory Decision-Making Scale (RPAD)²
- Resident & faculty focus groups and curricular pilot testing

Results

Needs assessment showed 3 least observed behaviors by RPAD scores:

- Explain clinical decision to be made: 0.08
- Describe alternatives/uncertainties: 0.37
- Check for pt agreement with plan: 0.72
- Examine concerns/barriers: 0.08
- Check pt understanding of plan: 0.51
- Use easy to understand language: 0.08
- Ask if pt has any questions: 0.36
- Use open-ended questions: 0.44
- Check understanding of pt's viewpoint: 0.75

Outcome: Multimodal Curriculum, Focused on ABC’s

Improved SDM competency among teams & institutional cultural change

Interactive workshops

- Workshops involved interactive exercises discussing videos of bedside scenarios
- 87 residents & 34 attendings participated
- 3-4 workshops occurred per service
- Participants noted that they appreciated gaining SDM skills, but an obstacle is time

Formative feedback

- 23 teams were directly observed and received SDM feedback

QI campaign

- Screensavers, posters, & pocket cards were disseminated in both hospitals

Conclusion

- A multipronged inpatient SDM curriculum can expose IM & peds providers to SDM concepts & skills
- Developing & implementing a SDM curriculum is feasible in the academic setting
- A challenge to the reception of a SDM curriculum includes perceived time constraints during rounds

Reflective Critique

- In addition to prior pilot testing, we have presented our work at SHM & SGIM conferences
- Next steps: We will evaluate the effectiveness of the curriculum by repeating RPAD observations to note effect, if any, on SDM behavior

GOT SHARED DECISION MAKING?

Remember your ABC′s:

- A: Ask "What questions do you have?"
- B: Examine barriers to the plan
- C: Confirm patient understanding (teachback)

References

Plan: Interdisciplinary Clinic + Health Coaching

**Aim:**

1. In 1 year, to optimize geriatric process measures.

**Process Measures:**

- Patient recommendation adherence
- Number of patient red flags/changes in status caught that affected the patient’s trajectory of care
- Development of delirium

**Outcome Measures:**

- Percent return to baseline
- Development of post-op complications
- Hospital length of stay

**Results / Progress to Date**

**Baseline Patient Characteristics (N = 9).**

- **Sex:** 44% Men, 56% Women
- **Age:** 75 ± 7 years

**Refferrals from:** Ortho, vascular, hepatology, colorectal, & urology services

**Capturing Patient Experiences**

*What you are doing is more than health coaching, more than science. It is compassion, the heart and soul of medicine.*

— Anna Chang M.D. UCSF Associate Professor of Medicine

**Lessons Learned & Next Steps**

- Having the patient see 2 providers at once allowed for more comprehensive data gathering, fluid handoffs, and continuity of care.
- Having the patient see 2 providers at once allowed for more comprehensive data gathering, fluid handoffs, and continuity of care.
- Creating alternate pathways for the patient’s care trajectory based on patient status changes.
- No significant changes to complication rates to date.
- No changes to post-surgical patients and his/her caregivers to assess satisfaction, functional status, emotional status at 1, 2, 3, 6, and 12 months post discharge.

**References**

The hospital discharge period is a time of significant risk for patients. Inadequate communication is a common cause of medical errors. Breakdowns in communication may lead to a misunderstanding of important discharge medications and follow-up plans. Yet, nurses and physicians commonly report that they “never” or “rarely” communicate with each other at the time of patient discharge. We set out to improve physician-nurse communication at the time of discharge.

**Objectives**

- Create a standardized checklist to help facilitate high-quality verbal communication between physicians and nurses at the time of hospital discharge on a medical-surgical ward in a large, tertiary-care academic medical center.
- Increase nursing satisfaction with communication between physicians and nurses at time of discharge.

**Methods**

- **Intervention:** With nursing and resident input, we developed a 7-topic checklist to be discussed during a “discharge time-out” between the primary team and bedside nurse before patient discharge on the hospital medicine service.

- Our intervention group comprised of patient discharges for which the checklist was used (n=174). Our control group comprised of discharges in which the checklist was not used (n=277).

- We used a **PDSA approach** to quality improvement for our project.

- **Evaluation:** We surveyed nurses satisfaction with the discharge process using a 0-10 scale. Our survey also collected data on whether the nurse spoke to the team prior to discharge and whether the discharge time out was used.

**Results**

- **Figure 1: The Discharge Time Out Checklist**

**Results Continued**

- There were 277 discharges in the control group. There were 174 discharges in the intervention group.

- Nurses reported **higher satisfaction** with the discharge process with the intervention group compared to the control group.

- Many discharges in the control group involved some element of communication between the primary team and bedside RN prior to discharge. **Higher RN satisfaction scores** were reported with communication with the team around discharge versus no communication.

- We observed that the **checklist increased the degree of satisfaction** with the discharge process compared to speaking with the team alone.

**Conclusions**

- A standardized checklist promoting verbal communication between physicians and nurses at time of discharge may improve nursing satisfaction with the discharge process.

- Improving RN-MD communication is a first step to improving patient safety in this critical time period.

- A limitation of this study is that it was developed as a quality improvement project with small sample sizes; iterations of PDSA cycles were ongoing throughout the project, making pre- and post-data difficult to obtain.

- Next steps should focus on project sustainability, stakeholder buy-in, and ongoing iteration of the discharge process.
The Healthy People 2020 goal for adult smoking prevalence is 12% or less. As of 2011, California is one of two states that have already met that goal, yet despite this progress, over 3.6 million Californians still smoke. In 2014, only 33% of all active smokers who were seen at least twice in Primary Care at UCSF were documented as having received smoking cessation counseling.

**The Problem**

The Healthy People 2020 goal for adult smoking prevalence is 12% or less. As of 2011, California is one of two states that have already met that goal, yet despite this progress, over 3.6 million Californians still smoke. In 2014, only 33% of all active smokers who were seen at least twice in Primary Care at UCSF were documented as having received smoking cessation counseling.

**Project Goal**

The aim of this project was twofold: 1) to develop a two-way eReferral, in conjunction with UC-wide Tobacco Cessation Network (UC QUTS), to the state-funded California Smokers Helpline; and 2) to increase the percentage of UCSF Primary Care patients who use tobacco AND receive counseling for smoking cessation to greater than 33%.

**Workflow of two-way eReferral**

- Order by typing “AMB REF QUIT” in Order Entry
- Referral may be placed in any ambulatory, inpatient or ED encounter
- Within 48 hrs of receiving referral, the California Smokers Helpline will call patient up to 5 times over the next 14 days
- Tobacco cessation counseling documented by Helpline and brief summary sent to provider as a Result via InBasket

**eReferral Details**

- Only verbal consent required
- Enter best phone number to reach patient
- Select preferred time of day & language for contact: English, Spanish, Cantonese, Mandarin, Korean or Vietnamese
- Refer a household smoker by entering name in comment box
- PCP may be entered to receive copy of results of counseling if ordering provider is not PCP

**Results / Progress to Date**

- Total number of Helpline e-referrals placed at UCSF since eReferral Go-Live in November 2014: 137 (as of 4/2015).
- Contact rate of 45% with >70% of those reached provided with either counseling services or self-help/educational materials. Similar contact rates reported across other UC sites.

- Between 7/1/2014-10/20/2014, 237 orders for Ambulatory Nurse Smoking Cessation Counseling were ordered at General Medicine clinics.
- 120 patients (51%) had counseling completed & documented
- 81 patients (34%) did not have counseling done
- 36 patients (15%) refused or left before counseling could be done

**Next Steps**

- Develop internal report identifying clinics of providers ordering eReferral in order to educate other primary care and specialty clinics on this novel resource.
- Continue to work with DGIM nursing staff to standardize counseling documentation.

**Lessons Learned**

- Helpful to align with multiple stakeholders (UC Tobacco Cessation Network, UCSF Fontana Tobacco Treatment Center, clinic PCMH initiatives) to achieve goals.
- Patients may agree to counseling during visit to avoid disappointing provider, but later refuse counseling. Motivational interviewing may help boost success rates.

**Project Plan**

- Develop internal report identifying clinics of providers ordering eReferral in order to educate other primary care and specialty clinics on this novel resource.
- Continue to work with DGIM nursing staff to standardize counseling documentation.

**LVN counseling**

- 1545 & 1701 Division of General Medicine clinics certified as NCCOA Level 3 PCMHs
- During pre-clinic huddles, PCP & LVN identify patients with tobacco use (documented in Snapshot), patient highlighted with black dot next to their appointment
- When patients arrive, MA sends order for “Amb Nurse Smoking Cessation Counseling”
- When order is signed by provider, LVN reviews patient’s readiness to quit, provides 5 min of counseling
- Two dotphrases developed based on whether or not patient is ready to quit smoking; both phrases include info on EMMI patient education video for Smoking Cessation

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- Patients may agree to counseling during visit to avoid disappointing provider, but later refuse counseling. Motivational interviewing may help boost success rates.
Project #1: UCSF Department of Medicine 2014-15 Quality & Safety Innovation Challenge

### Project Plan

#### General Project Structure

**July**
- AVS Patient Instructions identified as a priority at the DGIM Quality Improvement retreat

**September-October:**
- Project introduced to General Medicine practices in writing, at faculty meeting, team leader meetings, and individual meetings with non-teaching practice leadership
- Individual and team data presented at Team Meetings

**November:**
- Dedicated teaching for residents on QI principles and project design
- Dedicated project check-in times for residents 1-2x monthly
- Quarterly performance updates sent to providers

#### One Team’s Approach: UCPC Block A Residents at Mt Zion 1545

**November:**
- **AVS in action:** shadowed check out process, interviewed patients
- Discussed rationale for project and barriers w/ providers in team meetings

**March:**
- Developed and shared standard .dot phrase language as option to use in PI
- Publicized project with reminders on clinic computers

### Lessons Learned & Next Steps

**How did change happen?**

- Setting clear goals from clinic leadership, providing frequent feedback, and encouraging conversation and engagement likely keys to improvement across practices
- Residents become face of the project within UCPC teams at Mt Zion 1545 practices and taught faculty best practices
- Other practices found custom solutions
  - Creation of .dot phrases to use routinely in Screening and Acute Care
  - Positioning printers in the rooms to print out the AVS in Women’s Health

**Challenges**

- Difficult to hand off project between groups of residents
- Resident and other provider leadership did not emerge consistently on all teams
- Difficult to track balancing measures—unknown how the project affected quality/content of PI, visit length, patient understanding or patient satisfaction

**Next Steps**

- Will develop structure for continued monitoring and feedback to ensure we maintain our achievements as we move on to other QI priorities.
- Considering further interviews with high- and low-utilizing providers to identify and disseminate best-practices
- Currently collecting data from patients in the waiting room about how they use the AVS and what they value in the patient instructions
Impact of provider performance feedback on rates of liver cancer screening in the UCSF Liver Disease Clinic

Nizar Mukhtar, Andre Devito, Naama Neeman, Wadih Chacra, Tom Leventhal, and Bilal Hameed
Department of Medicine, Ambulatory QI Working Group

The Problem

- The American Association for the Study of Liver Diseases (AASLD) recommends HCC screening every 6 months with abdominal ultrasound for at-risk patients.
- Limited studies suggest inadequate rates of hepatocellular carcinoma (HCC) screening.
- Rates of adherence to recommended HCC screening guidelines among providers in our clinic is unknown.
- There is no mechanism in place to ensure that patients seen in our clinic are receiving appropriate HCC screening.

Project Plan

- Work with APeX team to measure rates of HCC screening among two at-risk groups seen in our clinic:
  1. Asian and Pacific Islanders with hepatitis B (males age > 40 years, females age > 50 years)
  2. Patients with cirrhosis of any cause.
- Develop provider performance reports that can be distributed to clinic providers on a monthly or quarterly basis highlighting overall and individual rates of adherence to HCC screening guidelines.
- Generate a monthly list of patients that require HCC screening and work with clinic providers and staff to establish a mechanism for ensuring imaging studies are ordered and completed every 6 months.

Results / Progress to Date

- Data regarding abdominal imaging studies ordered and completed within 6 months of their clinic visit (for patients seen in clinic at least twice within 18 months) were successfully extracted from the electronic medical record.
- Monthly provider performance reports were generated that show overall rates of screening in the clinic, as well as individual provider summaries.
- A list of patients who have not received appropriate HCC screening has also been generated to facilitate followup.
- Rates of HCC screening with abdominal imaging every 6 months were suboptimal and below the target goal of 80% on most months.

Project Goal(s)

- To measure rates of adherence to HCC screening guidelines among providers in the UCSF Liver Disease Clinic.
- To perform abdominal imaging every 6 months for HCC screening in over 80% of patients with cirrhosis, as well as hepatitis B infected males > 40 years and females > 50 years of age who self-identify as being of Asian and Pacific Islander race/ethnicity.
- To identify patients who have not received appropriate HCC screening and facilitate appropriate followup.
- To work with clinic providers and staff to explore means of ensuring that imaging studies are ordered and completed every 6 months.

Lessons Learned & Next Steps

- Observed rates of HCC screening highlight the need for increased efforts to promote adherence recommended guidelines.
- Moving forward, we will provide clinicians with monthly or quarterly provider performance reports. This will include a list of patients who have not received appropriate screening so as to facilitate appropriate followup.
- We will work with additional clinic staff to discuss ways of ensuring that abdominal imaging has been ordered, as well as establishing a reminder system for patients to complete ordered studies prior to their clinic visit.
- We will also work with the APeX team to incorporate HCC screening data into flowsheets that can be incorporated into clinic visit documentation.

UCSF Department of Medicine
2014-15 Quality & Safety Innovation Challenge
We hope that by disseminating information on how to update the “health care maintenance” field in APeX, plus permission from clinic leadership to trust our patients’ word when they tell us they received a Pap test at outside health system, that we can improve our cervical cancer screening rate by 5 percentage points over our previous baseline in 2014-15.

The first step to improving your rates of anything, for a defined population, is to define the population! We encountered panels with many excess patients no longer seen by DGIM, which was hurting the numbers.

• Involve your stakeholders! The providers and staff had great thoughts and opinions on how to improve the rates for cervical cancer screening.

• Use resources and data which are already in place. The Panel Management initiative at DGIM was already collecting this data and rolling out an outreach effort.

Next steps:
• Work with Apex team to ensure that the Healthcare Maintenance banner (pink flag) is active even prior to the first patient visit. This will cue providers to ask about and input the information directly into the correct field at the time they are most likely to ask about it.
• Continue to reinforce with providers correct and low-effort ways to obtain and process information on prior Pap tests completed at outside locations (use of Healthcare Maintenance mailbox, for example).
• Evaluate the success of the Panel Managers outreach efforts in calling, messaging and sending letters to patients who are listed as due for a Pap test.

Results to date are skewed positively by an a simultaneous effort to “clean up” our panel data. On the left, our raw cervical cancer screening data is shown. On the right, we adjusted the data to retroactively reflect our actual panels in 2014:

Cervical Cancer Screening Rates – Before “Clean Up”

Cervical Cancer Screening Rates – “Cleaned up Version”

August 2014 – December 2014:
Non-DGIM patients subtracted from the denominator to reflect a more accurate cervical cancer screening rate.
The Problem

- National VA mandate requires completion of a “Consent for Long-Term Opioids for Pain” for all patients on chronic opioid therapy (≥3 months) for non-malignant pain.
- The deadline to have this new Opioid Informed Consent (OIC) signed in CPRS is May 5th, 2015.
- The OIC also requires increased patient education about opioids, including the risks and benefits of long-term opioid therapy, alternative pain treatment options, and goals of treatment. This directive is driven by the increasing morbidity and mortality associated with opioids and the fact that a large proportion of Veterans are currently on chronic opioid therapy for non-malignant pain.

Project Goal(s)

By April 1st 2015, 80% of all patients in SFVA Medical Practice on opioids for three or more consecutive months for nonmalignant pain will have a completed opioid informed consent in CPRS.

Project Plan

- Determine how the patient and primary care provider (PCP) will complete the opioid informed consent.
  - Complete functional goals via telephone or mail prior to patient attending pharmacy opioid education class.
  - Complete functional goals with the Veteran in-person and have them attend pharmacy opioid education class.
  - PCP provides Veteran education regarding long-term use of opioids for chronic pain and completes with Veteran in same visit.
  - Developed algorithm with different options designed to help guide PCP.

- Piloted opioid education class with Pain Pharmacists
  - Originally led by psychology, then pharmacy with PCP present, and now led by pain pharmacists alone.
- OICs with completion instructions stocked in labeled box in every exam room.
- Team members presented how to complete OICs to trainees during a post-clinical conference session. Trainees filled out a pre- and post-training survey.

Results / Progress to Date

Pre- and Post- Provider Education Session Evaluations

- I feel opioid consent is important to my patients.
- I feel opioid consent is important to my practice.
- I understand how the pharmacy pain education class can assist in completing an opioid...
- I feel opioid consent is important to my patients.
- I feel opioid consent is important to my practice.

Lessons Learned & Next Steps

Lessons Learned:

- New and unexpected challenges arose when implementing new regulations/policies in a large ambulatory clinic. For example, the initiative was difficult to get started. In this setting you cannot rely on provider initiative and education alone. There needs to be accountability if a change in policy is not led by providers themselves.
- Many individuals were involved in a rapidly changing and complex initiative which contributed to: a) Lack of ownership as to who was accountable for ensuring OICs were completed (i.e. PCPs, Pharmacists, RNs) and b) Poor communication regarding the OIC completion process and requirements.
- Possibly providing multiple options in the completion of the OIC led to confusion amongst providers, and therefore the process should be more streamlined.
- The QI project led to an interdisciplinary learning opportunity and collaboration.
- OIC completion rates increased when medical center leadership prioritized OIC completion. Their daily monitoring and provision of dedicated MSA and nursing support took responsibility for completion out of hands of individual PCPs and placed on clinic leadership and PACT team structure.

Next Steps:

- Find a sustainable way to continue completing OICs as patients initiate chronic opioids; notify providers when they have patients that need to complete an OIC.
- Determining the pharmacist’s role going forward.
- Work on completing OICs for patients who have not signed it to date. Notification letters have been sent to all patients with outstanding incomplete OICs.
- Determining the ramifications for patients wanting to refill chronic opioids but without a signed OIC in CPRS (i.e. alternative pain therapy, titration down of opiates, and communication with patients).
Background
• Nationally, increase in prescribing of opioids coincided with fourfold increase in opioid overdose deaths.
• Recent literature has noted dose-dependent risk of harm.
• PCPs at General Medicine clinics at 1545 and 1701 Divisadero prescribe chronic opioids for noncancer pain for over 800 patients.
• Beginning February 2014, we began monthly meetings to review "tough cases" of patients on controlled substances.

We are a multidisciplinary team

Controlled Substances Review Committee (CSRC) Process

Chart Review template

- Pain diagnosis, history (i.e., why taking chronic opioids?):
- Objective findings where possible:
- Pain tracking if documented or else list the "pain score"
- Pain tracking documented in vital signs from the last several clinic visits
- Specialists’ referrals/visits:
- Pain Medications, current regimen:
- Pain medication historical regimen(s) (plus why failed):
- Adjunctive treatments history (e.g., PT, injections, surgery, acupuncture, massage, chiropractic manipulation)
- Psychiatric history:
- History of violent or aggressive behavior?
- Substance use/substance use treatment history:
- Home life/social support:
- Toxology testing:

Summary of recommendations:

- PCP or preceptor refers to CSRC
- Presenter conducts chart review, sends to group before meeting
- Case discussed by multidisciplinary team
- Presenter provides recs to PCP and enters note into medical record

Sample cases and recommendations

29 yo M with Sickle Cell Disease: Frequently hospitalized for pain crises and maintains very high opioid doses (MS Contin 200 tid and MSIR 30 tid) between hospitalizations. +coca pine by toxicology. Summary of recommendations: Consider para transit or other transit options to provide transportation to appointments; Encourage documentation of functional status / response to pain medication; Taper methadone 10 mg off daily dose per month if all relevant to opioid use/withdrawal; Screen for non-prescribed opioids, specifically heroin; Taper methadone 10 mg off daily dose per month if all consistent with adherence, otherwise needs referral for substance use treatment.

25 yo M on disability: High risk of complications from methadone 390 mg daily and admits to not taking his medications as prescribed. Tox study now performed. Summary of recommendations: Referred to methadone maintenance to treat substance use disorder; Prescribed by specialists.

70 yo M with knee OA: High risk of complications from methadone 390 mg daily and admits to not taking his medications as prescribed. Tox study now performed. Summary of recommendations: Referred to methadone maintenance to treat substance use disorder; Prescribed by specialists.

Lessons learned
• Advance review of the case allows for greater efficiency and richer discussion
• Finishes recommendations during the session
• PCP presence helpful, but not essential for good session
• Administrative support essential to efficient process
• Providers appreciate input in these challenging cases

Next steps
• Increase resident and non-PCP participation
• Increase provider awareness of committee as resource
• Initiate referrals within electronic medical record

Outcomes as of 4/1/2015

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<th>Outcomes as of 4/1/2015</th>
<th>#Patients</th>
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</thead>
<tbody>
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<td>Total reviewed in 2014</td>
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<td>Attending/staff</td>
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<td>Resident</td>
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<td>PCP prescribing lower dose</td>
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<td>PCP no longer prescribing opioids</td>
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<td>No longer on opioids</td>
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<td>Referred to methadone maintenance to treat substance use disorder</td>
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<tr>
<td>Deceased</td>
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</tr>
<tr>
<td>Prescribed by specialists</td>
<td>2</td>
</tr>
</tbody>
</table>

References

Controlled Substances Review Committee at the Mt. Zion General Medicine Clinic: The First Year
Scott Steiger, MD, Rosemary Lam, Nicole Appelle, MD, Mai-Khanh Bui-Duy, MD, Miranda Dunlop, MD, Michelle Guy, MD, Kathy Julian, MD, Jeffrey A'Tice, MD, Lisa Sapino, LCSW, Anne Thibault, NP, Maria Wamsley, MD
Division of General Internal Medicine, University of California, San Francisco
Improving Care Transitions and Inpatient Utilization in an Accountable Care Organization

Lindsey Wu, MD; Sara Coleman, MPH, MBA; Alex Agbay MS, RN, BC, PHN; Elizabeth Polek, MBA, LCSW; Adrienne Green, MD; Ami Parekh, MD, JD

University of California San Francisco - Division of Hospital Medicine and Office of Population Health and Accountable Care

CloSNCTIONS

Background

Growth of Accountable Care Organizations (ACOs)

- Increasing numbers since passing of ACA
- As of 2014, 20% of commercial ACOs are affiliated with academic medical centers
- UCSF ACO Launched in 2011

Purpose

- Objective 1: Create a novel care transitions manager (CTM) position to improve care delivery and resource utilization.
- Objective 2: Evaluate the effect of the CTM on readmission rates and length of stay.

Methods

- Study Design: Observational study with quasi-experimental design
- Population: All ACO and non-ACO patients followed by a UCSF primary care doctor discharged from an adult medicine or surgical service at UCSF
- Time period: Date of discharge August 2013 – August 2014
- Exclusions: Obstetrics admissions, patients with Medicare or MediCal
- Data: Electronic medical record report
- Primary outcomes: Readmission rates, length of stay

Results

- 212 ACO and 1105 non-ACO patients met criteria
- Average CTM caseload was 5.7 inpatients per day (range 2-12)
- Admitted ACO and non-ACO patients were similar in demographics and risk
- Length of stay and readmission rates were both significantly lower in the ACO

Next steps in implementation: expansion to other populations, targeting high-risk groups

Next steps in analysis: adjustment for demographics and risk, patient experience

Discussion

- ACO-driven interventions can affect resource utilization metrics
- Distinguishing features of CTM:
  - Small inpatient caseload
  - Single employee
  - Continuity with frequently admitted patients
  - Integration with ACO partners
- Limitations:
  - One-site study, quasi-experimental
  - Small caseload
  - Continuity with frequently admitted patients
  - Integration with ACO partners

ACO
Medical Groups
Insurers

Integrant
Patient Care

Hospital Partners

Department of Medicine
Adverse post-operative events are common in neurosurgery. To prevent these, neurosurgery providers need up-to-date and accessible information to make treatment decisions. Hospitalists can bring experience and expertise in quality improvement to the neurosurgical environment through co-management care models. Hospitalists are familiar with developing and implementing clinical checklists. A clinical checklist has the potential to standardize neurosurgical post-operative care and improve patient outcomes.

**Development of Intervention**
- Hospitalist, anesthesiology and neurosurgical leaders created a University of California Neurosurgery Collaborative - UC Care Check.
- ABC Checklist content was based on evidence-based practice guidelines and known post-operative clinical care issues.
- Patient focus groups identified a patient-centered item for inclusion.
- The ABC Checklist was refined into a 10-item inpatient clinical care checklist through a series of webinars and in-person meetings (Figure 1).

**Figure 1: ABC Checklist Items**
- Ambulation
- Blood glucose control
- CNS
- Central line removal
- Neuro checks
- Surgical site inspection, surgical drain removal
- DVT prophylaxis
- Education (patient recommended item)
- Specific discharge instructions
- Follow-up appointment
- Foley catheter removal

**Figure 2: Pre-Intervention Documentation Practices in Provider Notes**

**Implementation Strategy**
- ABC Checklist data is pulled into note templates using either a “smartphrase” or other EMR solution (Figure 3).
- This prompts providers to take appropriate clinical action.
- Messaging and education around ABC Checklist use occurred prior to launch.

**Figure 3: Example of ABC Checklist EMR SmartPhrase**

**Needs Assessment**
- Prior to implementation, documentation practices for each ABC item in neurosurgery providers’ daily progress notes were audited for 6 months.
- The audit revealed wide variation in documentation practices (Figure 2).

**NEXT STEPS**
- The ABC Checklist is being implemented and evaluated in a pre-post test design between July 2013 and June 2016.
- Feedback from providers is used to improve usability and clinical application of the ABC checklist.
- Evaluation measures being collected include:
  - Documentation compliance using EMR tool.
  - Clinical compliance with checklist items.
  - Perioperative VTE, Postop CVA and unexpected neurologic deficits, CLABSI, CA-UTI, SSI, length of stay, 30-day readmission rate, and mortality.

**CONCLUSIONS**
- A multi-center, inter-disciplinary team led by hospitalists has created an ABC Checklist that has the potential to improve the clinical care of neurosurgical patients.
- The UC Care Check collaborative serves as an example of hospitalists and surgeons effectively working together to optimize quality of care by breaking down existing clinical silos to improve patient outcomes.

**ACKNOWLEDGEMENTS**
- This project is funded by the UC Office of the President and UC Center for Health Quality and Innovation Quality Enterprise Risk Management (CHQIERM).
Resident duty hour restrictions have resulted in an increase in the number of new overnight admissions that are transferred to day teams. These “holdovers” make up approximately 40% of all admissions to our teaching medicine service. Little is known about the efficiency, educational and safety objectives of new admission holdover signouts.

To describe baseline characteristics of the holdover signout in our internal medicine residency.

Compared to literature data, holdover signout is longer than other types of signout. Patient data available in the EMR comprised a significant portion of the overnight resident presentation time. Overnight admissions are a source of missed educational and feedback opportunities for overnight residents.

These findings suggest there may be a role for creating best practices to improve efficiency and education during the holdover signout process. We are currently developing a standardized checklist to improve these domains of holdover signout.

We performed an observational, cross sectional study using a convenience sample of morning holdover signouts from Sept. 2014 – Nov. 2014. Signout occurred between an overnight admitting resident and receiving day teaching teams.

We audited:
- Duration of each holdover signout
- Frequency of signouts with closing the loop, teaching moments, and immediate constructive feedback
- Due to auditing revisions, a subset of observations also included:
  - Duration of the overnight resident presentation divided into patient data and assessment/plan
  - Frequency of presentation interruptions
- We observed 61 holdover signouts, which included both floor and ICU patient handoffs.

For all observed holdovers:
- The median entire holdover signout duration was 14.3 minutes (range: 7.3 - 43.0 minutes).
- The receiving team closed the loop for 100% of holdovers.
- Teaching moments from team members occurred in 32.8% of holdovers.
- Immediate constructive feedback occurred 0% of holdovers.

For a subset of observed holdovers:
- The median resident presentation lasted 13.4 minutes (range: 5.4 – 21.3 minutes).
- The patient data portion, all of which can be found in our electronic medical record (EMR), made up a median 8.3 minutes (57.0%) of the entire holdover signout.

Definitions:
- **Holdover signout** – overnight admission handoff consisting of overnight resident presentation, closing the loop by the day team, and any teaching or constructive feedback by team members.
- **Patient/Objective Data** - history of present illness, review of systems, physical exam, social/family history, medications and laboratory data
- **Closing the loop** – after-presentation questions, clarifications, and to-dos
- **Constructive feedback** – specific statements designed to acknowledge or improve overnight management

### Table 1: Holdover admission characteristics

<table>
<thead>
<tr>
<th>Total observations (N = 61)</th>
<th>Median</th>
<th>Min</th>
<th>Max</th>
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<tbody>
<tr>
<td>Frequency of closing the loop</td>
<td>100.0% (61)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Frequency of teaching moments</td>
<td>12.0% (7.7)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Frequency of feedback</td>
<td>0.0% (0)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Duration of entire holdover signout</td>
<td>14.3</td>
<td>7.3</td>
<td>43.0</td>
</tr>
</tbody>
</table>

For a subset of observations (N = 34):
- Duration of patient/objective data presentation | - | 11.3 | 2.9 | 12.3 |
- Duration of assessment and plan presentation | - | 4.9 | 2.5 | 8.9 |
- Total duration of overnight resident presentation | - | 13.4 | 5.4 | 21.3 |
- Total duration of overnight resident presentation consisting of patient data available elsewhere in EMR | - | 57.0% | 33.0% | 67.0% |
- Duration of closing the loop and teaching, if present | - | 1.5 | 0.5 | 16.1 |
- Frequency of interruptions | 18.9% (6) | - | - |

Figure 1. Entire Holdover Signout Breakdown

**CONCLUSIONS**

- Compared to literature data, holdover signout is longer than other types of signout.
- Patient data available in the EMR comprised a significant portion of the overnight resident presentation time.
- Overnight admissions are a source of missed educational and feedback opportunities for overnight residents.

**LIMITATIONS**

- This is a single institution study.
- The inclusion of both floor and ICU patients in this analysis may affect results.
- This study does not address impact on patient care.

**IMPLICATIONS / NEXT STEPS**

- Patient data available in an EMR may not need to be a substantial portion of holdover presentations and stereotypical narratives may become useful.
- These findings suggest there may be a role for creating best practices to improve efficiency and education during the holdover signout process.
- We are currently developing a standardized checklist to improve these domains of holdover signout.
**Development of a Team-Based Dashboard: Delivering Performance Feedback to Residents Around Safe Discharges**

Emily Gottenborg¹, Allison Kwong², Michelle Mourad³, David Margolius², Sasha Morduchowicz², Sumant Ranji ³

¹University of Colorado Hospital Medicine Group, ²University of California, San Francisco Internal Medicine Residency, ³University of California, San Francisco Division of Hospital Medicine

### Background

- The Accreditation Council for Graduate Medical Education stipulates that residents receive performance feedback, however it is often difficult to measure clinical performance of trainees.
- Service level data regarding performance is often available to faculty attendings, but rarely in a team-based format that is inclusive of residents.
- A team-based performance feedback tool is a unique way to meet the ACGME requirements and motivate behavior change for residents and faculty alike.

### Purpose

- To deliver team-based performance feedback to resident teams after their inpatient ward months regarding metrics around safe discharges in the form of a ‘Discharge Dashboard.’

### Description

- A team with resident and hospitalist representation reviewed available team-based performance for metrics meeting the criteria listed in the Dashboard Metric Selection Model.
- 4 discharge safety metrics were identified (Figure 1) that met the criteria and overlapped with hospital quality initiatives.
- Data reports were created from the Electronic Medical Record and sorted by discharging attending and then attributed to resident teams.

### The Dashboard

**Figure 1: Team-based Discharge Dashboard with Care Transition Metrics**

**Dashboard Metric Selection Model**

- **Impactful** – Does the metric apply to a broad patient population cared for by housestaff?
- **Meaningful** – Does improvement of the metric translate to improvements in the quality of patient care? Does it tie directly to resident educational priorities?
- **Actionable** – Is the metric under housestaff control? Can changes in their behavior and practice reasonably improve the metric?
- **Timely** – How soon can data be provided to housestaff?

### Resident Feedback

**Survey Methodology:**

- Administered 6 months post-intervention
- Delivered electronically
- Internal Medicine Residents (N=130)
- 51% response rate (66/130)
- 5 point scale: Strongly Disagree (1) → Strongly Agree (5)

**Survey Results:**

- 81% felt it increased awareness to departmental quality initiatives (Strongly Agree or Agree)
- 79% felt it represented meaningful performance feedback (Strongly Agree or Agree)
- 69% reported it changed approach to discharge planning (Strongly Agree or Agree)

### Conclusion

- A Discharge Dashboard introduces residents and hospitalists to performance feedback that is impactful, meaningful, actionable, and timely.
- Distribution of data led to self-reported changes in resident behavior regarding care transitions.
- Challenges include obtaining timely, team-based data, which some Electronic Medical Records have the functionality to overcome with the proper support team.

### Implications

- Using best practices for effective data feedback, this model is a valuable tool driving performance improvement in an academic setting.
Health care teams provide patients and families with large amounts of written information during their hospitalization. This includes discharge information that is often provided immediately prior to discharge leaving patients and families with insufficient time to review and ask questions of their team.

To create a centralized location to organize information patients and families may need during hospitalization and following discharge, and to provide that information as early as possible during the patients’ hospitalization.

Prototype binders cost $6 each to produce. 250 binders were distributed starting January 2014. Team members were encouraged to provide them to their patients upon admission.

We surveyed 40 hospitalized medicine patients to determine the patient passport’s utility and to gather suggestions for improvement.

Implementation of patient passports is a relatively low cost, simple communication tool that enables patients to organize their health information during the hospitalization and in preparation for discharge.

Next steps include exploring the use of information technology to strengthen the patient passport intervention and potentially reduce costs.
Jonathan A Duong MD, James Harrison PhD, Cindy Lai MD, Margaret Fang MD MPH

**Development of a Tool to Improve Inpatient Consult Communication**

**OBJECTIVES**
- To assess perceptions and consequences of inpatient consult etiquette.
- To describe the key domains and barriers of optimal consult etiquette.
- To generate a stepwise checklist that primary medical team providers can follow when initiating a consult.

**METHODS**
- We performed a single center, qualitative study of consult etiquette in internal medicine.
- We included eight 4th year medical students, three interns, two hospitalists and eight internal medicine subspecialty fellows.
- Using content analysis, data were coded and organized into higher order categories.
- Focus groups and one-on-one interviews were conducted until thematic saturation was achieved.
- The interviews and perspectives were limited to primary team and subspecialty perspectives in internal medicine.

**THEMES OF CONSULT ETIquette CONTRIBUTE TO A CHECKLIST OF RECOMMENDATIONS**

**Pre-Consult**
- Physically see your patient
- Define a specific question with your team – diagnosis, treatment or management?
- Understand your patient – look up pertinent information in relation to the consult (including outside reports)
- Identify urgency of consult – non-urgent, urgent, emergent
- Call consultant as early as possible in the day

**Consequences of Poor Etiquette**
- Miscommunication
  - "I think it is really important to be able to effectively communicate it if you want to get back the result you are looking for" – ID fellow
- Frustration Between Services
  - "If you show up at an academic center, and yes, that does happen." – Cardiology
- Missed Educational Opportunities
  - "I think it is really important to be able to effectively communicate it if you want to get back the result you are looking for" – Infectious disease (ID) fellow
- Wasted Time and Resources
  - "I think it is really important to be able to effectively communicate it if you want to get back the result you are looking for" – Cardiology

**Lack of Formal Teaching**
- Fear or anxiety from negative consultant responses were common responses to calling consultants.
- Consultants mentioned that common areas of improvement were in:
  - Preparation and Initial Management of the Patient
  - Organization of Communication
  - Wasted Time and Resources

**Lack of Feedback**
- "I think calling consults was one thing I had very minimal training in. The first time I called a consult, I didn't have someone to teach me." – 4th year medical student (MS4)

**Fear**
- "This is the most anxiety provoking experience for me in all of clinical medicine – calling a consult because of my first experience… I just got screamed at for 5 minutes." – MS4

**Clinical Demands**
- "There are definitely times you just get busy and I've had to call as late as 4:00 PM." – Intern

**LIMITATIONS**
- We identified several key domains of inpatient consult etiquette and found that suboptimal consult etiquette is perceived to negatively affect patient care and relationships between services.
- We developed a consult checklist from both primary team and subspecialty perspectives in hopes to direct trainees, optimize communication, and improve patient care.

**CONCLUSIONS**
- This was a single center study.
- The interviews and perspectives were limited to internal medicine.
We report on our experience to date with a novel QI Collaborative. Eight PCQN teams have joined the QI Collaborative and are participating in a coordinated QI project with the goal of improving pain management. In order to ensure best care, we need to educate ourselves about the clinical issues and benchmark against each other, and learn from best performers.

Palliative care patients are among the sickest in our hospitals. Determining how best to care for these patients is imperative for patients and healthcare systems. In order ensure best care, we need to educate ourselves about quality improvement (QI) methods, develop appropriate quality metrics for our field, collect standardized data so that we can benchmark against each other, and learn from best performers. Pain is a common and distressing symptom for palliative care and many other hospitalized patients. Improving pain management is an important target for QI efforts.

BACKGROUND
- Palliative care patients are among the sickest in our hospitals. Determining how best to care for these patients is imperative for patients and healthcare systems.
- Pain is a common and distressing symptom for palliative care and many other hospitalized patients.
- Improving pain management is an important target for QI efforts.

OBJECTIVE
- To improve pain management through a collaborative QI project.

METHODS
- The Palliative Care Quality Network (PCQN) is a consortium of 33 palliative care teams at diverse hospitals committed to working together to improve the care of seriously ill patients and their families.
- PCQN members collect a standardized dataset with 23 data elements for each patient they see. Data are entered into a web-based database that generates automated reports showing trends over time and comparisons across sites.
- To date, 18 teams have entered data on over 10,000 patient encounters.

RESULTS
- In 2014, the PCQN launched a QI Collaborative.
- Eight PCQN teams have joined the QI Collaborative and are participating in a coordinated QI project with the goal of improving pain management.

INTERVENTION
- A three-hour, interactive didactic session by a leader in QI to teach QI methods.
- Monthly conference calls to review data, discuss progress and stumbling blocks, and provide assignments.
- Ongoing mentorship, primarily via phone and e-mail communication.

CONCLUSIONS
- The PCQN QI Collaborative provides a framework for conducting multi-site, coordinated, mentored QI projects.
- The use of standardized data collection allows for direct benchmarking.
- Collaboration and regular examination of comparative data is motivating teams to improve, however we have not been able to achieve improvement in pain management quickly.
- Satisfaction and engagement with the project are high.
- This QI Collaborative can serve as a model to other palliative care and hospital medicine groups interested in increasing knowledge and participation in QI.

FUNDING
- The PCQN is supported by grants from the Leona M. and Harry B. Helmsley Charitable Trust, the Robert Wood Johnson Foundation, the Commonwealth Fund, the Open Society Institute, the California Healthcare Foundation and the Kettering Family Foundation.
BACKGROUND
- Liberia is one of the three countries at the epicenter of the 2013-2015 West African Ebola Pandemic
- In a country that already had a baseline deficit of healthcare workers, 372 healthworkers have been infected with 180 deaths
- The Ministry of Health mantra for health care workers during the outbreak is “Keep Safe, Keep Serving”
- There is a longstanding relationship between UCSF and Last Mile Health in Liberia. UCSF clinicians responded to the Ebola outbreak as a stand in solidarity.

AIMS
- To support Infection Prevention and Control (IPC) for frontline health workers at facilities across 2 rural counties
- To maintain health care services at primary health care facilities while ensuring safe practice in the midst of the outbreak

METHODS
- Established IPC partnership with county health teams
- Facilitated interactive and practicum-based two-day trainings with curriculum including:
  - Chlorine Preparation
  - Ebola epidemiology, transmission, treatment, and referral guidelines
  - Waste Management
  - Triage and Isolation
  - Personal Protective Equipment
  - Facility Mapping and Action Plans
- Administered Pre and Post-training survey with knowledge assessment
- Follow-up facility visits at 4 week intervals with mentored supervision surrounding IPC and detailed assessment with subsequent action plan reviewed with facility

IMAGES FROM TRAINING
- Ministry of Health Triage Chart
- Chlorine Preparation Small Group
- Principles of Donning and Doffing
- Training of Trainers
- Removal of Contaminated Waste
- Facility Mapping

FINDINGS
- Trained 340 health professionals at 32 facilities
- 28% had not received any prior training
- None had been previously trained using interactive techniques
- Follow-up site visits found inconsistent practices in triage, lack of isolation protocols, and stock outs of drugs and personal protective equipment

CONCLUSIONS
- Health Professionals identified by primary health clinics as IPC providers within a facility lack training and practical experience
- At baseline, health professionals have basic knowledge of IPC practices
- Didactic training is meaningfully reinforced with practicums and small group exercises
- Implementation of knowledge into practice obstructed by lack of supplies, infrastructure, and staffing
- Mentored supervision visits identify facilities’ progression and limitations as well as reinforce training principles

IMPLICATIONS
- The short-term follow-up data suggests that centralized training is not enough, but, rather that its impact can be improved with mentored supervision in resource limited settings
- While training and mentorship are important components of change in practice, health system strengthening is essential to success of implementation

ACKNOWLEDGEMENTS
- Last Mile Health/Tiyatien Health
- Andy Sechler, MD, Director of Program Quality for Last Mile Health
- Rivercess and Grand Gedeh County Health Teams
Med Rec: A Skill-Based Educational Tool for First Year Medical Students
Katelyn Dow¹, Michi Yukawa², Josette Rivera², Joan Abrams², Anna Chang², Stephanie Renneke³
¹ School of Medicine, ² Department of Medicine, Division of Geriatrics, ³ Department of Medicine, Division of Hospital Medicine, University of California, San Francisco, CA

• Medication reconciliation, the process of obtaining an accurate list of medications and comparing the list during transition periods, is an important skill and patient safety issue
• There is limited information of how to teach skills and embed early learners into the clinical setting
• We piloted a medication reconciliation curriculum last year. Learners requested:
  • More time with patients and preceptors and structured approach to performing the steps of medication reconciliation

Goals/Objectives
Develop and implement an educational tool, as part of a curriculum, that can be used by MS1s to:
(1) Perform medication reconciliation and related health coaching with hospitalized patients
(2) Review indications of medications and patient-specific risk for adverse drug events
(3) Identify medication discrepancies
(4) Provide real time recommendations to the primary team

Tool Content/Development:
• Literature search to inform content
• Med Rec Tool to allow portability and versatility – Packet with 5 sections
• Expert Item Content Validation questionnaire
  • I-CVI = 1.0 for all items

Implementation:
• Pilot with 9 medical students in 3 hospitals (randomly assigned)
• Eight 4 hour sessions
  • 1st session: Introduction and orientation; observe faculty interview a patient and perform a medication history
  • Next 7 sessions: Use tool in pairs to complete med rec on real patients

Evaluation:
• Focus group with 4 Parnassus students after fourth session

Results
Focus group student feedback:
- "It made me remember to ask about things the patient didn't even know were barriers"
- "You take the medical record as the truth and sometimes it isn't. That's scary"
- "Who is supposed to be doing med rec? How and when?"

Conclusions
• Medication reconciliation is a skill that can be performed by first year medical students
• Med Rec Tool provides helpful framework but can be streamlined and reorganized
• Students identified a need to better address education on systems-based care

Future Directions
• Expansion of curriculum to include pharmacy students across all sites
• Evaluation of learner skills and knowledge
  • Faculty evaluation forms and pre-/post-knowledge surveys
  • OSCE or mini-CPX station
Increasing breast cancer screening rates in DGIM primary care practice

Leah Karliner MD, Celia Kaplan DrPh, Jenny Pacholuk RN Manager, Rosemary Lam Quality Analyst, and DGIM Panel Managers: Darrelyn Jones, Reena Limbachia, Shafia Nisha, Rachel Polorlis

Early detection of breast cancer can save lives.

Screening mammography is currently the best method to detect breast cancer early.

The U.S. Preventive Services Task Force recommends screening women age 50-74 with mammography every two years.

HEDIS Measure Definition
The percentage of women 50–74 years of age who had at least one mammogram to screen for breast cancer in the past two years.

California benchmarks in 2014
25th percentile = 67% screened
50th percentile = 70% screened
75th percentile = 77% screened

DGIM screening rate in early 2014 = 67%

Project Goal(s)
Increase the percentage of DGIM female patients 50–74 years of age who had at least one mammogram to screen for breast cancer in the past two years to equal or exceed the 50th percentile for California (70%) by August 2015.

Monitor rates monthly for sustained improvement.
Examine subgroups of patients to identify disparities, and if necessary develop new tailored approaches for those subgroups with lower rates.

Results / Progress to Date

Breast Cancer Screening Rates for Eligible DGIM Patients

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<thead>
<tr>
<th>Percent</th>
<th>64</th>
<th>65</th>
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Lessons Learned & Next Steps

Lessons Learned:
Determine Panel Size: The process of cleaning up our patient panels to make sure we had the correct denominator of women was very important to understanding our true breast cancer screening rates.

Direct Scheduling: Our Panel Managers gained access to the mammography schedule in the summer of 2014; anecdotally, the ability to schedule patients was achieved.

Resource Intensive: Panel Manager time was consumed by the breast cancer screening action items more than anticipated, and focus was taken off of other projects.

Identification of Vulnerable Groups: It is difficult to achieve progress on screening measures for patients who are not engaged in care at least annually.

Next Steps:
- Brief Trial to assess the impact of calling patients and real-time scheduling of mammography to assess whether the time spent is worth the yield.
- Consider Intervention options for reaching patients who have not had a visit in >1 year and who are due for screening.
- Implement system solutions for improved transfers when PCPS leave the practice/residents graduate.
- Raise Our Goal to achieve the 75th percentile for California (77% screened).
Standardizing Operating Room (OR) Communication with the Post-Operative Debrief

Sarah Imer shein MPH,1 Nasim Af smanesh MD,2 Alpesh Amin MD MBA,3 Gregory Seymann MD,4 Jeffrey Uppington MBBS,5 Mitchel Berger MD,1 James Harrison PhD,1 Catherine Lau MD,1

1 University of California, San Francisco, 2 University of California, Los Angeles, 3 University of California, Irvine, 4 University of California, San Diego, 5 University of California, Davis

BACKGROUND

• Ineffective communication between healthcare team members is a leading cause of surgical errors and poor patient outcomes
• Surgical timeouts and checklists are recommended by the World Health Organization (WHO)
• Well designed communication checklists can:
  • Eliminate ambiguity
  • Improve adherence to best practices
  • Promote team communication
• The post-operative debrief is not yet required for accreditation and has not been widely implemented

OBJECTIVES

Behavior Change
• Standardize use of the post-operative debrief after every neurosurgical case at each of the five UC medical campuses
• Improve OR safety culture and attitudes
• Improve number of cases with OR efficiency

Project Outcomes
• Improve OR efficiency and equipment issues identified during service line to others
• Establish electronic triaging system for OR efficiency and equipment issues identified during debrief
• Analysis of changes in OR safety culture and relationship between debrief implementation and patient-level impact indicators

Next Steps
• Continue to spread success of debrief from one service line to others

SETTINGS

Hospitalist, anesthesiology and neurosurgical leaders created a University of California Neurosurgery Collaborative - UC Care Check.

Post-operative debrief checklist vetted by UC Care Check collaborative (Figure 1) with input from local surgeons, nurses, and anesthesiologists

DEVELOPMENT OF INTERVENTION

UC Care Check meets monthly to discuss implementation successes and barriers at individual sites. Examples of best practices:

• Coalition building between surgeons, nursing, and anesthesia including co-leadership on core teams, and formation of Advisory Boards to engage all stakeholders
• Making debrief compliance resident and nursing annual performance improvement goals
• Presenting at staff meetings and Grand Rounds
• Creating an audit and performance feedback system including individual attending surgeon performance compared to colleagues
• Debrief compliance documented in EMR with hard stop
• Dissemination to other services; standardization of behavior among all surgical teams

IMPLEMENTATION STRATEGIES

UC Care Check meets monthly to discuss implementation successes and barriers at individual sites. Examples of best practices:

• Coalition building between surgeons, nursing, and anesthesia including co-leadership on core teams, and formation of Advisory Boards to engage all stakeholders
• Making debrief compliance resident and nursing annual performance improvement goals
• Presenting at staff meetings and Grand Rounds
• Creating an audit and performance feedback system including individual attending surgeon performance compared to colleagues
• Debrief compliance documented in EMR with hard stop
• Dissemination to other services; standardization of behavior among all surgical teams

CONCLUSIONS

With adequate training and stakeholder engagement, a post-operative debrief can be successfully implemented in the neurological surgery OR at large, tertiary care academic medical centers

ACKNOWLEDGEMENTS

• This project is funded by the UC Office of the President and UC Center for Health Quality and Innovation Quality Enterprise Risk Management (CHQIQERM).
We aimed to increase completion of POLST forms for patients served by the Palliative Care Service at UCSF who had chosen Do Not Resuscitate (DNR) or Partial Code status and were discharged alive to at least 50%, during 3 of 4 quarters of the academic year.

We set this goal in order to:

• Decrease unwanted cardiopulmonary resuscitation in the field and in the emergency room, and
• Help patients and families prepare for the end of life and decrease suffering from undesired medical interventions.

Though 82% of Californians believe that it is important to document end of life wishes in writing, only 23% have done so. Fifty-six percent of Californians have never communicated their wishes to the person they would want to make decisions on their behalf. 1

The Physicians’ Order for Life Sustaining Treatment (POLST) is a legal, portable physician order for resuscitation preference and scope of medical intervention, intended for seriously ill and frail patients.

In Oregon, POLST forms changed treatment decisions by emergency medical personnel in 45% of out-of-hospital encounters.2

The rates of POLST completion in this project improved over previous years (baseline at UCSF = 13% in 2013-2014), an improvement that would have likely been impossible without the coordination of a multidisciplinary team to identify patients, help with POLST completion, and facilitate getting POLST forms into the medical record.

Next steps:
1. Continue this effort in order to ensure sustained culture change.
2. Investigate how patients and providers are using POLSTs after discharge to ensure that completion of POLSTs is helping patients receive medical care consistent with their wishes.
3. Explore the possibility of working with the Hospital Medicine service and social work and case management teams to expand this effort to all hospitalized medicine patients with DNR or partial code status at discharge (current project was limited to patients served by palliative care consult service).

References:

UCSF Department of Medicine
2014-15 Quality & Safety Innovation Challenge
Enhancing Informed Consent Prior to Cardiac Cath Procedures using the EMMI Video

Krishan Soni MD MBA, Pavan Cheruvu MD, Kelly Guld MD, Lucas Zier MD,
Mandar Aras MD, Farnaz Azarbal MD, Philip Hall MD, Jose Sanchez MD, Catherine Wong MD, Joseph Yang, MD,
Eric Fuh MD, Manoj Kesarwani MD, Mark Villalon MD, Laura Kee RN, Rochelle Szuba RN, Rajni Rao MD,
Vaikom Mahadevan MD, Thomas Ports MD, Yerem Yeghiazarians MD
Division of Cardiology, Department of Medicine, University of California, San Francisco

The Problem

- Informed consent is an important component of providing high quality patient-centered care and is required before elective invasive procedures can begin.
- All adult patients undergoing cardiac cath are consented by the cardiology fellow prior to the procedure. The consent discussion takes place at the bedside and includes a verbal explanation of the procedure, risks, benefits and alternatives before the patient provides written consent on a standard UCSF form.
- The quality of consent is variable and may be impacted by fellow knowledge/experience, patient medical literacy, language barriers, and time constraints.
- The use of a standardized informational video utilizing graphics and animation may improve patient understanding prior to consent.
- EMMI videos are designed to improve patient engagement and understanding. While widely available at UCSF, adoption of these videos in the cath lab has been limited to date.

Project Plan

E MMI video workflow

- Prior to Procedure: Fellows order EMMI video in APeX. 10L RN starts EMMI video on rolling cart in pt room.
- Day of Procedure: If patient has watched EMMI video, it is provided on tablet PC in pre-procedure.
- After EMMI video, fellows complete informed consent discussion in APeX.
- Patient proceeds to cath lab.
- Performance data is collected from EMMI and APeX order sets on a monthly basis.

Fellow at bedside with EMMI Tablet PC

Rolling tablet PC created for use on 10 Long

Results / Progress to Date

- EMMI Utilization for 52 patients undergoing LHC/PCI in March 2015
- 78% of patients seen were offered EMMI
- 61% of patients watched EMMI video
- Patient feedback:
  - 80% found EMMI video helpful and informative
  - 78% found EMMI to be very useful
  - 61% said EMMI increased their confidence to ask questions

Lessons Learned & Next Steps

- Lessons Learned:
  - Utilizing tablet PCs to display the EMMI video prior to cath significantly increased our utilization of EMMI. The fellows have met the goal of >75% EMMI utilization for LHC and PCI patients in 5 out of 9 months this year.
  - At conception of the project, we thought that the EMMI videos would create efficiencies and potentially shorten the precath process while improving the quality of consent. However given the length of the video (25+ min), the time for the precath consent process was increased, leading to poor adoption.
  - Technical difficulties with internet availability and starting the EMMI video also hampered EMMI adoption rates.
  - Several improvements during the project including: (1) Asking bedside RNs assist with delivering the EMMI, (2) Creating an APeX orderset for EMMI, (3) Building a rolling tablet for EMMI delivery, and (4) Working with EMMI to shorten the video for inpatients, have facilitated adoption.
  - Though survey data is extremely limited, it appears that patients who do watch the EMMI have a positive experience.

  Next Steps:
  - We plan to ensure project sustainability by addressing ongoing technical barriers and better integrating EMMI video into RN and MD workflow.
  - Further work is needed to understand whether utilizing the EMMI video improves patient satisfaction and understanding before and after cardiac cath.

UCSF Department of Medicine
2014-15 Quality & Safety Innovation Challenge
Improving Patient-Centered Communication After Coronary Angiogram Procedures

Krishan Soni MD MBA, Pavan Cheruvu MD, Kelly Guld MD, Lucas Zier MD, Mandar Aras MD, Farnaz Azarbal MD, Philip Hall MD, Jose Sanchez MD, Catherine Wong MD, Joseph Yang, MD, Eric Fuh MD, Manoj Kesawani MD, Mark Villalon MD, Vaikom Mahadevan MD, Thomas Ports MD, Yerem Yeghiazarians MD
Division of Cardiology, Department of Medicine, University of California, San Francisco

The Problem

• Coronary angiography is an invasive procedure commonly used to identify the presence of coronary artery disease (CAD).
• The findings of coronary angiography have important implications for patient treatment and may result in medical management, percutaneous coronary intervention (PCI) or surgical treatment (Coronary Artery Bypass Grafting).
• At UCSF, a written report communicating results to providers is entered into the medical record on the day of the procedure for every patient.
• Communication of results with patients has been more variable. Results are frequently given to patients verbally at the end of the procedure, and few patients have received written findings and instructions.
• Improving patient communication and understanding of their disease may improve patient satisfaction and compliance with treatment.

Project Goal(s)

Overall project objectives
The overall goal of this project is to:
• Improve:
  • Patient satisfaction and experience
  • Patient understanding of disease
  • Communication with referring providers
• Build a model for good procedural communication

The specific aim of this project is to:
• Provide post procedure report in patient centered language with angiogram pictures
  • 75% of patients undergoing coronary angiography/left heart catheterization (LHC) and/or PCI in the UCSF adult cath lab.

* This project is being completed as part of the GME Housestaff Incentive Program (HIP)

Lessons Learned & Next Steps

Lessons Learned:
• The cardiology fellows have successfully integrated the completion of a patient centered post procedure report into their busy cath lab workflow.
• Based on feedback from the fellows, having a written report with patient specific pictures improves the quality of the post procedural discussion.
• Post procedure reports are now being completed on a consistent basis with little feedback or prompting from the QI team. The fellows have met their goal of >75% of notes for LHC/PCI patients for 7 or 9 months to date during this academic year.
• Additionally, having a brief note with annotated angiogram pictures in APeX has improved provider-provider communication by allowing referring providers and others to see the angiogram pictures.

Next Steps:
• We are analyzing post hospital surveys to evaluate whether this intervention has improved patient satisfaction and/or understanding of disease.

UCSF Department of Medicine 2014-15 Quality & Safety Innovation Challenge
Reducing Contrast Induced Nephropathy after Coronary Angiogram Procedures

Krishan Soni MD MBA, Rochelle Szuba RN, Cardiac Cath Lab Nursing Staff, Vaikom Mahadevan MD, Thomas Ports MD, Yerem Yeghiazarians MD
Division of Cardiology, Department of Medicine, University of California, San Francisco

**The Problem**

- Iodine based contrast is used to visualize the coronary arteries during diagnostic coronary angiography and percutaneous coronary intervention (PCI) procedures.
- Iodinated contrast can cause acute kidney injury (AKI), a process known as Contrast Induced Nephropathy (CIN).
- Patients with CIN after PCI are at higher risk for morbidity and mortality.
- Risk factors for CIN include patient comorbidities (heart failure, pre-existing renal disease, diabetes) and procedural/technical factors (pro-precedure hydration status, use of peri-procedural fluids, length of NPO, and amount of contrast used).
- Risk adjusted AKI rates for patients at UCSF have been higher than the comparison group in the National Cardiovascular Data Registry (NCDR) database.

**Project Goal(s)**

- This project is designed to improve patient safety by reducing the rate of contrast induced nephropathy after cardiac cath and PCI.
- The specific aim is to surpass the rate of the NCDR compare group risk adjusted AKI over a rolling 4 quarter period for PCI patients.
- Intermediate (process) goals include:
  - Reducing total patient NPO time
  - Increasing oral fluid intake prior to cardiac cath procedures
  - Increasing periprocedural hydration (when appropriate)
  - Reducing the use of contrast above the maximum allowable contrast dose (MACD)
- This project also aims to increase awareness of the importance of post catherization CIN among staff and fellows who rotate through the cath lab.

*The NCDR definition of AKI is a rise of ≥0.3 mg/dl after a cardiac procedure.*

**Project Plan**

**Q2 2014: The first phase of the project began with 3 interventions:**

1. Implementation of Maximum Allowable Contrast Dose (MACD)
   - To increase awareness, the MACD is calculated by the cath lab staff for every case and is clearly posted in the procedure room. Staff call out as the patient is nearing the MACD. 
     
     
     \[ \text{MACD} = (5 \text{ml} \times \text{weight in kg}) / \text{creatinine} \]

2. Implementation of a Periprocedure Intravenous Hydration Protocol
   - The Cardiology fellows use an IV hydration protocol to determine appropriate volume for pre and post procedural administration of fluids.

3. Quarterly reporting of AKI with risk factors & contrast use
   - Rates of AKI and cases which exceed MACD are reported and reviewed on a quarterly basis.

**Q4 2014: The second phase targets oral pre-hydration for inpatients**

**Creation of a new pre-cath orderset in APeX**

- Reduces strict NPO time
- Encourages oral clear liquid intake until 2 hours before cath (as allowed by UCSF sedation protocol)

**Results / Progress to Date**

**Risk Adjusted Acute Kidney Injury (AKI) Rate (PCI patients only)**

**Contrast Use & AKI Rate (PCI Patients only)**

**Fluid Status: PCI Patients**

(Dec 2014 – Post Phase 1)

**O: PCI Patients**

(Dec 2014 – Post Phase 1)

Many patients take in less than 500 ml of fluid in the 12 hours prior to cath

Patients are typically NPO for 8-16 hours prior to procedure

**Lessons Learned & Next Steps**

1. An analysis of PCI patients showed that 15 of 16 patients received <400 cc of fluid in the 12 hours prior to cath.
2. Inpatients are typically NPO between 8-16 hours prior to their cardiac cath procedure.
3. Despite the Phase 1 Intervention, inpatients are not receiving adequate IV hydration.
   a. Pre-hydration is not given because pre-hydration IV fluid ordered “on-call” to the cath lab is not started in time.
   b. Post-hydration is often not accomplished because it is based on an UVEDP measurement during cath and not all patients receive an UVEDP.
4. Early adoption of oral pre-hydration has been limited. Prior to cardiac cath, the housestaff frequently write "NPO except meds now” orders which overwrite the oral pre-hydration order set.

Next Steps:

1. Phase 2 (oral pre-hydration orders) was recently implemented. Further RN & MD education is needed to ensure the orders are implemented routinely.
2. We will continue to monitor the effect of the oral hydration orders on (1) NPO Status, (2) Fluid intake prior to cath, and (3) Rates of acute kidney injury.
3. We plan to conduct further analysis of contrast usage and investigate interventions to reduce average contrast usage in the cardiac cath lab.

UCSF Department of Medicine
2014-15 Quality & Safety Innovation Challenge
VOID for OPIOID:
Increasing the Rate of Annual Urine Drug Screens Among Patients Receiving Chronic Opioids

K. Gager, NP; 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 and opioids are the most common cause of drug-related deaths 1
- Routine urine drug screens may help to ensure safe opioid prescribing 2
- 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, the Chronic Opioid Refill Program (CORP). The primary care provider is notified monthly to refill medications.
- 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 Aim

Increase the number of patients in the SFVAMC Chronic Opioid Refill Program (CORP) with an annual UDS from 35% in August 2013 to 65% by April 2014

Plan Do Study Act

An interdisciplinary team of clinicians including medical residents, nurse practitioner trainees, and pharmacists worked together on the following interventions:

- **PDSA #1** Date of last UDS added to prescription reminder forms and an email sent to clinic providers to alert them to clinic policy and change in reminder forms
- **PDSA #2** Reminders of policy attached to prescription reminder forms
- **PDSA #3** Survey of clinic providers to assess knowledge, barriers, and suggestions for improvement
- **PDSA #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
- **PDSA #5** Sustainability Phase: pharmacist continues to flag providers about the new UDS policy

Chronic Opioid Refill Program

Please address NO LATER THAN 11/28/14 for 12/5/14 through 1/3/15. Review and copy refill program rx(s)

| DATE       | PATIENT ID | MEDICATION                  | Last UDS
|------------|------------|------------------------------|-----------
| 3/27/14    | 1234       | Methadone Hcl 10mg tab, 2 tabs q8H | 3/27/14   
| 7/10/14    | 9876       | Oxycodeine Hcl 5mg tab, 1-2 tabs q8H | 7/10/14    

Please page the pharmacist if questions or last UDS date updates are needed. 415-999-9999

Figure 1 – CORP Prescription Reminder Refill Form with UDS date

Results (cont.)

<table>
<thead>
<tr>
<th>Status of UDS for patients in CORP</th>
<th>October 2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>UDS in Past 12 Months</td>
<td>217</td>
</tr>
<tr>
<td>Last UDS 12-18 Months</td>
<td>10</td>
</tr>
<tr>
<td>No UDS Completed</td>
<td>84</td>
</tr>
<tr>
<td>Removed from CORP</td>
<td>94</td>
</tr>
</tbody>
</table>

Figure 3 – Over the course of the intervention, 84 patients were removed from the chronic opioid scheduled refill program due to medication changes, relocation, death, inappropriate UDS or closer provider follow-up needed. Of the remaining 228 patients, 95% have an annual UDS, and only one of the patients has not had a UDS completed in the past 18 months.

<table>
<thead>
<tr>
<th>Missing UDS in Past 12 Months</th>
<th>October 2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Removed from CORP: No longer</td>
<td>17</td>
</tr>
<tr>
<td>Receiving Opioids from SFVA</td>
<td></td>
</tr>
<tr>
<td>Removed from CORP: Continue to</td>
<td>5</td>
</tr>
<tr>
<td>Receive Opioids:</td>
<td></td>
</tr>
<tr>
<td>Enrolled in CORP: UDS 12-18 months ago</td>
<td>10</td>
</tr>
<tr>
<td>Enrolled in CORP: no UDS completed</td>
<td>1</td>
</tr>
</tbody>
</table>

Figure 4 – Audit of the 33 patients (10.5% of 312 initially enrolled) without a UDS in the past 12 months reveals that more than 50% were removed from CORP as they no longer receive opioids from the SFVA (due to opioids stopped, patient relocated, and deceased). Another 15% were removed from CORP due to medication changes or PCP request, however they continue to receive opioids and have not had a UDS.

<table>
<thead>
<tr>
<th>Annual Urine Drug Screen (UDS) Rates</th>
</tr>
</thead>
<tbody>
<tr>
<td>0%</td>
</tr>
<tr>
<td>0%</td>
</tr>
<tr>
<td>0%</td>
</tr>
<tr>
<td>0%</td>
</tr>
<tr>
<td>0%</td>
</tr>
</tbody>
</table>

Figure 2 – Progression of UDS compliance with each PDSA cycle, calculated on the basis of patients enrolled in the chronic opioid scheduled refill program as of August 2013 (n = 312)

Lessons Learned

- Utilizing monthly 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 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

- Consider interventions to better alert providers of an “expiring” UDS may further improve compliance, as 10 of the 11 missing UDS “expired” within 6 months
- Audit results of urine drug screens to ensure providers are following up appropriately on aberrant results

References

Reduce hospital-acquired *Clostridium difficile* infections to zero.

Begin a Fecal Microbial Transplantation (FMT) Program.

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**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
- **Dec 2013**
  - resident/RN handwashing review.
  - Probiotic order set developed.
- **Feb 2014**
  - MD educational conference.
  - Promotional posters created
  - BioK probiotic approved and in use
- **Aug 2014**
  - Additional MD training
  - Promotional Materials
- **Mar 2015**
  - Fecal Microbial Transplant Project initiated
  - Proposed probiotic reminder, loosening of criteria

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

- Jan 2011: Enzyme-linked immunosorbent assay (ELISA) for C. difficile toxin
- May 2011: Automatic contact precautions
- July-Aug 2011: Enforcement of contact precautions
  - Bedside tester for C. difficile
  - Improved room cleaning
- Project Initiation: August 2013
  - BioK probiotic approved
  - Aug 1st: BioK probiotic prescribed

**Timeline Events:**
- **Aug 2013**
  - interprofessional meeting with QI, nursing, infection control, pharmacy, nutrition to discuss interventions
- **Sept 2013**
  - changed treatment protocol
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**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. Estimated cases avoided: 33. Estimated hospital costs reduced ~$500,000.
- 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. Loosen restrictions on probiotic use
3. Implement Fecal Microbial Transplant program

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**UCSF Department of Medicine**

2014-15 Quality & Safety Innovation Challenge
### Everybody Moves: Maintaining Functional Capacity for Inpatients at the San Francisco VA

Linda Chetaitis RN, Henry Crevensten MD, Sopheak Frias RN, Shara Main, Donna Moisant RN, Erika Price MD, Courtney Weissensee PT

#### The Problem

- As the population of hospitalized patients at the SFVA ages we will increasingly encounter patients with functional limitations of at least 1 ADL upon admission. During hospitalization these patients are vulnerable to the consequences of hospitalization and decreased mobility such as pressure ulcers, delirium, decrease in muscle mass, and ultimately an additional decline in their functional status.

  - In a study of patients aged 70 and older and with low or intermediate levels of mobility 29% had a decline in at least one ADL at discharge and 22% were discharged to a new institutional living situation.
  - A study that looked at similarly aged patients’ functional status 3 months after hospital discharge found that 40% had a new decline in ADL or IADL compared to admission. This suggests that this functional decline may persist long after the acute hospitalization has occurred.

#### Lessons Learned:

- Staffing will be a barrier: PT/OT staffing prevents additional mobility sessions, even in the ICU. We will have to rely on ancillary staff such as CNAs and MDs.
- Cost may be a barrier: some of the functional assessment tools are licensed and cost money. In addition, funds for additional exercise equipment and facilities are lacking.
- Time may be a barrier: many of the personnel involved in this project have significant clinical duties already

#### Next Steps:

- Select a functional status assessment tool
- Present proposal to medical center for additional resources

#### Project Plan

We propose to make the functional status assessment more standardized per research recommendations. The specific assessment tool is probably not important (they are numerous) and we are investigating which one to use based on cost, ease of use, and ability to integrate with our Electronic Health Record, CPRS.

An example is the Boston University Activity Measure for Post-Acute Care: [http://www.bu.edu/bostonroc/instruments/am-pac/shortforms/](http://www.bu.edu/bostonroc/instruments/am-pac/shortforms/)

Once the assessment is performed, the patient’s functional deficiencies would be targeted with a comprehensive care plan that includes mobility.

Currently, we do not have a specific mobility plan for each patient nor do patients get mobilized on a set schedule due to lack of PT/OT staffing.

We are implementing many of the other interventions such as addressing environment of care, medication management, and multidisciplinary rounds as part of our Acute Care of Elders (ACE) unit.

We propose to implement a mobility plan for each patient and use ancillary staff to implement it.

#### Results / Progress to Date

We have held two interprofessional meetings that have established our project goals and measures.

We are in the process of reviewing functional status evaluation tools.

We are also coordinating with the ICU regarding inclusion and exclusion criteria as the ICU service is developing their own mobility program.

#### Project Goal(s)

- Increase in frequency and duration of patient mobilization
- Decrease falls
- Maintenance or improvement of functional status at hospital discharge
- Decrease length of stay
- Increase rate of discharge to home

#### Lessons Learned & Next Steps

**Lessons Learned:**

- Staffing will be a barrier: PT/OT staffing prevents additional mobility sessions, even in the ICU. We will have to rely on ancillary staff such as CNAs and MDs.
- Cost may be a barrier: some of the functional assessment tools are licensed and cost money. In addition, funds for additional exercise equipment and facilities are lacking.
- Time may be a barrier: many of the personnel involved in this project have significant clinical duties already

**Next Steps:**

- Select a functional status assessment tool
- Present proposal to medical center for additional resources
Helping Patients & Providers Safely COAP with Pain
SFVAHCS Pharmacist-Led Chronic Opioid Assessment Program (COAP)
Sara C. Jacobs, Pharm.D., BCPS, Christina Tat, Pharm.D., BCPS, Elizabeth K. Son, Pharm.D., Phillip Chiao, Pharm.D., Maya Dulay, MD, and Alison Ludwig, MD

The Problem
In 2013, the Veterans Affairs Office of Inspector General (OIG) conducted an inspection in response to an internal whistleblower’s allegations of improper opioid prescribing in the Medical Practice (MP) clinic at the San Francisco Veterans Affairs Health Care System (SFVAHCS). Allegations included:
• Opioids were prescribed by covering providers for patients they were unfamiliar with.
• Primary care providers (PCPs) not consistently documenting opioid care plan or risk assessment in the electronic medical record (EMR).
• Hospitalizations and deaths related to opioid misuse (not substantiated by OIG).

Project Goals
To promote safe and effective opioid prescribing by SFVAHCS MP Clinic PCPs with pharmacists’ monthly telephone calls and chart audits to assess medication use, aberrant behaviors, and appropriateness for opioid renewals.

Project Plan

COAP Development
• 2 pain pharmacists hired July 2014 to perform monthly telephone assessments for all patients on chronic opioid therapy (COT; defined as ≥ 90 days)
• Pain pharmacists created an assessment protocol & note template based on clinical guidelines and regional performance measures
• 40 MP PCPs with >500 chronic opioid patients identified in MP clinic
• 5 MP PCPs were chosen to participate in COAP pilot (total 186 patients on COT)
• Pharmacists educated pilot PCPs on program

COAP Implementation
• Letters mailed to patients in November 2014 explaining COAP
• Telephone assessments began in December 2014
• Pharmacists complete telephone assessment approximately two weeks before patients’ next opioid renewal
• PCPs alerted via EMR note to complete the opioid order(s) and/or address aberrant behaviors identified
• Pharmacists performed chart reviews if unable to reach patient via telephone

Telephone Assessment Components
• Adherence to opioid regimen
• State prescription drug monitoring (CURES)
• Aberrant behaviors (e.g. alcohol use, illicit drug use, opioid misuse)
• Activity level/physical functioning
• Non-pharmacologic pain management
• Medication side effects
• Urine drug screens (UDS) and QTc interval interpretation

Results / Progress to Date

Positive CURES Query Results (n=20)
- Monthly outside opioid fills:
  - 22 fills within 3 months
  - 1 fill within 3 months
  - 22 fills > 3 months ago
  - 1 fill > 3 months ago
  - Other

Percent Completed CURES Queries
- 20 patients (10.7%) had at least one positive CURES query.

Additional Pharmacist Recommendations (n=60)
- Decrease quantity of opioid(s)
- Add non-opioid pain medication
- Add bowel meds
- DC opioid(s)
- Skip/delay opioid fill (to prevent stockpiling)
- Change opioid dosage strength
- Increase opioids

Urine Drug Screen Results by Aberrancy (n=21)
- Illicit Substance (non-cannabis)
- Negative for Prescribed Medication
- Combination

Percent Completed Opioid Informed Consent
- 21 patients (11.3%) had at least one aberrant urine drug screen within 12 months.

Lessons Learned
• Not well-suited for patients without a telephone
• Pharmacists identified abnormal UDS results that had not been addressed by PCPs
• High rate of pharmacist recommending changes to the care plan
• Protocol/training needed for urgent issues identified during calls

Next Steps
• Continued expansion of the program to include all MP patients on COT
• Assess nursing and pharmacy workload burden
• Assess patient and staff satisfaction
• Develop policies to systematically address aberrant behaviors and urgent clinical issues
Using Bed Management Solution to improve discharge communication
Karthik Giridhar MD, Andrew O'Shea RN, MS, Kim Babcock, LCSW, SFVA Office of Systems Improvement, SFVA Discharge RPIW Team. Erika Price, MD, MPH.

The Problem

The VA medical center does not currently have a standardized process for communicating discharge information. This results in delays with patient discharge.

Rapid Process Improvement Workshop on Discharge Communication in October 2014 identified 14 issues, following five issues were addressed*:

1. Lack of communication with ancillary services
2. Lack of communication with transportation
3. Lack of centralized/transparent location for finding discharge information
4. Lack of communication between bedside RN and charge RN
5. Multiple sources for locating discharge information

*Issues that were identified but not directly addressed here included the following: duplication of responsibilities for charge RNs during discharge process; not all sources reporting to SW with discharge info; delay due to late MDR; lack of accountability for patient BMS data to be transferred; transferred or deleted during room changes, not automatically manually inputted

Project Goals and Plan

1. Develop a new flow process to facilitate dissemination of discharge information
2. Integrate Bed Management Solution (BMS) into discharge process through use of an Anticipated Discharge (AD) Icon
3. Track following metrics:
   a. Staff satisfaction with BMS
   b. % patients discharged by 2PM
   c. Identify causes for delays in discharge
   d. Audit quality of social work (SW) anticipated discharge email and use of Anticipated Discharge Icon
4. Ultimate goal: improved discharge communications will increase % of discharges by 2pm, and decrease lag between discharge order entry and actual discharge time

3.) Transportation remains a major cause of discharge delays

- Limited ability to track transportation
- Information lost in patient flow
- Lost in patient flow

Lessons Learned

Limitations of BMS:

- Does not store data, all information must be manually inputted
- Tracks beds, not patients  Information lost during room changes, not automatically transferred or deleted

Limitations with rollout:

- Travel department unable to process additional communications
- When patient moves, no reliability or accountability for patient BMS data to be transferred

Conclusions:

- Disseminating information about discharge should be timely, easily accessible, and widely available.
- BMS provides an opportunity to give accessible, viewable information, though it has limitations.
- Major revisions to BMS remains challenging as it is developed at the National level

Rollout of revised discharge communication

- SW implemented use of AD icon – goal was to replace SW supervisor discharge email
- Education of staff at RN huddles, emails, flyers on using and understanding BMS
- Clerks and MSA retrained on discharges
- Education of staff at RN huddles, emails, flyers on using and understanding BMS

Results / Progress to Date

1.) Anticipated discharge icon is accurate, but not used regularly

- Daily snapshot audit of BMS at 11AM for 5 consecutive days
- AD icon used in 35% of all discharges
- % discharges that were anticipated

2.) Multidisciplinary staff find BMS helpful for communication

- I am aware of the BMS and use the BMS board to help me understand patient flow issues
- I use the BMS board to help me understand patient flow issues
- BMS survey conducted through February 2015. Results shown from 62 surveys of clerks, CNAs, RNs, Charges, Pharmacists, & Managers

3.) Transportation remains a major cause of discharge delays

- Information lost in patient flow
- Limited ability to track transportation
- Lost in patient flow

4.) Improved discharge communication ≠ improved discharge times

- % discharges that were anticipated
- Time from discharge order entry to actual discharge time appears to have improved from 36 hours to 12 hours.
- However, processing** to reflect more accurate represent discharge process reveals no major change in the average discharge process time. **Order placed same day as discharge, order written prior to discharge, no death, no AMA
The Problem

- Rheumatoid arthritis is a chronic condition affecting 1.5 million adults in the United States, resulting in pain and disability.
- The National Quality Forum (NQF) recommends a treat-to-target approach (such as in hyperlipidemia, diabetes) in rheumatoid arthritis (RA) using standardized disease activity measures.
- Achieving remission in RA has been shown to reduce progression on X-rays, reduce costs, improve quality of life and result in lower disease activity over time.
- The American College of Rheumatology and the NQF recommend regular assessment of disease activity and subsequent adjustment of medical therapy if patients are not in a state of low disease activity or in remission.
- Despite recommendations, rheumatologists do not routinely use disease activity measures.
- Disease activity measures were completed in only 24% of rheumatoid arthritis patient visits at the San Francisco VA rheumatology clinic prior to the study.

Project Plan

Setting: academic rheumatology clinic at the VA hospital, San Francisco

Methodology: We used the Plan-Do-Study-Act (PDSA) methodology

Plan: plan a change aimed at improvement. Do: Carry out the change or test and analyze. Study: Interpret the results. Act: make changes for the next cycle.

Disease Activity Measure: CDAI incorporates a patient global visual analog scale (10 points) and physician scale (10 points) with a 28-joint count for tenderness (28 points) and swelling (28 points) and then classifies disease as remission, low disease activity, moderate disease activity or high disease activity.

PDSA Cycle 1
- Barriers: 1. Culture, lack of expectation 2. Electronic medical record not modifiable 3. Form not available
- Interventions: 1. Paper form to assess CDAI 2. One on one discussions with new fellows

PDSA Cycle 2
- Barriers: 1. Providers forget to identify RA patients 2. Bias introduced with one form (providers see patient score prior to their own scoring)
- Interventions: 1. Creation of an RA patient database to identify patients prior to their visit 2. Creation of two separate forms to reduce bias – one for physicians, one for patients 3. RA patients fill out forms in waiting room prior to visit

Results

Disease activity measures were increased from 24% to 60% of rheumatoid arthritis visits to the VA rheumatology clinic between July 2014 and June 2015.

Lessons Learned & Next Steps

Lessons Learned
- Implementation and sustained use of disease activity measures in rheumatoid arthritis can be achieved through:
  1. Education of providers
  2. Implementation of a simple paper form
  3. Identification of RA patients prior to clinic visit
  4. Utilization of medical assistants to administer the form

Next Steps
- The next steps include:
  1. Transition of the project to fellow or administrator for long term sustainability
  2. Investigation into modifying the electronic medical record to reflect disease activity
  3. Using the RA database for additional quality improvement projects; a pneumococcal vaccination project with PCV13 (Prewnlar) is already underway.
Background

The project was part of a larger VA-funded interprofessional collaboration among five Centers of Excellence in Primary Care Education. Overuse of the Emergency Department (ED) for non-urgent health issues is a significant financial burden costing $580 more than primary care visits and $38 billion annually.¹


- Over half of ED visits are conditions that can be treated in the primary care clinic
- One-third of ED visits occur during business hours
- Data from patient centered medical homes have observed a reduction in ED use

Medical Practice (MP) Clinic is San Francisco VA's largest primary care clinic with almost 9,000 patients and 75 primary care providers.

Aim

Project Goal: The goal of the project was to reduce emergency room utilization for SVFA Medical Practice Primary Care Clinic.

Project Aim: PHASE 1: Decrease the number of Emergency Severity Index (ESI)* triage level 4/5 Medical Practice (MP) Clinic patients seen in the SVFA Emergency Department (ED) by 20% from initiation of the project 1/2013 until 7/2014. PHASE 2: Sustain improvements (8/2014-current).

*EDs use ESI to assess acuity of patients in the ED with level 1 being the sickest patients (dying) and 5 being the least sick (medication refill). ESI 4 and 5 patients are considered low acuity and often appropriate to be seen in an ambulatory clinic.

Baseline Data

Chart Review (Nov 2012)
- Average 16 Low Acuity (ESI 4/5) MP Patients per day seen in ED during business hours (8:00am-3:30pm)
- Key factors influencing ED Utilization
  - Patient Self-referral
  - Telephone Linked Care (TLC) nursing phone triage system

Baseline (Jan 2013)
- 496 low acuity (ESI 4/5) patients seen in the ED in one month
- 71.9% of ED patients classified as ESI 4/5

Plan Do Study Act

Over 26 months, an interdisciplinary team from Medical Practice, the ED and Telephone Linked Care (TLC) nursing phone triage system worked together to reduce ED utilization by low acuity patients presenting during clinic hours.

Selected Interventions

Two examples displaying the work as a result of the project:

Figure 1. An example of the daily report of open clinic slots which is faxed daily to the ED & TLC.

Figure 2. ED to MP clinic flow chart detailing how low acuity patients can be shifted into the MP clinic.

Conclusions

- Low acuity ED visits for MP patients were reduced from January 2013 to March 2015
- Standardized, daily communication of available MP clinic appointments increased referrals from ED and TLC
- Reeducation of ED nurses on ESI coding led to decrease in # of ESI 4/5 patients and increase in ESI 3. Improved coding prevents inappropriate referral of higher acuity patients to MP clinic

LESSONS LEARNED

1. Engaging key stakeholders from all disciplines and developing trust within the team is critical to facilitate change
2. Dogged communication of vision to all departments is needed until the culture has shifted

NEXT STEPS

1. Coordinate wound care follow-up with PACT RN in MP clinic
2. Maintain supply of open MP clinic slots by creating backup coverage plan during key provider absences (i.e. during trainee transitions, vacations)
3. Review triage errors to identify areas for improvement

References

Improving lipid control in patients with diabetes through statin therapy at SFVAMC Medical Practice Clinic

Rachel Jeffers1,2, Brian Muegge1,2 Taryn Weinkam1, Greg Judson1,2, James Huang2, Maya Dulay1,2, Caitlin Garvey2,3, JoAnne Saxe3,2
1. University of California, San Francisco Department of Medicine 2. San Francisco Veterans Affairs Medical Center 3. University of California, San Francisco School of Nursing

Background

- Lowering LDL with statin therapy has been shown to lower morbidity and mortality in diabetics.
- 2013 AHA Guidelines recommend that most diabetics be on moderate or high dose statin therapy.
- The VA clinical dashboard measures how many diabetics are on a statin and have had their LDL checked in the past 12 months. This measurement may underestimate the true number of diabetics on a statin, especially as current guidelines do not require annual lipid panels.

Project Aims

1. Analyze patient and system factors contributing to inappropriate statin prescription in the primary care setting.
2. Accurately identify the percentage of diabetics on a statin, independent of last LDL measurement.
3. Calculate the percentage of patients on moderate and high dose statins among a sample group of providers.
4. Create an intervention to increase rates of appropriate statin use for diabetic patients.

Lessons learned to date:

- Many of the diabetic patients who did not appear to be taking a statin were miscategorized or were appropriately not on a statin.
- Categorizing the panel list of patients to understand why patients were not on a statin was a useful way to decide who to target to discuss statin therapy.

Next Steps:

- Employ an interdisciplinary approach, specifically using pharmacists, to categorize other provider panel lists of diabetic patients who are not on a statin to decide which patients should be brought in for follow up for further discussion around statin use.

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Project Plan

1. Calculated the rate of low, moderate and high dose statin prescribing for a sample panel by comparing available diabetic registry data and pharmacy data.
2. Performed a chart review of diabetic patients who potentially met the guidelines for statin therapy
   - Determined common factors for not being on a statin and data inaccuracies
   - Created and algorithm and coding sheet for future panel reviews
   - Began defining best practices for documenting why a patient is not on a statin.
3. Outreach to diabetic patients who were not on appropriate statin therapy or who had been lost to follow up.
   - Piloted the Mayo Clinic Shared Decision Making online tool as an intervention.

Results / Progress to Date

Panel H

<table>
<thead>
<tr>
<th>Category</th>
<th>Percentage</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Intensity</td>
<td>42%</td>
<td>60</td>
</tr>
<tr>
<td>Moderate Intensity</td>
<td>33%</td>
<td>48</td>
</tr>
<tr>
<td>Low Intensity</td>
<td>24%</td>
<td>35</td>
</tr>
<tr>
<td>No Statin</td>
<td>1%</td>
<td>1</td>
</tr>
</tbody>
</table>

Figure 1: Rates of Statin Prescription for diabetics in a representative primary care panel

A pharmacy database of all statin prescriptions in SFVAMC was downloaded. Separately, a list of all diabetic patients as defined by EMR data mining tools was downloaded. Statin prescriptions were linked to diabetic patients using deidentified ID's. The fraction of all diabetic patients in the primary care panel was calculated, using AHA 2013 definitions for statin intensity.

Figure 2: Pareto analysis of major factors associated with no statin prescription

Factors identified by a chart review of 60 diabetic patients on the representative panel were not prescribed any statin. The groups were defined as:
- Loss to Follow Up: no appointment in >1yr
- Consider Discussion: LDL 70-100, Patient previously declined, or no clear reason
- Appropriately not on statin: History of adverse reaction
- Documentation error: On non-VA statin, not diabetic, actually on a statin
- Other: Non-VA PCP care or no clear reason.

Figure 3: Targeted intervention of patients

Our intervention patient group includes patients who were either lost to follow up or were felt to be candidates for shared decision making regarding statins (ie, "lost to follow up" and "consider discussion" group in Figure 2.)

Lessons Learned & Next Steps

Lessons learned to date:

- Many of the diabetic patients who did not appear to be taking a statin were miscategorized or were appropriately not on a statin.
- Categorizing the panel list of patients to understand why patients were not on a statin was a useful way to decide who to target to discuss statin therapy.

Next Steps:

- Employ an interdisciplinary approach, specifically using pharmacists, to categorize other provider panel lists of diabetic patients who are not on a statin to decide which patients should be brought in for follow up for further discussion around statin use.
The San Francisco VA Medical Center sees Veterans living in a wide area of California. Patients are often started on IV antibiotics in the clinic or as an inpatient, and from there sent home or to a skilled nursing facility (SNF) to continue these antibiotics. It is imperative that these patients be closely monitored despite being initiated and followed under varied circumstances.

Unclear roles and responsibilities post-discharge have been identified in association with the care of these Veterans. This lack of clarity has made it difficult for an interdisciplinary team to monitor therapy and follow-up on care delivery, placing Veterans at risk for adverse events involving their vascular access device (VAD), infections and problems with medication toxicity or sub-therapeutic dosing.

The biggest areas for future improvement center around timely communication with outside agencies and nursing facilities in order to coordinate labs, infections and inevitable involvement of multiple parties and that clear, orderly communication of plans is essential.

We identified several steps to improving the process:

- Conduct a root cause analysis (RCA) to identify current problems within the system. The RCA identified the following issues:
  - Root Cause #1: No defined roles and responsibilities; communication break-down at hand-offs
  - Root Cause #2: Lack of a centralized process to ensure that labs are reviewed, acted upon and scanned
  - Root Cause #3: Lack of standardized process at end of therapy (follow-up)
  - Root Cause #4: Lack of a monitoring process to ensure efficacy of treatment
- Develop processes to improve workflow and care coordination, monitor adverse events, drug-related side-effects, and care utilization
  - Centralize the receipt of outside labs for coordinated review
  - Revitalize the IV Therapy Board to review and act upon data
  - Create a data tracking tool to measure progress and identify ongoing areas of concern
  - Required appropriate Infectious Disease documentation prior to treatment
  - Created a weekly note for both nurses and pharmacists to track patients through treatment
  - Developed an end-of-therapy note to compile results and metrics in the medical record

This purpose of this project is to establish safe, high quality monitoring and response systems for patients receiving IV antibiotics in the outpatient setting, including at home or at SNFs. Specific goals include:
- Establish a multi-disciplinary approach to managing patients who require IV antibiotic therapy in the outpatient setting
- Develop streamlined processes for monitoring and managing patients receiving IV antibiotic therapy in the outpatient setting (including at home and SNF) with communication and feedback loops to key providers of care, including establishing centralized points of contact
- Ensure appropriate completion of antibiotic treatment and removal of vascular access
- Follow-up with patients/families to ensure a satisfactory patient experience through a telephone survey
- Follow quality metrics including adverse events, drug-related side effects, removal of vascular access, and care utilization related to treatment (ER visits/readmissions).

We identified the following areas of focus:

- Develop streamlined processes for monitoring and managing patients receiving IV antibiotic therapy in the outpatient setting
- Centralize receipt of outside labs for coordinated review
- Revitalize the IV Therapy Board to review and act upon data
- Required appropriate Infectious Disease documentation prior to treatment
- Created a weekly note for both nurses and pharmacists to track patients through treatment
- Developed an end-of-therapy note to compile results and metrics in the medical record

This team is also working towards rapid communication with outside agencies (58% within 1 day), treatment that is free of medication or lab errors (89.3% error-free) and timely removal of any vascular access devices (97.1% timely removal).

Our multi-disciplinary team has learned much during the first 9 months of this project. We have been able to effectively streamline and simplify the process so that responsibilities are more clearly defined and processes have been centralized when appropriate. We have also realized, however, that the process must inevitably involve multiple parties and that clear, orderly communication of plans is essential.

The biggest areas for future improvement center around timely communication with outside agencies and nursing facilities in order to coordinate labs, medication dosing, and appropriate follow-up. This chain of communication must start early with the providing clinic or inpatient team and quickly disseminate to the entire multi-disciplinary team of social workers, pharmacists, and discharge planners.

The next steps for this project are to continue to track metrics over time and measure our continuous quality improvement. We have established an IV Antibiotics Board to meet regularly, review metrics, and identify issues as they arise so that existing processes can be modified as soon as possible.
Our objective was to decrease the percentage of unused telephone visits per month in the primary care clinic at a Veteran’s Administration Medical Center to less than 15% in March 2015, as compared to October 2014.

The telephone has become an important element of medical care with 25% of clinic encounters involving its use.

Telephone medicine increases access to care, improves rapport between doctor and patient, and lowers costs—ultimately improving patient satisfaction.

Each provider has 1-3 telephone visit slots per week. On average, 43-76% of telephone visits are going unused among our teams and many of these unused telephone visits are due to unscheduled visits rather than no-shows.

A Quality Improvement Project to Increase Telephone Visit Usage

Jenna Nguyen, MD1, Elizabeth Garcia1,2, Jacob Appelbaum, MD1, Sam Brondfield MD1, William Poe, MD1, David Margolius, MD1,2, Maya Dulay, MD1,2, Bridget O’Brien, PhD3

1. University of California, San Francisco Department of Medicine 2. San Francisco Veterans Affairs Medical Center 3. University of California, San Francisco School of Nursing

BACKGROUND

AIM

Call for Continuity

Let’s Have a Telephone Visit

SAMPLE FLYERS

RESULTS

LESSONS LEARNED

NEXT STEPS

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, the University of California San Francisco School of Nursing.
Improving rates of physical therapy attendance for a marginally-housed primary care population

Meena Nair1,2, Haley Crowl1, Jacob Berchuck3, Kevin Yee3, Sara Epstein3, Katie Raffel3, Elda Kong1,2, Shalini Patel1,2, Christina Kim1
1. San Francisco Veterans Affairs Medical Center, 2. University of California, San Francisco School of Nursing, 3. University of California, San Francisco Department of Medicine

The Problem

- Downtown Clinic (DTC) provides care for marginally housed male veterans who often miss appointments
- Physical therapy (PT) is an effective therapy for chronic musculoskeletal pain, but adherence to PT appointments at DTC is low
- Lack of participation in PT results in a missed opportunity to manage chronic pain

Project Plan and Results

Fig. 1 – Process map

- Provider makes appointment
- PT clerk receives referral
- PT clerk calls patient to schedule visit
- Patient answers and schedules PT visit
- patient attends PT visit
- Patient does not attend PT visit

Fig. 2 - List of PDSA Cycles

Fig. 3 – Outcome of PT referrals over time

Lessons Learned & Future Implications/Steps

Lessons Learned:
- Pending referrals limit our ability to draw conclusions
- Larger sample size might have demonstrated stronger impact from our intervention
- Management of chronic pain may benefit from input from an interdisciplinary pain management team
- DTC patients have unique travel concerns

Future Implications/Steps:
- PT VTEL is an innovative response to improving access for patients at the VA Community-Based Outpatient Clinics, may continue
- VTEL technician to be hired, helping to provide sustainability of this intervention
- High yield/low effort AVS will help clinic workflow in general, not just for PT referrals

UCSF Department of Medicine
2014-15 Quality & Safety Innovation Challenge
Data-Driven Huddles to Improve Diabetes Management

Lauren Rettberg NP Trainee, Anna Strewler NP, Katherine Thomas MD, Simon Archer MD, Mary Jame MD, Sina Jame MD, Nate Ewigman PhD
Mentors: Abigail Eastburn MD, Meg Pearson MD, Shaleen Patel MD
1. University of California, San Francisco Department of Medicine 2. San Francisco Veterans Affairs Medical Center 3. University of California, San Francisco School of Nursing

Background

• In an outpatient clinic increasingly focused on team-based care, "huddles" have been recommended to improve communication among interprofessional team members.
• Huddles are pre-clinic team meetings aimed at facilitating care coordination by reviewing and discussing patients to be seen in clinic.
• In the past year the number of patients in our community-based outpatient clinic with A1C>9% was above the VA metric goal.
• Management of poorly-controlled diabetes often requires a proactive, multidisciplinary approach that may benefit from the use of huddles.

Objectives

• AIM: Reduce the number of patients on trainee panels with A1C>9% by 25% by April 2015
• Incorporate diabetes panel management into existing team huddles using clinic metrics
• Proactive and individualized coordination of care through interdisciplinary diabetes referrals

Results

Improvement in Hemoglobin A1c Over Time

Reduction in Percentage of Patients with A1c >9% Over Time

Lessons Learned & Conclusions

• Routine huddles provide an efficient, interprofessional setting for maximizing health care clinic and system resources for high risk patients
• This huddle-based intervention can be applied to other groups of complex or high risk patients, eg post-hospital discharge, high health care utilization, CHF
• Sustainability Plan: Team members involved in these huddles will expand the use of this standardized intervention to teams clinic-wide
• Conclusion: Existing huddles can provide effective opportunities for interprofessional collaboration, panel management, improvement of clinic metrics, and proactive patient care planning.

Acknowledgments

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 COE Staff 2014-2015
Statin Use in Patients with Ischemic Heart Disease Inaccurately Represented by VA Dashboard

Ruth Tubbs, NP Trainee1,3, Nirali Parekh, PharmD2, Rebecca Conroy, NP1,3, Peter Moore, MD1,2, Myung Ko, MD1,2, Tre Martyn, MD1,2

Mentors: Maya Dulay, MD1,2 & Rebecca Shunk, MD1,2
1. University of California, San Francisco Department of Medicine 2. San Francisco Veterans Affairs Medical Center 3. University of California, San Francisco School of Nursing

The Problem

• Centers for Medicare & Medicaid Services partially base reimbursement on how hospitals compare on several defined quality measures.
• Growth of Pay For Performance reimbursement has made accurate measures of clinical performance even more important.
• Veteran’s Administration (VA) uses a “dashboard” to collect and report performance on several performance measures.
• One measure is adherence of patients with known ischemic heart disease (IHD) age < 75 to moderate or high intensity statin therapy for secondary prevention of cardiovascular events.
  o VA goal is >70% of patients with known IHD on at least a moderate potency statin or have an LDL density of lipoprotein <100 mg/dl.
  o San Francisco VA Medical Practice fell short of this goal at 64.7% in August 2014 according to the dashboard.

Project Plan

To increase the percentage of patients with known ASCVD on at least moderate intensity statin in Medical Practice Clinic from 64.7% to >75% by May 2015 as measured by the dashboard.

Project Implementation & Results

Table 1: Results of PCP Review of ASCVD Patients Identified on Dashboard as not on Statin Therapy

<table>
<thead>
<tr>
<th>PDSA Cycle</th>
<th>0%</th>
<th>1%</th>
<th>2%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intervention Group</td>
<td>N</td>
<td>N</td>
<td>3</td>
</tr>
<tr>
<td>Reason unclear, patient should be on a moderate dose statin</td>
<td>8</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>LDL only slightly &gt;100</td>
<td>2</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Appropriately on a Moderate-Dose Statin</td>
<td>21</td>
<td>16</td>
<td></td>
</tr>
<tr>
<td>Patient on a statin prescribed by an outside provider</td>
<td>7</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>On at least moderate dose statin</td>
<td>14</td>
<td>11</td>
<td></td>
</tr>
<tr>
<td>Appropriately Not on a Moderate-Dose Statin</td>
<td>15</td>
<td>32</td>
<td></td>
</tr>
<tr>
<td>Patient with IHD and age &gt;75 years of age</td>
<td>11</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>Patient Declined</td>
<td>4</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Patient could not tolerate</td>
<td>0</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Patient does not have IHD</td>
<td>0</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Other Reasons</td>
<td>2</td>
<td>11</td>
<td></td>
</tr>
<tr>
<td>Patient passed away</td>
<td>0</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Unknown, has other VA PCP</td>
<td>10</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Lost to follow-up</td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>46</td>
<td>65</td>
<td></td>
</tr>
</tbody>
</table>

Figure 1: Data Summary: Intervention group accounted for only 17% of sample

4% Intervention Group
33% Appropriately on a Moderate-Dose Statin
46% Appropriately Not on a Moderate-Dose Statin
17% Other Reasons

Lessons Learned & Next Steps

• VA dashboard greatly overestimated the number of patients who were not on appropriate statin therapy for ASCVD for the following reasons:
  • Exclusion of patients who had not had LDL level checked within 12 months despite current statin prescription.
  • Led to inappropriate flagging of patients already on at least moderate-intensity statin.
  • Inability to identify patients with non-VA statin medications.
  • Inclusion of patients with age >75.
  • Used LDL <100 as treatment goal despite recent updates in AHA/ACC lipid guidelines that no longer involve LDL targets.
  • Dashboards are an important way to gauge clinical performance, but use of outdated or inaccurate dashboards can be detrimental to effective quality improvement efforts.

Practice Implications

• Until the Dashboard measure takes into account the updated ACC/AHA Statin guidelines, it is questionable whether measure should still be used to:
  • Determine provider performance.
  • Gauge overall performance of clinics.
  • On a national level the VA has inactivated this performance measure and intends to modify the data definitions to reflect new clinical guidelines.
  • Continued PDSA cycles to ensure improved accuracy of dashboard and appropriate statin therapy in target populations.
How Often Does Cystatin C Measurement Change Anticoagulation Choices?

Julie Kim, MD1, Tracy Minichello, MD2, Tess Rubenstein, NP2, Michael Shilpak, MD, MPH2, and Erika Price, MD, MPH2
1Department of Medicine, University of California San Francisco 2Department of Medicine, San Francisco VA Medical Center

The Problem

• Proper anticoagulant dosing is essential; supratherapeutic doses may lead to fatal bleeding events.
• Proper dosing of non-vitamin K anticoagulants depends on correctly measuring renal function.
• Renal function is typically assessed by measuring serum creatinine and then calculating the estimated glomerular filtration rate (eGFR).
  - Using creatinine to calculate eGFR has a number of limitations.
  - Measuring cystatin C is a newer method to calculate eGFR and is thought to be less prone to the inaccuracies of creatinine.1
• It is unknown if measuring cystatin C in the context of inpatient anticoagulation selection leads to a change in estimation of renal function.

Project Plan

Identify key data elements to extract
December 2014

Perform chart review
March 2015

Refine data extraction query
April 2015

Request database query
January 2015

Analyze chart review
March 2015

Data elements obtained in database query:
• Patient population
• Patients on the therapeutic doses of non-vitamin K anticoagulation medications
• Patients who had cystatin C measured during an inpatient hospitalization

Data elements obtained in chart review:
• Demographic information
• Age, sex, height, weight, dates of hospitalization
• Clinical data (obtained through chart review)
  - Serum creatinine, eGFR by MDRD, cystatin C, eGFR by cystatin C, albumin, hemoglobin, hematocrit, TSH, urine albumin and urine creatinine

Project Goals

Aim:
• To determine if measuring cystatin C in the setting of inpatient anticoagulation leads to reclassification of kidney function

Objective:
• To establish a data set that captures the target population and relevant clinical data points
• To determine the relative difference in eGFR based on creatinine versus cystatin C
• To determine if the measurement of cystatin C led to a reclassification of kidney function based off of eGFR

Results to Date

• Between February 2014 and 2015, 368 patients received therapeutic dose non-vitamin K anticoagulants during an inpatient admission.
• Of these 368 patients, 115 patients had cystatin C checked during the same hospitalization.

Summary of therapeutic anticoagulants and cystatin C measurement:

<table>
<thead>
<tr>
<th>Medication</th>
<th>Number of patients who received medication</th>
<th>Number of patients with Cystatin C measured</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apixaban</td>
<td>37</td>
<td>12</td>
</tr>
<tr>
<td>Dabigatran</td>
<td>21</td>
<td>3</td>
</tr>
<tr>
<td>Dalteparin</td>
<td>52</td>
<td>23</td>
</tr>
<tr>
<td>Enoxaparin</td>
<td>189</td>
<td>51</td>
</tr>
<tr>
<td>Fondaparinux</td>
<td>23</td>
<td>5</td>
</tr>
<tr>
<td>Rivaroxaban</td>
<td>46</td>
<td>21</td>
</tr>
<tr>
<td>Total</td>
<td>368</td>
<td>115</td>
</tr>
</tbody>
</table>

Summary of preliminary findings from first 9 patients reviewed:

<table>
<thead>
<tr>
<th>Patient</th>
<th>eGFR-Cr</th>
<th>eGFR-Cystatin C</th>
<th>Percent difference</th>
<th>Change in CKD stage*</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>66</td>
<td>50</td>
<td>-26%</td>
<td>Yes</td>
</tr>
<tr>
<td>2</td>
<td>84</td>
<td>38</td>
<td>-54%</td>
<td>Yes</td>
</tr>
<tr>
<td>3</td>
<td>112</td>
<td>65</td>
<td>-42%</td>
<td>Yes</td>
</tr>
<tr>
<td>4</td>
<td>71</td>
<td>67</td>
<td>-6%</td>
<td>No</td>
</tr>
<tr>
<td>5</td>
<td>70</td>
<td>65</td>
<td>-7%</td>
<td>No</td>
</tr>
<tr>
<td>6</td>
<td>50</td>
<td>47</td>
<td>-7%</td>
<td>No</td>
</tr>
<tr>
<td>7</td>
<td>76</td>
<td>69</td>
<td>-10%</td>
<td>No</td>
</tr>
<tr>
<td>8</td>
<td>76</td>
<td>69</td>
<td>-10%</td>
<td>No</td>
</tr>
<tr>
<td>9</td>
<td>150</td>
<td>84</td>
<td>-44%</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Lessons Learned:

• 31% of patients who received therapeutic anticoagulation in the inpatient setting had cystatin C measured during the same hospitalization.
• In the preliminary chart review, eGFR-cystatin C resulted in consistently lower estimates of kidney function than eGFR-Cr.

Next Steps:
• Requested revised data query in order to capture demographic and clinical data of interest and will analyze this larger data set.
• Will pursue methods to incorporate clinical outcomes, such as bleeding events.

Statements:

1Department of Medicine, University of California San Francisco 2Department of Medicine, San Francisco VA Medical Center

Definitions:
• Units for eGFR = ml/min/1.73m2
• CKD stages defined by eGFR:
  - Stage I: > 90
  - Stage II: 60-89
  - Stage III: 30-59
  - Stage IV: 15-29
  - Stage V: < 15

Lessons Learned & Next Steps

UCSF Department of Medicine
2014-15 Quality & Safety Innovation Challenge

Match mobile technology needs to available resources by:

• Understanding current use patterns and needs for mobile devices in clinical care
• Identifying opportunities for mobile devices to improve workflow in various roles
• Provide devices and training to meet the identified needs
• Creating a sustainable, reproducible needs assessment program

Successes:

• Survey, workflow mapping, and word of mouth identified specific ways in which C5 tablet could be better utilized
• Only 16% of respondents said they had seen someone use the device productively

Users (n=24; 15 of these were physicians; only 5 were trainees):

• Most common uses were viewing data in CPRS (78%) and entering orders (32% or notes (32%)
• Multiple barriers identified to further integration into workflow

Non-users (n=88):

• Identified multiple possible advantages and domains in which they felt C5 could be helpful
• However, only 16% of respondents said they had seen someone use the device productively

1. Identify and convene stakeholders including IT; hospitalists; nursing; pharmacy; social work
2. Develop surveys to assess current patterns of use of existing C5 tablet computers, perceived needs for mobile devices, and barriers to adoption.
3. Examine workflow of selected roles to identify opportunities for integration of mobile device technology.
4. Use findings to guide:
   - Implementation of existing tablet technology into workflow
   - Acquisition and rollout of additional devices and software
   - Training on use of mobile devices

Ongoing challenges:

• No "one-size-fits-all" approach; stakeholders have differing needs for mobile technology; hard to identify objective measures of success
• Few "super-users" to model ways in which device can be helpful; workflow mapping is labor intensive
• Technical limitations of working in the VA system: Bluetooth not permitted (limiting keyboard options for devices); personal devices are prohibited from connecting to VA wireless network

Next steps:

• Complete pilot projects as above while refining assessments of use patterns and satisfaction to guide broader implementation

Dermatology and wound care:

• Photo capability identified as a specific opportunity
• IT modifications made to smooth photo workflow and educate staff; photos can be integrated directly into CPRS
• Wound care nurses also expressed interest in C5 photo capabilities and are now also using the device for photo capture

Hospitalist/medicine:

• Some increased use of C5 tablets on medicine wards based on increased awareness
• Ongoing barriers include size of tablet, absence of usable keyboard
• Windows 8 tablet also now being piloted
• Docking stations available but takes ≥ 10 seconds for display to mirror

Nursing:

• 1A nursing staff have expressed frustration with COWs and interest in C5s with docking stations
• Upcoming pilot on 1A
The Problem

Inferior Vena Cava (IVC) filters are widely used in practice for multiple indications including need for interruption of anticoagulation for venous thromboembolism (VTE); bleeding while on anticoagulation for VTE; and need for procedures for patients with unacceptably high VTE risk.

Published retrieval rates for IVC filters are poor (34% in a 2011 systematic review1)
• Retrieval is more difficult with longer dwell times
• Potentially serious complications of IVC filters include thrombosis, filter migration or embolization, filter fracture, and vascular perforation

The Problem

Inferior Vena Cava Filters at SFVAMC
Erika Price MD, MPH; Tracy Minichiello MD; SFVAMC Anticoagulation and Thrombosis Service


Lessons learned:
• A simple tracking system can ensure IVC filter removal rates that are well above published data
• Minimal time commitment to maintain database

Ongoing challenges:
• IVC filter tracking database is not integrated into CPRS or other VA informatics databases; data are manually entered and updated
• No clear provider ownership of filters once they have been placed.
• Many patients have filters placed or have follow-up care and filter removal at non-SFVAMC sites, which makes chart review and communication with providers more challenging

Next steps:
• Retrospective review to determine what baseline retrieval rates were prior to implementation of this system
• Refine/standardize workflow for updating database
• Identify solutions for specific barriers to prompt removal (e.g. regular care outside of SF-VAMC)

Project Plan

1. Develop a database for tracking IVC filter practice patterns at SFVAMC
2. Develop alert system to notify anticoagulation/thrombosis service of new IVC filter placement or removal orders
3. Use database to follow up on filters that have been placed and ensure timely removal, and to review additional data including appropriateness of indication and filter-related complications

Project Goal

Minimize unnecessary exposure time to IVC filters by decreasing time between placement and removal, and by ensuring that all IVC filters placed are retrieved when clinically indicated.

Results / Progress to Date

Development of IVC filter monitoring system
•Database developed Jan-Feb 2012
•IVC filter tracking began March 2012
•CPRS alert to anticoag/thrombosis clinician each time filter placement or removal order is placed; data entered into Microsoft Access database
•Database queried at least monthly for filters not yet removed
•Patients’ providers contacted as needed with reminders to arrange removal

Summary of key results
• 104 filters placed since March 2012
• Most common reasons for placement: high risk for perioperative VTE, not anticoagulated (26%); interruption of anticoagulation for surgery/procedure (19%); post-operative VTE (19%); bleeding on full anticoagulation (11%)
• Of 77 filters retrieved, mean time to retrieval was 18.5 days (range 4-141 days)
• 1 complex removal due to filter embedded in IVC wall; 2 removals delayed due to filter thrombosis; 1 PE despite IVC filter

Lessons Learned & Next Steps

Lessons learned:
• A simple tracking system can ensure IVC filter removal rates that are well above published data
• Minimal time commitment to maintain database

Ongoing challenges:
• IVC filter tracking database is not integrated into CPRS or other VA informatics databases; data are manually entered and updated
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UCSF Department of Medicine
2014-15 Quality & Safety Innovation Challenge
The purpose of this study was to identify clinical predictors for opiate-related over-sedation and respiratory depression requiring naloxone in hospitalized patients, who may benefit from advanced respiratory monitoring as well as risk-reduction clinical practices.

Lessons Learned:
1. Use of longer-acting oral opioid formulations, renal dysfunction, sepsis, CNS abnormalities and multiple co-morbidities are all significant risk predictors for adverse events related to opioid use in the inpatient setting. Two thirds of our residents surveyed reported at least one inpatient encounter of opioid overdose necessitating use of naloxone.
2. For patients with one or more of those aforementioned risk factors, every effort should be made to prevent potentially life threatening opioid related adverse events.
3. These patients should also be considered for advanced respiratory monitoring.

Next Steps:
Educational intervention among residents with special attention to opioid indications, choice of opioid formulations, patient’s co-morbid medical conditions and organ dysfunctions, and clinical monitoring may help prevent or minimize opioid related serious adverse events.

Opioid analgesics, commonly used during hospitalizations, may sometimes be associated with potentially life threatening adverse events. Limited data exists regarding risk factors for serious opiate-related complications in the inpatient setting. Two thirds of our residents surveyed reported at least one inpatient encounter of opioid overdose necessitating use of naloxone.

A case-control study was conducted. Clinical and pharmacy data were retrieved from the electronic medical records.

Out of all admitted patients in 2013 at Community Regional Medical Center in Fresno, CA, 313 patients received naloxone. Patients in the ED and peri-operative setting were excluded. Seventy-four cases met inclusion criteria. Two hundred twenty-two patients were selected as controls matched for age and gender. Demographics, opioid formulations, comorbidities, and patient outcomes were tabulated for both cases and controls. Odds ratios were calculated for risk assessment. Student t-test was used to compare the means of continuous parameters between the two groups.

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Opioid Formulation | Cases N=74 (Given/Not Given) | Controls N=222 (Given/Not Given) | Odds Ratio | 95% CI
--- | --- | --- | --- | ---
Long Acting Opioid, Oral | 14/60 | 13/209 | 3.751 | 1.673-8.413
Short Acting Opioid, Oral | 30/44 | 47/175 | 2.539 | 1.443-4.466
Hydromorphone, IV | 14/60 | 22/200 | 2.121 | 1.023-4.400
Morphine, IV | 39/35 | 82/140 | 1.902 | 1.118-3.237
Fentanyl, IV | 32/42 | 79/143 | 1.379 | 0.807-2.357

Potential Variables | Cases N=74 (With/Without) | Controls N=222 (With/Without) | Odds Ratio | 95% CI
--- | --- | --- | --- | ---
Renal Dysfunction | 34/40 | 43/179 | 3.538 | 2.010-6.229
Cirrhosis | 6/68 | 7/215 | 2.710 | 0.881-8.339
Outpatient Opioid use | 36/38 | 60/162 | 2.558 | 1.485-4.405
CNS pathologies | 25/49 | 37/185 | 2.551 | 1.404-4.635
Sepsis or Infection | 28/45 | 58/164 | 1.759 | 1.006-3.076
Obstructive lung disease | 15/59 | 32/190 | 1.510 | 0.765-2.978
Heart failure | 14/60 | 30/192 | 1.493 | 0.743-3.000
Academic vs. Private Team | 26/48 | 64/157 | 1.329 | 0.760-2.323
Malignancy | 10/64 | 30/192 | 1.000 | 0.463-2.159
Benzodiazepine exposure | 27/47 | 135/87 | 0.370 | 0.215-0.638
Trauma/fracture/surgery | 14/60 | 90/130 | 0.337 | 0.178-0.649

Other Variables | Cases N=74 Mean +/- SD | Controls N=222 Mean +/- SD | Mean Difference | P value by t-test
--- | --- | --- | --- | ---
Number of Co-morbidities | 1.97 +/- 0.98 | 1.46 +/- 1.07 | 0.51 | 0.001
Length of stay | 20.75 +/- 22.33 | 9.28 +/- 11.59 | 11.47 | 0.001
serum Creatinine | 2.57 +/- 6.32 | 1.25 +/- 1.97 | 1.32 | 0.085
BMI | 28.74 +/- 8.78 | 29.08 +/- 8.98 | -0.34 | 7.779
Listening Beyond Auscultating: A Quality Initiative to Improve HCAHPS Communication Scores at Kaiser Oakland Medical Center

Emily Asher, Joe Cartwright, Jessica Chow, Elaine Lee, Matthew Nordstrom, Allison Schneider, Madeline Schwarz, Margot Zarin-Pass, Lindsay Mazotti, MD, Nardine Saad Riegels, MD
UCSF School of Medicine and Kaiser Permanente Oakland, Department of Medicine

• “Communication with Doctors” is the HCAHPS measure that most directly surveys patients about communication with their hospital-based physicians.

• Factors that contribute to patients’ perception of listening in the inpatient setting have not been thoroughly explored in the literature.

• In 2013-2014, OMC received an overall score of 76% for “Communication with Doctors,” with a subset score of 80% for “Doctors listened carefully to [patients].” These scores fell below targets of 81% and 88.4%, respectively.

• KLIC third-year medical students worked with an existing local task-force, Project Bedside, to identify interventions aimed to enhance patients’ perception of listening.

GOAL
To examine and improve Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) physician listening scores for the inpatient medicine service at Kaiser Permanente Oakland Medical Center (OMC).

BACKGROUND
- “Communication with Doctors” is the HCAHPS measure that most directly surveys patients about communication with their hospital-based physicians.
- Factors that contribute to patients’ perception of listening in the inpatient setting have not been thoroughly explored in the literature.
- In 2013-2014, OMC received an overall score of 76% for “Communication with Doctors,” with a subset score of 80% for “Doctors listened carefully to [patients].” These scores fell below targets of 81% and 88.4%, respectively.
- KLIC third-year medical students worked with an existing local task-force, Project Bedside, to identify interventions aimed to enhance patients’ perception of listening.

METHODS
- Literature review and observations of OMC physicians yielded a list of possible small tests of change. 42 initial interventions were narrowed to 24 based on feasibility, acceptability, and impact.
- After Phase I rapid Plan, Do, Study, Act (PDSA) cycles with physicians, 14 interventions were rejected as not feasible, 6 were identified as “best practices” that did not warrant further testing, and 4 required further investigation in Phase II.
- Factors that contribute to patients’ perception of listening in the inpatient setting have not been thoroughly explored in the literature.

RESULTS
- Physicians found it feasible to elicit patient concerns. Patients perceived open-ended questions would improve communication with their doctor.
- 100/150 (67%) eligible progress notes included physician documentation of patients’ concerns.
- Physician feedback revealed enthusiasm for the potential impact on improving communication, low physician work burden, sustainability using EMR prompts.
- Specific patient concerns around discharge planning and pain were key drivers of patient satisfaction with physician communication and listening.

CONCLUSIONS
- KLIC Project Bedside utilized PDSA cycles of continuous quality improvement to develop feasible, sustainable, and effective tactics aimed at improving hospitalized patients’ perception of their physician listening to them.
- The final intervention used the EMR in a novel way to promote patient-centered care and align patient and physician agendas.