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UCSF Health Improvement Posters
Implementation of a Trauma ICU Rounding Sheet: Providing Standard of Care and Preventing/Decreasing Complications Among Trauma Patients

Laura Pajari, RN, BSN, CEN, TCRN and Meaghan Carroll, RN, MSN, CNL, CEN, TCRN
Trauma Process Improvement and Outcomes Coordinator and Trauma Program Manager
Emergency and Trauma Department at MarinHealth Medical Center

Background

- The purpose of this project was to implement a Trauma ICU Rounding Sheet in order to provide consistent, standard of care to trauma patients who were admitted to the ICU. The sheet would be utilized to guide the bedside RN during rounds in order to ensure appropriate preventative measures were being addressed.

- Implemented October 2019, after identification of increasing complications/opportunity for improvement and lack of standard of care for preventative measures such as deep vein thrombosis, pulmonary embolism, pneumonia and delayed enteral nutrition.

- Opportunities for improvement (OR) were identified through patient rounding, chart review, Trauma Quality Improvement Program benchmark reports and retrospective data analysis.

- Project impacts quality and safety as well as financial strength of the True North Pillars and Strategic Priorities of UCSF Health.

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Poster Video: https://vimeo.com/showcase/8314448/video/540398512
Choosing Wisely: Preserving Vessel Health, What Providers and Nurses Need to Know

Riza Magat, RN, BSN, MS-L, VA-BC
Felix Piamonte, RN, BSN, MS-L, VA-BC
Michele Nomura, RN, BSN, MSN, VA-BC

Vascular Access Team/Adult Parnassus Campus
Nursing

Background

- There is a knowledge gap that exists about vascular access device selection factors leading to inappropriate line orders and requests requiring alternate line placements driven by providers and nurses.
- From October 1, 2020 to March 31, 2021, the Vascular Access Team received 2,703 new line requests, 50-56% required alternate lines for inappropriate indications. This translated to approximately 1,380 lines which can be potential sources of vascular access device (VAD) related adverse outcomes, waste in terms of improper use of supplies and resources, procedure delays, interruptions in treatment and costs related to addressing waste and complications.
- Given the high number of inappropriate VAD requests, it is vital to provide a short learning module focusing on VADs, complications and device selection factors to providers and nurses.

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Poster Video: https://vimeo.com/showcase/8314448/video/553602114
COVID-19 Symptom Checker: MyChart Self-Triage & Self-Scheduling Tool

Presenter: Tim Judson MD, MPH

Team: Tim Judson MD, MPH; Chris Miller; Aimee Williams MPH; Ralph Gonzales MD, MSPH

In collaboration with: Clinical Innovation Center, Center for Digital Health Innovation, Digital Patient Experience, Office of Population Health

Background

- COVID-19 caused a surge in ambulatory demand
- Practices were inundated with phone calls, messages and appointment requests
- A COVID-19 hotline was created to centralize triage, but the process remained manual and resource-intensive

**State of triage in March 2020** (beginning of COVID pandemic)

- Patient has symptom
  - Call clinic
  - Call COVID Hotline
  - Wait on hold
  - Speak to navigator
  - Speak to RN
  - Speak to Scheduler
  - See MD +/−: Get tested

- True North Pillars addressed:
  - **Patient Experience**: Improve access
  - **Quality and Safety**: Standardize triage
  - **Financial Strength**: Decrease triage and scheduling costs
  - **Learning Health System**: Be a national leader in COVID-19 Symptom Checkers

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Improving Mobility in Patients on the Inpatient Neuro Units

Sujatha Sankaran MD, Madeline Chicas MHA, Kristen Hart RN, Annette Neill RN,
Anthony Kim MD, Maulik Shah MD

6L and 8L Units
Departments of Neurosurgery and Neurology

Background

• In 2019, low rates of patient mobilization after arrival to the 8L and 6L neuro nursing units was noted.

• There is data that early mobilization after surgery reduces length of stay, post-op opioid use, and cost. Mobility-focused nursing efforts have been shown to also improve mobility documentation, decrease readmission rates, and decrease length of stay, directly impacting the “Strategic Growth” pillar of the UCSF True North Boards.

• Our improvement project was aimed at improving the mobility of post-op neurosurgical and neurology patients by decreasing the time it takes to mobilize them.

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Poster Video: https://vimeo.com/showcase/8314448/video/548603473
Designing a Virtual Care Chat Program for Hypertension

Presenters: Ali Maiorano, Olivia Bigazzi, Tim Judson

Contributors: Ali Maiorano; Olivia Bigazzi; Tim Judson MD, MPH; Anobel Odisho MD; Aaron Neinstein MD; Nat Gleason MD

Collaboration between: Center for Digital Health Innovation; Digital Patient Experience; Division of General Internal Medicine; Conversa Health

*Support for this work from the Mount Zion Health Fund

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Improving concordance of gastric cancer care with evidence-based guidelines at ZSFG

Hannah Rees, MS3; Adnan Alseidi, MD, EdM; Andre Campbell, MD; Niharika Dixit, MD; Terence Friedlander, MD; Rebecca DeBoer, MD, MA

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Characterization of HIT Management

Claire Bainbridge, PharmD, BCCCP
Marissa Hom, PharmD, BCCCP; Kendall Gross PharmD, BCPS, BCCCP;
Allison Pollock BCPS, FCSHP; Ashley Thompson, PharmD, BCCCP
Department of Pharmaceutical Services, UCSF Health
Department of Clinical Pharmacy, UCSF School of Pharmacy
Medication Outcomes Center, UCSF School of Pharmacy

Background

- Heparin induced thrombocytopenia (HIT) is a life-threatening complication that can occur after exposure to heparin or heparin products
  - Occurs in ~ 5% of patients
  - Mortality can be up to 20%
- Management of HIT involves utilizing less preferred anticoagulants like direct thrombin inhibitors (DTI)
- DTIs are associated with higher risks compared to heparin
  - Less familiarity amongst providers and nursing staff
  - Higher incidence of adverse effects (ie bleeding)
  - Lack reversal agent

True North Pillar: Quality and Safety
- The purpose of the project was to evaluate the management of HIT in adult patients at UCSF Health for appropriateness and safety

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IMPROVING AGE-FRIENDLY CARE THROUGH A GERIATRIC EMERGENCY MEDICINE LENS

Mitchel Erickson, MS, RN, ACNP-BC, Oriana Duet, RN, CNIII, Sheila Pardo, RN, Bianca Wallace, RN, Arnold Shepherd, RN, BSN, Benjamin Tanner, MS, RN, CNS, FNP-BC, William Wood, PA, Sasha Binford, PhD, RN, CNS, Robin Clark, PA, Eva Velarde-Rios, BSN, RN, Stephanie Rogers, MD, Todd James, MD, James Hardy, MD, Nida Degesys, MD

Joint Quality Improvement between the Division of Geriatrics and Emergency Medicine

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**Background**

**WHY THIS MATTERS?**
- Currently 32.7% of all patients presenting to UCSF Health emergency department (ED) are ≥65 years (Nationally, 57% of all admitted patients are over 65yo.)
- 20% incidence of patients ≥65 presenting to the ED have delirium.
- The ability of healthcare professionals to identify delirium without using formal assessment tools is 35%.
- Potential impacts of missing ED delirium are extended lengths of stay, more ICU stays, caregiver distress, and falls.

**Interprofessional collaboration to understand components of a successful GED**

- UCSF MDs, NPs, PAs, and RNs travelled to UCSD in 2019 to learn about ED RN screening process and geriatric assessments, facilitated by specialized “GENIES” (Geriatric Emergency Nurses)
- NICHE training for ED Geriatric RN Champions
- Promote geriatric training for RNs and providers
- PDSA for quality improvement via interprofessional meetings
- Determine possible workflows and environmental changes (e.g. room placement, meds to avoid, social work, pharmacy, and family involvement, improved discharge planning)
- Implement nursing geriatric assessment tools adopted across the enterprise (1 adapted for informant and 1 specific to ED triage)

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**Poster Video:** [https://vimeo.com/showcase/8314448/video/553520956](https://vimeo.com/showcase/8314448/video/553520956)
Survivorship Wellness Group Program: Telehealth Conversion in the Time of COVID-19

Presenter Name: Alison Chang
Team Members: Anahat Singh, MA; Chelsea Siwik, PhD; Dianne M. Shumay, PhD; Margaret Chesney, PhD; Jamie Cohen, PsyD
Department: UCSF Psycho-Oncology
UCSF Helen Diller Family Comprehensive Cancer Center

Background

- The 8-week Survivorship Wellness Group Program (SWGP) provides psychoeducational and goal-setting curricula to address the complex biopsychosocial challenges survivors experience after treatment.
- In response to the COVID-19 pandemic, SWGP transitioned to telehealth in March 2020 to maintain care for cancer survivors.
- The COVID-19 pandemic heightened the need for support among cancer survivors, amid the social distancing and telework guidelines that limited opportunities for connection and community.

Our SWGP team aimed to optimize patient and provider experience (namely, a sense of connection to the SWGP community), while maintaining historically high program satisfaction ratings.

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Streamlined RN Orientation: COVID-19 Compliant/Budget Conscious

Anthony Scott, MSN, RN, NPD-BC, CNL, PHN

Mary-Ann Rich, MS, RN, NPD-BC, CNOR

Nursing Professional Development Specialists

Center for Nursing Excellence and Innovation

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Designing a Transitions Social Worker Role in Population Health to Support Patients Post-Discharge

Aurora Snyder, Nancy Lee, Anna Hoyt, Joan Casey, Ellen Maxon, Michelle Asiano, Meg Wheeler

Care Transitions Outreach Program
Office of Population Health

Background

The Care Transitions Outreach Program (CTOP) provides a safety net for patients discharged home from UCSF through discharge follow-up phone calls. The goals of CTOP include supporting patients/caregivers post-discharge to improve their experience, follow-up on the plan of care outlined by the inpatient care team, as well as reduce unnecessary utilization.

Negative social determinants of health can adversely affect patients’ ability to follow-up on the plan of care outlined by the inpatient care team which could potentially impact outcomes and unnecessary utilization (Bernazzani 2016).

Unnecessary utilization such as preventable ED visits and readmissions affects the Quality & Safety, Financial Strength, and Patient Satisfaction pillars.

Prior to October 2020, the Care Transitions Outreach Program was comprised of nurses and pharmacists, who can address clinical concerns around symptoms, medications, and Rx issues, but lack expertise in assisting patients with non-medical, social needs that can also impact patients’ health outcomes.

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Patient and Provider Experience with Cystic Fibrosis Telemedicine Clinic

Kalen Hendra, Fatima Neemuchwala, Marilynn Chan, Ngoc Ly, Elizabeth Gibb
Pediatric Pulmonology, Department of Pediatrics

**Background**

On March 11, 2020 the novel coronavirus disease (COVID-19) outbreak was declared a pandemic by the World Health Organization. In response, UCSF Benioff Children’s Hospital Oakland and San Francisco converted all in-person cystic fibrosis (CF) appointments to telemedicine visits via Zoom. The first telemedicine CF visit was conducted on March 27, 2020.

Prior to the COVID 19 Pandemic, telehealth was not used routinely in the Cystic Fibrosis clinic. Patients and families have expressed concerns about the amount of travel time/distance associated with quarterly in-person appointments. These concerns have led to a higher no-show rate.

With the sudden and rapid transition to telemedicine, we did not know what families thought about the use of telemedicine in their child’s care.

Our project was designed to help us learn about the experiences that families and providers had with CF telemedicine visits and if this led to a decline in no-show rate.

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Building a System for Inpatient Addiction Management at UCSF Health

Sujatha Sankaran MD, Matt Tierney NP, Jen Twiford RN, Marilyn Bazinski CNS,
Jesse Ristau MD, Meher Singh MSW
UCSF Health Substance Use Committee

Background

• From a 2019 UCSF Addiction Health Needs Assessment, we know that 89% of patients admitted to UCSF Health were not receiving medications for evidence-based opioid use disorder and alcohol use disorder treatment.

• We know that rates of opioid overdose have increased in San Francisco during the past year, and in the past year there were 697 patients who died of opioid overdoses.

• In addition, there have been recent inpatient deaths due to opioid overdoses and we know patients leaving Against Medical Advice (AMA) because their withdrawal isn’t treated adequately.

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Poster Video: https://vimeo.com/showcase/8314448/video/549459644
Reducing Patient Waiting Time in Multidisciplinary Cystic Fibrosis Clinic

Fatima Neemuchwala, MD
Elizabeth Gibb, Ngoc Ly, Marilynn Chan, Sylvia Stofella, Makiko Omori, Tiffany Raffino, Minh Huynh, Leslie Lam, Sarah Aguirre
Pediatric Cystic Fibrosis Center
University of California, San Francisco

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Poster Video: https://vimeo.com/showcase/8314448/video/553521994
Reducing Unplanned Extubations in the Intensive Care Nursery

Presented by: Lara Bellingham RN, Jeannie Chan CNS & David Woolsey RCP

Intensive Care Nursery/Neonatology

ICN UPE Prevention Taskforce Members: Lara Bellingham, RN; Jeannie Chan, CNS; Jomel Cruz, RN; Ray Holmes, RCP; Katherine Komondor, NNP; Katie Kramer, MD; Sue Kymala, RCP; Melissa Liebowitz, MD; Michelle Murphy, RCP; Fritzie Oriente, RN; Elizabeth Papp, CNS: Joy Quilatan, RN; Karren Ramos, RCP; Janet Shimotake, MD; Melinda Stewart QI Advisor; Sandy Tom, RCP; Len Toy, RCP; David Woolsey, RCP

Background

Critically ill infants in the Intensive Care Nursery often require endotracheal (ET) intubation for prolonged periods. A complication associated with ET intubation is a unplanned extubation (UPE), or a dislodgement of an ET tube that is not intentional. Neonates may be more prone to UPEs because of their prolonged duration of intubation, shorter trachea, uncuffed tubes, challenging securement and use of less sedation. UPEs in the neonatal population often contribute to significant morbidity and mortality impacting patient safety.

Our Intensive Care Nursery established our UPE Prevention Taskforce in July 2018 and spent the first year establishing our baseline rate by encouraging accurate reporting of events in our Incident Reporting system. Our baseline data confirmed our concern that these events were occurring and impacting patient safety.

Our goal is to decrease the number of unplanned extubations by at least 20% each year in our ICN.

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Poster Video: https://vimeo.com/showcase/8314448/video/553517095

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UCSF COVID-19 Vaccine Ambassador Program
Nicole Giacosa, RN, MSN; Kathleen Maniatis, RN, MSN; & An Duong, MA
Pediatric Infusion Center

Background

**True North Pillar: Quality and Safety**

- To prevent the morbidity and mortality associated with COVID-19, and optimize control of it in communities, **high uptake rates of the vaccine must be achieved** (SAGE Working Group on Vaccines, 2014).
- If health care workers themselves are vaccine hesitant they may be unlikely to dispel their patients’ doubts and concerns about vaccination (MacDonald & Dube, 2015).
- It has also been demonstrated that health care practitioners who were vaccinated themselves, or who intended to be vaccinated, were more likely to recommend vaccination (Paterson et al., 2016).

**Problem Statement:**

After the initial access to the COVID-19 vaccines for UCSF priority group 1A, vaccine hesitancy contributed to an overall COVID-19 vaccine compliance rate of approximately **78%**, leaving a portion of our on-site staff unvaccinated.

*This QI project was aimed at reducing vaccine hesitancy amongst on-site staff to prevent the ongoing spread of COVID-19 at UCSF and in the community.*

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Advanced Cystic Fibrosis Lung Disease: A Standardized Care Pathway

Manisha Israni-Jiang, MD
Diana Dawson PNP, Mary Ellen Kleinhenz MD
UCSF Adult Cystic Fibrosis Center
Department of Medicine

Background

Advanced Cystic Fibrosis Lung Disease (ACFLD) is common, associated with reduced quality of life, and remains the most frequent cause of death in individuals with Cystic Fibrosis (CF).

CF Foundation in 2020 published new guidelines on ACFLD care to include pulmonary disease treatment, comorbid conditions monitoring, symptom & psychosocial issue management. Lung transplant was highlighted as a key life-extending treatment.

Our process of transplant referral was not streamlined, often occurring during hospitalization for a severe CF exacerbation when patient was clinically unstable instead of as a part of routine CF care.

Without a standardized pathway we were likely affecting the:

- Patient Experience due to unclear process of lung transplant referral and ACFLD management.
- Quality & Safety of their care with delayed transplant and goals of care discussion & inconsistent monitoring of comorbidities.
- Our Patients' experience with suboptimal relational coordination between CF and transplant team members.

We needed to advance the care of our patients and Optimize Access by applying the new ACFLD guidelines in our clinical care and with Health System Learning disseminate this information to other institutions through a learning leadership collaboration of lung transplant transition.

PROBLEM: Lack of a Standard Approach to Discussing ACFLD with Patients and the Lung Transplant Referral Process

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Poster Video: https://vimeo.com/showcase/8314448/video/554852239
Pursuing Pharmacy Revenue Opportunities

Jessica Galens
Assistant Chief Pharmacy Officer, Business Services
Department of Pharmaceutical Services

Michelle Marts
Project Manager and Strategy Analyst
Revenue Management

Background

Pharmaceutical Services identified a few key areas where we weren’t maximizing pharmacy charging or reimbursement. The root cause of these issues involved many moving parts and we knew the solution would require an integrated team of stakeholders. We leveraged the VIP program to gather subject matter experts from Pharmacy, Revenue Integrity, APeX Clinical Services, Patient Financial Services, Patient Access, Coding, Compliance and Clinical Departments to create a Pharmacy-Revenue Cycle Integrated Workgroup.

Today we are highlighting two opportunities that this group tackled: waste billing and new technology add-on payments.

<table>
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<tr>
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<tr>
<td>Waste Billing</td>
<td>Financial Strength</td>
</tr>
<tr>
<td>New Technology Add-On Payment (NTAP)</td>
<td>Financial Strength</td>
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Waste Billing: When we supply a patient with medication from a single-use package or vial we have to discard any unused drug. For example, if we use 80mg of a 100mg bottle, we have to discard 20mg. Some payers will pay us for this wasted component as long as we charge and bill it appropriately. Meeting all of the requirements under this program requires careful documentation and charging in order to get reimbursed.

New Technology Add-On Payment (NTAP): Medicare provides additional reimbursement for a set of drugs that they consider new, high-cost technologies that significantly improve clinical outcomes but aren’t adequately reimbursed via normal reimbursement methods. The list of what qualifies for this program changes yearly and we must add special coding to any account with a drug on this list in order to qualify for the additional reimbursement.

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Poster Video: https://vimeo.com/showcase/8314448/video/553520426

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Implementation of Ultrasound Surveillance at Discharge to Reduce 30-day Readmissions for Pleural Effusions after Lung Transplant

Katherine Malcolm, MD MPH
Aida Venado and the Lung Transplantation Team
Pulmonary and Critical Care Medicine

Background

- Medicare data suggests that up to 75% of readmissions are avoidable with an annual cost of $15-$17 billion.
- Existing literature suggests that rates of readmission post lung transplantation were higher as compared to other populations in the surgical literature.
- Leading causes for 30-day readmission in lung transplantation include pleural space adverse events with pleural effusion being the most common pleural space complication (~35% of readmissions) and often require drainage for resolution.
- In 2018, UCSF’s lung transplant program ongoing quality assessment identified pleural effusions as the single most common cause for 30-day readmissions after discharge from lung transplant.
- The aim of this project was to decrease 30-day readmissions for pleural effusions after lung transplant.

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A Global Health Quality Improvement Curriculum

Arianna Safi, Omid Boozarpour, Eric Kim, Sam Hatfield MD, David Gordon MD, Alon Unger MD, Sujatha Sankaran, MD

Departments of Hospital Medicine and Pediatrics

Background

UCSF and its collaborators are committed to improving health and equity worldwide. They face many challenges to providing care that is safe, equitable, and patient-centered. Professional training in quality improvement, patient safety, and healthcare value is limited in low- and middle-income countries, and few incorporate principles of equity.

Health System Benefits of Quality Improvement:
- Reducing direct harm
- Providing effective and timely care
- Delivering uniform and equitable care
- Minimizing waste/costs
- Improving the patient experience
- Building confidence in the health system

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Opioid Reduction Initiative on the Neurospine Service

Sujatha Sankaran MD, Madeline Chicas MHA, Vivian Le MPH, Kevin Barrette MD, Lori Reisner Pharm D, Chris Abrecht MD, Zhonghui Guan MD, Erica Langnas MD, Praveen Mummaneni MD MBA

Departments of Neurosurgery and Hospital Medicine

Background

- The UCSF Neurosurgery spine service provides surgical care for patients with spine diagnoses. Many of these patients have co-existing chronic pain in addition to psychiatric diagnoses such as depression and anxiety. A multi-modal, comprehensive approach to pain management is essential to successfully treat these patients.

- Approximately half of all patients who are seen for Neurosurgery spine procedures at UCSF come from outside the San Francisco Bay area. A comprehensive treatment plan at UCSF is important to avoid fragmentation of care.

- The literature shows that dispensing large quantities of opioids after surgery can lead to opioid dependence and increases the likelihood of developing opioid use disorder.

- The practice at UCSF Spine Center has traditionally been to provide four weeks of opioid pain medications on discharge from the hospital and to refill these medications for up to three months.

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Poster Video: https://vimeo.com/showcase/8314448/video/551730472
Getting mAb About COVID-19

Natalie Davis, FNP
Sherri Pena, LGC; Jessica Bedoy, BA, Manisha Israni-Jiang, MD
Mission Bay Respiratory Screening Clinic
Department of Medicine

Background

COVID-19 is a new highly infectious disease resulting in a pandemic & high mortality with no approved treatments to prevent progression to severe disease, hospitalization or death. In November 2020, new monoclonal antibodies (mAbs) were developed and received Emergency Use Authorization (EUA) for treating COVID-19 in the ambulatory setting. Phase II clinical trials showed that the mAbs could reduce the risk of developing severe disease from about 10% to about 3% in high-risk individuals.

PROBLEM: How to identify eligible patients & safely provide a novel infusion treatment within 10 days of disease onset

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Poster Video: https://vimeo.com/showcase/8314448/video/551732282
Optimizing Vaccines Rates in Pediatric Kidney Transplant Patients

Marilyn McEnhill MSN, CPNP Department of Surgery, Division of Pediatric Transplant, Benioff Children's Hospital

Jessica L. Brennan MSN, CPNP Department of Surgery, Division of Pediatric Transplant, Benioff Children's Hospital

Heidi Liu RN, PNP Student, UCSF School of Nursing

Background

- Pediatric transplant recipients are at risk for vaccine-preventable infections owing to immunosuppression, suboptimal response to vaccines before and after transplant
- In our practice, vaccine-preventable infections (VPI) occur, and this is supported by published literature:
  - 20 yo s/p 2nd kidney transplant never received HPV series, developed extensive perianal condylomata (warts) scheduled for 3rd surgical intervention
- Recent research reveals a significant number of SOT patients have incomplete vaccinations
- The 2019 American Society of Transplant (AST) guidelines are the practice standard for SOT vaccination
- The aim of this project was to highlight the impact of under-vaccination in the SOT population and to improve the vaccination rates among pediatric kidney transplant recipients at UCSF

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Poster Video: https://vimeo.com/showcase/8314448/video/553641418

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Tier 3 Reporting - Core Clinical Services

Cynthia Hammond, MBA
Quality and Safety Officer / Lean Champion
Department of Radiology and Biomedical Imaging

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Poster Video: https://vimeo.com/showcase/8314448/video/552065405
Optimizing Intravenous Potassium Dosing and Usage in the BCH-SF Pediatric Cardiac Intensive Care Unit

Stephanie Tsoi, MD, Joshua Robinson, PharmD, APh, BCCCP, Emily Noll, RN, and Amy McCammond, MD
Division of Pediatric Critical Care Medicine, Department of Pediatrics
Pediatric Cardiac Intensive Care Unit, BCH-San Francisco

Background

- Potassium replacement is ubiquitous in the PCICU.
- There are significant adverse cardiac events associated with serum potassium levels both above and below the clinical target range, and adequate serum potassium is critical in stabilizing cardiac conduction.
- Potassium chloride is a high-risk medication that is almost exclusively administered via central line.
- Optimizing K in the PCICU patient population is often complex.

Previous K Replacement Algorithm:
1) Low efficacy
   - Post-replacement level reaching serum goal level of 3.5 - 5: 20%
   - Adherence to previous guidelines: 50%
2) Leads to multiple repeat doses
   - 513 – 951 doses per month in PCICU
3) Implications:
   - Cost, repeat labs
   - Workflow
   - Frequency of central line access

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Poster Video: https://vimeo.com/showcase/8314448/video/552065555

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Neuro Urinary Retention Pathway

Madeline Chicas MHA, Sujatha Sankaran MD, Amy Larsen RN, Anthony Kim MD, Maulik Shah MD, Nerissa Ko MD, Cass Sandoval RN, Theresa Mueller RN, Amy Faircloth RN, David Hoey RN, Connie Drake RN

6L, 8L, 8/11 NICU units
Departments of Neurosurgery and Neurology

Background

- In 2019, we found that the rate of Catheter-Associated Urinary Tract Infections (CAUTIs) was among the highest in the hospital on the Neurosurgery and Neurovascular services. Various strategies were implemented to remove Foley catheters early, including provider education, non-invasive urinary catheter systems, and a nurse-driven algorithm for Foley catheter removal. However, the rates of CAUTI remained high.

- Subsequent chart review of CAUTI cases revealed that a majority of CAUTI cases involved a Foley catheter that was taken out, then replaced due to urinary retention and the inability to spontaneously void.

- We concluded that we needed a systematic approach for preventing CAUTI in patients with urinary retention

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Poster Video: https://vimeo.com/showcase/8314448/video/552065699

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IV Acetaminophen Stewardship: Leveraging the EHR to Support Value Improvement

Kendall Gross, PharmD | Lead Pharmacy Informaticist
Ashley Thompson, PharmD | Adult Clinical Supervisor
Sarah Lucas, PharmD | Pediatric Clinical Supervisor

Executive Sponsor: Desi Kotis, PharmD | Chief Pharmacy Executive
Pharmaceutical Services

Background

Acetaminophen (APAP) is an important component of multimodal analgesia.
Evidence is equal for efficacy between enteral and IV APAP
Costs for IV formulation are 1500 times higher than enteral tablets
IV APAP has unique safety risks (dosing errors, hypotension)

Problem: UCSF uses IV APAP in patients who do not require IV therapy, leading to unnecessary costs and risks to patient safety.

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Poster Video: https://vimeo.com/showcase/8314448/video/552972742

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Reducing Cardiac Arrest in the PCICU: The “High Risk Bundle” Project

Amy McCammond MD, Jennifer Adamson Gross RN, BSN, CN II,
Asunta Pacheco-Kennedy RN, BSN, CN III, Jennifer Magno RN, Ching Ching Yang MSN, CPNP-AC,
Lori Fineman RN, MS,
Satish Rajagopal MD, Sarah Tabbutt MD PhD
Pediatric Cardiovascular Intensive Care Unit, Department of Pediatrics

Background

- Cardiac arrest (CA) in the Pediatric Cardiac Intensive Care Unit (PCICU) remains unacceptably high, occurring in ~3.1% of all patient encounters.

- Survival to hospital discharge following CA is improving, but remains suboptimal at slightly more than 50%.

- The PCICU at UCSF is one of over 60 centers that actively participate in the Pediatric Cardiac Critical Care Consortium (PC4), a data consortium and platform for collaboration in research and quality improvement in the PCICU population.

- Analysis of the PC4 data has identified which patients are at highest risk for CA in the PCICU as well as the high risk time periods for CA following PCICU admission:
  - Post-operative Neonates: 2x incidence of cardiac arrest compared to older infants (6.6% vs. 3.3%)
  - Medical patients: 50% higher rate of cardiac arrest compared to surgical patients (6.2% vs. 4.1)
  - 50% of CA in the PCICU occur within first 48 hours following admission
  - For post-surgical patients, 40% of CA occur within first 24 hours and 32% of CA occur at night

- Question: Can we impact the rate of cardiac arrest through implementation of a bedside clinical bundle, specifically aimed at team communication, contingency planning and building a shared mental model for patients known to be at high risk for cardiac arrest?

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Poster Video: https://vimeo.com/showcase/8314448/video/552065821

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Coordinated and cooperative discharges: Improving discharge safety, efficacy, and interdisciplinary coordination through EMR-based discharge tools

Health Systems Leadership GME Pathway
Johnny Blanchard, Shirley Chan, Elizabeth Cummings, Sarah Flynn, Smitha Ganeshan, Karen Hauser, Esther Hsiang, Annsa Huang, Kavon Javaherian, Alex Kazberouk, Prashant Kotwani, Sherry Liou, Sarah Lumsden, Adali Martinez, Namrata Patel, Teddy Peng, Amy Pugh, Nadia Roessler De Angulo, Brandon Scott, Omar Viramontes, Craig Johnson, Rob Schechtman, Catherine Lau, Edgar Pierluissi
Departments of Medicine, Anesthesiology, and Pediatrics

Background

- Process of discharging patients requires multidisciplinary coordination and communication to ensure safe, timely discharges
- However, the process of discharging patients often encounters delays leading to increased length of stay and unnecessary costs
- Due to fragmented, non-standardized communication within a complex interdisciplinary team
- Given the unique needs, priorities, and roles of each team member in the discharge process, a streamlined communication method would enable the care team to more quickly identify and address key barriers to discharge.

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Early Work to Improve COVID Vaccination Equity in Primary Care

Jonathan S. Lee, MD, MAS
Neville Langit, Sheree Hicks, Mia Williams, Don Ng, Leah Karliner,
Alexsa Gonzalez, Rosemary Lam
Division of General Internal Medicine

Background

- During the initial rollout of COVID-19 vaccinations at UCSF, outreach efforts and direct scheduling were restricted to patients enrolled on mychart raising concerns that this would lead to systematic disparities in access to and receipt of COVID vaccinations.

- Internal DGIM data demonstrate that non-white patients and those with limited English proficiency are much less likely to be active on mychart. In particular, mychart activity is much lower in black patients compared with white patients (63% vs 85%) and in patients with limited English proficiency compared with English-speaking patients (57% vs 81%).

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- The initial UCSF rollout of COVID vaccines using mychart had the potential to lead to systematic disparities in COVID vaccination in underserved populations due to pre-existing differences in mychart usage.

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Poster Video: https://vimeo.com/showcase/8314448/video/552657253

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Remote monitoring of patients with depression during COVID

Jonathan S. Lee, MD, MAS
Christian Mojica, RN, Katie Tong, RN, Lily Chan, RN, Hui Min Dai, RN, Wendy Bright, RN,
Patty Yan, NP, Melody Belay, NP, Nicole Appelle, MD, Maki Aoki, MD, Rosemary Lam

Division of General Internal Medicine

Background

- Appropriate management of depression requires longitudinal care and monitoring of patients to assess treatment response (remission/reduction) using the 9-item Patient Health Questionnaire (PHQ-9) usually done in person.
- Monitoring of patients with depression at 4-8 months after the initial PHQ-9 and depression outcomes are primary care-wide quality metrics as part of the California PRIME Incentive program and fall under the Quality and Safety True North pillar.

- DGIM was performing below goal for 4-8 month PHQ-9 monitoring of patients with depression and depression outcomes.

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Improving Medication and Patient Safety During Outside Hospital ICU Transfers

Brian C Cunningham, BSN, RN, CCRN
Fanny Li, PharmD, BCPS, BCCCP
Benjamin Tanner, RN, MSN, CNS, FNP-BC, CEN
Division of Nursing, 6 & 10 Intensive Cardiac Care
Critical Care Pharmacy
Center for Nursing Excellence and Innovation

Background

- The transfer of patients from outside hospitals (OSH) is a complex process with opportunity for error, gaps in life-saving medication, and patient harm.

- Intensive Cardiac Care (ICC) units often receive patients from OSHs with multiple continuous IV medications, including high risk vasoactives, sedatives, and prostacyclins.

- These medications must be ordered, verified, and available both accurately and quickly at arrival to prevent medication availability breaks, dispensing cabinet overrides and delays in transferring service drop offs.

- The ICC Quality and Safety Committee identified this problem as a high-risk situation with a significant opportunity for potential patient safety events.

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Poster Video: https://vimeo.com/showcase/8314448/video/553520596
Virtual learning of basic blood bank testing for trainees in transfusion medicine

Sara Goldston, Joseph Nunez, Sara Bakhtary, Morvarid Moayeri, Elena Nedelcu

Department of Laboratory Medicine, Division of Transfusion Medicine
University of California, San Francisco

Background

• Knowledge of how Blood Bank tests are performed is critical to medical education.

• A Transfusion Medicine workshop consisting of a two-hour lecture supplemented by a two-hour bench practical training was designed to fulfill this educational need before the COVID-19 pandemic at UCSF. This workshop was available to numerous trainees, including medical students rotating in Pathology or Transfusion Medicine electives, Anatomic Pathology/Clinical Pathology residents, and fellows from various specialties. This was no longer possible due to social restriction rules during the pandemic.

• Here we report on our effort to provide consistent basic education virtually. This project is aligned to two UCSF pillars: ‘Our People’ and the ‘Learning Health System’.

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Poster Video: https://vimeo.com/showcase/8314448/video/552657559
Background

- At UCSF Parnassus, standardized Alcohol Withdrawal Syndrome (AWS) treatment is only permitted in the ICU. Nationally, many hospitals can treat mild-to-moderate AWS on lower levels of care using the Clinical Institute Withdrawal Assessment (CIWA) tool.

- From 1/1/2019 to 9/1/2019 (8 months), there were 32 mild-moderate withdrawal cases in the ICU.

Treatment of mild-to-moderate AWS is occupying ICU beds
Evaluating & Improving the Experience of Signage at UCSF Mount Zion for our Linguistically Diverse Patient Populations

Mia Williams, MD MS & Lily Kornbluth, MD
Division of General Internal Medicine
Department of Medicine

Background

- UCSF Mount Zion (MZ) clinics provide care for a linguistically diverse patient population.
  - Providers voice concerns that patients have difficulty navigating the campus
  - Inconsistent multilingual signage may amplify health disparities that exist for patients with Limited-English proficiency (LEP)
  - Impacts True North Pillars: Patient Experience and Quality & Safety
- Current state:
  - Signage often created locally or ad hoc in patient-facing areas
  - UCSF’s language signage policy is currently undergoing revision
  - Unknown what percent of signs include symbols and diverse language to be inclusive of patients with LEP
  - UCSF lacks a centralized team that organizes and/or coordinates signage within clinics, perhaps explaining the heterogeneous nature of signage on our campus
  - UCSF’s current strategy for Wayfinding signage does not include non-English languages

Problem statement: UCSFs MZ Campus has inconsistent signage that may not be accessible to patients with limited English proficiency

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Poster Video: https://vimeo.com/showcase/8314448/video/552657838
Small Change to Create a Big Impact: Reducing Antibiotic Delays For Patients Who Develop Sepsis On The Wards

Thomas Leung PharmD and Mary Sullivan RN, MS, CNS
Sepsis Leadership Operations Committee
UCSF Department of Pharmacy and Department of Quality and Patient Safety

Background

- Sepsis is defined as a life-threatening organ dysfunction caused by a dysregulated host response to infection (Singer, 2016). Despite advances in diagnosis and management, sepsis-related mortality continues to be high, especially in patients who develop sepsis on hospital wards (Markwardt, 2020).
- Since 2011, UCSF has developed continual surveillance and associated workflows on adult units to reduce sepsis mortality. This includes ‘Code Sepsis’, a paging system available to staff for those patients who are exhibiting worsening sepsis and/or septic shock and need additional resources. The Code Sepsis Team consists of the Rapid Response Team, Pharmacy, ICU Triage Fellow.
- After meeting and exceeding institutional goals for Sepsis Mortality O:E in FY20 on the UCSF True North scoreboard, an aggressive goal of 0.87 was set for FY21. To achieve this goal, The Sepsis leadership focused on improving outcomes for patients who developed sepsis on the wards.


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Poster Video: https://vimeo.com/showcase/8314448/video/553520831

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Telehealth takes a front seat: feasibility and optimization of complex genetics evaluation using telemedicine

Elaine Nguyen, Jirat Chenbhanich, Allison Tam, Joyce So

Telehealth Task Force, Division of Medical Genetics
Departments of Pediatrics and Medicine

Background

- Patients referred to the medical genetics clinic for a concern of genetic connective tissue disorders (CTD) necessitate thorough physical examinations.
- In the Fiscal Year 2019, only 6.2% of the total pediatric and adult genetics clinic visits utilized Telehealth (TH).

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Poster Video: https://vimeo.com/showcase/8314448/video/552607208
The Use of Self-Scheduling Tools in General Neurology - Parnassus to Increase Patient Access

Presenter
Jeremy Yves Vergara DNP, RN, CNL, NEA-BC, CENP

Members
Cindy Suh
Emelda Dizon

Ambulatory - General Neurology Parnassus

Background

Brief description of the problem
• Low utilization of Ticket Scheduling in General Neurology (<20%)

Why it is/was important to the practice to address?
• Patients needing neurological care should be able to self-schedule on MyChart
• 60-70% of visits in Neurology are Telehealth
• New patients needs to be scheduled within five days and seen within two weeks of scheduling the appointment.
• Use of Ticket Scheduling reduces time spent on phone calls scheduling patients (Staff are able to focus on assigned task)

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Poster Video: https://vimeo.com/showcase/8314448/video/552657920

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A Quality Improvement Project: Assessing Inpatient Nurse Knowledge and Experience in Working with Patients Who have Opioid Use Disorder

Presenters: Matt Tierney, ANP, PMHNP, CARN-AP, FAAN
& Amelia Gianinno, RN 14L Unit Director
Team: Marilyn Bazinski, Jenifer Twiford, Mailah Umali, Debbie Burge, Hyo Sun Choi, Alexis Lum, Paula Williams & Yali Brennan
Substance Use Disorder Education Subcommittee

Poster: https://ucsf.box.com/s/baoit976sxlqp4l2a8oph4gt72e0z7ha
Poster Video: https://vimeo.com/showcase/8314448/video/553155652
Improvements in the Anticoagulation Discharge Education Process

Adam Hamad, PharmD | PGY1 Pharmacy Resident
Emily Kaip, PharmD | PGY2 Infectious Diseases Pharmacy Resident
Pablo Lapetina, PharmD | PGY1 Pharmacy Resident
Steven Pham, PharmD
Stephanie Sin, PharmD | PGY1 Pharmacy Resident
Ashley Thompson, PharmD, BCCCP

¹UCSF School of Pharmacy
²UCSF Medical Center

Background

**Importance of Anticoagulation Education**
- Narrow therapeutic index
- Bleeding and thrombosis risk
- Drug interactions
- Special administration instructions (injectable AC and warfarin)
- Dietary interactions (warfarin)

**Goal:** Reduce the risk of potential harm

**National Patient Safety Goal 03.05.01**
The [hospital/organization] provides education to patients and families specific to the anticoagulant medication prescribed, including the following:
- Adherence to medication dose and schedule
- Importance to follow-up appointments and laboratory testing (if applicable)
- Potential drug-drug and drug-food interactions
- The potential for adverse drug reactions

**Current State**
- Pharmacy routinely provides all warfarin and new-start DOAC education, but may miss continuation patients
- Pharmacist daily workload is heavy at baseline, and the number of patients requiring education is large and the documentation process is cumbersome
- No method to identify inpatients on anticoagulation at-a-glance
- No method of tracking compliance with anticoagulation education documentation
- Patients discharged without anticoagulation education may never receive it

**Problem Statement**
The current state of the anticoagulation education process is not streamlined

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Embedded Palliative Care for Amyotrophic Lateral Sclerosis: Promoting Advance Care Planning

Kell Fahrner-Scott BA
Carly Zapata MD, David O’Riordan PhD, Eve Cohen RN, Laura Rosow MD, Steven Pantilat MD, Catherine Lomen-Hoerth MD Phd, Kara Bischoff MD
Division of Palliative Care and Department of Neurology

Background

**Amyotrophic lateral sclerosis (ALS):**
- A progressive neurodegenerative disease characterized by loss of motor function.
- Impacts the limbs and trunk, speech, swallowing, and respiration.
- Death typically occurs from respiratory failure within 2-3 years of diagnosis.
- Available meds can slow progression but not stop or reverse disease course.

**Palliative care (PC):**
- Interprofessional, team-based care focused on improving quality of life and symptoms for people with serious illness.
- Care for both patients and their family members.
- Attention to psychosocial, spiritual, and practical needs in addition to symptom management.
- Discussion and documentation of goals of care.

In October 2017, an outpatient PC team was embedded within the UCSF ALS clinic. PC and ALS teams began to longitudinally co-manage patients.

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UCSF Division of Hospital Medicine Addiction Medicine Conference, 1st Session- 2020: Lessons Learned

Jessica Ristau

Matt Tierney, Sujatha Sankaran, Scott Steiger

Inpatient Substance Use Services Team, Division of Hospital Medicine, Population Health and Patient Safety

Department of Medicine

Background

- At UCSF medical center, 43% of patients with Substance Use Disorder (SUD) receive no standard medical care

- At UCSF Health, there is an educational addiction advice service but no formal addiction medicine service exists

- Many hospitalists have limited experience and education managing SUD at UCSF Health, there isn’t formal education of hospitalists on SUDs

- There were no prior comprehensive addiction conferences aimed at hospitalists at UCSF Health

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Poster Video: https://vimeo.com/showcase/8314448/video/553159676
First Case on-time Starts - Mission Bay Perioperative Pediatrics

Scout E. Hebinck RNC-OB, MSN
Clinical Operations Consultant
Mission Bay Pediatrics - Perioperative

Background

<table>
<thead>
<tr>
<th>UCSF organization wide initiative October 2020</th>
<th>FYTD-Feb FCOTS overall 44%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Highest volume services: General, OHNS, and Orthopedics 49% cumulative rate</td>
<td>CHA target of 65.5%</td>
</tr>
<tr>
<td>Delays are tracked in APEX: OR Readiness (28%), Patient Delays (25%) Surgeon Lateness (18%)</td>
<td></td>
</tr>
<tr>
<td>True North Pillars: Patient Experience, Quality and Safety, Our People</td>
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</tr>
</tbody>
</table>

- Lack of standardization on room set up for complex cases
- Bedside timeline inconsistently adhered to, causing bottlenecks in pre-op
- Families not having ample time with MDs to get questions answered
- No consent in the chart prior to day of surgery
- Pre-op and OR nurse spending a great deal of time confirming the consent is in APEX
- Lack of escalation prior to day of surgery (equipment/implants/instruments)
- Lack of bandwidth of services to support duties
- Patients arrive late due to historical wait times as well as parking/check in
- Variation of surgery scheduler workflows
- PREPARE NP functions as care coordinator for day before surgery

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Increasing the percent of same-day discharges after elective percutaneous coronary intervention (PCI)

Rachel Osborne, NP
Olivia Hodgkiss, MPH
Interventional Cardiology

Background

Percutaneous coronary intervention (PCI) is a non-surgical procedure done in the cardiac catheterization lab that opens narrowed or blocked blood vessels in the heart.

The evolution of PCI has led to improved safety and efficacy with data showing that in the context of a same-day discharge (SDD) clinical pathway, overnight monitoring can be avoided with no increased rate of death, rehospitalization, or other complications.

Evidence supports the notion that the majority of patients prefer SDD and the ability to return to the comfort of their home following their PCI.

This helps to use fewer resources, reduce costs, and allow patients to recover in their own homes.

Our internal data suggests that on average, we make the same revenue for PCIs whether they stay the night or go home same day, but the direct costs are cut in half when discharged same-day.

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Poster Video: https://vimeo.com/showcase/8314448/video/553155337
Short-Term Emergency Department Discharge Intervention (STEDDI)

Jillian Clark LCSW, Samantha Desrochers CNS, Martha French NP, Laura Salcido NP,
Lisa Sapiro LCSW, Richard Sherwin LCSW, Timothy Judson MD MPH, Robin Andersen NP

Care Support Program
Office of Population Health

Background

- Analysis involving an 18 month look back found that between 2-5 patients are admitted to the hospital every day from the Parnassus Emergency Department with an inpatient length of stay (LOS) <2 days. A subset of these admissions may not be medically necessary.

- Chart reviews by Parnassus Emergency Department leadership identified opportunities to avoid admissions for patients presenting with conditions including falls/weakness, DVT, palliative care needs, and conditions requiring IV medication infusions.

- These unnecessary hospital admissions divert resources away from other patients who require tertiary or quaternary (T/Q) levels of care.

- Measures to increase availability of beds for higher complexity levels of care (T/Q) aligns with the UCSF Health efforts for financial recovery from the COVID-19 pandemic.

- Patients prefer to avoid hospitalization if at all possible.

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Poster Video: https://vimeo.com/showcase/8314448/video/552658272
Improving the outpatient experience after pediatric brain injury: The BREd (Brain Recovery Education) Initiative

Bethany Johnson-Kerner, MD PhD, Rebecca Silvers DNP, NP, Mai Ngo, MD, Yumi Mitsuya MD, Casey Nesbit PT DPT DSc, Maria Kuchherzki, Kathleen Colao, Naya Fullerton

Pediatric Neurology, Neurosurgery, Rehabilitation (East and West Campuses)

Background

Problem: Inconsistent follow-up for patients with acquired brain injury (ABI) who do not need continued hospitalization for inpatient rehab.

- Poor patient satisfaction:
  - "You need one person to be the middle person"
  - "Little help around getting connected to local services"
  - "The school isn't implementing the plan set out by the hospital and there's no point person for communication"
  - "We were told there weren't any exercises that we could do at home to help improve her language"

- Poor provider satisfaction: "Patient needs are too complex for one provider"
  - Ultimately, difficulty with follow-up may contribute to well-described poor outcomes

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Poster Video: https://vimeo.com/showcase/8314448/video/553155453

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UCSF Addiction Advice Pager Service

Jesse Ristau\textsuperscript{1}, Sujatha Sankaran\textsuperscript{1}, Matt Tierney\textsuperscript{2}, Jenifer Twiford\textsuperscript{3}

UCSF DHM\textsuperscript{1}, Population Health\textsuperscript{2} and Quality & Patient Safety\textsuperscript{3}

**Background**

- UCSF is seeing increasing numbers of patients with substance use disorders:
  - A 2016-2018 review of billing data suggest that 12\% of admissions had an SUD diagnosis
  - On average there are 2.4 SUD adult inpatient admissions daily at UCSF Parnassus
  - Patients with SUDs have longer length of stay (7.3 days vs 6.4 days compared to all admits)

- At UCSF, there is no formal addiction consultation service, and in addition there is a lack of institutional knowledge regarding addiction medicine

- At the other 2 UCSF affiliate Hospitals, addiction consultation services for inpatients have existed for 2-5 years (ZSFG and SFVA) and house addiction fellowships

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Optimizing Advanced Practice Provider (APP) Onboarding

Presenters: Claudia Praglin & Legina Garrett

Onboarding Committee Members (past and present):
Eliana Agudelo, Ivette Becerra-Ortiz, Carolina Berg, Laura Cooke, Kerry Decker,
Natalia Dematteo, Diana Dukhovny, Ada Edwards, Annika Ehrlich, Mitchel Erickson, Erin Flatley,
Aletta Gamulo, Legina Garrett, Lissa Grey, Danielle Krieger, Laura Kirk, Michelle Klosterman,
Roseanne Krauter, Erin Matsuda, Claudia Praglin, Jane Pun, Laura Quill, Stacie Rohovit,
Brandon Sessler, Samantha Shenoy, Tara Valcarcel, Alisa Yee

Why Should We Care About APP Onboarding?

- **WANT APPs**: Advanced Practice Providers (APPs) are highly sought-after health care providers who play a critical role in delivering patient care, especially in rural and underserved communities. They often work in various clinical settings, providing care to patients in need.

- **APP GROWTH**: UCSF currently employs 525 APPs in 185 specialties. The number of APPs is increasing at a rate faster than the average for all occupations, with APPs' growth rate being 45 percent and PAs at 31 percent. (Bureau of Labor Statistics, 2021).

- **TURNOVER IS INCREASING**: The turnover rate in healthcare is increasing (28.4%), second only to the turnover rate in hospitality (31.9%). In 2018, it was reported that 43% of RNs left their jobs at least once due to stress, burnout, or a toxic work environment, and 12% on top of that considered quitting for the same reasons. (Williams, 2020).

- **APP BURNOUT & DISENGAGEMENT**: Research shows that high levels of burnout and low levels of job satisfaction are correlated with high turnover rates. (Barnes et al., 2019). APP turnover impacts patient care, leading to understaffing and dissatisfaction. Disengaged APPs can become a multiplier to turnover, increasing staffing costs for temporary APs, decreasing patient safety events, and contributing to decreased patient satisfaction and loss of patient revenue.

- **FINANCIAL IMPLICATIONS**: The financial implications of losing an APP are estimated at $3,100,000 to $3,200,000, which is equivalent to 1.2 times the average APP annual salary. (Barrett & Wright, 2018).

In 2017, the UCSF APP onboarding committee focused on implementing a formal onboarding process for newly hired advanced practice providers aimed at increasing APP retention, networking, support, engagement, and access to systems-wide resources. This program aligns with the True North Pillar: Our People, with the goal of creating an optimal work experience for APPs at UCSF.

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COVID-19 Signage Take care. Be kind. Stay strong

Cathleen Stugard & Sean Aloise

Campus Life Services

Background

• COVID-19 health orders mandated the posting of required information to help ensure the safety of building occupants.
• Campus and Health had not historically partnered on standard signage.
• The Chancellor’s Executive Team directed messaging to be **consistent, inclusive, accessible, branded and welcoming** across the entire enterprise.

Original Signage Placed in Buildings in the Early Days of Pandemic. Signs were Alarming (Bright Yellow) and Hard to Read.

Poster: https://ucsf.box.com/s/3brezrbatts4arw15h8ltg0rirzxd9gj
Poster Video: https://vimeo.com/showcase/8314448/video/553539190
Prehab Pal: A Digital, Interdisciplinary Geriatric Surgery Wellness Program

Kelsey Ogomori¹
Jeanette M. Broering PhD, MPH, RN², Sean Bumgarner³, Jeff Belkora, PhD⁴, Tia Weinberg⁴, Prarthana Bhattacharya⁴, Savinnie Ho⁴, Trish Lai⁴, Eunice Tsang⁴, and Emily Finlayson, MD, MS²

¹UCSF School of Medicine, ²UCSF Center for Surgery for Older Adults, ³Ooney, Inc., and ⁴the UCSF Patient Support Corps

Background

- The United States population is rapidly aging¹,²,³.
- Older individuals are estimated to account for more than half of the procedures performed in the United States.
  - Of those aged 70 and older who undergo major surgery, more than half are considered frail⁴,⁵.
- Frailty puts patients at increased risk for adverse outcomes.
- Multimodal rehabilitation has been shown to mitigate frailty-associated surgical risk⁶,⁷.
- The Surgery Wellness Program (SWP) at UCSF demonstrated the feasibility and effectiveness of a pre-operative rehabilitation program.
  - Despite positive patient response, 30% of referred patients were unable to participate due to transportation burdens and conflicting preoperative appointments.
- The goal of our project was to make surgery preparation available to all seniors through a remote digitally-based program.

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Poster Video: https://vimeo.com/showcase/8314448/video/553155564
SWAP- Scan Without Anesthesia Program An Initiative within the Radiology Department & Child Life Services

Lauren Meyer MA, CCLS, Mikaela DeMartini, MA, CCLS, & Chloe Kelleher, MA CCLS

UCSF Benioff Children’s Hospital – San Francisco

Radiology Department & Child Life Services

Background

- **SWAP Program (Scan without Anesthesia Program):** provides thorough assessment and preparation for children attempting scans without anesthesia in an effort to reduce the use of anesthesia, while ensuring children are emotionally and psychologically ready to complete the exam.

- Children ages 4 and infants 0-6 months.
- Assess candidates for developmental readiness.
- Provide advanced preparation phone call prior to scan.
- Create individualized tailored preparation materials to send to family in advance.
- Maintain a high success average rate of 95%.

**True North Alignment: Why is it important to reduce anesthesia?**

- **Patient Experience:** To increase patient satisfaction and improve pediatric care in Radiology.
- **Quality and Safety:** To reduce patient risk by requiring less anesthesia.
- **Our Patients:** To enhance collaboration with multidisciplinary teams in Radiology along with an increase in patient SWAP success rates and compliance.
- **Financial Drivers:** To provide overall cost reduction with less use of resources in Radiology.
- **Strategic Growth:** To increase our goal of 20+ SWAP cases a month, increasing the accessibility for all patients and families.
- **Learning Health Systems:** To provide education and awareness to multidisciplinary teams and providers about the SWAP program.

Child Life Specialists (CLSs) saw, an average of 15.8 (MRI) and 4.3 (CT) children a month who were attempting scans for the 1st time awake.

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UCSF Street Nursing

Presenters: Megan Grant, RN and Taylor Cuffaro, RN
Team members: Heather Leutwyler, Tessa Rubin, Laura Wagner
Collaborators: UCSF Emergency Department/EDIE, Lava Mae
Department: UCSF School of Nursing
Funding: Rita and Alex Hillman Foundation, Cigna Foundation

Background

Setting:
There are approximately 9,784 unhoused individuals, the highest rate of houselessness per capita and per geographic area in the United States

Problem:
>33% of frequent ED users are San Franciscans experiencing houselessness
>66% of super frequent ED users are San Franciscans experiencing houselessness

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Poster Video: https://vimeo.com/showcase/8314448/video/553192574
A Digital Health Chatbot with Remote Home Spirometry Monitoring for Lung Transplant Recipients

Anobel Y Odisho, MD MPH
Steven Hays, MD, Olivia Bigazzi, Eli Medina, Jerry Young, Ali Maiorano, Sondra Renly, Andrew Liu, Chris Sorric, Chris Miller, Ed Wise, Aaron B. Neinstein, MD
Center for Digital Health Innovation, UCSF Lung Transplant Program

---

**Background**

- ~500 living lung transplant recipients at UCSF
- **Primary Clinical Concern** is Chronic rejection: 45% mortality ≥ 5 years
- **Screening**: frequent hospital-based pulmonary function testing (PFT) in a lab every 3 months
  - Expensive
  - Time intensive
  - Need to limit immunocompromised patients exposure during COVID-19
- **Home Spirometer use can be an effective and accurate replacement for some components of in-lab PFTs**

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Endoscopic Ultrasound Fine Needle Biopsy for Solid Pancreatic Lesions Using Rapid On-site Evaluation (ROSE) with In Room Pathologist (ROSE-P) vs Telecytology (ROSE-T)

Emanuel Demissie
Abdul Kouanda MD, Craig Munroe MD, Richard McLean MD
[UCSF Division of Gastroenterology]

Background

- EUS-FNA has long been the gold standard for biopsies of solid pancreatic lesions.
- ROSE-P has been shown to improve the adequacy and diagnostic yield of FNA specimen.
- Telecytology is a technology that allows cytopathologists to perform ROSE remotely by using high-resolution imaging systems. Due to the COVID-19 pandemic, ROSE-T has emerged as the primary method of obtaining Cytopathologic diagnosis during EUS-FNA or FNB at UCSF.

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A TRAINEE DESIGNED INITIATIVE RESHAPES COMMUNICATION FOR HOSPITALIZED PATIENTS DURING COVID-19

Zoe Lyon BA, Smitha Ganeshan MD MBA, Esther Hsiang MD MBA, Teddy Peng MD, Nicholas J Thomas BA, Ilana Garcia-Grossman MD, Kavon Javaherian MD MBA, Anna Fretz MD, Hope Coughran MD, Cati Crawford MD, Jessica Dong MD MBA, Amy Pugh MD, Emma Dobbins MD, Justin Bullock MD MPH, Karen Hauser MD MPH, Sophie McAllister BA, Sivan Marcus MD, Sarah Takimoto MD, Sarah Scheur MS, Natalie Kucirek BA, Marissa Savoie MD, Rachel Yang BA, Joseph Kidane BA, Joshua Norman BA, Katrin Jaradeh BA, Carolyn Rennels MD, Carson Quinn BA, Elle Fukui BA, Emma Levine MD, Arman Mosenia BA, Avery Thompson BA, Rebecca Newmark BA, Brian McSteen BA, Cameron Niven BA, Abe Cortez BA, Alan Kong BA, Alex Beagle MD, Alyssa Nip MD, Lev Malevanchik MD, Michelle Mourad MD
Department of Medicine, University of California, San Francisco, CA

Background

- Many hospitals restricted visitors during COVID-19 pandemic to protect patients and providers from the spread of the virus
- The absence of visitors left patients vulnerable to social isolation, delirium, and gaps in clinical care delivery
- Many technology-driven innovations emerged during COVID-19 to conserve PPE, but none to our knowledge were designed by trainees to specifically connect patients and loved ones

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Poster Video: https://vimeo.com/showcase/8314448/video/553566724

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CAUTI Reduction in the Neuro ICU

Amy Faircloth RN, Amy Larsen RN, Madeline Chicas MHA, Theresa Mueller RN, David Hoey RN, Connie Drake RN, Nerissa Ko MD

8/11 Neuro Intensive Care Units
Departments of Neurosurgery, Neurology, and Neurovascular

Background

As UCSF Health strives to achieve Zero Harm to our patients, the Neuro ICU identified Catheter-associated Urinary Tract infection (CAUTI) reduction as having significant potential to avoid harms. The Neurosurgery and Neurovascular patient population is prone to CAUTI for a variety of reasons due to neurological injury, including urinary retention and non-infectious fevers and patient management of acute neurologic injury often requires a fluid balance that requires accurate output measurement. These factors can result in prolonged catheterization and consequent CAUTI when worked up for fever.

Because of these factors, the neurosurgery and neurovascular services had very high rates of CAUTI, with most of them occurring in the Neuro ICU. Over the past several years, the Neuro ICU had attempted to reduce CAUTI from a variety of angles, including alternative devices, SICU education, and a nurse-driven removal protocol.

Despite implementation of the multiple initiatives, there was not a sustained significant reduction in CAUTI rates/events due to a persistent belief that catheters are a routine part of patient care, so unit leaders hoped to implement daily ICU rounds as a strategy to change that unit culture.

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Poster Video: https://vimeo.com/showcase/8314448/video/553567519
A Digital Health Chatbot to Monitor Patients with Inflammatory Bowel Disease

Anobel Y. Odisho, MD MPH
Uma Mahadevan, MD, Olivia Bigazzi, Eli Medina, Jerry Young, Ali Maiorano, Sondra Renly, Andrew Liu, Chris Sorric, Chris Miller, Ed Wise, Aaron B. Neinstein, MD
Center for Digital Health Innovation
UCSF Colitis and Crohn’s Disease Center

Background

• 1.3% of all adults in the United States have been diagnosed with Inflammatory Bowel Disease (IBD): Ulcerative Colitis or Crohn’s Disease
• Primary Clinical Concern monitoring symptoms and identifying patients with disease flares

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Poster Video: https://vimeo.com/showcase/8314448/video/553568017

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Improving Neonatal Exchange Transfusions By Providing Reconstituted Red Blood Cells

Xiuzhen Huang, Lauren Lee
Elizabet Lomeli, Jeannie Chan, Elizabeth Papp, Marykay Stratigos,
Aleli Kay Phung, Ofelia Tan Un Teck, Ashok Nambiar
Mission Bay Transfusion Service/ ICN/ Clinical Systems/ MB Hematology

Background

**Neonatal Exchange Transfusion**
Treatment involves removal of the infant’s blood and simultaneous replacement with compatible donor blood. At UCSF Mission Bay, the compatible donor blood is Reconstituted Red Blood Cells.

**Reconstituted Red Blood Cells**
Reconstituted Red Blood Cells (RBCs) refer to red cells to which plasma is added back to obtain a specific hematocrit.

**Indication for Neonatal Exchange**
- Severe hemolytic disease of the fetus and newborn
  - Exchange transfusion removes antibody-coated RBCs
- Progressive hyperbilirubinemia from other causes posing a risk for kernicterus
  - Exchange transfusion removes excess bilirubin and provides plasma volume and albumin to aid in bilirubin binding

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Crossmatch-to-Transfusion Ratio Improvement at the UCSF Birth Center

Heidi Vaughan, Adrienne Kennedy, Elizabet Lomeli, Elena Nedelcu,
Sara Bakhtary, Melissa Rosenstein
UCSF Birth Center and Department of Laboratory Medicine
Transfusion Medicine Division

Background

- Crossmatch-to-Transfusion (C:T) Ratio is a meaningful quality indicator of red blood cell transfusion practice, with a C:T Ratio < 2 considered to be an acceptable benchmark.

- Baseline data from 2019 identified the UCSF Obstetrics Department as having a substantial opportunity to reduce waste associated with blood overordering, as blood transfusion is a common procedure in labor and delivery patients and the departmental C:T Ratio for OB was 4.7 (2019 overall UCSF C:T Ratio = 2.0).

- The purpose of this project is to assess and highlight improvements to the C:T Ratio at the Birth Center at UCSF Mission Bay via a reduction in non-indicated crossmatching.

- This project is aligned with UCSF Health True North pillars Financial Strength, Quality & Safety, and Our People. Reducing excessive crossmatching of blood reduces unnecessary costs to the healthcare system, saves our blood bank staffing resources, and protects our volunteer-donated blood supply without decreased timeliness or increased risk to patient safety.

\[
\text{C:T Ratio} = \frac{\text{Crossmatched RBC's}}{\text{Transfused RBC's}}
\]

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Poster Video: https://vimeo.com/showcase/8314448/video/553602251
Time is Brain! - Increasing Patient Access to Complex Care through the Neuroscience Rapid Transfer Bed Initiative

Presenters: Toni Braden, DNP, RN; Maulik Shah, MD, MHS

Adult Transfer Center Core Team: Theodore Abraham, MD; Toni Braden, DNP, RN; Katie Cooney, MHSA; Shelby Decosta, MHA; Adrienne Green, MD; Anya Greenberg, MBA; Sarah Imershein, MPH; Hunter Jackson, BA; Brenda Martinez, MPH; Rhea Patel, MSPH; Pat Patton, MSN, RN; Maulik Shah, MD, MHS; Molly Shane, MS, RN; Jen Sweeney, MBA

Neurosciences: Adib Abla, MD; Mitchel Berger, MD; Edward Chang, MD; S. Andrew Josephson, MD; Anthony Kim, MD

Support of the Transfer Center Executive Steering Committee

(acknowledgements listed on slide 8)

Background

Background: The Adult Integrated Transfer Center facilitates and coordinates the transfer of patients from external facilities to UCSF Health. In June 2020, the average number of completed transfers through the Transfer Center was approximately 8 patients per day. Approximately 43% of incoming transfer requests led to completed transfers, while the remaining 57% of cases were canceled (both with and without opportunities).

Problem Statement: The Transfer Center has significant variation in request processing, request turn-around times, communication methods within UCSF and with external facilities, and staff roles and responsibilities. Referring providers and UCSF services have described inconsistent and challenging experiences with the transfer process that result in delayed decision-making and care for patients. Consequently, UCSF may not be the first call from referring institutions for a transfer.

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Poster Video: https://vimeo.com/showcase/8314448/video/553602328

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Outpatient Chemotherapy Desensitization during the COVID-19 Pandemic

Carlo Legasto PharmD
Iris Otani MD, Hansen Ho PharmD, Fernanda D. Young MD, Emely Alfaro MS, CNS,
Pelin Cinar MD

1UCSF School of Pharmacy, 2UCSF Allergy/Immunology Quality and Patient Safety Director, 3UCSF Division of Allergy/Immunology, 4Adult Infusion Services,
5Medical Director of Quality and Safety, UCSF HDFCCC

Background

- The incidence of Carboplatin hypersensitivity reactions (HSR) increases from 1% in patients who have received ≤ 6 doses to 27% in those receiving ≥ 7 doses, and up to 46% in patients who have received > 15 doses.
- The incidence of Cisplatin HSR ranges from 5% to 20% and increases with radiation.
- The incidence of Oxaliplatin HSR is 12% with 1% to 2% having mild reaction.
- In current state, there are multiple parties involved in the decision making regarding intensive care unit (ICU) or outpatient (OP) desensitization, leading to confusion and frustration for healthcare team and patients.

Current State

- A multidisciplinary team involving oncology pharmacy, nursing and allergy/immunology was formed to tackle platinum HSR grading, desensitization protocols, and ICU vs outpatient admission standards.

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Poster Video: https://vimeo.com/showcase/8314448/video/553602459

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Development of a UCSF Pulmonary Embolism Response Team (PERT)

Will McKleroy, MD; Vaibhav Upadhyay, MD, PhD; Matt Aldrich, MD

For the PERT Development Committee

UCSF Division of Pulmonary, Critical Care, Allergy, and Sleep Medicine;

UCSF Critical Care Medicine

**Background**

- Pulmonary Embolism (PE) 3rd leading cause of cardiovascular death in the United States
- PE is a common healthcare-acquired condition. Surgery, hospitalization for medical illness, and pregnancy increase the risk of PE
- PE is frequent and causes fatalities and lacks a uniform approach to risk stratification and treatment

**Mortality of PE by Risk Category**

<table>
<thead>
<tr>
<th>Risk Category</th>
<th>Mortality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low risk</td>
<td>&lt;1%</td>
</tr>
<tr>
<td>Intermediate risk (normotensive but with positive physiologic or biomarker risk factors present)</td>
<td>1-15%</td>
</tr>
<tr>
<td>High risk (aka “massive” = shock present)</td>
<td>25-60%</td>
</tr>
</tbody>
</table>

**Problem.** Current PE response procedures at UCSF:

- Rely too heavily on individual physicians
- Fail to take advantage of local expertise
- Fail to communicate between services, including those with expertise in PE management
- Do not record outcomes for quality improvement

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Improving Intrauterine Transfusions By Providing High Hematocrit Red Blood Cells

Lauren Lee, Xiuzhen Huang
Elizabet Lomeli, Sara Bakhtary, Juan Gonzalez, Billie Lianoglou,
Ofelia Tan Un Teck, Ashok Nambiar
UCSF Mission Bay Transfusion Service/ L&D/ MB Hematology

Background

*Procedure*
- Infusion of red blood cells (RBCs) through the umbilical vein
- Commonly performed after 20 weeks gestation when the fetus and umbilical cord can be visualized by ultrasound
- Depending on the severity of the condition being treated, transfusions may be performed 1-2 weeks apart up until 35 weeks gestation

*Indications*
- Cases of severe fetal anemia, i.e., in hemolytic disease of the fetus and newborn (HDFN)
- Anemia: immune mediated (RBC alloimmunization), Inherited (Blackfan-Diamond Anemia, Alpha Thalassemia, Fanconi Anemia, Pyruvate Kinase Deficiency, G-6-PD Deficiency), Fetomaternal hemorrhage, Twin-twin transfusion

IUT is the only treatment able to correct fetal anemia, though it carries the risk of volume overload due to the infused blood. It is important to determine the volume of blood to be transfused through an analysis of the degree of anemia, gestational age and the presence of hydrops. Transfusion of high hematocrit donor blood allows for lower volume of transfused blood, therefore decreasing risk to the fetus.

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An Interprofessional Collaboration to Reduce Emergency Department Delays to Psychiatric Hospitalization

Jahan Fahimi, MD, Weston Fisher, MD, Rebekah Manno, NP
UCSF Emergency Department and Langley Porter Psychiatric Hospital
Department of Emergency Medicine, Department of Psychiatry and Behavioral Sciences

Background

- Psychiatric patients needing hospitalization experience prolonged stays in the UCSF Emergency Department (ED). Patients boarded in the ED are not actively receiving psychiatric care or services. The chaotic nature of the ED may exacerbate a patient's symptoms leading to heightened frustration, anxiety, or agitation.
- The pre-intervention workflow for transferring patients from the ED to Langley Porter was complex, variable, and redundant, and ED length of stay for behavioral health patients increased during the pandemic.
- Transfers to Langley Porter had a complex, multi-party process with multiple handoffs.
- Problem: The process for Langley Porter admissions from the ED results in long ED length of stay with variable and complex workflows.

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Staff Harm Prevention & Injury Reduction: Ergonomics & Telework

Vanessa Curtis & Nathaniel Chung
UCSF Occupational Health Services
Workers’ Compensation & Ergonomics

Background

- **COVID-19 Pandemic**: Social distancing requirements resulted in a large shift to telework
  - For many, it was their first experience working from home.
  - Lack of ergonomically supportive setups at home

- **True North Pillar**: Quality and Safety
  - Achieve Zero Harm
  - Preventing workplace injuries to staff; workplace now extended to the home

- **Repetitive Strain Injuries (RSI)** have fiscal repercussions for UC
  - FY20 claims directly related to RSI:
    
    | # of Claims | # of Loss Work Days | # of Modified Work Days | Estimated Total Claim Cost |
    |-------------|---------------------|-------------------------|---------------------------|
    | 48          | 403                 | 2016                    | $473,684.82               |

- **Improvement Goal**: Prevent a rise in computer RSI workers’ compensation injury cases and loss work days attributed to telework.

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# Increasing Strategic Growth Referral Turnaround using Self Service Tools

Brooke Peterson, MPH

[Anais Ryken, Mirha Buric/Obstetrics and Gynecology at Mount Zion]

Women’s Health

## Background

- Strategic Growth has been a key True North pillar throughout our recovery during COVID-19
  - For Ambulatory, driver metrics included increasing referral turnaround to get patients scheduled timely, and utilization of self-scheduling features
- In June of 2020, only 61.8% of new patients were able to get an appointment scheduled with 5 days (low referral turnaround) which has impacts to all areas of our scorecard including patient experience, financial strength, and quality and safety

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ACP, TNS, & the EMR: Promoting Advance Care Planning by Building it into Structures and Systems (the True North Scorecard, MyChart, and APEX)

Keren Stronach, MPH
Michael Rabow, MD
Pelin Cinar, MD, MS
Helen Diller Family Comprehensive Cancer Center
UCSF Department of Medicine

Background

- Advance Care Planning (ACP) promotes patient well-being, autonomy, decision-making, family and caregiver well-being, as well as appropriate healthcare utilization (and cost).
- Discussions with patients regarding ACP, documentation of these discussions in the electronic medical record (EMR), and patient completion of Advance Directives are all key parts of promoting ACP.
- However, ACP rates are low nationally, including at UCSF and in the Helen Diller Family Comprehensive Cancer Center (HDFCCC). In addition, there are differences in end-of-life care and inequities in ACP based on race.
- A prior QI project from 9/2019 – 5/2020, in which clinicians were reminded about ACP, resulted in an increase in selected HDFCCC practices’ ACP rates from 18% to 38%.
- We are working to promote further ACP among UCSF patients, including in the HDFCCC, and to assure equitable access and completion of ACP across diverse patient populations.

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Poster Video: https://vimeo.com/showcase/8314448/video/553602787

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Emergency Department to Psychiatry Inpatient - Improving Patient Flow through the use of Signaling

Weston Scott Fisher, MD
Kristie Fowler, Clinical Systems Analyst
UCSF Health ED & Langley Porter Psychiatric Hospital
Depts. of Emergency Medicine, Psychiatry & Behavioral Sciences, and APeX Clinical Systems

**Background**

- Patients at the UCSF Langley Porter Adult inpatient Psychiatric unit are waiting an average of **over 27 hours** in the emergency department prior to admission.
- Among other problems, a lack of clear communication and signaling has resulted in significant delays in patient flow.

- Initially, more than ten key admission steps had no clear visualization in the Electronic Health Record (Epic).
  - 6 steps (orange) were buried in the chart and rarely found by users.
  - 4 steps (green) were not standardized at all, and thus couldn’t be tracked.
- UCSF Health workforce members have been unable to visualize where patients are in their admission flow, unable to know what steps are still required prior to admission, and therefore unable to determine when action is required of them or their colleagues to help get patients into the appropriate environment of care.

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Exploring the Utility of Apex Crystal Reports in the Oversight of Red Blood Cell Transfusions

Adrienne Kennedy, Heidi Vaughan, Sara Bakhtary, Elena Nedelcu
Department of Laboratory Medicine, Division of Transfusion Medicine

Background

- Widely accepted practice guidelines recommend a transfusion threshold of 7.5 g/dL for most adult patients and to administer a single unit of blood and obtain a repeat hemoglobin (Hb) value before giving additional units. Randomized controlled trials have shown that restrictive thresholds provide similar benefits to liberal thresholds but with decreased cost and risk of harm.
- Decreasing non-indicated blood transfusions is critical for stewardship of blood products, as they are a limited, volunteer-donated resource.
- The Joint Commission (TJC) and AABB Standards require health systems to provide red blood cell (RBC) transfusion oversight and to review at least 10% of RBC transfusion orders for appropriateness.
- The purpose of this project is to explore the use of Apex Crystal Reports as a tool to provide regular monitoring of the appropriateness of blood transfusions at UCSF.
- This project is aligned with the UCSF True North pillars Quality & Safety and Financial Strength. Monitoring blood utilization has the potential to reduce patient harm and uncover avenues for future cost-saving and quality improvement initiatives.

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Hospital Acquired Pressure Injury Reduction in the ICU

Audrey Basic, RN, CNII - Emily Smith, RN, CNII - Cass Sandoval, RN, CNS

On behalf of the entire staff of 6/10ICC

Department of Nursing

Background

- 6/10ICC has historically had the highest HAPI rate and often the highest number of serious HAPI events across the Medical Center.

- Contributing factors include the high risk patient populations we care for and the interventions required to bridge them to recovery, transplant or at times comfort care:
  - Severe cardiovascular disease and diabetes, or use of vasopressors that can compromise perfusion
  - Immobility related to clinical stability and need for invasive therapies, such as ECMO, ventilator assist devices, mechanical ventilation and continuous dialysis
  - Long procedure times and hypothermia during complex surgeries

- One of the main goals of our unit based Quality and Safety council is to reduce harms in 6/10ICC. By focusing on interventions to reduce HAPI rates we could have a large impact on achieving better outcomes for our patients as well as improving harm metrics for our unit, division and UCSF Health at large.

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Poster Video: https://vimeo.com/showcase/8314448/video/553638224
Pediatric Readiness to Extubate

William Sanchez, RCP
Respiratory Care Services
Pediatrics, Mission Bay

Background

- VAP/VAE is defined as a nosocomial pneumonia in endotracheal tube (ETT) intubated patients receiving mechanical ventilation that develops 48 hours or more after the initiation of ventilation (Morinec, Iacoboni, & McNett, 2012). VAP can result in complications such as increased morbidity and mortality rates, LOS and health care costs (Morinec, Iacoboni, & McNett, 2012). UCSF has implemented a VAPs Bundle to include: Extubation Readiness Assessment, Oral Care, HUB elevation and Hand Hygiene, that when routinely followed will reduce the incidence of VAPs in the inpatient setting.

- The Respiratory Care Department is responsible for assessing extubation readiness daily. Our Leadership Team performs routine audits in order to ensure staff compliance with this requirement. By daily assessing extubation readiness, we can identify patients whom no longer require ventilator support, potentially decreasing vent days thereby reducing morbidity and mortality rates, LOS, and overall cost.

- It is our goal to improve the Quality of Care and Safety of our patients as well as prioritize financial strength consistent with UCSF Medical Center’s True North Goals.

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Implementation of a Critical Dose Alert Warning

Eugene Burbige, PharmD | PGY-1 Pharmacy Resident
Zachary Hearns, PharmD | PGY-1 Pharmacy Resident
Allison Pollock, PharmD | Medication Safety Specialist
Kendall Gross, PharmD | Lead Pharmacy Informaticist
Raman Khanna, MD | Medical Director of Informatics (Inpatient)
Rajeev Sawhney, PharmD | Willow Analyst
Pharmaceutical Services

**Background**

- Critical Dose Warning – an alert pop-up for inpatient and outpatient medication doses significantly higher than the maximum recommended dose
- Designed to prevent potential medication overdoses while avoiding hard stops
- If high-dose is appropriate, provider may re-enter dose and provide justification

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Impact of Pharmacy Interventions in Specialty Clinics

Student Investigators: Christy Khourerchah and Marylynn Trinh

Project Mentors: Drs. Mackenzie Clark, Lisa Kroon, Myra Pascua, and Marilyn Stebbins

Study Site: UCSF Health SF based hospitals and clinics

Background

- Pharmacists in the specialty care clinics are essential in identifying drug-related problems (DRPs) and providing necessary pharmacist interventions (PIs)

- Specialty drugs are used to treat complex conditions
  - Require frequent monitoring
  - High potential for adverse effects and drug interactions

- Several tools have been developed to characterize and assess the impact of pharmacy interventions\(^1\)

- Currently, there is a lack of studies that evaluate the impact of pharmacy interventions in a multi-specialty care setting

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Achieving Zero Waste: COVID-19 Vaccinations in the ED

Thomas Leung, PharmD
Preceptor: Zlatan Coralic, PharmD, BCPS

ED COVID 19 Vaccination Team:
Kathy Yang, PharmD, MPH, Paul Takamoto, PharmD, BCCCP, Gina Stassinos, PharmD, DABAT,
Kelsey Waier, PharmD, Jeanne Noble MD, Jahan Fahimi MD, Maria Raven MD
UCSF Departments of Pharmacy and Emergency Medicine

Background

- Widespread vaccination is a critical tool to help stop the COVID-19 pandemic.
- At this time, COVID-19 vaccinations remain a scarce resource and all efforts should be made to minimize wasting doses.
- At UCSF admitted patients about to be discharged are offered the Janssen COVID-19 vaccine (Johnson & Johnson aka J&J).
- As each vial of J&J contains 5 doses, residual doses are not uncommon and would otherwise be wasted.
- The emergency department (ED) is a unique area in the hospital often encountering patients without access to care who would otherwise remain unvaccinated
- We developed an ED program to identify candidates and administer residual COVID-19 vaccines during the patients’ ED stay.

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Poster Video: https://vimeo.com/showcase/8314448/video/553637373
Reducing Pressure Injuries Related to Nasal CPAP Devices in the Intensive Care Nursery

Presented by: Jeannie Chan, CNS and Elizabeth Papp, CNS

Team Members: Brian Ching, RCP; Taylor Griffin, RCP; Maggie Griffith, RN; Michelle Murphy, RCP; Amanda Shelton, RCP; Chrissie Smith, CNS; Sandy Tom, RCP; David Woolsey, RCP

Intensive Care Nursery/Neonatology/Respiratory & Nursing

Background

Nasal continuous positive airway pressure (CPAP) ventilation is a noninvasive form of ventilation that is used with increasing frequency in the Intensive Care Nursery (ICN). Using a nasal mask or nasal prongs, pressure is delivered to the patient to maintain airway patency, prevent airway collapse, improve oxygenation, and avoid complications associated with endotracheal intubation.

However, one notable complication of CPAP ventilation is device-related pressure injury. Infants, particularly preterm and low birth weight infants, are at higher risk for these injuries due to their unique anatomical characteristics and fragile developing skin. The incidence of nasal trauma in this population has been reported to be up to 20 to 60%[1].

In June of 2018, we celebrated the opening of The Grove, our small baby unit housed within the ICN. This precipitated an influx of very preterm infants born at < 28 weeks gestation, as well as specialized ventilation guidelines that favored nasal CPAP over endotracheal intubation. In FY19, we noted a significant increase in CPAP days as well as pressure injuries related to CPAP ventilation, many of them moderate to severe. Our quality improvement project was initiated to reduce the incidence and severity of CPAP ventilation-related pressure injuries.

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Poster Video: https://vimeo.com/showcase/8314448/video/553637413
Increasing Advanced Care Planning in Interstitial Lung Disease Patients through Palliative Care Co-management

Sylvia Choi
Kara E. Bischoff MD, Sylvia Choi, Anny Su NP, Eve Cohen RN, David L. O’Riordan PhD,
Elida Oettel LCSW, Marsha Blachman LCSW, Sarah Meister Mdiv, Carly Zapata MD,
Paul Lindenfeld MD, Brook Calton MD, MHS, Leah Witt MD, Steven Z. Pantilat MD,
Rupal J. Shah MD
Palliative Care & Interstitial Lung Disease Teams

Background

- Fibrotic Interstitial Lung Disease (ILD) is associated with a life expectancy of 3-5 years and high rates of dyspnea, anxiety and depression
- Multiple studies have demonstrated the positive impact of palliative care on patients with ILD
- Patients seen at the UCSF ILD clinic have typically had low rates of advance care planning documentation and some have refractory symptoms including dyspnea, anxiety, and grief
- To enhance patient and provider experience as well as quality of care, we developed a palliative care + ILD co-management model in order to provide more comprehensive, longitudinal support to distressed ILD outpatients

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Save Big, Round Small: The Folly of a la Carte Dosing

Presenter: Victor Arias PharmD

Team: Cynthia Huwe PharmD, Joshua Robinson PharmD, Ripal Jariwala PharmD, Steve Grapentine PharmD, Victor Arias PharmD

Department: Pharmacy

Background

- Problem: Unrounded doses lead to problematic medication waste, errors, and additional work at UCSF

2015: Apex go live –> few medications built for automated rounding. Task falls entirely on pharmacist to prn round higher cost medications (+/- 5% only)

True North Benefits of Automated Dose Rounding

- Quality & Safety
  - Decreased medication dosing errors

- Our People
  - Smooth out pharmacy and nursing workflow

- Financial Strength
  - Decreased waste and monetary savings

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Poster Video: https://vimeo.com/showcase/8314448/video/553637838
Reviewing Preference Cards to Decrease Supply Waste and Cost per Case in Kidney Transplant Surgeries

[Seema Gandhi, MD]
[Chris Freise, MD]
[Kaiyi Wang, MS]
[Department of Anesthesia and Perioperative Care]
[Department of Transplant Surgery]

Background

- US Healthcare is a large socioeconomically vital sector that accounts for 17.7% of the national GDP (which is twice the average of the developed countries) [1]
- Operating room is a resource-intensive environment, and contribute 20-70% of the total hospital waste [2,3]
- In 2015, Zygourakis et al. concluded on average $653 of unused supplies were wasted from 58 cranial and spine neurosurgery cases at UCSF [4]
- A recent multidisciplinary internal survey that focused on OR waste showed that 90.4% of all 187 respondents, including attendings, fellows, residents and OR staff, agreed or strongly agreed that OR waste is an issue within UCSF Health
- Recent pandemic had a significant impact on the financial stability of hospitals, and has drawn increased focus on improving healthcare value

Problem Statement:

Preference cards are not reviewed on a regular basis in the current workflow, leading to increased cost and waste per case.


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DGIM Addiction Service Efforts

Jesse Ristau, MD and Irina (Era) Kryzhanovskaya, MD

Department of Medicine
Division of General Internal Medicine

Background

- At UCSF DGIM, approximately 1% of patients are estimated to have an opioid use disorder (OUD). Accurate estimates are challenging in the context of variation in ICD-10 code usage and under-reporting of stigmatizing conditions.
- Based on national survey data, 19 million Americans with Substance Use Disorder (SUD) and 1.6 million with OUD. Less than 11% of those with OUD receive treatment.
- To address this SUD crisis, primary care providers are uniquely positioned at the frontlines to screen, diagnose, and treat addiction.
- While SUDs are commonly encountered in primary care, referring patients to specialty care when complex addiction medicine questions arise is not always available and can be challenging.
- There are two Board Certified addiction medicine providers in DGIM working to expand treatment access for patients with SUDs

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Poster Video: https://vimeo.com/showcase/8314448/video/553645867
Improving Access to Treadmill Stress Echo by Reducing Lag Time to Appointment

Presenter: Dr. Kirsten Fleischmann
Service: Cardiology
Unit: Adult Cardiac Stress Laboratory, UCSF Health
Team: K. Fleischmann, MD, MPH, Medical Director; M. Bogerman, Manager NIDC; S. Woodard, Nursing Supervisor; L. Vella, Quality Analyst; C. Chao, NP; S. Robertson, NP; B. Bradley, NP; T. Luh, BA, N. Okwelogu, BA, B. Cao, BS

Background

- **What was the problem you were trying to solve?** Lag times for scheduling Treadmill Stress Echocardiograms were long in the setting of double digit annual growth in demand pre-pandemic. This created suboptimal access and posed a potential patient safety and ‘leakage’ risk.
  - Exercise with echo imaging (Treadmill stress echo or TSE) is the most common type of stress test performed at UCSF.
  - TSE demand is growing due to up in cardiology faculty and up in testing intensive programs (adult congenital disease, heart transplant, or high risk cases - i.e., hypertrophic cardiomyopathy).
  - Access to testing slots has not kept up with demand, leading to delays in testing, which, in turn, can lead to safety issues, patients receiving testing through other institutions (‘leakage’), lost downstream procedures, reduced revenue.

- **How does this problem impact one of the UCSF Health True North pillars?** We anticipated it impacts several TNB pillars:
  - Quality & Safety: inability to schedule stress test in a timely manner delays plan of care (e.g. changes in medical management, timing of subsequent surgery or procedure)
  - Patient Experience: long wait time for appointments can increase anxiety/frustration. This could reflect in Press Ganey patient satisfaction results.
  - Our People: demand for testing without proportional change in staffing can lead to low job satisfaction as reflected in Gallup Staff Engagement Survey
  - Strategic Growth: Reducing lag time and growing capacity will allow us to accommodate post-pandemic demand and future growth.
Roadmap to Integrate Equity Into Quality Improvement Science and Infrastructure

Sarah Lahidji, MHA, Program Manager for Health Equity

Department of Quality and Safety

Partnership with Health Equity Council at UCSF Health and Department of Quality and Safety’s Equity Integration Taskforce

Background

- **Definition:** Healthcare equity is a commitment to reduce and ultimately eliminate disparities in access, clinical outcomes, and experience that disadvantage a population. Equity is one of the six dimensions of quality as defined by the Institute of Medicine, “Providing care that does not vary in quality because of personal characteristics such as gender, ethnicity, geographic location, and socioeconomic status.” (2001)

- Historically, healthcare equity efforts have not been formally embedded into health system operations and strategy, specifically into the structures and tools used to advance quality. This gap has resulted in a deficit of national models for driving operationally sustainable disparity identification and improvement efforts. Additionally, health systems are experiencing an increased demand to drive disparity improvement efforts.

- The Health Equity Council at UCSF Health was a council launched in 2018 to guide the health systems effort to center health equity as a key component of health system operations and strategy.

- The Department of Quality and Safety’s hiring of a Program Manager for Health Equity in 2020 was a commitment to support the success of the Health Equity Council and to lead efforts to embed healthcare equity into the department’s daily work to support equitable clinical outcomes and to drive improvement in our Quality and Safety True North pillars.

- **Problem Statement:** A lack operational and strategic focus in healthcare equity coupled with a lack of integration of an equity lens into our quality and safety structures and tools have limited our institutional capacity to achieve disparity identification and disparity improvement to ensure care does not vary in quality because of personal characteristics (such as race/ethnicity, ability status, socioeconomic status, etc.).

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Cancer Center Influenza Vaccination Efforts

Melissa Pond Rappaport¹
Crystal K. Sprowls¹
Pelin Cinar, MD, MS²

¹Clinical Operations; ²Quality and Safety Program
UCSF HDFCCC

Background

- Between October 2019 and April 2020, UCSF HDFCCC had an overall vaccination rate of 53.8% of cancer patients with a lower rate of 51.4% in Black patients and 48.8% in Latinx patients.
- While the overall declination rate was 3.4%, it was 5.2% for the Latinx population and 5.8% for the Black patients.

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Poster Video: https://vimeo.com/showcase/8314448/video/553645186

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Disparities in Patient Portal Enrollment and Telehealth Use Among Oncology Patients

Meera Garriga, Sumi Sinha, Nishali Naik, Brian W. McSteen, Sasha Yousefi, Anobel Odisho, Amy Lin, Lauren Boreta, Julian Hong
Department of Radiation Oncology

Background

- The MyChart patient portal may be particularly important to coordinate complex care, such as in oncology.
- Disparities in MyChart enrollment may be exaggerated and affect care as patients have become increasingly reliant on remote communication during the COVID-19 pandemic.
- Eliminating these disparities serves True North pillars of Patient Experience and Strategic Growth.
- Here, we sought to identify disparities in MyChart enrollment among oncology patients & implement interventions to increase overall enrollment.

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Poster Video: https://vimeo.com/showcase/8314448/video/553645226
Cancer Acute Care Clinic: Preventing Admissions and Emergency Department Visits for Solid Tumor During COVID19 Pandemic

Emely Alfaro, RN, MS, Clinical Nurse Specialist Adult Infusion Services
Marisa Quinn, RN, MBA Director of Nursing
Pelin Cinar, MD, MS, Medical Director of Quality and Safety, UCSF HDFCCC
Manisha Israni-Jiang, MD Medical Director CACC

Background

• The number of patients receiving outpatient based chemotherapy continues to rise.

• In 2020, the Centers for Medicare and Medicaid Services (CMS) developed an outcome based quality measure looking to reduce preventable ED visits and hospital admissions for patients on outpatient chemotherapy (OP-35).

• The measure outcome is defined as one or more inpatient admissions or one or more ED visits within 30 days of receiving chemotherapy for any of the following diagnoses: Anemia, Dehydration, Diarrhea, Nausea/emesis, Fever, Neutropenia, Pain, PNA or Sepsis (excludes patients with leukemia).

• In preparation for the OP-35 measure, the Cancer Center opened the Cancer Acute Care Clinic (CACC) in September 2019 to evaluate and manage patient symptoms and to reduce unplanned ED visits and admissions.

• The CACC consists of 3 beds at Precision Cancer Medicine Building at Mission Bay and is staffed by a triad model of APP, RN, and MA. Operating hours are Monday-Friday from 8am-9pm.

• As inpatient beds and resources became scarce while the COVID19 pandemic surged, we utilized our Cancer Acute Care Clinic and expanded services to provide quality care to our cancer population in an outpatient setting.

• This project is tied to True North pillars: Quality and Safety, Patient Experience, Strategy.

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Teaching Residents Panel Management in Primary Care Clinic

Elisabeth Askin, MD
Division of General Internal Medicine, Quality Improvement Committee
Department of Medicine

Background

- Population health management is a systematic approach to ensuring all members of a population — such as patients receiving care at a primary care clinic — receive all preventive, transitional, and chronic care.
  - Addresses True North Pillar of Quality & Safety

- Division of General Internal Medicine (DGIM)
  - Provides care for 27,223 patients
  - Provides clinical education for 72 Internal Medicine residents
    - Some in a primary care track (“UCPC”) and others not (“categorical”).

- DGIM QI Committee partners with the Office of Population Health (OPH) to meet various quality improvement goals for our population.
  - Residents not well integrated in QI efforts
  - Residents unaware of most OPH efforts
  - No standardized approach to panel management among faculty or residents

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Poster Video: https://vimeo.com/showcase/8314448/video/553645330
Benioff Children’s Hospitals: Advancing DEI Thinking in True North (Our People Pillar)

Presenter Brandie Hollinger, RN, AUD PICU/CCRT-SF, BCH DEI Council Co-Chair
Susan Martinez, MS, Interim Director, Quality Built-In; Kim Murphy, Director, Administration and UCSF Health Liaison, BCH DEI Council; Henry Ocampo, MPH, Program Manager Diversity, Equity & Inclusion; George Weiss, Interim VP, Operations & VP, Ambulatory Services; Marsha Treadwell, PhD, Professor, Department of Pediatrics, Division of Hematology, Jordan Fund Endowed Chair, BCH DEI Council Co-Chair

Background

UCSF BCH, an institution embedded in structural racism, has made progress in addressing issues of Diversity, Equity and Inclusion (DEI), but targeted strategies are needed to address inequities in recruitment, hiring and advancement of Black, Indigenous and People of Color (BIPOC) and LGBTQ+ communities. When staff feel recognized and cared for and they have opportunities to learn and grow and share their opinions, a sense of belonging is created. An individual's sense of belonging is supported by the demonstration of inclusion, from being acknowledged when passing in hallways, to seeing one's image reflected in marketing, and tangible opportunities for everyone to participate and contribute.

When we focus on advancing DEI within our teams, we offer all members an equitable, inclusive, welcoming, secure, responsive, and affirming environment that fosters mutual respect, empathy and trust.

In FY20, UCSF BCH conducted a DEI Needs Assessment Survey. The results of this survey, completed by >1600 individuals, revealed that 83% of staff felt welcome in the organization and felt that DEI was essential to the BCH mission. However, when disaggregated, the results showed concerning trends:

- Only 55% of staff felt BCH was an equitable workplace
- Only 65% felt senior leaders/managers are role models of diversity
- At least 47% observed or experienced excluding behaviors.

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Background

- Pathologists render pathologic diagnosis by reviewing patient’s specimens (glass slides created from tissue specimens)

- Department of Pathology uses a courier service to distribute patient’s specimens (glass slides) to pathologists at Mission Bay and Parnassus. Annually
  - ~400,000 glass slides from ~55,000 patient cases are generated from Mt. Zion Histology Lab
  - ~8,000 consultation cases from other institutions are processed at Mt. Zion Clinical Administration

- Pathologists review glass slides with clinical and surgical providers that impact patient treatment plans
  - Obtaining archived glass slides is necessary for this re-review and required an administrative staff to retrieve slides from storage and courier them to the pathologist before discussion

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Poster Video: https://vimeo.com/showcase/8314448/video/553764354
BRIDGE to Liver Wellness: A Group Telehealth Clinic Series

Danielle Brandman, MD, MAS
Lisa Catalli, NP
Sara Miller, NP, MPH

Department of Medicine
Division of Gastroenterology/Hepatology

Background: Non-Alcoholic Fatty Liver Disease (NAFLD)

The prevalence of NAFLD mirrors the rising rates of obesity and its metabolic consequences, posing an increasing burden on our health care system.

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Poster Video: https://vimeo.com/showcase/8314448/video/553764650

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After Birth Calls (ABC): A Postpartum Quality Improvement Project

Meghan Duck, MS, RNC-OB, CNS
Andrea Kuster, DNP, RN, FNP-BC, IBCLC
Sara Gildea, BSN, RN, IBCLC
with support from UCSF FNP students
UCSF Birth Center/Women’s Health

Background

- Began calling postpartum patients in April 2020 as a check in during COVID 19 pandemic with the decrease of in person visits.
- Automated RN outreach calls to all patients from Care Transitions Team ongoing, not duplicative
- American College of Obstetricians & Gynecologists (ACOG): 2018 Committee Opinion recommends “contact with a maternal care provider” within first 3 weeks postpartum
- Created an FNP student clinical rotation, scripts, resources at a time when in person options scarce.
- Quality and Safety: Improvement of Patient care

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Poster Video: https://vimeo.com/showcase/8314448/video/553765207
Using E-signatures to Expedite Communication with Home Health Agencies

Lexy Gonzalez, Dinka Arifovic, Erin Andersen, Ziyi Ka, Lisa Hamilton, Edith Huete, Amanda Barlaan, Angelica Mahinay, Nadine Reuyan, Hoa Van, Janise Washington
Division of General Internal Medicine (DGIM)

Background:

Frontline staff from our One Touch Team (OTT) and Call Center expressed frustration with the increased number of calls coming in from Home Health Agencies who were calling to follow up on status or confirm receipt of Home Health forms requiring provider signature. Each call would prompt a new TE sent to clinical staff. These TE’s would often consist of 12+ touches before resolution.

Problem:

* Home Health forms not completed in a timely manner resulting in delays.

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Poster Video: https://vimeo.com/showcase/8314448/video/554973690
Increasing Annual Wellness Visits in UCSF Primary Care

Presenter: Tutman, Avi
Authors: Tutman, Avi; Tang, Tina; Askin, Elisabeth, MD
Office of Population Health & Primary Care Services

Special thanks to:
Primary Care Services: Administrative Directors, Practice Managers & Staff
Clinical Documentation Integrity (CDI) Team
APeX Healthy Planet Team
Office of Population Health Analytics

Background

Overview
- Annual Wellness Visits (AWVs) are a preventive care visit that all Medicare patients are eligible for once a year.
- The purpose is to develop or update a Personalized Prevention Plan (PPP), to help prevent disease and disability.

Why do Annual Wellness Visits?
- Financial Strength pillar:
  - High RVU opportunity for PCPs
  - Opportunity to capture diagnostic codes to improve risk-adjusted payment
- Quality & Safety pillar:
  - Improved preventive care, such as fall risk screening & tobacco screening/cessation
  - Associated with reduced healthcare spending on acute care and outpatient services

Baseline:
- Only 498 (~3%) of Medicare patients enroled to UCSF Primary Care had an AWV in 2018

Problem Statement:
- Increasing the number of Annual Wellness Visits in Primary Care Services, by addressing barriers for patients, providers, and staff

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Assessment of Cognitive Impairment in Cardiac Surgery Patients

Julia Doolittle, OTR/L
Lead Occupational Therapist on Cardiology Service
Rehabilitation Services
Contributions by Jessica Phung, OTR/L, Catherine McDonough, OTR/L, and Jenny Lee, PT, DPT, NCS

Background

- Post-operative cognitive decline after cardiac surgery is well documented in the literature, and can contribute to longer hospital stays, increased need for rehab after discharge, long term disability, and readmissions
- Baseline cognitive deficits and several risk factors for cognitive deficits are common in this population
- There is a lack of objective communication among treatment team members regarding the cognitive status of patients
- Standardized cognitive outcome measures are not consistently used for the cardiac surgery population, which may be contributing to misappropriation of resources
- Without being able to identify patients with cognitive deficits, we may not be providing sufficient resources, education, or compensatory strategies to patients and their caregivers

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COVID Vaccine Clinic - Operations

Bob Kosnik M.D., Tisha Bertlow, Raj Maripalli,
Martha Lauderdale, Michelle Sison, Julian Villanueva, Bobbi Cesare, Michelle Heckle,
Diana Homsey

*Occupational Health*

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**Background**

As UCSF was entering the third wave of the COVID-19 pandemic in December 2020, the real possibility of an effective SARS-CoV-2 vaccine was emerging. Two (2) manufacturers submitted application for emergency use authorization (EUA) with expected approval in mid December. To protect our employees, patients, and the community, UCSF Health decided to establish a mass vaccination clinic(s). The first target was to provide vaccination to the 28K frontline UCSF Health Care Workers. The details for handling the vaccine, the administration timeline, and its adverse reactions were only being released as the clinic was being established.

The current state was:
- No existing supply chain to deliver vaccine
- COVID-19 vaccines treated as a Schedule 2 controlled substance requiring inventory control
- Each COVID vaccine required different handling procedures
- EUA approval was expected in early December

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COVID Vaccine Clinic - Clinic Operations

Presenter: Tisha Bertlow/Julian Villanueva/Raj Maripalli

Departments: Occupational Health, Nursing, Pharmacy, Continuous Improvement, Security/Police, Clinical Systems, Health Informatics

Background

- November/December 2020: major surge in COVID-19 cases in the U.S.
- December 11, 2020: First COVID-19 Vaccines approved in use under emergency use authorization
- To help protect our employees, patients, and the community from the surging pandemic, UCSF needed to very quickly stand up a vaccination clinic to begin the delivery of COVID-19 Vaccinations.

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Poster Video: https://vimeo.com/showcase/8314448/video/553632836
COVID Vaccine Clinic - Clinical Operations

Presenter: Adam Cooper

Departments: Nursing, Pharmacy, Continuous Improvement, Occupational Health, Security/Police, Clinical Systems, Health Informatics

Background

- November/December 2020: major surge in COVID-19 cases in the U.S.
- December 11, 2020: First COVID-19 Vaccines approved in use under emergency use authorization
- To help protect our employees, patients, and the community from the surging pandemic, UCSF needed to very quickly stand up a vaccination clinic to begin the delivery of COVID-19 Vaccinations.

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COVID Vaccine Clinic - Pharmacy

Lisa Kroon, Assistant Chief Pharmacy Officer Research, Education, and Clinical Service

Kelsey Waier, Director, Pharmacy Operations

Raj Maripalli, Principal Continuous Improvement Advisor

Department of Pharmacy and Department of Continuous Improvement

Background

- November-December 2020: Major surge in COVID-19 cases in the U.S.
- December 11, 2020: First COVID-19 Vaccines approved in use under FDA Emergency Use Authorization
- To help protect our employees, patients, and the community from the surging pandemic, UCSF needed to very quickly stand up a vaccination clinic to begin the delivery of COVID-19 Vaccinations.

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COVID Vaccine Clinic - Technical Implementations

Presenters: Karen Anderson, Heidi Collins, Anne Kroeger, David Limas, Andrew Maruoka, Terry Mayo, Katie O’Connor, Sana Sweis

Departments: Nursing, Pharmacy, Continuous Improvement, Occupational Health, Security, Clinical Systems, Health Informatics, Data Analytics

Background

- To help protect our employees, patients, and the community from the surging pandemic, UCSF needed to very quickly stand up a vaccination clinic to begin the delivery of Covid-19 Vaccinations
- UCSF Occupational Health Services was not previously approved to use APeX build to support clinical operations, nor patient records in place
- Employee health records require additional security build to protect patient privacy
- New clinic build in APeX can typically take 2-3 months to implement

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COVID Vaccine Clinic - Informatics

Presenters: Sana Sweis, Dr. Sara Murray, Sara Coleman, Avi Tutman

Departments: Health Informatics, Occupational Health, Clinical Systems, Enterprise Analytics

Background

- November/December 2020: major surge in COVID-19 cases in the U.S.
- December 11, 2020: First COVID-19 Vaccines approved in use under emergency use authorization
- To help protect our employees, patients, and the community from the surging pandemic, UCSF Health had to establish a vaccination response and delivery system to serve over 28K identified frontline healthcare workers.
- Anticipated rapid approval of 2 total manufactured vaccines in December
- UCSF treated COVID-19 vaccines as a Scheduled 2 controlled substance requiring chain of custody documentation
- Political unrest and uncertainty of the safety of both vaccine delivery and vaccination locations
- Unknown adverse effects required post administration observation interval
- No existing robust supply chain to deliver vaccine

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Building Competencies in Applying Equity Lens to Improvement Science

Mara Bravo, Bilwa Buchake, Nataliya Budanova, Sarah Lahidji, Dhemy Padilla, Lea Vella, Lindsey Walicek

Department of Quality and Patient Safety

Background

- Like many other health systems, UCSF Health is experiencing an increased demand to demonstrate disparity improvement. The Department of Quality and Safety (DoQS) is committed to facilitating UCSF’s achievement of equitable care in quality and safety related to clinical outcomes.
- Despite equity being included in Institute of Medicine’s quality definition, quality improvement science has not been clearly applied to disparities leading to a deficit in national models for conducting this work.
- DoQS has not had to apply quality improvement science to disparities in clinical outcomes. Therefore, its quality improvement teams are not equipped with the expertise to achieve disparity identification and disparity improvement to ensure care does not vary in quality because of personal characteristics such as gender, ethnicity, geographic location, socioeconomic status, etc.

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Clinical Care for Persons Under Investigation (PUIs) for COVID-19

Natalie Davis FNP, MSN
Sherri Pena, LGC; Melissa Pond; Emely Alfaro, RN; Manisha Israni-Jiang MD
Mission Bay Respiratory Screening Clinic
Department of Medicine

Background

The COVID-19 global pandemic caused by highly infectious SARS-CoV-2 created a sudden and dire need for change in delivery of clinical care.

Problem:
- PUIs in clinic can risk infecting staff and other patients.
- Symptoms and signs of COVID-19 can overlap with symptoms of many chronic diseases and the side effects of their treatments.
- Patients presenting on-site with symptoms had their appointments cancelled and care was delayed.
- Interruptions in clinical care may lead to patient distress and negative health outcomes.

*PUI = Person Under Investigation = patient with any signs, symptoms, or history concerning for possible COVID-19 infection

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Poster Video: https://vimeo.com/showcase/8314448/video/553772929
Tracheotomy Speaking Valve Training for Med/Surg Rehab Staff

Sean Donnelly, PT, DPT
Deborah Ha, MS, CCC-SLP
Gillian Barron, PT, DPT, MPH
Lois Chen, MS, CCC-SLP
Gillian Burgess, OTD, OTR/L
Med/Surg PT/OT/SLP Team
Department of Rehabilitative Services

Background

- Occupational and Physical Therapists (OT, PTs) are routinely consulted to assess the functional mobility of patients throughout the hospital. On 9 and 13 ICU, many of these patients may undergo tracheotomies during their hospital course. They are then consulted by Speech Language Pathologists (SLPs) and Respiratory Therapists (RTs) for appropriateness/tolerance of a trach speaking valve, which is a 1-way valve placed over the inner cannula that facilitates speech production. As part of their evaluation, they also determine how much supervision the patient requires in order to use/tolerate the speaking valve and will communicate those findings to the team.

  Patients are classified into 1 of 3 categories
  • Independent (can wear unsupervised as tolerated)
  • Supervision (can wear only under direct supervision of trained professionals (SLP, CR, RN) or trained family members)
  • Do Not Use (contraindicated)

- Evidence shows there are many benefits to wearing the speaking valve beyond the ability to phonate, such as delirium reduction, improved respiratory health, reduced days to decannulation, and improvements in body core strength and posture. OTs and PTs education and training working with patients with speaking valves is highly variable.

Problem Statement: Physical and Occupational Therapists on 9 and 13 ICU have varied backgrounds and levels of training/confidence with trach speaking valves. As a result, patients may not be consistently wearing speaking valves during therapy sessions, which may lead to less optimal outcomes.

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Standardization of Problem Focused Evaluations and Use of Outcome Measures

[Catherine Mariani PT, DPT]
[Neuro OT and PT Rehab Team]
[Rehab Department]

Background

- Problem focused evaluations (PFEs) are a specific type of evaluation where a therapist sees a patient for one session and based on clinical reasoning, determines that there are no skilled needs and signs off.
- We have found on the neuro service that (PFEs) are not standardized, don’t consistently include outcome measures, nor reflect the skilled therapy intervention provided. This results in confusion as to why ongoing therapy services are not provided to some patients while in house and can lead to providers ordering our services again when it is not necessary.
- Furthermore, when one therapy discipline screens out for another, there is a lack of standardization as to what screening tools were used to objectively determine skilled needs.
- The focus of our project is to standardize information included in the PFE and utilize specific outcome measures to determine the skilled need of PT and OT evaluations.

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Background

Background:
The COVID-19 pandemic has significantly changed the delivery of health care through the implementation of PPE, universal masking, and visitor limitations. This has contributed to feelings of isolation and depersonalization for patients (both COVID and non-COVID) who are admitted to the hospital. Patient isolation and lack of family support may adversely affect clinical outcomes and decrease patient satisfaction with their care experience. Studies show that patients who have a good experience with their care are more likely to follow recommendations for testing and treatment and they have better outcomes. When patients are satisfied, their doctors are happier as well.

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A Proactive Collaborative to Reduce Device Related Mucosal Injuries in the ICU

Nazmin Shah RRT RCP
Alexis Diaz RRT RCP, Vishanjini Nand RRT RCP, Pam Colon RRT RCP, Sarah Hartrick RN,
Skyler Bivens RN, Dianne Sandman RN, Samantha Scott-Marquina RRT RCP, Amie Lencioni RN,
Camille Bennett RN, Janice Elzinga RN
Respiratory Care Service

Background

- Mucosal injuries do not entail the characteristic epidermal, muscle structures or tissue, making it difficult for traditional numerical classification of mucosal pressure injury. Unlike other pressure injuries, the presence of non-inflatable erythema is not available during a mucosal injury and does not form a scar from the remodeling process, making it difficult for identification of any device related hospital acquired injury (DIAP).
- Although mucosal injuries are not often reported to the State of California, these injuries must not be disregarded due to potential for causing permanent skin injuries to the patients.
- As of February of fiscal year 2021, UCSF has encountered a total of 12 incidences of mucosal injury caused by esophageal tubes and holders within the adult critical care units.

Problem Statement

- It is not known whether increased monitoring of skin integrity within intubated patients can help decrease mucosal injuries caused by ETT and holders at UCSF Health.

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Evaluating the Impact of a Student Pharmacist-led Remote Flu Shot Outreach in the Geriatric Population amid the COVID-19 Pandemic

Cynthia Fu, Katherine Jung, Tiffany Tsai, Annie Yang
UCSF School of Pharmacy, Class of 2022

Background

- Studies done by the Centers for Disease Control and Prevention have shown that the geriatric population (i.e. aged 65 years and older) make up 70 to 85 percent of deaths related to flu each season
- Influenza vaccinations were critical in preventing hospitalizations and reducing the overall burden on our health systems and medical resources during the COVID-19 pandemic
- The UCSF Center for Geriatric Care (UCGC) conducts annual telephone outreach to promote the high-dose influenza vaccine recommended for older adults. In order to maintain similar flu vaccination rates as previous years, we implemented a student-pharmacist led remote flu shot outreach in collaboration with the staff in UCGC.

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Evaluation of Time to Therapeutic Range in Heparin Titration Nomograms over Three-Time Periods

Angela Lee, PharmD

Team Members: Jonathan Hwang, PharmD; Jennifer Chou, PharmD;
Ashley Thompson, PharmD, BCCCP; Kendall Gross, PharmD, BCPS, BCCC;
Allison Miller, PharmD, BCPS, FCSHP

Department of Pharmacy

Background

- Existing literature has shown that therapeutic anticoagulation using heparin within the first 24-48 hours of venous thromboembolism (VTE) reduces mortality and recurrence of VTE.
- Use of a heparin weight-based dosing nomogram facilitates faster time to therapeutic range

**Problem Statement:**
- Because many patients at UCSF require greater than 24 hours to become therapeutically anticoagulated on IV heparin, three phases of changes have been implemented in improve our dosing nomogram
- Our goal is to evaluate if these transitions to an updated weight-based nomogram resulted in a increased percentage of patients reaching time to therapeutic aPTT range within 24 hours.

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Surgical Preference Card Review & Refresh

Kristen Rhinehart, MSN, RN, CNOR, Director, Perioperative Informatics
Jenn Plog, CST, Preference Card Coordinator, Perioperative Services
Kendall Gross, PharmD, BCPS, BCCCP, Lead Pharmacy Informaticist
Eva Turner, Director, Enterprise Operations, Office of the COO, UCSF Health

Background

**What is a preference card?** Preference cards (PCs) list all the necessary equipment, instruments, and supplies needed for a successful surgical procedure. PCs also include specific notes or comments that are meaningful to the surgeons and other clinicians to provide the best care. Knowing exactly which supplies to have in the operating room and when to have them available is key to safety, efficiency, and accuracy in billing for the procedure as well as reducing supply cost per case and environmental waste.

**PROBLEM:** There has been limited historical oversight of perioperative preference cards and medication lists, which risks inefficiency, incomplete revenue capture, supply waste, higher cost per case, patient safety & negative environmental impact.

- When Optime went live in 2012 all legacy preference cards were moved into Optime without significant updates due to constrained resources
- Editing and cloning of problematic preference cards proliferated in the years before this project
- Gap in dedicated resources
- No mechanism in place to discontinue out-of-date preference cards, no annual audit process
- Surgeons had limited formal access to review their own preference cards, not part of standard onboarding process
- At the start of this project there were 14,002 preference cards
- Limited oversight and maintenance of perioperative medication card lists

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Poster Video: https://vimeo.com/showcase/8314448/video/548161172
Latinx Disparity in Inpatient Advanced Care Planning

Michelle Mourad, MD
Rachel White & Molly Kantor, MD
Department of Quality and Safety, Health Equity

Background

- Advance Care Planning (ACP) helps patients direct the type and intensity of care they receive.
- Historically ACP conversations were documented only after a family meeting, in a non-standard way that made these conversations hard to find.
- In 2019, several inpatient services collaborated to standardize the location and content of inpatient ACP documentation in the following populations:
  - Hospitalized patients >75 years of age or with "Advanced Illness"
- The project was a success, rates of accessible ACP documented during the hospital encounter or in any prior encounter rose, but we failed to track results by race and ethnicity

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Characterization of Direct Oral Anticoagulant (DOAC) Use in Patients with Renal Impairment

Jimin Lee, PharmD\textsuperscript{1,2}; Helen Hou, PharmD\textsuperscript{1,2}; Ashley Thompson, PharmD, BCCCP\textsuperscript{1,2}; Margaret Fang, MD\textsuperscript{3}

\textsuperscript{1}Department of Pharmaceutical Services, UCSF Health
\textsuperscript{2}Department of Clinical Pharmacy, UCSF School of Pharmacy
\textsuperscript{3}Department of Hospital Medicine, UCSF Health

Background

- Direct oral anticoagulants (DOACs) recommended as preferred alternatives to warfarin by:
  - 2016 CHEST Guideline for Antithrombotic Therapy for VTE Disease
  - 2019 Focused Update on 2014 AHA/ACC/HRS Atrial Fibrillation Guidelines

- Rivaroxaban (Xarelto) and dabigatran (Pradaxa) are not recommended in patients with creatinine clearance <30 mL/min and/or dialysis

- Eliquis (Apixaban) is the only FDA-approved DOAC to use in patients on hemodialysis
  - Literature in patients with renal insufficiency is sparse
  - Conflicting evidence regarding the most appropriate dosing regimen

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Quickly Closing the Loop for Failed Vision Screening Patients: A Multi-Disciplinary Rapid Access Vision Screening Pilot Clinic

Laura Chalkley CO MSc; Leila Hajkazemshirazi OD; Maanasa Indaram MD; Julius Oatts MD; Elise Harb OD PhD; Karen Cooper CO BSc; Hui (Tansy) Wong COT; Alejandra G. de Alba Campomanes MD MPH

Pediatric Ophthalmology

Background

- Primary care vision screenings generate a large volume of pediatric ophthalmology referrals.
- These need to be seen quickly to rule out or confirm ophthalmological diagnoses; however timely access to specialty services is often limited due to barriers and constraints within the US healthcare system.
- Children are unable to access care when referrals are regraded as non-urgent, blocked by practices, or children end up seeing non-pediatric providers for eye care.

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Vasopressin Quality Improvement

Gabriela Young, PharmD
Ashley Thompson, Pharm D, BCCCP
Noelle de Leon, PharmD, BCPS, BCCCP
Fanny Li, PharmD, BCCCP
Department of Clinical Pharmacy

Background

Vasopressin (AVP) is an endogenous peptide hormone that assists in maintenance of total body fluid and blood pressure

1. 1997, 1999
   Malay et al, Landry et al
2. 2008
   VASST
3. 2016
   Surviving Sepsis Campaign
4. 2019
   Meta-analysis
5. 2020
   Bauer et al

1. Small studies evaluated low-dose AVP 0.04 units/min in septic shock, since patients exhibited relative AVP deficiency
2. VASST: adjunct AVP does not reduce mortality, but may require lower NE doses to maintain mean arterial pressure (MAP) goals
3. Sepsis guidelines suggest adding AVP ≤0.05 units/min to NE to raise MAP or to decrease NE dosage (weak recommendation)
4. Vasopressin has no effect on 28-day mortality, more digital ischemia, but fewer arrhythmias
5. No difference in hemodynamic response or outcomes in patients with septic shock receiving AVP 0.03 vs 0.04 units/min

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Poster Video: Not Available

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Reducing Nursing Sepsis BPA Volume Through Data Visualization

Bilwa Buchake and Mary Sullivan RN, MS, CNS
Analytics and Clinical Effectiveness and Adult Quality Improvement
UCSF Department of Quality

Background

- Sepsis is defined as a life-threatening organ dysfunction caused by a dysregulated host response to infection (Singer, 2016). Despite advances in diagnosis and management, sepsis-related mortality continues to be high, especially in patients who develop sepsis on hospital wards (Markwardt, 2020).

- Launched in 2013, UCSF has a continual sepsis surveillance system, or Sepsis BPA, on all adult units (excluding Birth Center) to identify sepsis in the earlier stages.

- After meeting and exceeding institutional goals for Sepsis Mortality O-E in FY20 on the UCSF True North scorecard, an aggressive goal of 0.87 was set for FY21. To achieve this goal, the sepsis leadership focused on improving outcomes for patients who developed sepsis on the wards.

- Nursing Unit Based Sepsis Champions identified that Sepsis BPA volume was overwhelming on busy in-patient units. Factors such as complicated patients, false positives, and alert fatigue were adding more strain on already stressed units during the pandemic.

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Saving Moms with Accreta

Charlotte Juntilla, BSN, RN, MSN, CNOR
John Cornejo, RN, MSN, CNOR
Mildred Tacotaco BSN, RN
UCSF Mission Bay Operating Room

Background

- Placenta accreta is a serious pregnancy condition that occurs when the placenta grows too deep into the uterine wall.
- Hemorrhaging (sever bleeding) may occur from placenta in attempt to removed the placenta when it is stuck to the uterus. If not managed and treated carefully, this may be life threatening.
- High-risk pregnancy and morbidity adherent placenta were performed in labor and delivery unit and the unit constantly requesting for the operating room staff and other resources to support these cases due to untrained staff for complex cases.
- This affect patient experience, quality & safety (improving clinical outcome) and the financial concern of the department (OR staff and other equipment/supplies were being used in L&D unit).
- Flow of procedures: C-section ⇔ Embolization ⇔ Hysterectomy

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Impact of Automated STAT Order Priority on Time to Antibiotic Order Administration in Suspected Sepsis

Emily Kaip, PharmD\textsuperscript{1,2}  
Kendall Gross, PharmD, BCPS\textsuperscript{1-3}  
Allison Pollock, PharmD\textsuperscript{1,2}  
Zhi Liang\textsuperscript{4}  
Bruce Pierre\textsuperscript{4}  
Trang Trinh, PharmD, MPH\textsuperscript{2,3}  
David Shimabukuro, MD\textsuperscript{5}  
Mary Cook Sullivan RN, MS, CNS\textsuperscript{6}

\textsuperscript{1}Department of Pharmaceutical Services, UCSF Health  
\textsuperscript{2}Department of Clinical Pharmacy, School of Pharmacy  
\textsuperscript{3}Medication Outcomes Center, School of Pharmacy  
\textsuperscript{4}APeX/EPIC Clinical Systems, UCSF Health  
\textsuperscript{5}Department of Anesthesia, School of Medicine  
\textsuperscript{6}Department of Quality, UCSF Health

**Background**

- The Surviving Sepsis Campaign recommends IV antibiotic administration within one hour of hypotension
- At UCSF Health, the Sepsis Leadership Operations Committee works to improve sepsis care, internally evaluating the quality of care as adherence to a Sepsis Bundle
  - Only bundle element associated with a lower mortality benefit is timely antibiotic administration
- At present, UCSF does not consistently administer antibiotics within one hour of sepsis onset
- Historically, antibiotic orders defaulted to “routine” priority
- In March 2019, a pilot program defaulted first-dose antibiotics with an indication of febrile neutropenia to STAT \( \rightarrow \) improvements in time-to-order-verification (TTOV) (14.5 minutes vs. 9.9 minutes, \( p<0.03 \))
  - Time-to-order-administration (TTOA) lower in patients with STAT orders (26.5 min vs. 56 min, \( p=0.03 \))
- Default STAT priority was expanded to broad spectrum IV antibiotics ordered for four additional indications suggestive of sepsis beginning on 2/12/2020
- **Problem Statement:** At UCSF, broad-spectrum IV antibiotics are not consistently administered within one hour of sepsis onset

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Leveraging Telehealth To Increase Visit Volume and Mitigate Loss of Revenue

Minh Tran, Gerardo Ortega, and Camille Gagan

OHNS Improvement Project

Otolaryngology – Head and Neck Surgery [OHNS]

Background

- **Background**: The University of California San Francisco (UCSF) Health in accordance with the California Department of Public Health (CDPH) mandated shelter-in-place restrictions and ordered the cancellation of all non-urgent health care visits and surgical cases on March 17, 2020. This action was aimed at battling and preventing the spread of the coronavirus disease 2019 (COVID-19) in the state of California. Consequently, this action caused a rapid decline in healthcare visits for our department of Otolaryngology–Head and Neck Surgery (OHNS). Potential visits that could have led to potential surgical cases. This problem impacted our strategic growth decreasing access to care for our patient population who suffer with diseases of the ears, nose, and throat. As a procedure-based surgical practice, patients would benefit from diagnostic imaging in clinic at the first consultation.

- **Current state**: Only about 5 providers were set up with telehealth prior to the shelter-in-place. This is less than 1% of our total clinic visit volume. Due to the cancellation of all in-person non-urgent visits and surgeries, we had to utilize different modalities to deliver care to our patients.

- **Improvement Project**: The project aim was to increase video visits from 0% to 30% of overall patient visit volumes by March 31, 2021, in the department of OHNS.

**Visit Volume for March 2020**

- Total Visits
- Annual + Completed

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Ostomy Education Pathway

Joanna Cuanico, RN

13 Long Skin Committee, UCSF WOCN Team, Ryuta Fukuda, & Darcy McCarty/

13 Long/Adult General and Specialty Surgery

Department of Nursing

Background

• This project created an education pathway for patients with new ostomies. The identified opportunity for improvement was the delay in initiating ostomy education to patients post operatively, a time intensive process which can take multiple days. Delays contribute to increased length of stay and the potential of readmissions related to poor ostomy management once discharged from the inpatient setting. A majority of new ostomy patients in Parnassus are emergent; therefore, patients do not receive pre-operative ostomy education. We aligned this project with our True North Learning Health Systems pillar.

• Surveying 13 Long staff RNs, we identified contributing factors to why delays in patient education were occurring. This included RN confidence in their ostomy care knowledge, patient anxiety, inadequate and inconsistent education.

• We focused efforts on improving RN confidence in providing ostomy education through utilization of a standardized Ostomy Education Pathway; prescribed timeline for education activities post operatively, teaching materials, and resources. We hypothesized that improving RNs' confidence in providing ostomy education would lead to better outcomes for our targeted patient population.

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Community Benefit Program and Patient Assistance

Presented by: Laura Hoff
Laura Hoff, Jahred Washington, Jessica Galens
Pharmacy Business Services

Background

- Growing medication costs, particularly for seniors and lower income households, are a key area of concern for UCSF in upholding the true north pillars of Patient Experience and Health Equity.
- Prohibitive medication costs can lead to poor compliance and subsequently, poor outcomes.
  - Per Express Scripts 2015 Prescription Price Index, prices for brand name prescription drugs doubled between 2008 and 2016.
  - According to the American Hospital Association, 1 in 8 patients are non-compliant in their medications due to costs.
- UCSF needs a process to identify, assess, and enroll patients in medication assistance. The objective of the Community Benefit Program is to remove financial barriers to patient medication adherence.
- The improvement project aims to leverage UCSF’s 340B status through the Community Benefit Program and Patient Assistance Program Coordinator to take a comprehensive approach and provide a level playing field for medication procurement for the uninsured and underinsured population.

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Reducing Opioid Usage in Kidney Transplant Recipients

Nataliya Budanova, RN DoQ, AQI
Ryutaro Hirose, MD; David Quan, Pharm D; Alma Cabading, 9L; Marisa Schwab, PGY5;
Marco Chavez, post Tx manager
Department of Surgery, Kidney Transplant Program

Background

- Post-operative opioid use is a significant problem in the United States, however, the impact of opioids on transplant recipients remains poorly studied. The purpose of this project was to investigate the impact of a protocol that standardized discharge opioid prescriptions on discharge opioid amounts and outpatient refills in kidney transplant recipients.

- At UCSF, Opioid prescribing patterns are built on a classification system & based on the # of pills patient received on the day prior to d/c, which is no longer deemed to be appropriate practice.

- Recipients who continue to fill prescriptions >60d after transplant; have an increased risk of death and graft loss

- These practices result in increased opioids consumption and negative pt outcomes for our kidney recipients in addition to long term consequences such as opioid misuse & opioid addiction.

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Improving Procedure Room Turnover Efficiency via Timely Stress Test Consent

Susan Robertson, NP

Team Members: W. Osotsapa CN III, V. Au CN II, Pam Tsang, CN II, S. Lam, CN III, S. Woodard, NP Supervisor

Non Invasive Diagnostic Cardiology Procedure Room and Heart Vascular Stress lab staff

Background

<table>
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<tr>
<td>- Cases that exceed allotted time slots make it difficult to add on for other potential cases.</td>
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<tr>
<td>- Impacts potential discharge of inpatient cardiology patients if testing is completed. Results are within normal limits.</td>
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<tr>
<td>- Impacts outpatients requiring testing prior to other procedures (i.e. ablations).</td>
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Problem for the Parnassus Heart Vascular Stress Lab (HVSL) to solve?

Identify causes of tests exceeding 90 mins in order to complete test within 90 min slot.

Why was this a problem?

Stress test >90 mins in PR impacts start of next scheduled test which has a downstream effect on HVSL team who share team/staff.

How does this problem impact one of the UCSF Health True North pillars?

- Patient Satisfaction, Our People, Strategic Growth

Baseline review of data for severity or impact revealed:

- **Patients:**
  - The patient is physically in PR on average of 50 mins before start of test (↑ anxiety)
  - A test that starts late often affects the discharge. This impacts a patient in several ways (parking fees, commute home) which ultimately can reflect as ↓ patient satisfaction per Press Ganey Survey feedback.

- **Nursing & Technical Staff (ECG techs and sonographers):**
  - Late test starts extend into break/unch time which affects co-workers and require assignment changes in order to cover the next test.
  - End of day late starts need to complete test by end of shift to avoid OT.
  - Above issues can reflect as ↓ in employee satisfaction (as per Gallup Survey).

- **Inpatient cardiology fellows, residents and attendings:**
  - Limited test time slots impacts the ability of the PR to add on inpatient case for stress testing and this a potential hospital discharge is delayed or canceled creating a downstream effect on the cardiology service ability to open beds for admissions.

- Keeping PR tests on time is a must! One significant factor identified that increased “wait” time in PR was the time it takes to consent the patient for the test.

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Undergraduate Medical Education Improvement Posters

Bridges Curriculum Clinical Microsystems
Improving Documentation of Pediatric Delirium at UCSF PICU Sites

Michelle Bui, Lydia Kwarteng, Johsias Maru, Charles Macaulay, Madeline Matthys

Coach: Mukund Premkumar, MD | QI Lead: Deborah Franzon, MD | UCSF Mission Bay PICU

Department of Pediatrics

Background

- **Context:**
  - Delirium is a disturbance of consciousness characterized by an acuteness of onset or change in mental status.
  - Previous research indicates that the maneuverer of pediatric delirium is associated with higher risk of mortality, as well as increased length of hospitalization, costs, and duration of mechanical ventilation.7
  - A retrospective chart review of data between 2016 and 2018 in the PICU at UCSF’s Benioff Children’s Hospital revealed that 26% of patients screened positive for delirium, which is similar to the national prevalence of 3.6%.8
  - The Confusion Assessment for Pediatric Delirium (CAP-D) is a clinically validated screening tool that allowed healthcare teams to identify patients who were at high risk of experiencing delirium.9 Increased screening allowed for early detection, especially in children with brain injuries.10 This is clinically important because early detection leads to early intervention, which could decrease the duration of delirium.11 UCSF-Benioff Mission Bay began using the CAP-D screening tool in 2019, however it is still under utilized for eligible patients. Despite delirium being prevalent in 26% of PICU patients at Benioff Mission Bay, an internal audit in April 2020 showed that it was only documented in 2% of the time in electronic health records.12
  - Quality improvement projects at other academic medical centers have demonstrated the ability to increase CAP-D screening by 20%.

- **Current state:**
  - According to a recent analysis performed by Dr. Deborah Franzon at UCSF Benioff Mission Bay in April 2020, delirium lasts an average of 4.3 days, and costs an estimated $132,000 per patient. In 2018, total delirium cost was $14 million, which made up 1.3% of the PICU cost.
  - An audit conducted in April 2020 by Dr. Deborah Franzon showed that 23.5% of patients have CAP-D screens listed in their charts at the UCSF Benioff Mission Bay site compared to only 6% at the Oakland site in August 2020.

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Opioid Prescribing Behavior among UCSF Emergency Department Providers

Yesenia Day, Drake Johnson, Georgia Kirn, Alice Lu, Kai Trepka, Stephen Yang

UCSF Helen Diller Medical Ctr, Emergency Department

Faculty: Dr. Marianne Juarez

Background

State of UCSF ED (January – August 2020)
• Of all ED discharged patients: 4.4% (2,199/49,420) were prescribed opioids
• Of ED patients with CC of back pain: 18% were prescribed opioids.
• Opioids generally not indicated for back pain per CDC and ACEP.

Problem Statement
• Back pain is the #1 chief complaint driving total number of patients receiving opioids and quantity of opioids prescribed.

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Poster Video: https://vimeo.com/showcase/8314448/video/552089826
Improving the Discharge Process by Optimizing the Meds-to-Beds Program

Christine Boutros, Jenny Cevallos, Abu Taha
Dr. Lau, Dr. Zorian & Dr. Manjunat
Division of Hospital Medicine

Background

- Delays in timely discharges (defined as <20% of discharges before noon) hinders hospital throughput and leads to longer patient boarding hours in the emergency department (Fig. A - data from Oct 2019 - Sept 2020).
- UCSF had a 47% increase in boarding hours from the previous year and 16.3% discharges before noon, below the national benchmark of 20% (Fig. B).

![Fig. A Delays in timely discharges](image)

![Fig. B Major Barriers to Discharge Before Noon](image)

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Project HEAR: Improving Hearing Difficulty in the Hospital

Shreya Menon, Rachel Warren, Wynton Sims, Stephanie Rennke, Sasha Binford, Megan Rathfon, Meg Wallhagen

School of Medicine, School of Nursing

Background

- Hearing loss is prevalent - 65% of individuals over the age of 70 report bilateral hearing loss
- Impairs patient-provider communication, increased misunderstandings, duration of hospital stay, readmission, and mortality
- Exacerbated by use of masks and eye shields, muffling speech and preventing lip reading
- Limited access to communication aids or standardized approach to identification of hearing loss at UCSF Medical Center

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Improving Exclusive Breastfeeding Rates at UCSF Benioff Children's Hospital

Jessica Crockett & Michelle Siros

Team Members: Dr. Joslyn Nolasco & Dr. Marta Kosinski

Post-Partum Unit, Benioff Children’s Hospital

Background

- Exclusive breastfeeding rates among publicly-insured patients at Benioff Children’s are significantly lower (Exclusive breastfeeding 63.5%) than UCSF’s overall average rate of 83.6%. We aim to increased exclusive breastfeeding rates for all UCSF patients.

- Following initial “Baby Friendly” interventions, exclusive breast-feeding rates at UCSF increased. However, rates remain lower than hospital goals.

- Breastfeeding has many short term and long-term benefits for babies, mothers, and communities (Gartner).

- Improving exclusive breastfeeding rates is important for UCSF’s patient experience and for the dissemination of health knowledge to all communities.


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Poster Video: https://vimeo.com/showcase/8314448/video/552537140
Project FOOD: Screening for Food Insecurity at UCSF Medical Center

Pedro Gallardo (MS1), Reinholdt Olson (MS1)
Chloe Sasakado, Rashmi Manjunath, Nancy Choi, Meher Singh, Stephanie Rennke

UCSF School of Medicine
Nutrition Services, Case Management
Department of Medicine

Background

- **Food insecurity (FI)**, lack of access to nutritious food to maintain an active lifestyle, is associated with poor health outcomes and morbidities in both children and adults.
- Exacerbated by COVID-19 pandemic and disproportionately impacts communities of color and low-income people.
- Healthcare providers are important referral resources.
- Identifying food insecurity status in hospitalized patients could improve quality of care and access to care - fundamental guiding principles of UCSF's True North Pyramid.

**Problem Statement:** UCSF Medical Center lacks a routine, standardized, and hospital-wide approach to assess for and document food insecurity.

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✓ Check your bias Improving Patient Experience in the Parnassus ED

H. Kortbawi, K. Merrill, M. Negussie, A. Valderrama, H. Yin, S. Polevoi

UCSF School of Medicine
UCSF Parnassus Emergency Department

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Poster Video: https://vimeo.com/showcase/8314448/video/549026643
STOP! For the Time-out

Ariana Andere, Nicolas Cevallos, Aileen Gozali, Christopher Hill, Ayush Kumar

Coach: Denise Chang, MD

UCSF School of Medicine

Background

Wrong-site surgeries and harm events are a major burden on patients and a financial burden to hospital systems. In 2013, researchers estimated that roughly 400 times each week in the US, patients undergoing surgery experience a malpractice event. Safety advocates say this should never happen, as it can cause undue stress and adverse effects for patients. A surgical harm event is an average payout of $133,000, with nearly 10,000 cases of harm events totaling $1.3 billion settlements annually, creating a massive financial burden for health systems.

In 2003, the Joint Commission introduced the Universal Time-Out to be applied to all surgeries in the US in hopes of decreasing harm events, which have been occurring for decades. Adherence to surgical checklists has been shown to decrease the risk of “harm and mortality” in the OR. However, success of the surgical checklist depends largely on the degree of compliance among health care workers with their checklist components, and wrong-sided surgeries particularly with the universal protocol in place due to lack of adherence. It is believed that reductions in mortality and morbidity are greater when the Checklist is completed in full compared to when it is only partially completed.

Across UCSF in 2018, there were 3 harm events, including 2 wrong-side surgeries and 1 wrong-site implant. In 2019, there were 2 harm events, including 1 retained foreign body and 1 wrong-site implant (from internal data). These events were completely preventable, and it is believed that with greater compliance to the Universal Time-Out, no harm events would occur at UCSF.

Our goals through this project are to achieve zero harm under the UCSF Quality & Safety Trust Marks pillars, while also lowering costs (financial strength) associated with harm and improving patient experience. With greater compliance, safety and satisfaction would increase for the patient, surgical staff, and hospital systems.

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Poster Video: https://vimeo.com/showcase/8314448/video/552648107

Data has been collected on compliance for the Universal Time-Out by UCSF hospitals and departments. The following data illustrates compliance, and has not been published. During the third quarter of 2019 (October through December), time-out audit compliance at Benioff Women’s Hospital, San Francisco, was 94% over a cumulative total of 72 audited cases. During 2020, this rate has improved to a monthly average of 98%.

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Improving Interpreter Services for Telehealth Visits

Luther Copeland, Alexander Silva, Sohil Patel
Coaches: Marta Kosinski, Honora Burnett, Meredith Laguna, Peter Campbell
UCSF Mt. Zion Pediatric Clinic

Background

- Rapid rise of telehealth services during COVID
- Physicians (n=15) at UCSF Mt. Zion pediatric clinic surveyed regarding their experiences
  - 67% reported 100+ Telehealth visits in year 2020
- Areas most identified for improvement:
  - Precepting teaching residents
  - Accessing interpreters
    - Accessing interpreters cited as a barrier to telehealth appointments (73% of providers)
    - Inefficient if interpreter not present at start of visit
  - UCSF Health True North “delivering an outstanding patient experience” and “creating an optimal work experience”

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Poster Video: https://vimeo.com/showcase/8314448/video/552648464
Improving Communication with LEP Patients

Sa Heen Park and Nathan Sanchez

Medicine UBLT, Lev Malevanchik, Catherine Lau

Division of Hospital Medicine

Background

- Patients with limited English proficiency (LEP) are identified as individuals who do not speak English as their primary language and who have a limited ability to read, speak, write, or understand English.

- When receiving language-discordant care, LEP patients demonstrated:
  - Lower adherence to treatment
  - Poorer satisfaction with care
  - Reduced understanding of their diagnosis and treatment
  - Greater readmission rates
  - Greater feelings of disempowerment and vulnerability
  - Poorer management of conditions like diabetes, hypertension, and asthma.

- This is a growing concern at UCSF’s clinical sites, where patients with LEP represent approximately 16-21% of all patients in 2018 and nearly 75% of hospitalists described their care of LEP patients as worse in a survey that same year.

- Improving access to professional medical interpreters is in alignment with UCSF’s True North priorities of quality, safety,

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Poster Video: https://vimeo.com/showcase/8314448/video/552652372
Graduate Medical Education Improvement Posters

REFLECT

Residents & Fellows Leading Interprofessional Continuous Improvement Teams
Surgeon Placed Transverse Abdominis Plane (TAP) Blocks as an Alternative to Thoracic Epidurals

Dr. Allison Kay (PGY5)
Division of Gynecologic Oncology
Department of Obstetrics, Gynecology, and Reproductive Sciences

Background

• 310 minutes is the average length of time spent in the Operating Room (OR) for cases with peri- or infraumbilical skin incisions

• Time in the OR is costly

How can we decrease total time spent in the OR to improve value-based care for our patients?

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Background

- Given the financial pressures due to COVID-19 we looked to align a QI project with the financial strength True North pillar at UCSF. Historically UCSF system wide spends over six figures on IV acetaminophen, and almost ⅔ of the use comes from the children’s hospital in mission bay.
- **BASELINE enteral acetaminophen use**: 16% of patients scheduled for elective ambulatory in the two months prior to our study received enteral acetaminophen in the perioperative period.
- **PROJECT TARGET**: 25% enteral acetaminophen use for pediatric patients >5 years old undergoing elective ambulatory surgery.
- Our project was trying to solve ways to change Rx behavior for a medication that can be given enterally or via IV, is equally efficacious but whose IV formulation is 2 orders of magnitude more expensive ($50 vs 50 cents).

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Improving the Identification and Treatment of Alcohol Use Disorder Among Hospitalized Patients

Shirley Chan, Teddy Peng, Asha Choudhury, Lisa Quach, Esther Hsiang, Amy Pugh, Zoe Kopp, Smitha Ganeshan, Karen Hauser, Anand Habib, Sarah Flynn, Jesse Ristau, Sujatha Sankaran, Armond Esmaili, Cat Lau

Internal Medicine Residency Program

Alcohol Use Disorder is under-identified and under-treated among patients hospitalized at UCSF

Highly prevalent, patients often socially complex

More than 1 in 20 U.S. adults meets criteria for alcohol use disorder (AUD)

| 48% of patients admitted with SUD at UCSF are currently homeless or have a history of homelessness |

Documentation of alcohol use in APeX is inadequate

Only 22% of UCSF inpatients were noted to have updated information documented in the social history navigator about their alcohol use behavior (Dec 2019)

Low rates of treatment

Only 11% of patients hospitalized patients with AUD received standard of care treatment including counseling or medication for substance use at discharge

Pharmacotherapy is effective (NNT for naltrexone, acamprosate = 20)

Thus our project aimed to improve the screening, diagnosis, & treatment of patients with AUD

Residents & Fellows Leading Interprofessional Continuous Improvement Teams (REFLECT)
in partnership with the UCSF Health Improvement Symposium 2021

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Poster Video: https://vimeo.com/showcase/8314448/video/555147958
Improving Bronchoscopy Diagnostic Yield and Safety in Lung Transplant Recipients

Katherine Malcolm, MD MPH
Aida Venado & Steven Hays of the Lung Transplantation Program at UCSF
Pulmonary and Critical Care Medicine

Background

- Bronchoscopy is an invasive procedure done to investigate rejection and infection in lung transplant recipients.

- Fluoroscopically guided transbronchial biopsies are an important procedural skill learned by UCSF pulmonary fellows during their F1 year of fellowship.

- At baseline, fellow participation in bronchoscopy was associated with longer fluoroscopy duration (2.3 vs 1.1 min, p=0.0001) and 2.9 times higher radiation exposure (52.2 vs 18.0 mGy, p=0.0116).

- Overarching goal was to align with UCSF's Learning Health System Pillar to advance, apply and disseminate knowledge specifically within fluoroscopy to improve the diagnostic yield and safety of the lung transplant recipients' bronchoscopies.

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Poster Video: https://vimeo.com/showcase/8314448/video/551726377
Optimizing Pre-Immunosuppression Tuberculosis Screening

Hailyn Nielsen, MD, PhD (Rheumatology)
Meera Subash, MD (Rheumatology/Clinical Informatics)
Neda Noori Nassr, PharmD (SOP)
Diana Ung, PharmD (SOP)
UCSF Parnassus Rheumatology Clinic

Background

- Some disease-modifying anti-rheumatic drugs (DMARDs) increase the risk of latent tuberculosis (TB) reactivation
- Prior to DMARD initiation, screening for latent TB is recommended
  - Purified protein derivative (PPD)
  - Interferon-gamma release assay (e.g. Quantiferon-gold)
- UCSF Rheumatology Clinic screened only 63% of eligible patients from 2013-2017


Residents & Fellows Leading Interprofessional Continuous Improvement Teams (REcLiFT) in partnership with the UCSF Health Improvement Symposium 2021

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Improving Interpreter Use in Limited English Proficiency Patients on the Neurosurgery Service

Anthony Lee MD, Madeline Chicas MHA, Sujatha Sankaran, MD

Department of Neurosurgery

Background

Language barriers can be a source of patient dissatisfaction and may adversely affect patient safety. Because the neurological examination is dependent on effective communication, language barriers may delay the identification of new neurologic deficits or post-operative symptoms. A method of acknowledging a patient’s language preferences and formalized attempts at meeting those language preferences will improve the patient experience and may improve patient outcomes.

Resident & Fellows Leading Interprofessional Continuous Improvement Teams (REFLECT)
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Poster Video: https://vimeo.com/showcase/8314448/video/552969493
Improving Efficiency of Obtaining Post-reduction X-rays for New Orthopaedic Consults

Michael Davies, MD; Derek Ward, MD; Bobby Tay, MD
Department of Orthopaedic Surgery

Background

- Patients presenting to the ED with musculoskeletal injuries requiring closed manipulation frequently undergo post-reduction X-rays, however wait times for patients to obtain X-rays are highly variable.

- Decreasing the interval of time during which patients are waiting to obtain X-rays is beneficial to both patients and the healthcare system as a whole.

- At present, there is no well-defined system that describes healthcare team roles and responsibilities regarding the ordering and follow-up of post-reduction X-rays for new orthopaedic consults in the ED.

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Poster Video: https://vimeo.com/showcase/8314448/video/554978854
Adolescent and Young Adult Primary Care Suicidality Screening During a Pandemic

Brittany Badal MD, Angela Barney MD and Deepika Parmar MD MPH
Clinical Fellows of the Adolescent and Young Adult Division

Backgrounds

Suicide Among Youth and Young Adults: What Pediatricians Should Know

Suicide is the 2nd leading cause of death among US youth and young adults, ages 15-24
Teen Suicide Rates Differ by Gender
Death Per 100,000: youth ages 15-19, 2017
17.9 Young Men
5.4 Young Women

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Poster Video: https://vimeo.com/showcase/8314448/video/545247444
Improving Family Communication in the Intensive Care Unit

Catherine Chiu, MD, Dylan Masters, MD, Rebecca Martinez, MD

Faculty advisor: Kevin Thornton, MD

Critical Care Medicine Fellowship

Department of Anesthesiology and Perioperative Medicine

Background

- COVID-19 pandemic significantly increased the number of ICU-primary patients and severely limited presence of family support at bedside
  - Effective physician communication with families and patients in the ICU has been shown to improve outcomes, including ICU LOS\(^1\).
  - Traditionally, families were most easily updated at bedside. Bedside RNs often provide updates to families calling in, but timing and content are variable.

- **The problem:** An ICU provider delivering family updates has not been previously standardized into the daily workflow

- Often families are only reached at critical moments (i.e. consent for procedures or complex decision making)

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Intraoperative Handoffs

Rachel Morgan, MD; Elise Delagnes, MD; Sherry Liou, MD

Department of Anesthesia and Perioperative Care

Background

- Handoffs between anesthesia providers are associated with adverse patient outcomes.
- Due to a lack of a standardized handoff format, these handoffs can be very provider-variable which can result in the transmission of misinformation or the omission of important information.
- The resulting adverse patient outcomes come at a cost to the patient, the provider, and the hospital.
  - "On average, for every 15 patients exposed to a complete anesthesia handover, one additional patient would be expected to experience the primary outcome within 30 days (composite of all-cause death, hospital readmission, or major postoperative complications)." 1
  - Additionally, “documented intraoperative handoffs were associated with increased risk of postoperative ventilation, surgical wound disruption, bleeding, pneumonia, unplanned return to operating room, and new onset hemodialysis.” 2
- Our project aims to solve this problem by providing a standard intraoperative hand-off checklist for providers to use when handing off to the incoming team.


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Poster Video: https://vimeo.com/showcase/8314448/video/545247607
Better Than Benzos: Decreasing Benzodiazepine Use in Elderly Patients

Presenters: Ania Bilski, Stacey Lakin
QI Team: Ania Bilski, Stacey Lakin, Nick Stark, KJ Stime, Alia Church, Carli Haaesbroek, John Quinn, John Roever

Department of Emergency Medicine

Background

- Delirium in the elderly can have devastating outcomes for patients and can lead to increased healthcare costs as well as mortality. Occurring in 20-79% of elderly hospitalized patients, delirium can occur due to a wide range of factors; iatrogenic causes of delirium from deliriogenic medications are an important factor for delirium in the elderly. One class of medications which can lead to delirium in elderly patients are benzodiazepines.¹

- Often, benzodiazepines are used in the emergency department to treat acute agitation². However, multimodal approaches to address agitation in the geriatric population are useful and can often avoid deliriogenic medication use. Such strategies include: (1) verbal de-escalation and reorientation; (2) meeting needs such as nutrition and symptom management, and; (3) removing triggers like alarms and bright lights.³ When medications must be utilized, smaller oral doses of less-deliriogenic medications such as second-generation antipsychotics are often effective and preferred in elderly patients.⁴

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Poster Video: https://vimeo.com/showcase/8314448/video/554735875
Diabetes Emergency Preparedness

Susan Shey, MD and Muriel Babey, MD
Eileen Koh, MD; Paras Metha, MD;
Endocrinology and Metabolism Fellowship,
Division of Endocrinology, UCSF

Background

• Natural disasters worsen diabetes control and diabetic complications as evidenced by elevation of HbA1c and increased ED visits for hypo/hyperglycemia the months following disasters in multiple studies

• Many of these studies have noted increased disaster preparedness education and ensuring adequate emergency medication and supplies as important action steps to address

• In the setting of the COVID19 pandemic and the increased prevalence of wildfires on the West Coast, the Diabetes Disaster Response Coalition has recommended that diabetic patients have a diabetes preparedness plan in place

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Poster Video: https://vimeo.com/showcase/8314448/video/554738104
Improving adherence to USMSTF guidelines for follow up colonoscopy

Annsa Huang, MD, Prashant Kotwani, Connie Wang, Tanya Khan, Cary Kraft
Faculty Mentors: Aparajita Singh, Najwa El-Nachef, Daniel Selvig
Gastroenterology, Liver Transplant, IBD, and Advanced Endoscopy Fellowships

Background

• The US Multi-Society Task Force (USMSTF) updated their recommendations for appropriate interval for follow-up after colonoscopy with or without polypectomy in February 2020.

• The new national guidelines are more complex than the prior 2012 version, but allows for more personalized recommendations, particularly for patients with small polyps.

• A salient change is the lengthening of surveillance intervals for 1-2 adenomas <10mm to 7-10 years instead of 5-10 years.
  • There is currently variable practice among GI fellows and attendings regarding adherence to these new guidelines for follow up interval for surveillance colonoscopy, particularly for findings of 1-2 adenomas <10mm in size.

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Poster Video: https://vimeo.com/showcase/8314448/video/555137451
Improving Communication – VTE Prophylaxis & NSAIDs

Presenter: Greg Haro
Resident Team: Elizabeth Lancaster, Yvonne Kelly, Caitlin Collins, Kelly Mahuron
Faculty Sponsors: Dr. Elizabeth Wick, Dr. Tasce Bongiovanni
Department of Surgery

Background

• Postoperative Venous Thromboembolism (VTE) has High Morbidity but Can be Preventable.
  • UCSF VTE Chemoprophylaxis Utilization is Variable: 35-93% (Acute Care Surgery, Colorectal Surgery, etc)
  • UCSF VTE Prevalence 2.2% vs National Average 1.2%

• Multimodal Pain Strategy with NSAIDs can Reduce Opioid Use as well as their Associated Side Effects
  • UCSF NSAID Utilization: 10-73% (Surgical Oncology, Colorectal Surgery, etc)

• Our Project Aims to Improve VTE PPx and NSAID Use in an Effort to Reduce VTE and Opioid Use through a New System of Communication

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Poster Video: https://vimeo.com/showcase/8314448/video/554988323
Improving Performance Status Documentation among Hematology-Oncology Patients

Ana Velazquez Manana, MD MSc
Rahul Banerjee MD & Vanessa Kennedy MD
Faculty Mentors: Amy Lin MD & Pelin Cinar MD
Hematology/Oncology

Background

• Oncology providers do not consistently calculate or document performance statuses (PS) for their patients in a structured manner.
• Poor PS is a strong predictor of treatment-related toxicity.
• The American Society of Clinical Oncology lists the avoidance of chemotherapy administration to cancer patients without documented PS as a ‘Top 5’ QI priority for oncology practices.
• True North values within UCSF Patient Experience and Learning Health System Pillars are affected by
  • (1) failure to clearly incorporate PS into clinical decision-making
  • (2) to document PS in a standardized, structured format amenable to extraction for research purposes.

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Poster Video: https://vimeo.com/showcase/8314448/video/555137199
Screening for Palliative-ICU Consults

Anne Rohlfing, MD; Lee Spitzer, MD
Division of Palliative Medicine

Background

- In the US 20% of people die either in the intensive care unit (ICU) or soon after an ICU admission
- High symptom burden, including not only physical symptoms (i.e., pain, shortness of breath, delirium) but also anxiety, depression, traumatic stress, and existential distress associated with their serious illness
- Palliative care consultation in the ICU is associated with lower hospital and ICU length-of-stay, as well as better quality of communication and lower anxiety among patients' family members
- Palliative care may be particularly effective in open or semi-open ICUs that involve multiple provider teams, such as the medical and cardiac ICUs at UCSF

Currently: 200 ICU patients at UCSF Parnassus in 2019 received a palliative care consultation, averaging 18.8 consults per month with an overall range of 10-30 consults per month

UCSF Pillars: Strategic growth; patient experience

Our project aims to improve primary and specialist palliative care practice in our medical and cardiac ICUs by developing a screening tool run by fellows that also increases teaching opportunities for primary and ICU teams.

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Improving the rate of delayed cord clamping in preterm infants

Marie Cornet, MD, on behalf of
Team Members: Shannon Chan, Marie Cornet, Meghan Duck, Kate Frometa, Katelin Kramer, Melissa Rosenstein, Martha Tesfalul
Programs: Maternal-Fetal Medicine, Obstetrics, Neonatology, Pediatrics

**Background**

- Delayed cord clamping (DCC) is associated with benefits for preterm infants, including decreased:
  - Intraventricular hemorrhage
  - Necrotizing enterocolitis
  - Need for transfusions
  - Mortality
- 40% overall rate of DCC for preterm infants in our ICN – lower than other centers

**Video:** [https://ucsf.box.com/s/ho9t5cmxcjcqrb0acaxz554n3c7g56hf](https://ucsf.box.com/s/ho9t5cmxcjcqrb0acaxz554n3c7g56hf)
**Poster Video:** [https://vimeo.com/showcase/8314448/video/555134957](https://vimeo.com/showcase/8314448/video/555134957)
Improving Medication Reconciliation

Presenters: Sonam Dilwali and Drew Breithaupt

UCSF Neurology R3s

Full team: Jill Goslinga, Sharon Chiang, Dattanand Sudarshana

UCSF Neurology Residency

Background

- Inadequate medication reconciliation leads to patient harm including mortality\(^1\), which prompted the Joint Commission to add this measure as a national safety goal in 2005\(^2\).
- In May of 2020 when this project was being designed, only 57% of our Neurology wards and neurovascular patients had a completed med rec within 24 hours of admission.
- We chose to address this under the True North pillar of “Quality and Safety”
- Our goal was to improve accurate and timely medication reconciliation.

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\(^2\) NCBI. National Patient Safety Goals. 2009. Available at: https://www.jointcommission.org/assets/1/18/PatientSafetyGoals09_30apr09.pdf.

Video: [https://ucsf.box.com/s/5icpyevb88qxnsb1xk5zo4cq4nbiedf5](https://ucsf.box.com/s/5icpyevb88qxnsb1xk5zo4cq4nbiedf5)

Social Vulnerability Screening in the Gynecology Perioperative Setting

Eduardo Garcia

OBGYN

Background

Social determinants of health have a direct impact on the health outcomes of an individual.

Despite knowing that social determinants have a short- and long-term effect these are not screened for in a routine or formalized manner in our gynecology surgical clinics.

No standardized screening process exists in the perioperative period to assess social vulnerabilities in our benign Gynecology and Gynecologic Oncology practice at UCSF.

Incorporating a formal screening process into the perioperative workflow is in alignment with the UCSF True North goal of Quality and Safety

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Accelerating Ophthalmology clinic recovery during COVID-19 with resident-driven telehealth visits for postoperative cataract surgery patients

Stephanie P Chen, Tiffany A Chen – PGY3 Resident QI Project 2020-2021
UCSF Department of Ophthalmology

Background

- Cataract surgery is the most common surgery performed in Ophthalmology

- Frequency of perioperative visits becomes a challenge for patients and providers during COVID-19

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Poster Video: https://vimeo.com/showcase/8314448/video/555842789
Improving Telehealth Communication in Otolaryngology

Adrian E. House, MD
Rahul Seth, MD
Department of Otolaryngology – Head & Neck Surgery

Background

• In the era of COVID-19, more patients turning to telehealth to communicate with providers
  • According to American Hospital Association, 76% of US hospitals connect with patients using video technology as of 2017. This is up from 35% in 2010 (https://www.aha.org/factsheet/telehealth)
• Challenging for both OHNS pts and providers
• PE both preoperatively and postoperatively can be complicated over a video conferencing medium
• Potential safety issues if patients misunderstand examination techniques
• Decreases efficiency of the clinical encounters
• This impacts the UCSF Health True North pillars of Patient Experience and Strategic Growth

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Poster Video: https://vimeo.com/showcase/8314448/video/554718800
Implementation and Examination of Outcome Measures in Interventional Pain Management

Danielle Binler, MD, MS
Pain Management Center
Pain Medicine Fellowship Program, Department of Anesthesiology

Background

- Surveys that assess pain, disability, and psychometric contributions to pain were inconsistently administered
- Without consistent data to identify psychometric contributions to pain, healthcare disparities can be perpetuated
- We need to track outcomes to improve quality of care, patient experiences, and the financial strength of our institution
- Automating the distribution of validated surveys must be done to ensure that healthcare disparities are reduced, and outcomes are tracked

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PICU: Merging QI and Patient Care

Alice Ramirez & Jenna Essakow

[Deborah Franzon ~ Pediatric Intensive Care Unit]

The Learning Health System

BACKGROUND

- Recognized that there were many ongoing QI projects in the PICU
- Instead of adding to the list. How could we optimize the list?
- Interviews with QI leaders to identify common barriers to optimal success in executing these projects.

GAP ANALYSIS:

1. **5 Why’s**: What are the barriers as seen by current project leaders?
   - Need for frequent reminders from QI leadership
   - Front line providers had no knowledge of an existing project

2. **Why not**: Expand the voice of frontline providers in a structured way that merges patient care and quality initiatives on rounds?

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Poster Video: https://vimeo.com/showcase/8314448/video/554698390
Outpatient Teaching for New Onset Diabetes Patients not in DKA

Fatema Abdulhussein, MD
Hannah Chesser, MD, Caroline Schulmeister, MD, Abby Cobb-Walch, MD
Division of Pediatric Endocrinology
UCSF Benioff Children’s Hospitals

Background

• Prevalence of type 1 diabetes in youth has been increasing in the United States.¹
• Traditionally, all individuals with new onset diabetes (DM) have been admitted to a hospital for teaching with or without initial presentation in DKA.
• For an individual not in DKA, the primary role of the inpatient admission is to provide patients and family with the teaching needed to care for their new diagnosis of diabetes.


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Poster Video: https://vimeo.com/showcase/8314448/video/555098210
Systematized Tracking of Meaningful Clinical Information with Apex SmartForms

Project Lead: Betsy Young, MD
Faculty Mentor: Rob Goldsby, MD
Pediatric Hematology/Oncology Fellowship

Background

- All pediatric oncology patients treated at UCSF have an Apex SmartForm available in their personal medical record that tabulates treatment details in a systematic fashion.
  - Active patient lists for Leukemia/Lymphoma and Solid Tumor

- Completion of this SmartForm is crucial for excellent patient care and future research.

- **Concise problem statement:** inconsistent and infrequent usage of an Apex “Diagnosis and Treatment Summary” SmartForm hinders quality comprehensive care and future research.

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Increasing Social Needs Screening in Inpatient Pediatrics

Pediatric Hospital Medicine Fellowship

PGY-5: Mathew Nordstrom, Sarah Schechter

PGY4: Nadia Roessler De Angulo, Nicole Penwill

Background

- Context:
  - Problem: Low screening rates for social needs on C5 MSP at BCH; no standardized process

- Why is this a problem?
  - Social risk factors are related to worse outcomes:
    - Patient-centered: overall health, social/emotional problems
    - Financial: increased healthcare utilization, LOS
  - AAP recommends screening since addressing social needs improves child health and decreases hospitalizations

- True North pillar: Patient experience

- Problem statement: Social needs screening, documentation and interventions occur in only 11-58% of admissions on C5 MSP, despite the knowledge that these needs affect healthcare outcomes.

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Pediatric Beta Lactam Antibiotic Allergy Assessment & Delabeling

Lauren Grant, MD

Residency/Fellowship Program: Pediatric Infectious Diseases, Pediatric Allergy/Immunology, Pediatrics Residency

Residency/Fellowship Team Leaders: Matthew Kan (AI), Jane Symington (ID) Peter Cooch (ID), Yongtian Tina Tan (Peds), Danielle Nahal (Peds), Lauren Grant (Peds), Ozge Dogan (TCU hospitalist)

Pharmacist Leaders: Steve Grapentine, Pablo Lapantina

Faculty QI Mentors: Rachel Wattier (ID/ASP, primary coach), Trang Trinh (Medication Outcomes Center), Iris Otani (AI)

Background

- Literature shows that while ~10 in 100 people are labeled as having a beta lactam allergy (BLA), the prevalence of true BLA is ~1 in 100, meaning many patients with listed BLA could safely receive beta lactam antibiotics.
- Patients labeled with BLA often receive broader, less effective, or more toxic antibiotic therapies. Reported BLA amongst hospitalized patients is associated with increased length of stay, cost of care, adverse events, and mortality.
- 7% of non-neonatal patients had BLA documented on a single day audit at UCSF Benioff Children’s Hospital (BCH).
- There was a need to improve the persistent low rates of assessing listed beta lactam allergies for delabeling in admitted pediatric patients at BCH.

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Poster Video: https://vimeo.com/showcase/8314448/video/554700590
Improving clinic workflow impacted by COVID: NCCN Distress Thermometer

Presenter: Nam Woo Cho
Jessy Chew, Nam Woo Cho, Sumi Sinha, Harish Vasudevan
Radiation Oncology

Background

- NCCN distress thermometer is a validated screening tool to identify and address psychosocial distress in patients with cancer
  - Radiation Oncology aims to screen all patients at consult
- Increased reliance on telehealth consults led to decreased NCCN distress form completion rates

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Poster Video: https://vimeo.com/showcase/8314448/video/555129705
Kellgren and Lawrence System for Classification of Osteoarthritis

Yusuke Yagi & Sarasa Kim

Osteoarthritis grading on radiographs

Background

- Significant inter-observer and intra-observer variability in grading as well as consistency in reporting

- Correlation between grade and clinical findings
  - Role in clinical decision making

- Patient access to radiology reports

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Poster Video: https://vimeo.com/showcase/8314448/video/554693308
Improving tracking of ethnicity for infertility patients

Jerrine R. Morris, MD, MPH

Faculty Leads: Dr. Yanett Anaya, Dr. James Smith, Dr. Marcelle Cedars

Co-Fellow: Amy Kaing

Reproductive Endocrinology & Infertility

Background

- Underrepresented minorities have traditionally been found to have disparate outcomes as compared to non-Hispanic White women including:
  - Present later for infertility care
  - Utilize fertility services at a lower rate
  - Higher rates of miscarriage
  - Lower rates of pregnancy and live

- Researchers have postulated why this may exist, yet there are few studies that have proposed interventions to narrow these disparities.

- One hindrance is attributed to the lack of reporting of ethnicity to be able to derive meaningful information.

- In order to optimize access, it is essential to understand the demographic makeup of patients presenting for fertility treatment.

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Poster Video: https://vimeo.com/showcase/8314448/video/555127422
Increasing awareness of disposable surgical supply usage and costs in Urology

Maya R. Overland¹, Heiko Yang¹, John P. Lindsey II¹, Kaiyi Wang², Seema Gandhi³, Thomas L. Chi¹

¹UCSF Urology, ²UCSF Sustainability, ³UCSF Anesthesia

Background

- The operating room represents a significant cost center in the hospital, estimated at up to 15% of hospital budgets. A notable proportion of OR cost comes from surgical materials and supplies, averaging $3.3 million per year for the UCSF Urology department alone (Hampson et al, 2016).
- Baseline awareness of the cost of surgical supplies amongst faculty and trainees is poor (Schmidt et al, 2019), consistent with similar assessments from other institutions and surgical specialties

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Poster Video: https://vimeo.com/showcase/8314448/video/555090516

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BLSI: Better Lesional Site Identification

Stefan Lowenstein, Sally Tan – QI Chiefs
Dan Klufas, Molly Lohman – QI Emeritus Chiefs
Jen Liu – UCSF Medical Student
Rita Khodosh – Director for Safety and Quality

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Poster Video: https://vimeo.com/showcase/8314448/video/554596844

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Improving Pneumococcal Vaccine Rates in Pediatric Patients with SLE

Julia Shalen, MD

- Patients with SLE at higher risk of developing invasive pneumococcal disease.
- Historical debate over the safety and efficacy of pneumococcal
  - Recent work shows that PCV 13 and PPSV 23 are both safe and immunogenic
- Current CDC recommendations for children who are immunocompromised include vaccination with PCV 13 followed by PPSV 23.

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Poster Video: https://vimeo.com/showcase/8314448/video/555884705
Improving Discharge Instructions After Gender Affirmation Surgery

Poster: Not Available

Poster Video: https://vimeo.com/showcase/8314448/video/545247426
IPASS for Psychiatry Signout

Panid Sharifnia MD PhD, Lucas Broster MD PhD, Eric Alcid MD PhD

UCSF Psychiatry Residency

Background and Goals

- Our attendance at Root Cause Analysis (RCA) meetings has brought to our attention that care transitions during shift change were identified as root causes for several adverse patient events or near misses:
  - Concerns about declining medical status and potential for ED transfer
  - Patients who are fall risks
  - Patients who are likely to become agitated
  - Allergies
  - Elderly patients who might require less antipsychotic if agitated
- Given this issue, we wanted to attempt to implement an evidence based handoff tool in order to make signout at shift change more systematic so that key clinical information is not missed
  - Ultimate goal is to reduce adverse patient outcomes and near misses

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