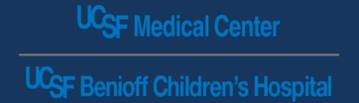




Identification and Resolution of Post Discharge Medication Issues using IVR Technology and an Interprofessional Approach

Margaret Wheeler Emrick, RN, BSN, Administrative Coordinator, Office of Population Health and Accountable Care, UCSF Health
 Marilyn Stebbins, Pharm.D., Department of Clinical Pharmacy, UCSF School of Pharmacy
 Judie Tran, Pharm.D., Department of Clinical Pharmacy, UCSF School of Pharmacy



Background:

- Hospital discharge is a significant transition for patients and caregivers as they assume management of complex treatment plans in the home environment
- Telephone follow-up is a best practice to support patients during this transition period to clarify discharge instructions, review medications, evaluate symptoms, and facilitate outpatient handoffs.
- As part of California's "Bridge to Reform" CMS program, UCSFMC re-engineered and expanded the follow-up phone call program for inpatients, the ED, and peri-op services.
- This call program uses an automated interactive phone call paired with a centralized pool of specially trained RNs who assist patients and families with transitional care needs.
- In 2013, the UCSF School of Pharmacy began a collaboration with this nurse-run call program to provide medication expertise through an escalation protocol for medication-related issues.

Problem:

Medication-related problems can occur when a patient is transitioning from the hospital to the home due to the complexity of this process. In 2003, over 40% of patients discharged from a large teaching hospital in New York City experienced one or more medication error due to discontinuity of care.¹ In addition, almost 20% of Medicare beneficiaries were rehospitalized within 30 days in 2003-2004.²

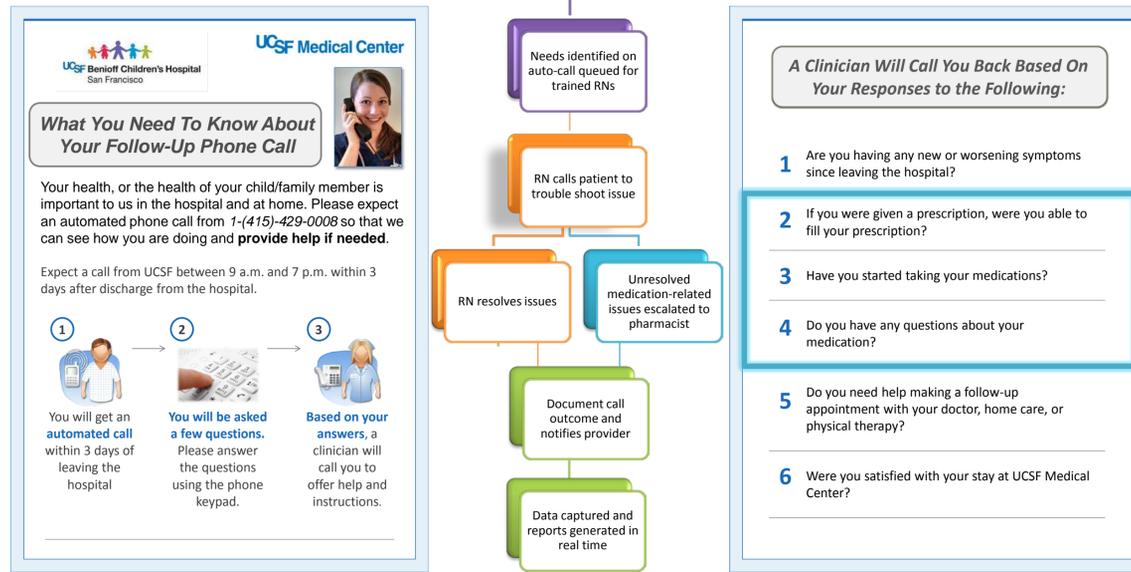
Objective:

- Develop an interprofessional approach in the nurse-run Care Transitions Outreach Program to encourage safe and effective medication use post discharge.
- Identify and quantify medication-related problems at discharge on an annual basis in order to track progress and to inform future transition programs related to medication use.

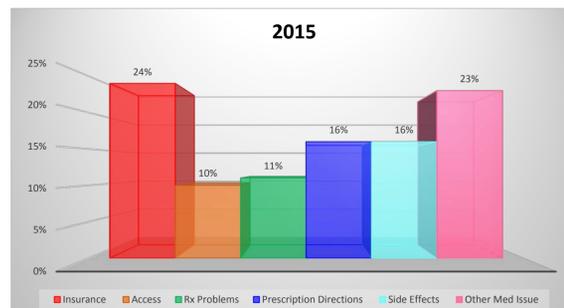
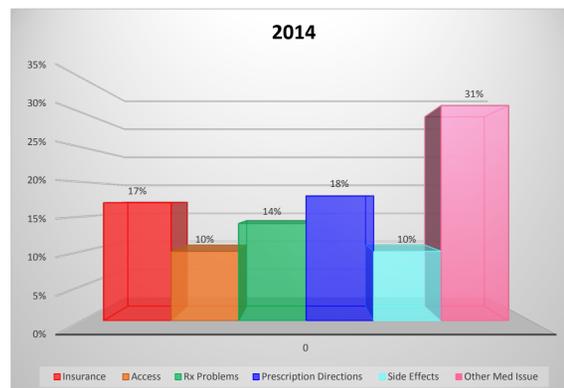
Steps taken to implement the project:

- In 2013, the Care Transitions Outreach Program contracted with the UCSF School of Pharmacy to provide medication expertise through an escalation protocol using pharmacists for medication-related issues post discharge.
- As part of the collaboration, the nurses in the Care Transitions Outreach Program and the pharmacists in the School of Pharmacy developed scripting for medication-related questions, as well as workflows for escalations to the pharmacist as new integrated voice response (IVR) technology through CipherHealth was being implemented in the UCSF Medical Center for post discharge phone calls to patients.
- An initial evaluation was conducted by the School of Pharmacy to identify and quantify the medication-related issues in the first 5 months of the program.
- In 2015, an additional evaluation was conducted to determine if there were changes in the numbers and types of medication-related issues as additional services were added to the discharge phone call program.

Process Map for discharge phone call program:



Outcomes:



Insurance	<ul style="list-style-type: none"> Prior Authorization Not covered Other insurance issue Refill too soon No insurance coverage Cost after insurance
Access	<ul style="list-style-type: none"> Medication out of stock No transportation Pharmacy does not stock medication Wrong pharmacy Pharmacy would not fill prescription Other access issues
Rx Problems	<ul style="list-style-type: none"> No prescription given eRx failed to transmit Prescribed but not wanted Refills needed No hard-copy prescription given for controlled meds No diagnosis code Question on status of Rx transmission Prescription error Other prescription issues
Prescription directions	<ul style="list-style-type: none"> Does not understand directions Questions on how to taper med Counsel on administration Question on formulation Change in directions
Side Effects	<ul style="list-style-type: none"> Experiencing side effects Question about side effects Not taking meds to avoid side effects
Other Med Issues	<ul style="list-style-type: none"> General medicine question Medication does not help Issue with medication, unspecified reason

Examples of Discharge Phone Call Medication Issues:

- A patient had been recently discharged from CT Surgery's service after being treated for an esophageal-tracheal fistula and an upper extremity DVT treated with enoxaparin inpatient. Through the 48-hour phone call program, patient stated he was not able to obtain the enoxaparin and Prevacid Solutabs due to insurance issues and had not been on enoxaparin for 3 days. Pharmacist facilitated PA for enoxaparin, Prevacid Solutabs contacted pt and pt picked up medications that day.
- Patient did not receive the DC prescription for Acyclovir. Patient states, "Kaiser is the only one that takes my insurance and I was supposed to go home with 10 prescriptions to take to Kaiser in Fresno but when I took them to Kaiser there were only 9 The one that was missing was acyclovir. Per the EMR pt was sent with this Rx. Contacted the Kaiser pharmacy in Fresno and they had all of the prescriptions except the acyclovir. The Rx was called in to the Kaiser facility and they will fill it. It was originally prescribed as acyclovir 400mg take 0.5 tablet (200mg) by mouth twice a day with 5 refills. Kaiser has the acyclovir 200mg so the RX will read take acyclovir 200mg one tablet by mouth twice a day. Called patient back to let her know that it is available for pick up and the direction changes from the AVS. Pt verbalized understanding of Acyclovir directions using the teach-back method.
- Per patient she needs to have her potassium changed to liquid and she is also having trouble with gabapentin getting stuck and plugging her colostomy. Called patient to let her know that the gabapentin capsules can be broken open and the contents can be put in small amount of water and then taken via G tube. Her potassium has always been a problem for her and she has had prescriptions for liquid potassium in the past and prefers this. I contacted the NP in surgery and had her call this prescription into the pt's pharmacy.

Continuous Improvement

- To date, approximately 80% of discharge patients are part of the Care Transitions Outreach Program. Moving forward, nursing and pharmacy will continue to study the discharge phone call medication data to help inform future programs.
- Based on the original discharge medication data, in April 2015 the Department of Pharmaceutical Services, the School of Pharmacy, Walgreens at UCSF and Hospital Nursing collaborated on a discharge bedside delivery program through the Walgreens at UCSF in an attempt to ensure that patients have access to their discharge medications prior to going home. A 5-month study comparing discharge medication access at the 48 hour discharge phone call for patients with a traditional discharge medications process vs. those receiving the bedside delivery program through the Walgreens at UCSF is currently being analyzed and will be presented in April.
- This interprofessional program strives for each discipline to practice at the top of their license to improve efficiency and effectiveness. To this end, not only have additional nursing and pharmacist resources been added to the program over time but a health navigator has been added to the team to improve the efficiency.
 - Nurses are the anchor of the program and their resources have increased from 1 full time nurse and 1 rotating nurse position to 2 full time nurses and 1 rotating nurse position.
 - Pharmacy had 0.1 FTE dedicated to the Care Transitions Outreach program during the first year, this has doubled to 0.2 FTE.
 - A 1.0 FTE Health Navigator added to the team
- Pharmacy also uses this service for its learners; therefore, Pharmacy Residents and early pharmacy learners participate in this program under the preceptorship of the pharmacist.
- In January 2016, the School of Pharmacy also incorporated 2 pairs of early medical student and pharmacy student learners into this program on a longitudinal basis to provide exposure to the potential medication safety issues that patients face in the transition from hospital to home.

Acknowledgements

This work would not have been possible without the expertise and support of the following members:

Aurora Snyder, RN, BSN, ONC
 Carla Graf, RN, GCNS
 Gina Intinarelli RN MS PhD
 Kirby Lee, PharmD
 Leann McDowell and I-Chen Fong, 2017 PharmD candidates
 CipherHealth LLC.

References

- Moore C, Wisnivesky J, Williams S, et al. Medical Errors Related to Discontinuity of Care from an Inpatient to an Outpatient Setting. J Gen Intern Med. 2003; 18(8):646-51.
- Jencks SF, Williams MV, Coleman EA. Rehospitalizations among Patients in the Medicare Fee-for-Service Program. N Engl J Med. 2009; 360:1418-1428