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Correction of errors

Pharmacists implementing transitions of care in inpatient, ambulatory and community practice settings [UPDATED]

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Correction: this version corrects errors that appeared on Pharmacy Practice 2014 Apr-Jun;12(2):439.

ABSTRACT[*]

Objective: To introduce pharmacists to the process, challenges, and opportunities of creating transitions of care (TOC) models in the inpatient, ambulatory, and community practice settings.

Methods: TOC literature and resources were obtained through searching PubMed, Ovid, and GoogleScholar. The pharmacist clinicians, who are the authors in this manuscript are reporting their experiences in the development, implementation of, and practice within the TOC models.

Results: Pharmacists are an essential part of the multidisciplinary team and play a key role in providing care to patients as they move between health care settings or from a health care setting to home. Pharmacists can participate in many aspects of the inpatient, ambulatory care, and community pharmacy practice settings to implement and ensure optimal TOC processes. This article describes establishing the pharmacist's TOC role and practicing within multiple health care settings. In these models, pharmacists focus on medication reconciliation, discharge counseling, and optimization of medications.[**a sentence was deleted**]

Conclusion: Optimizing the TOC process, reducing medication errors, and preventing adverse events are important focus areas in the current health care system, as emphasized by The Joint Commission and other health care organizations. Pharmacists have the unique opportunity and skillset to develop and participate in TOC processes that will enhance medication safety and improve patient care.

Keywords: Medication Reconciliation; Medical History Taking; Medication Errors; Patient Admission; Pharmacists; Professional Practice; United States

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BACKGROUND

The National Transitions of Care Coalition defines transitions of care (TOC) as "the movement of patients between health care locations, providers, or different levels of care within the same location as their conditions or care needs change".[1] Several national organizations have recognized the importance of medication safety during TOC, including The Joint Commission National Patient Safety Goal 03.06.01, which highlights the need to, "maintain and communicate accurate patient medication information".[2] Patient risk factors, including the elderly population, polypharmacy (5 or more routine medications), low health literacy, cognitive impairment, complex medical and/or behavioral conditions, and low socioeconomic status increase the risk for adverse events (AEs) during the TOC process.[3] To reduce medication and treatment errors that may occur as patients transition across the health care continuum, it is vital that providers collaborate and communicate with each other as well as with patients and their caregivers to achieve treatment goals.

Reasons for unsuccessful attempts to optimize the TOC process are often multi-factorial, but may result from lack of resources and communication. One review identified that direct communication between hospital physicians and primary care physicians (PCPs) occurred infrequently (3-20%) and the availability of discharge summaries at the first and fourth week post-discharge visits was 12-34% and 51-77%, respectively. The discharge summaries often lacked relevant information such as diagnostic test results (33-63%), treatment or hospital course (7-22%), discharge medications (2-20%), test results pending at discharge (65%), patient or family counseling (90-92%), and follow-up plans (2-43%).[4] Another study determined that 49% of patients experienced at least one outpatient medical error caused by failure to implement the

intended discharge plans for recently hospitalized patients.[5] Providing a complete and accurate medication reconciliation (MR) at the time of transition is important and improves TOC, especially since most AEs that occur during TOC are adverse drug events.[6]

Several studies that have shown decreases in hospital readmission rates, emergency department visits, and adverse drug events have included pharmacists as part of the multidisciplinary team.[7-9] Pharmacists in all practice settings can serve an important role in providing continuity during TOC. This article provides a review of several models of clinical pharmacy faculty involved in TOC through provision of MR, discharge summary review, and medication and disease management services as members of the multidisciplinary care team in the inpatient, ambulatory care, and community pharmacy practice settings.

Faculty background

TOC models have been implemented and continue to develop at the hospitals, medical clinics, and community pharmacies affiliated with the Philadelphia College of Pharmacy at the University of the Sciences by faculty who are clinical pharmacists. These faculty members are 100% employed by the University and are clinical pharmacy specialists that are residency trained in ambulatory care, internal medicine, or community pharmacy. These pharmacists have helped to develop, implement, and/or practice within these TOC models in collaboration with other pharmacists, physicians, and health care professionals at their practice sites.

TRANSITION OF CARE MODELS

TOC in an Inpatient Setting

Cooper University Hospital (CUH) is a 550-bed urban, academic medical center located in Camden, New Jersey. Within the CUH health system, over 700 physicians practice in more than 75 specialties. The pharmacy department consists of greater than 90 pharmacy employees, including 32 pharmacist full-time equivalents (FTEs), 27 pharmacy technician FTEs, and management staff. It is a hybrid model of centralized and decentralized pharmacists, which consist of staff, patient care, and clinical pharmacists.

Prior to 2011, physicians and nurses obtained pre-admission medication histories in the emergency department and/or inpatient units and directly documented in the electronic medical record (EMR). MR often failed to involve confirmation of the patient or caregiver information with retail pharmacies and physician practices. This resulted in incomplete, outdated, and inaccurate medication lists, and caused medication discrepancies during admission, transfer, discharge, and hospital readmission.

In January 2011, one clinical pharmacy faculty, one CUH pharmacist, and one physician developed and implemented a pharmacy technician-centered medication reconciliation (PTMR) program with full pharmacist supervision. Four full- and 2 part-time technicians, supervised by 1 to 2 CUH pharmacists staff the program. The PTMR service is currently provided from Sunday through Friday 7:00am to 3:30pm. The program serves all patients admitted and transferred to the internal medicine, oncology, post-emergency department unit, and part of the cardiology service within 72 hours. With the current resources of technicians, pharmacists, and technology, the PTMR program services approximately 800 patients per month.

The PTMR process is a structured and standardized process, and continues to develop. Pharmacy technicians are trained to prioritize patients using a tiered risk stratification approach, based on high-risk medications, comorbidities, and polypharmacy. First, the technicians print their patient list, document the pre-admission medications obtained from the EMR on a paper MR form, and review patient information prior to the patient interview. Next the technicians interview each patient to obtain a list of medications, supplements, and allergy information. The technician also inquires about the patient's outpatient pharmacy and health care provider information. After the patient interview, the technician calls the appropriate pharmacies, physician offices, and/or skilled or long-term care facilities to verify all outpatient medication information. They then compare this finalized list to the patient-reported list and the pre-admission list in the EMR. Finally, they document the new updated pre-admission list on the MR form and the EMR and hand off the form to the MR pharmacist. On average, it takes the MR technician 30 to 40 minutes per patient to complete this MR process. Depending on the complexity of the medication list, MR can take 30 minutes to several days.

Using the information obtained by the pharmacy technician, the MR pharmacist documents a note in the patient's EMR utilizing the updated pre-admission medication list from the MR form, EMR and any additional discussion with the technician. The pharmacist is responsible for addressing any MR issues that arise during the patient interview and reconciliation process. The pharmacist verbally communicates recommendations to physicians for urgent issues, and the pharmacist note is viewable by all CUH-affiliated health care providers who have access to the EMR.

The development and implementation of this program required four major components: development of program tools, utilization and training of technicians in the MR process, training of pharmacists in their MR role, and staff education. Key program materials that were created include the paper MR form, template for the pharmacy note for the EMR, training process and documents for the MR pharmacists and technicians, and educational materials for the staff.

Starting and implementing a PTMR program is not without its challenges. The training of pharmacists and technicians on the PTMR process involved significant time and effort. A standardized training was developed to streamline the process to make it efficient and consistent. Additionally, there was a high volume of calls to the outpatient pharmacies

from the technicians to obtain accurate medication information. To mitigate the quantity of calls, a standardized request-for-information form was created, after which retail pharmacies and other institutions faxed the medication information. This change reduced the time and increased the efficiency of the MR technicians. Additional efforts are in place to buy and implement software that will populate medication information from retail pharmacies for patients with certain types of health insurance.

The PTMR program at CUH focuses its efforts on obtaining the most accurate medication list and communicating that information to all health care providers within the system through the EMR. The most encouraging direction of this program is that all of the hospital disciplines (e.g., surgery, pediatrics, etc.) are now insisting that MR be done through the PTMR program for their patients. The goal is to eventually provide hospital-wide daily coverage; however, this is not possible with the present resources available. The development team and administrators are investigating methods to make this possible. In addition to the future implementation of the PTMR program for all patients, the goal is to expand pharmacy involvement in the discharge MR process and patient education.

TOC in a Group Visit Setting

Cooper University Hospital has formed the Cooper Advanced Care Center (CACC), which launched in June 2013. CACC incorporates a multidisciplinary health care delivery model focused on provision of care to underserved patients in Camden, New Jersey, with the goal of increasing access to care and decreasing hospital readmission rates and emergency department visits. A major aspect of CACC is group visits, where a team of providers lead a shared medical appointment with a group of patients that have the same chronic illness (e.g., diabetes, asthma). The multidisciplinary team of providers includes a medical assistant, licensed practical nurse, advanced practice nurse, clinical therapist, clinical pharmacy faculty member, medical residents, and attending physicians. The clinical pharmacy faculty member provides medication and disease management services under a collaborative practice agreement. During group visits, the patient moves through stations that include the aforementioned health care providers and then enter a group visit education suite where a clinical therapist and a physician facilitate a group education session. Billing for CACC group visits is currently done under the attending physician and the clinical pharmacy faculty member is not currently billing for services provided.

As part of CACC's mission to decrease hospital readmission rates, post-hospitalization diabetes group visits have been implemented for patients that utilized a CUH endocrinologist during a recent hospital stay. The clinical pharmacy faculty member is involved in the post-hospitalization visits and is responsible for MR and insulin adjustment, as many of these patients are on advanced insulin regimens after discharge. A process for providing TOC to other high-risk patient groups, such as heart failure patients, will be implemented in the future as the services provided by CACC continue to expand. The TOC aspect of CACC will also likely involve inpatient pharmacists on general medicine services in the future and would further expand the role of pharmacists in TOC initiatives at CUH.

TOC Process within an Integrated Healthcare System

The Veteran Health Administration (VHA) is the nation's largest integrated health care system and is comprised of approximately 53,000 licensed health care professionals within an estimated 152 medical centers and 1,400 outpatient clinics.[10] Specifically, the Philadelphia Veterans Affairs Medical Center (PVAMC) is an urban academic medical center within the VHA system that provides acute, ambulatory, long term care and specialty services. It is compromised of the main medical center, a long-term care facility, and four community-based ambulatory care satellite clinics. The medical center has 145 acute beds and the long-term care facility has 135 beds. Much of the PVAMC services are offered on an outpatient basis as evidenced by the nearly 460,000 outpatient visits in 2012.[11]

The PVAMC pharmacy staff services the outpatient, inpatient, and the satellite clinics (termed as Community Based Outpatient clinics (CBOCs)). Mail-order pharmacy services are processed within the VHA mail-order pharmacy for the veterans enrolled in the PVAMC system. Clinical pharmacy services are offered at the medical center and at the CBOCs. At these locations, the clinical pharmacy specialists manage the anticoagulation and chronic disease management clinics (DSM) including diabetes, hypertension, dyslipidemia and hepatitis C. Within these clinics, the pharmacists practice under collaborative practice agreements and autonomously manage drug therapy. Two clinical pharmacy faculties manage one of the pharmacist-run DSM clinics and also follow patients that need anticoagulation management at the PVAMC. Additionally, clinical pharmacy specialists, within the medical center, are an intricate part of inpatient medical teams.

As part of the TOC process, a MR is completed during every medical visit and at each care transition within PVAMC. Access to a patient's pharmacy record (for medications filled by a VHA pharmacy) enhances the accuracy and timeliness of MR, allows for an adherence assessment based on medication refill history, and helps facilitate the provision of accurate pharmacist-led discharge counseling. Within the acute setting, MR is performed at admission, during transitions, and at discharge by an inpatient clinical pharmacy specialist. On the weekends an inpatient clinical staff pharmacist and/or pharmacy resident performs the discharge MR and provides discharge counseling. To foster the communication between all health care providers, an EMR note details the MR, discharge summary counseling points, and follow-up actions. Additionally, the clinical pharmacy faculty and other clinical outpatient pharmacists

complete MR during DSM and anticoagulation clinics and provide documentation within the EMR.

In addition to being part of the VHA TOC process, the PVAMC pharmacy initiated a specific TOC program to reduce dosing errors with anticoagulants. To accomplish this goal, an individualized spreadsheet contains information on initial dosing, lab monitoring, and dose adjustment of warfarin, full-dose unfractionated heparin, and/or low-molecular weight heparin for each admitted patient. This information is then accessible by inpatient and outpatient clinical pharmacy specialists who manage the patient's anticoagulation therapy. If a scheduled anticoagulation outpatient appointment is missed due to a hospital admission, the clinical inpatient and outpatient pharmacists collaboratively coordinate to schedule a future appointment.

The PVAMC process of MR and utilization of an anticoagulation central information system is one TOC model within the integrated VHA system. This TOC model is fostered by several cohesive components both within the PVAMC and VHA. These components include a nationally connected EMR, electronic pharmacy record access for all health care providers, and a centralized pharmacy service for inpatient, outpatient, mail order, and long-term care settings to ensure timely communication across the continuum of care.

Similar to other healthcare systems, some challenges within the TOC process had to be overcome with initiatives both within PVAMC and the VHA. First, there are a large number of patients enrolled in the PVAMC system compared to the pharmacy staff. Even though pharmacists are closely involved in the TOC process for patients with medical conditions that require anticoagulation therapy, this is not the case for other medical conditions. To address this issue, pharmacists are available for consultation and provide timely recommendations on medication-related problems that are identified during post-discharge telephone calls made by members of a patient's primary care team.

Two other TOC challenges are receiving timely communication regarding a patient's admission to a hospital outside of the PVAMC and securing post-discharge PCP appointments. These appointments are hard to schedule at times secondary to primary care schedules being booked weeks in advance. To address this issue, the PVAMC, through VHA initiatives, has created patient-centered medical home models (termed patient-aligned care teams in the VHA system) to enhance communication of such information by increasing patient access to the health care team. Additionally, the medical center has implemented further measures to ensure that urgent appointment slots are available for post-discharge appointments when needed.

TOC Model in Ambulatory Care

Two clinical pharmacy faculties have a pharmacist-run clinic in two outpatient clinics, Penn Internal Medicine Associates (PIMA) and Edward S. Cooper Internal Medicine Clinic (Cooper), which are affiliated with the University of Pennsylvania Health System (UPHS) in Philadelphia, Pennsylvania. PIMA and Cooper are each certified by the National Committee for Quality Assurance as a level 3 Patient-Centered Medical Home. The Cooper clinic mentioned in this section has no affiliation with Cooper University Hospital mentioned above.

A Post-Acute Care Clinic (PACC) was established in October 2011 as an inter-professional collaboration to improve the TOC process from the inpatient to the ambulatory care setting. The goal of PACC is to provide patients a follow-up appointment within 1 to 2 weeks of hospital discharge and identify and resolve health-related, medication, or psychosocial factors and decrease preventable hospital readmissions. Regardless of reason for admission, if patients were admitted into a UPHS facility they can be referred to PACC at the time of discharge if they receive patient care at PIMA or Cooper (Figure 1). Patients admitted at an outside facility can also make a PACC appointment by calling the patient scheduling line at PIMA or Cooper.

PACC sessions are twice a week for half a day and allocate time for ten, 40-minute patient visits per session. There are up to two patients that can be scheduled during each 40-minute slot. Each PACC session includes one pharmacist, a minimum of two internal medicine residents, one attending physician, and one social worker. One of the key differentiators of this service is the significant utilization of pharmacy services in the ambulatory setting. The pharmacist spends an average of 15 minutes with the patient to review medications prior to admission, new medications prescribed at discharge, and post-discharge medication changes. The pharmacist also evaluates the appropriateness of medications, assesses medication use and adherence, reviews past laboratory results, and identifies the need for future laboratory orders. After the pharmacist-patient encounter, the pharmacist updates the medication and allergy list within the EMR as well as verbally communicates any recommendations to the other care providers. The pharmacist also documents the visit summary and recommendations in the EMR. After the pharmacist-patient encounter the resident physician examines the patient and makes additional changes to the medication regimen, if necessary. The PACC team establishes a care plan, which may include referrals, labs, and additional follow-up appointments with the PCP. In addition, after the PACC visit, patients may receive a follow-up visit or phone call with the pharmacist to further address any unresolved medication issues.

PACC appointments are generally billed using the traditional physician billing codes unless the patient meets the criteria established by the Centers for Medicaid and Medicare Services (CMS) for transitional care management billing codes since it is a higher reimbursement rate. To use these CMS codes, a follow-up phone call to the patient within 2 business days after discharge and a face-to-face office visit with the patient within 7-14 days of discharge is required.[12]

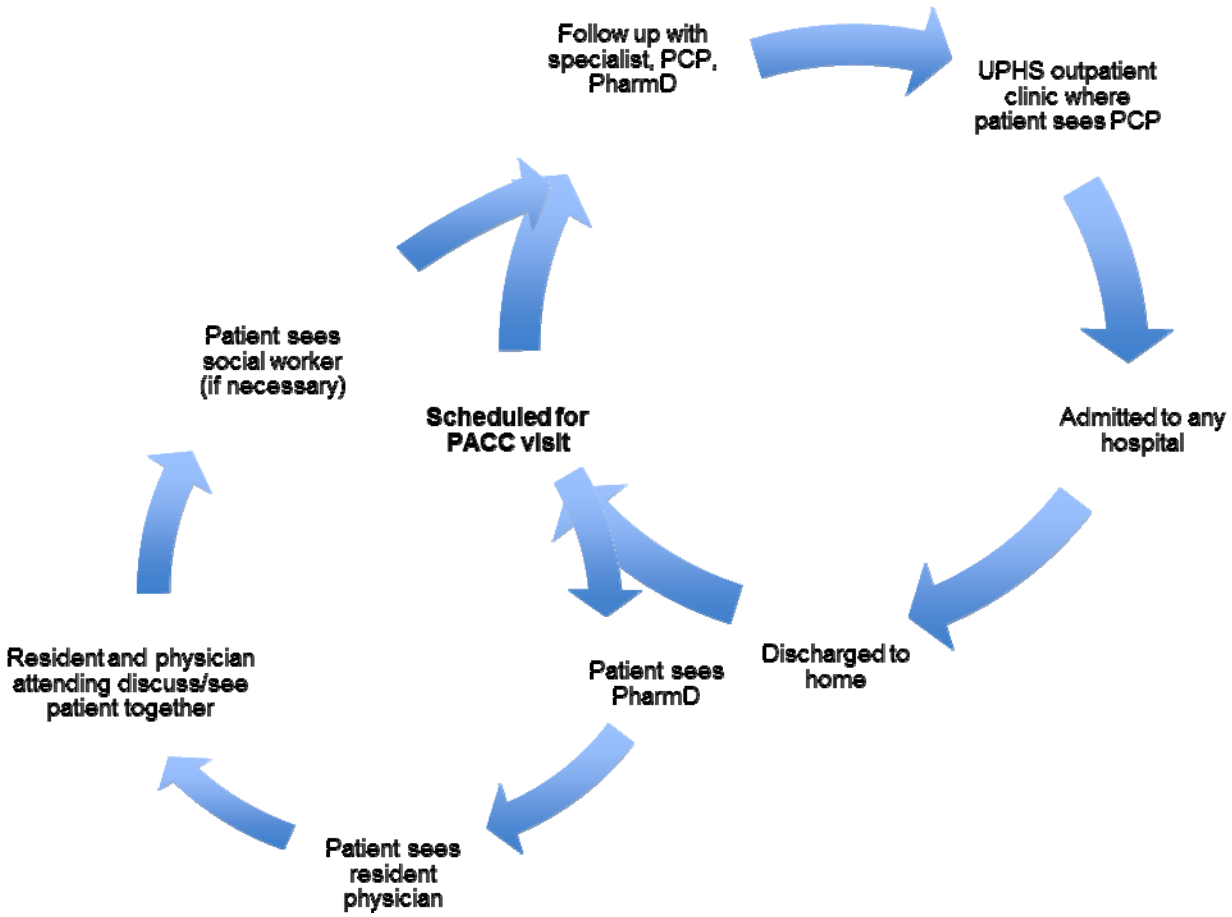

Figure 1. Post- Acute Care Clinic (PACC) at the University of Pennsylvania Health System (UPHS)

PACC's inter-professional approach has helped foster a trusting and collaborative relationship amongst those involved in PACC. This is evident by the dramatic increase in patients being referred to the pharmacist-run clinic from physician residents, physician attendings, and nurse practitioners. However, PACC also faced many challenges when it was first implemented. Scheduling difficulties and proper education regarding the purpose of PACC to residents and attending physician in the in-patient setting proved to be a limitation. Although not fully resolved, those involved with PACC has worked toward incorporating physician attending who work within the inpatient UPHS facilities as attending for PACC. Fortunately, many of the residents rotating through PACC also practice within the different UPHS inpatient facilities and have been integral in helping to increase the number of patients being referred to PACC. Additionally, another barrier, which is often the case in many health care settings, was allocating space for the PACC team to collaborate and conduct patient visits. The practice managers were invaluable in identifying additional space and ensuring enough patient rooms were available to prevent interruption in PACC and the remainder of the clinic's workflow. Another challenge specifically for the pharmacist in PACC is the short time frame allocated for the pharmacist-patient encounter. Therefore, the pharmacists frequently have to thoroughly review a patient's EMR and discharge summary to identify discrepancies prior to the encounter. As mentioned earlier, two patients can be booked in the same 40-minute time slot, which may delay the start of the PACC appointment when both patients arrive at the same time. The physician residents and attendings have become increasingly understanding of this and are often willing to wait until the pharmacist sees the patient because they recognize the importance of the pharmacist-patient encounter.

The challenges PACC faced at the beginning and those that are on-going have been and are able to be addressed in large part due to the collaborative nature of PACC as well as the leadership support it has received extending from clinic managers, attending, and the health system. The pharmacists within PACC are currently working on expanding the pharmacy services being offered in PACC in order to increase pharmacists' involvement within the TOC processes.

TOC Model in Community Practice

Mercy Philadelphia Hospital (MPH) is a 200-bed urban, community hospital and is part of the Mercy Health System. SunRay Drugs is a group of five independent community pharmacies that provide an array of services in addition to prescription dispensing, such as free delivery within Philadelphia

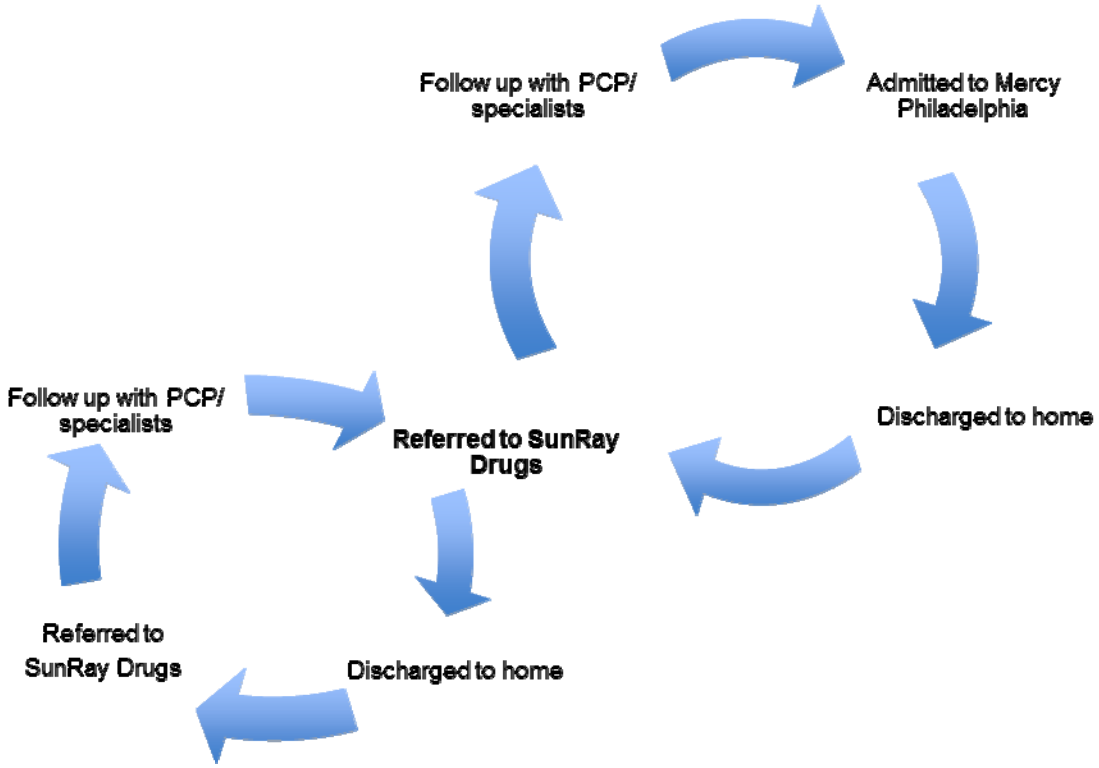

Figure 2, SunRay Drugs Transition of Care

County, blister packing, compounding, a medication disposal service, free human immunodeficiency virus testing, medication therapy management, vaccines, and health screenings. The hospital and pharmacies are located in West Philadelphia in Philadelphia, Pennsylvania and serve many patients with a low socioeconomic status.

With the increasing concerns regarding readmission rates, a TOC initiative was developed at MPH in August 2011 that incorporated both inpatient and outpatient services, to prevent 30-day readmissions. Team participants include representatives from hospital care coordination, case management, home health care, hospitalists, respiratory care, hospital and community pharmacy, and an insurance provider. A large part of this initiative is the SunRay Drugs program. The goals of this program are to improve access to medications by having a local community pharmacy, SunRay Drugs, provide free delivery of the patient's medications and improve safe and appropriate use of the medications by having a clinical pharmacy faculty provide complete medication management (CMM) after discharge.

The program started with inpatient pharmacy staff targeting patients from a single insurance plan who had congestive heart failure or chronic obstructive pulmonary disease. The program has since evolved to additionally utilize case managers, discharge planners, and inter-professional rounds to identify at-risk patients, per the discretion of the heath care team member, regardless of insurance plan or medical condition(s) to expand the impact on readmission rates. Once patients are identified, they receive an explanation about the program and an offer to participate.

When patients are enrolled, case management coordinates that all prescriptions are sent to SunRay Drugs for filling and same-day delivery to the patients' homes or hospital bedside to ensure timely access to medications. Patients can also choose to continue using their own pharmacy and are then only referred to SunRay for CMM services. Within 72 hours of delivery, the community pharmacist calls the patient to assess compliance, address medication questions, and offer CMM services (Figure 2). Seventy-two hours was chosen because literature has shown the most critical time to follow-up with patients is within 72 hours of discharge.[13]

CMM services at SunRay Drugs are provided two days a week in a private consultation area. This service provides the patients with one-on-one time with a pharmacist to review the efficacy and safety of their medication regimen, assess adherence, complete a MR between discharged and previous home medications, and educate the patients about their medical conditions and medications. The CMM visit is documented electronically in a medication management system. Prior to leaving the pharmacy, patients are provided with a list of their current medications, a medication action plan of 3 to 4 actions decided upon collaboratively between the patient and pharmacist to help improve their

medication use, and scheduled follow-up appointment. The reconciled medications and drug therapy problems identified are also communicated with the patient's physician(s). If the patient does not have an established PCP, the clinical pharmacy faculty and discharging hospital work together to find one.

One of the greatest challenges with the community pharmacy TOC model is patient recruitment into the program since the site is solely relying on members on the patient's health care team in the hospital to identify these high-risk patients. As mentioned previously, recruitment has grown by utilizing additional members of the patient's health care team to identify patients with any insurance or any condition. Additionally, in-services to explain the benefits and components of the program have been provided to members of the health care team to increase enrollment. To overcome the challenge of high no-show rates, different patient incentives are being explored. An on-going struggle is obtaining patient contact information for follow-up. Obtaining accurate phone numbers while in the hospital has proven to help with this effort. Discharge summaries, used to complete an accurate MR, have also been difficult to obtain. To aid in this effort, a collaborative relationship has been created with a large Medicaid insurance plan, which allows SunRay drugs to access an online insurance database to see what medications have been filled for that patient at any pharmacy. Additionally, the clinical pharmacy faculty calls the patient's prior pharmacy for a medication history.

There are several future goals and opportunities in the community pharmacy model to improve TOC and pharmacy practice. These include reimbursement for CMM services, gaining access to databases of other insurance companies, exploring other patient incentives such as lottery tickets or hair and nail salon vouchers to enroll in the program, and encouraging other community pharmacies to offer CMM. Since the community pharmacy setting has a high potential for patient interaction and impact, this is a tremendous opportunity where pharmacists can expand their role in TOC.

DISCUSSION

There are many efforts that have been and continue to be implemented to advance pharmacy roles in TOC models. Increasing pharmacist involvement in and communication between inpatient and outpatient settings regarding patient goals and plans of care is essential. Communication between providers can be enhanced with the pharmacists' ability to document MR and patient education in the patient chart that is readily available to outpatient providers. The inclusion of community pharmacists in the line of communication is also critical. For example, including community pharmacists in the MR process at discharge can complete the loop of medication information, help ensure that patients and providers understand the patient's medication regimen, and identify and help resolve discrepancies.

The timeliness of patient follow-up visits can be improved by having available providers other than physicians, such as ambulatory care pharmacists, for post-discharge telephone calls and visits, especially when available appointments with PCPs can be weeks away. Ambulatory care pharmacists can play an important role in ensuring patient treatment goals are being met and that patients understand their medication regimens.

Pharmacists in all health care settings are essential by actively being involved in MR, discharge plan, disease management, and other TOC roles. However, leadership support from the institution is critical for pharmacists to be able to develop, implement, and/ or practice within TOC models. The use of pharmacist to enhance communication and provide patient education is the common theme that can improve TOC.

CONCLUSIONS

Appropriate TOC for patients, reducing medication errors, and preventing AEs are important areas of focus in the current health care system as emphasized by The Joint Commission and other health care organizations. Pharmacists working within different health care settings have a unique opportunity to further integrate themselves into the multidisciplinary team through the TOC process. This can lead to increased inter-professional collaboration and potentially reimbursement for services, such as MR and medication therapy management, across the different health care settings. Pharmacists can help develop TOC models to serve as an example for other health care settings to replicate similar models to improve their respective TOC and medication use process, and ultimately improve patient care. Future studies are needed to assess the pharmacist's role in TOC with clinical, economic, and humanistic outcomes.

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CONFLICT OF INTEREST

The authors have declared no conflicts of interest.

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FARMACÉUTICOS IMPLANTANDO TRANSICIONES DE PACIENTES EN AMBIENTE DE PRÁCTICA HOSPITALARIO, AMBULATORIO Y COMUNITARIO [ACTUALIZADO]

RESUMEN

Objetivo: Presentar a los farmacéuticos el proceso, los retos y las oportunidades de crear modelos de transiciones de cuidados (TOC) en ambiente de práctica hospitalario, ambulatorio y comunitario.

Métodos: Se obtuvieron literatura y fuentes sobre TOC a través de una búsqueda en PubMed, Ovid, and GoogleScholar. Los farmacéuticos clínicos, que son autores de este trabajo, presentan sus experiencias en el

desarrollo, implantación y ejercicio con los modelos de TOC.
Resultados: Los farmacéuticos son una parte esencial del equipo multidisciplinario y juegan un papel clave cuidando a los pacientes cuando se mueven entre niveles de asistencia o de un nivel de asistencia a su hogar. Los farmacéuticos pueden participar en muchos aspectos de cuidaos en ambientes hospitalarios ambulatorios y comunitarios para implantar y asegurar procesos de TOC óptimos. Este artículo describe el establecimiento y la práctica del papel del farmacéutico en los TOC en múltiples niveles de cuidados de la salud. En estos modelos, los farmacéuticos se centran en la reconciliación de la medicación, el consejo al alta, y la optimización de la medicación. [**se eliminó una frase**]

Conclusión: Optimizar el proceso de TOC, reducir los errores de medicación, y prevenir eventos adversos son áreas importantes de del farmacéutico en el actual sistema sanitario, tal y como fue remarcado por The Joint Commission y otras organizaciones sanitarias. Los farmacéuticos tienen una oportunidad única y un conjunto de habilidades que desarrollar y participar en el proceso de TOC que elevarán la seguridad en la medicación y mejorarán la asistencia del paciente.

Palabras clave: Conciliación de Medicamentos; Anamnesis; Errores de Medicación; Admisión del Paciente; Farmacéuticos; Práctica Profesional; Estados Unidos

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