



# A Review of the Barriers to Transitions of Care Between the Hospital and Community Pharmacy

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## Abstract

**Objective:** To address the barriers and implications of transitions of care (TOC) from the hospital to the community pharmacy-based setting.

**Methods:** A recently discharged patient presented to the community pharmacy for a transitions of care (TOC) service. Medication refill histories from the pharmacy and insurance company were gathered, and the patient's discharge paperwork was requested from the hospital to identify any medication discrepancies and medication-related problems (e.g., medication non-adherence, duplicate therapy, drug-drug interactions). After obtaining this information, the pharmacist and an Advanced Pharmacy Practice Experience (APPE) student attempted to perform a medication reconciliation to identify medication-related problems, and create a personal medication list (PML) and medication action plan (MAP).

**Results:** The community pharmacist and an APPE student were unable to effectively implement TOC in the community pharmacy-based setting due to several barriers in the healthcare system including misuse of the Health Insurance Portability and Accountability Act (HIPAA) and delayed response or nonresponse from healthcare providers (HCPs). As a result, the patient was readmitted twice since the initial hospitalization.

**Conclusions:** The patient continues to be at high risk for medication-related errors, health complications, and hospital readmissions due to unresolved medical issues and medication non-adherence. Community pharmacies need to be part of the hospital's TOC process to effectively reduce hospital readmission rates and to improve patient health outcomes.

**Keywords:** Care Transitions; Community Pharmacy; Discharge Education; Transitions of Care

## Introduction

According to The Joint Commission, transitions of care (TOC) is defined as the transitioning of a patient from one setting of care (e.g., hospital) to another (e.g., home or hospice) [1]. During TOC, the coordination of care between healthcare providers (HCPs) needs to be continuous as the patient's health conditions and needs change [1,2]. Implementing an effective TOC program that includes pharmacists as HCPs is essential, because deficits in this area are associated with medication-related errors, increased hospital readmissions, patient harm, and high healthcare costs [1-5]. Current readmission rates for patients on Medicare is 17.1%, which results in costs of nearly \$44 billion dollars per year [5,6].

Centers for Medicare & Medicaid Services (CMS) have attempted to lower the readmission rates by reducing payments for healthcare services to hospitals that have high readmission rates [7].

The following patient case presents a real-life scenario of hospital readmissions that could have benefited from an effective community pharmacy-based TOC service:

A 55-year-old African-American female with multiple comorbidities was readmitted to the hospital a total of three times within the last 30-days. Initial admission was for excessive dehydration due to uncontrolled nausea and vomiting. The second admission was due to uncontrolled pain, and the third admission was due to bleeding complications. Prior to these three hospitalizations, the patient had seen at least 6 physicians to help manage her medical conditions and had utilized at least 4

pharmacies in the last 6 months. The patient was nonadherent to her medications as evidenced by her pharmacy records; the patient had not refilled many of her medications in the last 30 days. The patient admitted to having difficulties obtaining medications either because of financial cost or drug unavailability. Furthermore, the patient claimed that she could not remember if the hospital staff discussed the medication list with her at discharge. The patient was confused about her medications; she did not know which ones she should be taking or discontinuing. The patient complained of uncontrolled nausea/vomiting and pain, and her level of functioning continued to decline.

Implementation of a community pharmacy-based TOC service allows for the identification and resolution of preventable medication-related problems, promotes patient safety and medication adherence, reduces unnecessary readmissions to the hospital and physician visits, and lowers overall healthcare cost [4-8].

Community pharmacists undergo a total of 6 years or more of training to receive a doctorate in pharmacy. Two of these years are focused on prerequisites such as biology, chemistry, anatomy, physics and calculus, with 4 additional years of pharmacy-focused education in the professional program. While in the professional program, students undergo 3 years of education in pathophysiology and pharmacotherapy focused on the following topics: cardiovascular, endocrinology, nephrology, pulmonary, gastroenterology, psychology, oncology, infectious disease, critical care, gynecology, dermatology, pediatrics, and geriatrics. In their final year of pharmacy school, students practice their didactic skills during their 4-6 weeks of Advanced Pharmacy Practice Experience (APPE) rotations where students participate in pharmacist experiences in various settings (e.g., general hospital, ambulatory care, critical care, community).

Because of their wealth of medication knowledge and accessibility, community pharmacists can be a valuable resource and support for patients that are newly discharged into the community setting [3,4,8]. Patients with multiple comorbidities are at increased risk for medical complications and hospital readmission within 30-days [9,10]. The objective of this review is to address the barriers and implications of TOC in the community pharmacy-based setting.

## Methods

Upon initial hospital discharge, this case patient was identified as a candidate for the community pharmacy-based TOC program that was piloted. The patient met the following criteria: patient was not hospitalized due to childbirth, suicidal attempts, or psychiatric conditions, patient was greater than 18 years of age,

patient was hospitalized for two or more days, and patient was not filling specialty medications (e.g., chemotherapy, transplant, and HIV medications) through the community pharmacy. The patient verbally consented to participate in the TOC program at no additional cost. Medication refill histories from the pharmacy and insurance company were gathered to assess medication adherence and identify medication-related problems. The patient's discharge paperwork was requested from the hospital to identify any medication discrepancies and to perform medication reconciliation. The community pharmacist and an APPE student were tasked to perform medication reconciliation to identify medication-related problems, and create a Personal Medication List (PML) and Medication Action Plan (MAP).

## Results

The implementation of a community pharmacy-based TOC program was ineffective due to several barriers in the healthcare system. On multiple occasions, HCPs were uncooperative with the community pharmacist/APPE student by refusing to provide patient health information (e.g., discharge medication list) and communicating with the community pharmacist in a timely manner (e.g., 7-10 business days) because of the Health Insurance Portability and Accountability Act (HIPAA) and the hospital's policy. In addition, key HCPs from the hospital and primary care office failed to help resolve discrepancies that the community pharmacist identified. As a result, the community pharmacist and APPE student were unable to reconcile the patient's medications and to address medication-related problems. Also, the PML and MAP could not be completed. The patient consequently was readmitted twice to the hospital within a 30-day period with poor health outcomes, and the patient continues to be at high risk for health complications and hospital readmissions.

## Discussion

Several barriers contributed to the ineffectiveness of the TOC process. One significant challenge that the community pharmacist and APPE student had was the lack of timely access to patient's health information, including discharge medication list. In this patient case, the nurse and primary care physician refused to discuss the patient's concerns and medication questions with the pharmacist because they felt that this would be a violation of HIPAA. The HIPAA Privacy Rule was often cited inappropriately and misconstrued by HCPs because it negated the purpose of protecting the patient from harm and ensuring continuity of care. The goal of the HIPAA Privacy Rule, per the U.S. Department of Health & Human Services, is to ensure that providers "do not use or disclose an individual's health information except for treatment, payment, or regular healthcare operations" [11]. Community pharmacists need to be able to consult a HCP regarding a patient's medication regimen and perform "regular

healthcare operations” of conducting medication reconciliation [2,11]. Approximately 60% of medication errors occur when the patient transitions through the healthcare system [8]. Obtaining a discharge medication list is crucial for the TOC process because it allows the community pharmacy system to identify any medication discrepancies and to prevent medication-related errors [8,10].

Another barrier that the community pharmacist and APPE student experienced was lack of inclusion in the hospital’s TOC process. Most traditional hospital TOC models, such as described by Labson et al. (e.g., Care Transition Programs, Project RED), do not include community pharmacists [5]. However, community pharmacists are valuable in assessing and identifying patient barriers that pose risks for poor health outcomes. They can serve as a patient advocate to ensure that the patient transitions smoothly back into the community setting after hospitalization because they are frequently the first accessible healthcare providers in the community. The patient described in the case had uncoordinated care because the patient did not have a designated person within the community to follow-up with and to assist the patient in the TOC process.

Additionally, the pharmacist and APPE student encountered a lack of urgency and accountability set by the healthcare team. Common responses received by the community pharmacist included, “I don’t see what the issue is,” “There’s nothing I can do about it,” and “That’s the patient’s own problem.” Evidence has shown that including pharmacists on the health care team can help overcome barriers in the TOC setting and improve patient outcomes [2,3,12-16]. This patient’s HCPs missed the opportunity to improve patient health outcomes and to reduce the risk of readmissions by collaborating with the community pharmacist to resolve medication-related problems.

Community pharmacists needs to be integrated into the hospital’s TOC process to improve patient outcome and to reduce hospital readmission. As previously mentioned, community pharmacists are valuable members of the healthcare team who have received training in multiple disease states and are qualified to screen for health problems, such as depression, diabetes, neuropathy, and much more. Because of their accessibility, community pharmacists are able to identify social and economic issues that affects the patient’s overall health. Research has found that providing community pharmacists with access to electronic health records can be beneficial in decreasing hospital readmission [17]. Community pharmacists can better serve patients through partnership with local hospitals; research has shown that integrating these pharmacists in the transitions of care process can result in a significant decrease in readmission rates, 6.9-8.1% in the intervention group (in comparison to 20-21.4% in the usual care group) [18,19]. In these partnerships, nursing staff help identify patients that are being discharged, refer these patients to

their community pharmacy, and share relevant information with the community pharmacists. These pharmacists are provided with contact information so they can easily communicate any barriers to care or issues with the hospital.

By collaborating on a team, hospitalists and nurses can provide discharge paperwork and communicate any medication changes. Community pharmacists can further be utilized to improve positive health outcomes by identifying medication discrepancies and potential medication-related problems, by assessing patient’s barriers (e.g., socio-economic burden, lack of transportation, medication non-adherence) [3,4]. Community pharmacists can be utilized to follow up with the patient and perform risk assessments (e.g., medication non-adherence). This can significantly reduce unnecessary hospitalizations or doctor visits [1,4]. For example, if the patient is unable to afford the medications due to financial burden, the community pharmacist can discuss the patient’s socioeconomic concerns and offer alternative, cost-effective medications with the HCPs. This will result in preventing medication non-adherence, poor health outcomes, and unnecessary stress on the patient.

Overall, HCPs should utilize community pharmacists to ensure an effective TOC and continuity of care to reduce hospital readmission rates and promote positive health outcomes. Community pharmacists can be utilized in various ways to help improve the TOC process. By providing quality care transitions through the utilization of community pharmacists, this case patient would have most likely had better health outcomes, and increased quality of life which would have led to an overall decline in healthcare costs.

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