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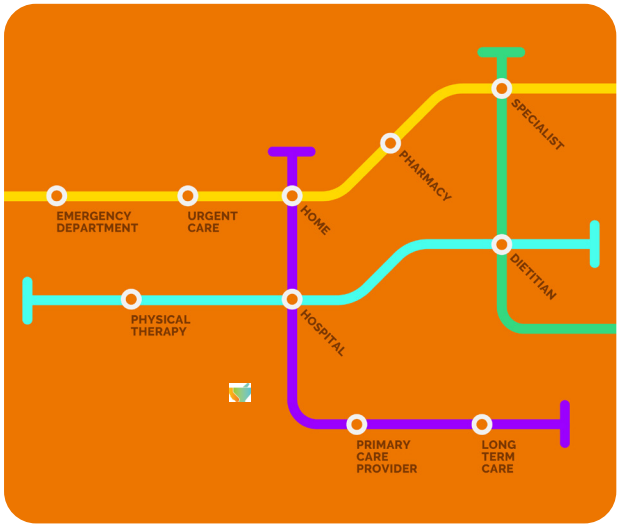

Transitions of Care Practice Models: Innovations Across Different Health Settings

Wherever TOC happens, the patient stands to benefit

Laressa Bethishou and Noah Fang

Being discharged from a hospital may be a joyous occasion for a patient with a long length of stay, but this process may also be riddled with medication issues. With a deluge of new medications, unclear instructions, and new costs that may be unaffordable, many patients face challenges that are all too common. Additionally, the medication list may be fraught with discrepancies of missing or inaccurate home medications, duplicate therapies of new medications prescribed, or drug-drug interactions of old and new medications.

Pharmacists and pharmacy personnel who support patients during transitions of care (TOC) are very familiar with the consequences of ineffective medication management and handoff procedures. Medication errors are the most common type of medical mistake, resulting in nearly 7,000 deaths per year.[1] The percentage of patients with medication errors varies but can be as high as 67%, and even higher when considering nonprescribed medications.[2] One study found that 30% of patients had at least one medication error during TOC, with 40% of errors deemed moderate in severity and 36% of errors deemed serious or very serious.[3] Older adults — as well as those with polypharmacy, chronic diseases, and multiple comorbidities — are at higher risk for medication errors.[4-7]

With this crisis, the Institute for Safe Medication Best Practices (ISMP) recently expanded its targeted medication safety best practices to include TOC interventions (www.ismp.org/resources/three-new-best-practices-2024-2025-targeted-medication-safety-best-practices-hospitals). Recognizing that medication discrepancies and inaccurate or incomplete information contribute to errors during health transitions, ISMP recommends that health institutions implement strategies to prevent medication errors at transitions in the continuum of care. Pharmacists are best poised to help bridge this gap.

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Pharmacy interventions during TOC can reduce avoidable readmissions, decrease medication errors, improve health outcomes, and increase patient satisfaction.[8,9] Certain elements, such as multimodal models and interdisciplinary collaboration, have demonstrated value, but no optimal practice model exists.[8] Understanding the needs of a healthcare setting and the populations served can inform the practice model most appropriate to provide optimal care. The practice models below describe innovations that best meet the unique needs of each healthcare institution.

Interdisciplinary Team Care Rounds: Stanford Health Care

At Stanford Health Care (SHC), TOC pharmacists actively participate in multidisciplinary team care rounds, which include social workers, case managers, the bedside/charge nurse, physical and occupational therapists, clinical dietitians, clinical nurse specialists, and the physician/provider. Daily rounding allows for an interdisciplinary approach to proactively identifying and addressing patient needs and planning for discharge TOC needs based on the anticipated discharge date. Pharmacy is able to proactively identify medication-related issues, including medications that may need prior authorization, have formulary or prescribing restrictions, require financial resources to supplement high cost/co-insurance or require

support to access due to low/restricted stock, compounding, and/or patient transportation issues. Additionally, pharmacists are poised to provide resources to medical teams about clinical alternatives due to formularies and preferred medications. These interventions allow for the proactive identification of barriers that may delay hospital discharge, increase the risk of readmission, or hinder medication access and optimization and, ultimately, patient adherence.

SHC is a healthcare enterprise system with a tertiary academic medical center, a community-based hospital, and a network of primary and specialty clinics in the San Francisco Bay Area. Over the last decade, inpatient TOC pharmacists have become an integral part of multidisciplinary teams in addition to providing a direct patient-facing role that was lacking in most inpatient pharmacy settings. TOC services at SHC have expanded from 2 full-time employees (FTEs) to 11 FTEs, which now includes 2 pharmacy technicians who help collect medication histories for patients arriving on the floor without prior pharmacy medication history interviews in the emergency department.

Pharmacists cover high-risk patients from a range of service lines, including heart failure, general cardiology, general medicine, hematology, oncology, psychiatry, neurology, stroke, epilepsy, and geriatrics. High-risk patients include those taking high-risk medications or 6 or more new long-term medications, patients with specific diseases or a medication-related admission, or those who are likely to benefit from a provider/pharmacy TOC consult. Pharmacist interventions include collecting a best possible medication history (BPMH), admission/discharge medication reconciliation, discharge patient education, clinical rounds, assessing and addressing adherence barriers, and postdischarge phone calls when appropriate.

Pharmacy interventions have prevented and reduced medication errors, reduced readmission in target patient populations, and improved patient satisfaction. Other disciplines appreciate pharmacist interventions, and patients appreciate direct time with the pharmacist to explain their medication therapy.

Promoting Continuity of Care: Cedars-Sinai Medical Center

The TOC program at Cedars-Sinai Medical Center provides excellent continuity of care between the inpatient and outpatient care settings. This population health TOC program is a unique collaboration between the inpatient TOC pharmacy team of a large inpatient academic medical center and the ambulatory care TOC pharmacy team of its affiliated medical physician network.

On the inpatient TOC pharmacy team, pharmacy technicians conduct admission medication histories and inpatient pharmacists optimize medication regimens at discharge medication review and provide patient counseling before discharge. The key role that the inpatient pharmacists serve is minimizing prescribing-related medication discrepancies by reviewing the discharge medication list, providing discharge prescription services, and anticipating any medication access issues. The pharmacist ensures that patients and their families are educated on medication changes. Most importantly, the TOC inpatient pharmacist provides timely communication to ambulatory care pharmacists, highlighting anticipated drug-related problems better addressed by providers after hospitalization.

Ambulatory care TOC pharmacists conduct postdischarge medication reconciliation within 72 hours of discharge. Pharmacists resolve medication-related discrepancies and optimize medication regimens with primary care and specialty physicians as appropriate. They also provide counseling and resolve insurance and pharmacy-related issues. If long-term drug therapy management is appropriate, the pharmacists ensure that patients are referred and enrolled in targeted disease management programs. The pharmacists connect patients with case managers and social workers for nonmedication-related resources such as coordinating follow-up appointments, transportation, and additional services.

The unique communications provided by the inpatient TOC pharmacist not only improve the efficiency of the ambulatory care TOC pharmacy team's workflow but add significant value to providing seamless continuity of care.

Improving Transitions to Skilled Nursing Facilities: Hoag Hospital

At Hoag Hospital, a nonprofit regional healthcare delivery network in Orange County consisting of 2 acute care hospitals, pharmacists provide TOC interventions to high-risk patients who are being discharged to home as well as select patients who are moving to skilled nursing facilities (SNFs). While patients discharged to SNFs continue to receive care from healthcare providers, there may be potential delays in treatment and gaps in communication, which can lead to medication errors and avoidable readmissions. To best meet the needs of SNF patients, pharmacists participated in a pilot project to provide medication reconciliation for all patients discharged to partnering local SNFs. This pilot's intent was to evaluate the impact of pharmacist review of medications for SNF patients.

During the pilot program, patients discharged to SNFs on high-risk medications, including anticoagulants and antibiotics, benefited the most from pharmacist interventions. Potential medication error interventions included duplicate medications, omission of therapy, incorrect dosing, and drug interactions. These errors varied in severity. Pharmacist communications with the care team helped improve dosing regimens, ensure appropriate hand-off to the SNF, and prevent delays in prescribed therapy. The results of this pilot helped inform how to optimize the use of pharmacist FTEs to best impact patient care. While not every patient discharged to a SNF required pharmacist interventions, those with high-risk medications and high-risk diseases, such as stroke, myocardial infarction, and heart failure, benefited from medication

reconciliation and hand-off prior to discharge to SNF.

Community Pharmacy TOC Interventions: USC Medical Plaza Pharmacy and USC Verdugo Hills Professional Pharmacy

The University of Southern California (USC) utilizes collaboration with community pharmacies to provide TOC interventions. At USC Medical Plaza and USC Verdugo Hills Professional Pharmacies, TOC pharmacy services are provided for discharging patients of affiliated hospitals and patients of the adjacent medical offices occupied by USC faculty physicians and the local community.

Patient populations served include labor and delivery, emergency department, oncology, same-day and extended-stay surgeries, intensive-care units, and other general hospital specialty areas. USC Medical Plaza also has a dedicated unit within the pharmacy that serves all patients who have received solid organ and bone marrow transplants. Services offered are medication bedside delivery, completion of discharge medication prior authorizations, and patient education at bedside using communications between the outpatient community pharmacist and the patient within the hospital. Pharmacy staff have access to the electronic medical record (EMR), which adds additional depth to TOC interventions and utility to the "meds-to-beds" program.

Implementing these interventions requires collaboration between the hospital and the community pharmacy to coordinate and deliver TOC interventions. Pharmacists, dedicated pharmacy technicians, pharmacy interns, and retail assistants support services through prescription preparation, communication with hospital staff, discharge counseling and education, delivery of medications, resolution of prior authorizations, program administration with hospital administrators, and training and education of hospital staff. On the hospital side, physicians, nurse practitioners, physician assistants, floor nursing staff, case management, and administrative staff support collaboration through communication management with pharmacy staff, discharge planning, prescription routing, patient communication, program administration with pharmacy leadership, service rollout to hospital units, and training and education of hospital staff.

Geriatric Care in a Primary Care Clinic: Eisner Adult Health Downtown Los Angeles

The Eisner Adult Health primary care clinic is a Federally Qualified Healthcare Center (FQHC) that specializes in geriatric care for patients older than 65 years of age who may face challenges in care due to social determinants of health. These can include homelessness, language barriers, low income, low health literacy, and lack of insurance coverage. Because geriatric patients are at high risk for avoidable readmissions and poor health outcomes when moving among care facilities, this site provides TOC interventions specifically for their geriatric population after a hospital discharge.

While TOC interventions are mainly provided in postdischarge settings, medications may also be reviewed for patients prior to admission (i.e., presurgical consultations) or as patients move among specialist providers (i.e., neurology, endocrinology, cardiology). Care is uniquely provided in an interdisciplinary team care model, which consists of a geriatrician, nurse practitioner, social worker, behavioral health specialists, care coordinator, and pharmacist.

Managed Care Supporting Transitions of Care: SCAN Health Plan

Collaborating with a managed care plan to provide TOC pharmacy interventions is a unique approach that allows providers to access fill history to identify and address drug therapy gaps and adherence barriers. SCAN Health Plan, a nonprofit Medicare Advantage plan, partners with medical groups to support patients in accessing and optimizing medications after hospital discharge.

High-risk patients discharged from the hospital to home—including patients with chronic medical conditions such as COPD, heart failure, or underlying mental health conditions—receive multidisciplinary TOC interventions from nursing, social workers, physicians, and pharmacists. Interventions include medication reconciliation, identification of drug therapy problems, and a postdischarge phone call. Pharmacists help address access issues such as lack of refills and cost/coinsurance issues by recommending less expensive alternatives when appropriate as well as identifying transportation needs, language barriers, and low health literacy. Pharmacists use a standardized template to share recommendations with the primary care provider to streamline hand-off communications.

Conclusion

Implementing strategies to support safe and effective transitions of care is integral to patient safety at each healthcare transition. While there is no standardized practice model, TOC interventions benefit from interdisciplinary collaboration, effective hand-off communication, and pharmacy interventions to optimize medication management across the continuum of care. When implementing TOC interventions, healthcare institutions should consider their high-risk patient populations' unique needs. While there is no one-size-fits-all model, pharmacy involvement with TOC interventions at various points of healthcare delivery has been shown to reduce medication errors, increase access to medications, promote medication education/adherence, and prevent avoidable readmissions that ultimately create exceptional patient outcomes.

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