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Hospital Settings For Deaseses Care Services Management In Health Care Sector; Patient Outcomes, Medication Reconciliation, Implementation And Future Challenges

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Abstract

In contemporary healthcare systems, ensuring seamless transitions of care (TOC) has emerged as a critical priority to enhance patient outcomes and mitigate challenges linked to hospital readmissions. The evolving landscape of healthcare, characterized by rapid advancements in medical technology and dynamic treatment approaches, underscores the pressing need for efficient ToC services. Patients often navigate treatment from various healthcare providers across different care settings, leading to fragmented care experiences and communication breakdowns. Addressing this urgency, healthcare institutions are increasingly emphasizing comprehensive ToC protocols, with pharmacists assuming pivotal roles in facilitating transitions from inpatient to outpatient care. This review aims to provide valuable insights into improving the continuity and quality of patient care across the care continuum by examining the involvement of pharmacists in ToC and evaluating the impacts of pharmacist-led interventions. The importance of effective ToC services in reducing readmissions and enhancing patient outcomes is underscored, alongside the multifaceted role of pharmacists in ToC, encompassing medication reconciliation, management, and optimization, patient education and counseling, interdisciplinary collaboration, discharge planning, and follow-up care, quality improvement, and research. Transitional care models involving pharmacists are explored, highlighting their varied approaches and impacts on patient care. Strategies for implementing pharmacist-managed ToC services are discussed through diverse case studies, emphasizing the factors influencing successful implementation, such as interdisciplinary collaboration, standardized protocols, patient engagement, health information technology solutions, risk stratification, and continuous evaluation. Clinical outcomes associated with pharmacist-led ToC services, including reduced readmission rates, improved medication adherence, enhanced patient outcomes, medication safety, chronic condition support, patient empowerment, and health literacy, are examined, alongside economic impacts. Challenges and barriers in pharmacist-led ToC services, including limited interprofessional collaboration, healthcare fragmentation, financial constraints, resource limitations, legal and regulatory hurdles, and patient-related challenges, are identified. Mitigation strategies are proposed, including the integration of artificial intelligence (AI) into ToC processes to enhance

prescription reconciliation, patient monitoring, and provider communication. Specific interventions undertaken by pharmacists during ToC, such as telepharmacy services, personalized medicine through pharmacogenomics, and medication therapy management integration, are highlighted for their potential to optimize transitional care. In summary, this abstract provides a comprehensive overview of pharmacist-managed ToC services, emphasizing their significance in improving patient care continuity, outcomes, and efficiency across healthcare settings.

Keywords: Hospital, Transition of care (TOC), Patient Outcomes, Healthcare, Medication Reconciliation.

1. Introduction

In modern healthcare systems, guaranteeing smooth transitions of care (ToC) has become an essential priority to improve patient outcomes and alleviate the challenges associated with hospital readmissions (1). Moreover, in the ever-evolving landscape of healthcare delivery, marked by rapid advancements in medical technology, dynamic treatment approaches, and a rising incidence of chronic conditions, the demand for efficient transition of care has escalated significantly. Presently, patients frequently undergo treatment from numerous healthcare professionals across diverse care settings, resulting in fragmented care experiences and potential breakdowns in communication (2). Ensuring seamless transitions between care settings is imperative to prevent adverse events, enhance medication management, and prioritize patient-centered care. Acknowledging this urgency, healthcare institutions are progressively prioritizing the establishment of comprehensive ToC protocols. Within these protocols, pharmacists are assuming pivotal roles in facilitating the transition from inpatient to outpatient care (3). This review endeavours to offer valuable insights into augmenting the continuity and caliber of patient care across the care continuum by scrutinizing the involvement of pharmacists in ToC and assessing the impacts of pharmacist-led interventions.

1.1 Importance of effective transition of care (ToC) services in reducing readmissions and improving patient outcomes

Transition of care (ToC) services are crucial for addressing the intricate healthcare requirements of patients as they navigate different care environments. These transition points, such as discharge from hospitals to home or other facilities, represent critical junctures where breakdowns in communication, medication mistakes, and insufficient follow-up care can greatly endanger patient health. Studies show that these transitional phases are linked to increased risks of negative events and hospital readmissions, imposing significant financial strains on healthcare systems and undermining patient safety (4). Transitional phases in patient care not only pose immediate risks to patient health but also impact the overall effectiveness and longevity of healthcare systems. Preventable adverse events occurring during these transitions not only strain resources but also drive up healthcare costs (5). Hospital readmissions, frequently originating from deficiencies in transitional care, not only indicate setbacks in patient care but also pose substantial financial challenges for healthcare payers and facilities. Therefore, there is an urgent necessity to prioritize the enhancement of ToC services to alleviate these risks, enhance patient outcomes, and guarantee the judicious utilization of healthcare resources (1). Given their specialized expertise and skills, pharmacists are uniquely equipped to proactively tackle the multifaceted challenges linked with transitions of care, facilitating a smoother and more patient-centered care continuum.

1.2 Role of pharmacists in ToC

It is now more well acknowledged that pharmacist involvement in transitions of care (ToC) is essential to improve clinical results and patient safety as patients move between different healthcare facilities **Table 1**. Pharmacists are essential members of the healthcare team that offer a special set of abilities and expertise that help greatly close care gaps during these crucial times.

Medication Reconciliation: A key function of pharmacists in transition of care (ToC) is performing detailed medication reconciliation. This essential process includes confirming the accuracy of a patient's medication lists at each point of care transition, encompassing pre-admission, in-hospital treatment, and post-discharge phases (6). Pharmacists rigorously scrutinize these medication lists to ensure they are complete, accurate, and appropriate. They resolve discrepancies like missing drugs, duplications, or possible drug interactions, which frequently occur during care transitions and significantly endanger patient safety (7).

Medication Management and Optimization: Pharmacists evaluate and refine medication plans to confirm their clinical appropriateness, efficacy, and safety in relation to the patient's current health status and comprehensive health profile (8). This process involves modifying dosages, ceasing superfluous medications, and prescribing new treatments in accordance with contemporary clinical guidelines and evidence-based practices. Their specialized knowledge is crucial for handling intricate medication schedules, especially for patients with multiple chronic diseases (9). Patient education and counselling: Patient education are crucial components of Transition of Care (ToC) services, particularly regarding effective medication use, understanding potential side effects, proper administration techniques, and the significance of adherence (10). Pharmacists play a key role in delivering customized education that equips patients and their caregivers with the knowledge and skills needed to manage their care effectively once at home. This tailored guidance is essential for improving adherence to medication regimens and reducing the risk of hospital readmissions that might result from medication errors or misunderstandings (11).

Interdisciplinary Collaboration: Pharmacists work in concert with a broad spectrum of healthcare providers, such as doctors, nurses, and social workers, to facilitate a cohesive patient care strategy (12). Their participation in care coordination meetings and planning sessions guarantees that pharmaceutical considerations are incorporated into the broader treatment plan. This model of collaborative practice ensures comprehensive communication among the healthcare team regarding medication decisions, thereby improving the overall quality of care and maintaining continuity as patients move between different care environments (13).

Discharge Planning and Follow-up Care: In the process of discharge planning, pharmacists are integral to ensuring a smooth transition from the hospital to the home or another healthcare facility (14). They meticulously review and organize comprehensive, precise medication inventories; coordinate follow-up appointments; and occasionally help bridge the shift to community pharmacy services. Additionally, pharmacists are involved in post-discharge follow-up, which may include telephone or face-to-face consultations, to track patient recovery and manage any complications arising from medication treatments (15). Quality Improvement and Research: Pharmacists play a crucial role in quality improvement efforts focused on enhancing transition of care (ToC) services. By evaluating medication error trends and pinpointing vulnerabilities within the system, pharmacists help devise strategies to increase the safety and efficacy of patient transitions. Additionally, their involvement in clinical research provides essential insights that improve ToC protocols and interventions. This not only propels the field forward but also elevates the standards of patient care (16). Pharmacists play a crucial role in enhancing transitions of care by expertly managing medications, providing patient-focused education, and engaging in collaborative practices. Their proactive participation contributes to lowering hospital readmission rates, bettering patient outcomes, and increasing overall satisfaction with the care provided during transitions.

Table 1: Pharmacists' Role in Transitions of Care (ToC).

Function	Description
Medication Reconciliation	Pharmacists ensure accuracy of medication lists across care transitions, resolving discrepancies to enhance patient safety.
Medication Management	Pharmacists optimize medication plans for appropriateness, efficacy, and safety, particularly for patients with complex health needs.
Patient Education	Pharmacists deliver customized education on medication use, side effects, and adherence to empower patients in managing their care effectively.
Interdisciplinary Collaboration	Pharmacists collaborate with healthcare teams to integrate pharmaceutical considerations into treatment plans, ensuring comprehensive care.

Discharge Planning	Pharmacists facilitate smooth transitions from hospital to home or other facilities by organizing medication inventories and coordinating follow-up care.
Quality Improvement	Pharmacists contribute to quality improvement efforts by identifying medication error trends and participating in clinical research to enhance ToC protocols.

1.3 Transitional Care Models

Several transitional care frameworks have been devised to tackle the inherent complexities of care transitions and enhance patient outcomes. These frameworks are designed to streamline care coordination, manage medications effectively, and provide adequate support to patients as they move between different healthcare settings. Below are some notable transitional care models. The Transitional Care Model (TCM), spearheaded by nursing staff, delivers thorough discharge planning, patient education, medication reconciliation, and ongoing support post-discharge to older adults with complex healthcare requirements (17).

Pharmacist-Enhanced Discharge Planning Model: This model incorporates pharmacists into discharge planning procedures, aiming to optimize medication management, offer medication counseling, and devise personalized care plans (18).

Care Transitions Intervention (CTI): Utilizing transition coaches, CTI provides assistance to high-risk patients transitioning from hospital to home, with a focus on empowering patients, fostering self-management, and ensuring continuity of care (19). Bridge Model of Transitional Care: This approach underscores collaborative efforts across disciplines to assess patient needs, formulate care plans, coordinate services, and deliver ongoing support throughout care transitions (20). Hospital-to-Home (H2H) Transitional Care Program: The H2H program is led by nurses and provides education, medication reconciliation, symptom management, and post-discharge support to patients with chronic conditions transitioning from hospital to home (21).

2. Overview of transitional care models involving pharmacists

Transitional care models that incorporate pharmacists are integral to streamlining medication management, enhancing patient well-being, and curbing healthcare utilization throughout transitions between care environments. These models harness pharmacists' specialized skills in medication therapy management, medication reconciliation, patient education, and interdisciplinary teamwork to bolster the seamlessness of care. Here, we present a comprehensive outline detailing the roles and duties pharmacists undertake within these frameworks, coupled with effective strategies for their implementation (22).

Innovative Approaches to Pharmacist Involvement in Transition of Care Services- Pharmacists hold a critical position in overseeing transitions of care (ToC) within hospital environments, with recent advancements showcasing innovative methods to amplify their engagement in this realm. By synthesizing insights gleaned from peer-reviewed literature, this section delves into contemporary strategies and methodologies embraced by pharmacists to refine ToC services and bolster patient outcomes. Through a meticulous examination of scholarly research, we uncover fresh approaches and practices championed by pharmacists, aiming to elevate the effectiveness of ToC initiatives. This exploration not only sheds light on the evolving landscape of pharmacist-led ToC interventions but also underscores their profound impact on enhancing patient care within hospital settings (23).

Telepharmacy and telemonitoring represent burgeoning technologies poised to extend pharmacist engagement beyond traditional hospital environments. Through telecommunication platforms, remote medication management, counselling, and monitoring become viable avenues for pharmacists to deliver timely interventions and support to patients transitioning from hospital to home. These innovations hold promise in optimizing patient care during critical periods of transition, offering a means for pharmacists to maintain active involvement in managing medications and promoting adherence beyond the confines of physical healthcare settings (24).

Pharmacist-led Medication Therapy Management (MTM) Clinics offer tailored medication management services for patients, both during their hospital stay and post-discharge. These clinics deliver thorough medication assessments, optimize therapy regimens, and conduct patient education sessions, emphasizing medication safety and adherence. Research indicates that pharmacist-led MTM clinics have yielded notable decreases in hospital readmissions and healthcare expenditures, underscoring their pivotal role in transitional care environments (25).

Clinical Decision Support Systems (CDSS) seamlessly integrate into pharmacist workflows, leveraging electronic health records and evidence-based algorithms to offer real-time guidance during transitions of care (ToC). These systems play a vital role by aiding pharmacists in medication reconciliation, identifying potential drug interactions, and tailoring care recommendations based on individual patient needs. Research findings consistently highlight the positive impact of CDSS integration, showcasing reduced medication errors and enhanced patient safety throughout the ToC process (26). This evidence underscores the critical role of CDSS in optimizing pharmacist-led interventions, ultimately contributing to improved healthcare outcomes during transitions of care (27).

Community pharmacist collaboration enhances the cohesion of healthcare services by fostering collaborative relationships between hospital and community pharmacists. This synergy facilitates smooth transitions of care and ensures uninterrupted pharmaceutical care for patients. By leveraging shared medication records, communication platforms, and collaborative care agreements, community pharmacists actively engage in post-discharge medication management and follow-up care (28). Research findings indicate that pharmacist collaboration spanning various care settings significantly contributes to enhanced medication adherence and decreased readmission rates among discharged patients (29).

Patient-Centric Mobile Health Apps: In today's healthcare landscape, mobile health (mHealth) apps have become invaluable. They offer patients interactive tools and resources to actively manage medications and engage in self-care, especially during transitions of care. Pharmacists can harness these apps to provide personalized medication reminders, educational content, and communication channels, empowering patients and boosting adherence. Recent research highlights the positive impact of mHealth apps on medication adherence and self-management post-hospital discharge (30). These novel methodologies underscore the dynamic evolution of pharmacists' involvement in transition of care services, emphasizing the criticality of harnessing technology, fostering collaborative efforts, and enhancing patient involvement to maximize patient outcomes within hospital environments. Additional exploration and deployment endeavours are warranted to evaluate the scalability, efficacy, and enduring viability of these methodologies across various healthcare contexts and patient cohorts.

3. Detailed examination of strategies for implementing pharmacist-managed TOC services

Pharmacist-managed transition of care (TOC) services refer to a healthcare approach where pharmacists play a central role in managing patients as they move between different care settings. For example, when patients transition from a hospital to their home or a long-term care facility, pharmacists help ensure continuity and safety in medication management. They review and reconcile medications, provide patient counseling, and coordinate with other healthcare professionals to optimize therapeutic outcomes (31).

3.1 Pharmacist-managed TOC services strategies and case studies

Transitions of care (TOC) denotes the process of patients moving between healthcare providers, facilities, and their homes. Ineffectual transitions are prevalent and can result in adverse events, hospital readmissions, and escalated healthcare expenses (32). Medicare beneficiaries experience readmission rates close to 20%, incurring an estimated cost of $17.4 billion (33). The Affordable Care Act introduced the Hospital Readmissions Reduction Program (HRRP) in 2012, aiming to curtail hospital readmissions by penalizing institutions with excessive rates (34). Targeting various discharge diagnoses like acute myocardial infarction, heart failure, and acute exacerbation of chronic obstructive pulmonary disease, the HRRP seeks to mitigate healthcare costs while enhancing patient outcomes (35). At the time of discharge, up to 70% of patients had at least one medication discrepancy; these patients had a twofold higher chance of being readmitted within 30 days (36) (37). The reasons for medication differences could include systemic errors due to a lack of consistency among care facilities, or mistakes made by the patient and carer. As the total number of medications increases, discrepancies are also more likely to happen

(38) (39). These differences may result in unintended prescription side effects, drug interactions, and other medication-related issues that may avoid readmissions (40).

In efforts to curb readmissions, healthcare institutions have increasingly adopted TOC programs, aiming for safer and more effective patient transitions. Pharmacists play a crucial role in these programs due to their expertise in medication management. Recent research, including a meta-analysis, underscores the effectiveness of pharmacy-led interventions in reconciling medications to minimize discrepancies (41). However, a separate systematic review highlights that while medication reconciliation is valuable, it alone may not suffice in mitigating adverse outcomes post-discharge, such as readmissions, emergency department visits, and adverse drug events. The review stresses the importance of combining medication reconciliation with comprehensive patient counseling, clinical medication review, active collaboration with healthcare providers, and ensuring seamless continuity of care by integrating pharmacists into multidisciplinary care teams spanning different healthcare settings (42). Numerous initial investigations have indicated that integrating pharmacists into primary care TOC initiatives can lead to decreased healthcare utilization post-discharge (43) (35). For instance, a randomized pilot study by Hawes et al. examined the impact of a pharmacy clinical visit post-discharge, revealing that patients receiving this intervention experienced notably reduced rates of 30-day readmissions and visits to the Emergency Department (ED) compared to those in the control group (35).

A study conducted by Slazak et al. aimed to implement and assess the effectiveness of a multifaceted pharmacist-led Transitions of Care (TOC) intervention in a primary care practice. The study consisted of two pilot phases: Phase 1 targeted a general patient population, while Phase 2 focused on high-risk patients. Both phases were compared to each other and to a historical control group that received usual care. A total of 138 patients received the intervention, with approximately 80% of the provided recommendations being accepted. However, adjusted models showed no significant differences in 30-day all-cause readmissions between Phase 2 and controls, nor between Phase 1 and controls. The study concluded that while the pharmacist-led TOC intervention was successfully implemented, further research is necessary to identify interventions that effectively reduce healthcare utilization in a cost-efficient manner (44).

In another example, Sen et al. aim to familiarize pharmacists with the intricacies, challenges, and potential benefits of establishing TOC models across inpatient, ambulatory, and community pharmacy settings. Drawing from a comprehensive review of TOC literature and resources, the pharmacist authors share their insights and experiences in developing and implementing TOC models. They highlight the pivotal role of pharmacists within multidisciplinary teams, emphasizing their contributions to ensuring seamless transitions for patients moving between healthcare settings or returning home. The study underscores pharmacists' involvement in crucial tasks such as medication reconciliation, discharge counseling, and medication optimization across various healthcare settings. Furthermore, the authors provide a practical checklist to guide pharmacists in expanding their TOC roles within their practice environments. Ultimately, the study underscores the importance of optimizing TOC processes to reduce medication errors and adverse events, with pharmacists uniquely positioned to drive improvements in medication safety and patient care in the evolving healthcare landscape (23).

Another study conducted by Coatie et al aimed to enhance and sustain a pharmacist-led TOC program while targeting high-risk veterans for interventions to mitigate adverse outcomes. Initially piloted at the Richard L. Roudebush Veterans Affairs Medical Center (RLRVAMC), the program was expanded based on successful outcomes. High-risk patients identified by acute care pharmacists were referred for post-discharge follow-up, with the pharmacist in the primary care clinic contacting patients within a week of discharge. Among 139 patients included, 99 received pharmacist follow-up, resulting in decreased readmissions and medication-related discrepancies. Notably, patients who received pharmacist follow-up exhibited significantly lower index and all-cause readmissions at 30 days compared to those without follow-up. This underscores the effectiveness of pharmacist-led TOC processes in addressing medication-related issues and communicating with high-risk patients post-discharge (45).

A similar study by Otsuka et al aimed to discuss the logistics and guidance for pharmacists in establishing or refining TOC clinics, particularly in outpatient settings. These clinics serve patients discharged from hospitals who face delays in seeing their primary care physicians. Collaborating with various healthcare professionals,

including physicians, nurses, and social workers, pharmacists play a pivotal role in ensuring seamless transitions for patients. The study emphasizes the importance of considering logistical elements like personnel, workflow, operations, reimbursement, and marketing when developing or enhancing such clinics. Ultimately, the outlined guidance aims to empower pharmacists to optimize patient care and continuity through TOC clinics (46).

A study conducted by Mercuro et al examines the effectiveness of a pharmacist-driven initiative aimed at improving the choice and duration of oral antimicrobial therapy prescribed to patients upon hospital discharge for common infections. Pharmacists collaborated with primary care teams to identify suitable patients and recommend optimal therapy. Both academic and community hospitals implemented this approach, utilizing multidisciplinary rounds involving antimicrobial stewardship and clinical pharmacists to discuss, document, and facilitate prescription orders. The results indicate that targeted antimicrobial stewardship interventions during transitions of care led to a notable increase in the proportion of optimal and guideline-concordant antimicrobial prescriptions at discharge (47).

Another example of a study conducted by Baldwin et al titled, Implementing Posthospital Interprofessional Care Team Visits to Improve Care Transitions and Decrease Hospital Readmission Rates, which was done in response to the growing complexity of patient conditions and the need for improved transitions from hospital to home, an interprofessional post-hospital follow-up clinic, called the Discharge Clinic, was established. Comprising a certified family nurse practitioner, clinical pharmacist, nurse case manager, and social worker, this clinic aimed to reduce 30-day hospital readmission rates through collaborative care. The project achieved significant success, with a 30-day readmission rate of 2.7%, compared to national averages of 17.3% for Medicare and 8.6% for private coverage. This resulted in substantial cost savings estimated at $689,199.84, highlighting the effectiveness of interprofessional collaboration in enhancing transitional care and reducing healthcare costs (48). These diverse TOC strategies have been implemented across various healthcare settings with the shared goal of enhancing patient care. From pharmacist-managed interventions to interdisciplinary TOC clinics, each approach addresses the unique challenges patients face during transitions between healthcare providers and settings. **Table 2** shows the detailed interpretation of the pharmacist-led case studies

Table 2: Case studies implementing Pharmacist-led TOC services in different healthcare settings.

Conduct of Study Year	**Setting**	**Objective**	**Outcomes**	**Interdisciplinary involvement**	**Number of patients**	**Conclusion**
2016 (Mekonnen et al)	Hospital Transition	To assess how pharmacy-led medication reconciliation interventions affect medication discrepancies during hospital transitions and classify them as either single or multiple transition interventions.	Medical reconciliation, medical discrepancies	Pharmacist-led	15525	Pharmacy-led efforts to reconcile medications were effective in reducing discrepancies, especially when done at admission or discharge. However, their effectiveness decreased during multiple transitions between care settings (41).

2020 (Slazak et al)	Primary care practice	Implementation of TOC and determining the effectiveness of the program	Readmission rates	Pharmacist-led	Intervention group – 138 Control group - 118	This study describes the successful implementation of a pharmacist-led TOC intervention within a primary care setting using a two-phase pilot design (44).
2014 (sen et al)	Inpatient, ambulatory and community practice settings	Establishing the pharmacist's TOC role and practicing within multiple healthcare settings.	Medication Reconciliation, Discharge counseling and optimization of medications	Pharmacist-led	-	Improving TOC, minimizing medication errors, and preventing adverse events are key priorities in healthcare today (23).
2021 (Coatie et al)	Tertiart care referral centre	To improve, expand, and sustain a pharmacist-based TOC program and to assess interventions targeting veterans at high risk for adverse outcomes	Medication discrepancies, pharmacist interventions, emergency department visits, and hospital readmissions	Pharmacist-led	139	The study proved that introducing and broadening a pharmacist-led transition of care process effectively identifies high-risk patients and addresses medication-related concerns after discharge.
2015 (Otsuka et al)	Outpatient TOC clinic within an ambulatory care practice	To enhance comprehension of TOC clinics and offer direction to pharmacists in establishing or enhancing such clinics	Post-discharge telephone calls, medication reconciliation and counseling, and optimization of medication regimens	Pharmacist-led	-	The tool may help pharmacists implement or enhance an outpatient TOC clinic to improve patient care, quality, and continuity (49).
2022 (Mercuro et al)	Academic tertiary hospital, community hospitals	To evaluate a pharmacist-driven intervention designed to improve selection and duration of oral antimicrobial	Optimized antimicrobial prescription at discharge	Pharmacist-led	800	This quality improvement study suggests that focused antimicrobial stewardship interventions during transitions of

		therapy prescribed at hospital discharge for common infections.				care led to more appropriate antimicrobial prescriptions at discharge, aligning with guidelines (50).
2018 (Baldwin et al)	Hospital and clinics	-Improve transitions of care -Decrease 30-day hospital readmission rates.	30-day Readmission rates	Intraprofessional team care	75	The Discharge Clinic project effectively reduced 30-day readmission rates compared to national benchmarks, resulting in significant cost savings. With only two patients readmitted within 30 days, the project demonstrated substantial impact, estimated to save over $335,000 after factoring in operational costs.

3.2 Factors influencing successful implementation of TOC services

The successful implementation of transition of care (TOC) services, which involve the movement of patients between different levels or types of care, is influenced by various factors.

Interdisciplinary Collaboration for Smooth Care Transitions:

Smooth TOC relies heavily on interdisciplinary collaboration, where healthcare professionals from various fields work together seamlessly to ensure patients receive coordinated and comprehensive care as they move between different healthcare settings. This collaboration involves effective communication and a clear delineation of roles and responsibilities among team members, including physicians, nurses, pharmacists, and social workers (51).

Enhancing Transitions with Standardized Protocol:

Standardized processes and protocols play a crucial role in facilitating these transitions by providing clear, consistent steps for discharge planning, medication reconciliation, and other aspects of care. By adhering to standardized protocols, healthcare teams can reduce the risk of errors and ensure that patients experience smoother transitions (52).

Engaging Patients & Families for Better Care Transitions:

Patient and family engagement stands as a cornerstone in the realm of successful TOC services. It entails a proactive approach that involves educating patients and their families comprehensively about their care plans, ensuring they are well-informed partners in the decision-making processes regarding their health journey. This

collaborative involvement not only fosters a sense of empowerment but also strengthens the connection between patients, families, and healthcare providers. By actively engaging patients and their families, healthcare teams can better address individual needs, preferences, and concerns, thus enhancing the overall effectiveness and satisfaction with TOC services. Moreover, facilitating access to support resources and community networks further reinforces patients' capabilities to navigate their recovery and manage their health beyond the confines of healthcare settings (53) (54).

Health Information Technology (HIT) Solutions:

Technology serves as a pivotal facilitator in transitions of care, leveraging health information technology (HIT) solutions to streamline communication and information exchange among healthcare providers across diverse settings. Electronic health records (EHRs) centralize patient data, ensuring its accessibility to authorized personnel regardless of location. Telehealth platforms enable virtual consultations and remote monitoring, bridging geographical barriers and enhancing continuity of care. These technologies not only expedite decision-making processes but also reduce the likelihood of errors through real-time data access. By fostering collaboration and efficiency, HIT solutions contribute significantly to the seamless transition of patients between healthcare settings, ultimately improving patient outcomes (55) (56).

Risk Stratification and Care Coordination:

Ineffective TOC services, risk stratification and care coordination are pivotal components. The identification of high-risk patients and the coordination of their care through personalized care plans and targeted interventions play a crucial role in preventing adverse events and enhancing outcomes. Through systematic risk assessment and stratification based on clinical profiles and prognostic indicators, healthcare teams can efficiently allocate resources and interventions. This personalized approach ensures that patients receive the appropriate level of support and monitoring, reducing the likelihood of preventable complications. By addressing individual needs proactively, risk stratification and care coordination significantly contribute to optimizing patient safety and well-being throughout the transitional care process (57) (58).

Continuous Evaluation and Outcome Assessment:

Continuously monitoring and enhancing TOC Transitional Care services is crucial for quality improvement and performance measurement in healthcare. By consistently tracking patient outcomes and satisfaction levels, healthcare institutions can pinpoint areas needing enhancement and guarantee smoother transitions between care settings.

Community Resources and Partnerships:

Establishing partnerships with community-based organizations, home health agencies, and other healthcare providers outside of the hospital setting extends the continuum of care beyond the clinical setting. By collaborating with these entities, healthcare providers can ensure that patients have access to the resources and support they need to continue their recovery and maintain their health after discharge (59).

Financial Strategies Driving Quality in Transitional Care Services:

Financial incentives and reimbursement models play a crucial role in incentivizing investment in TOC services. Aligning financial rewards with quality outcomes encourages healthcare providers to prioritize effective transitions between care settings. Payment structures that emphasize positive results not only motivate providers but also benefit patients and healthcare systems by promoting improved continuity of care and overall better health outcomes (60). In summary **Figure 1**, the successful implementation of transition of care services hinges on effective teamwork, clear processes, patient involvement, technological support, risk management, quality monitoring, community partnerships, and financial alignment. These elements work together to ensure that patients experience seamless transitions between healthcare settings, leading to improved outcomes and satisfaction.

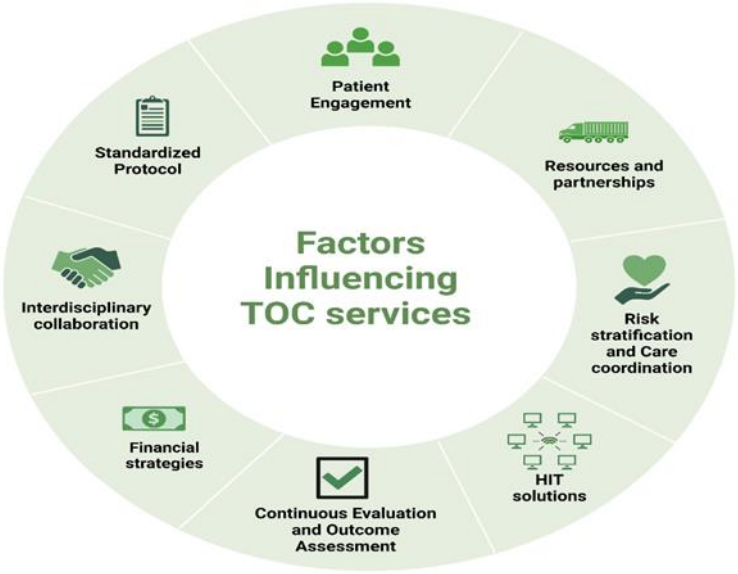

Figure 1: The elements work together to ensure that patients experience seamless transitions between healthcare settings, leading to improved outcomes and satisfaction.

3.3 Review of clinical outcomes associated with pharmacist-led TOC services

An examination of the clinical results linked with pharmacist-led ToC services, encompassing readmission rates and medication adherence, highlights the considerable influence pharmacists exert on patient outcomes when transitioning from hospital to community care **Figure 2**.

Reduced Readmission Rates:

Decreased readmission rates stand out as a significant outcome of pharmacist-led TOC initiatives. These programs consistently show their effectiveness by employing strategies such as thorough medication reconciliation, patient education, and vigilant monitoring following discharge. Pharmacists play a crucial role in swiftly identifying and resolving medication-related concerns, thereby reducing the likelihood of complications that could result in hospital readmissions. Research findings consistently indicate that patients who benefit from pharmacist-led ToC interventions exhibit notably diminished readmission rates when compared to those who receive conventional care (61).

Medication Adherence:

To manage chronic illnesses and avoid negative outcomes after hospitalization, medication adherence is essential. To improve medication adherence, pharmacist-led ToC services are essential because they remove obstacles including patient comprehension, polypharmacy, and complicated prescription regimens. Pharmacists give patients advice on how to take their prescriptions, make sure that dose schedules are clear, and offer solutions for problems with adherence. Pharmacists encourage patients to follow their prescribed regimens by providing them with personalized medication management plans and follow-up evaluations. This improves patient outcomes and lowers healthcare use (61).

Enhanced Patient Outcomes:

Apart from merely reducing readmission rates and enhancing medication adherence, pharmacist-led TOC interventions play a pivotal role in improving overall patient outcomes. Individuals who benefit from pharmacist-led ToC assistance express heightened satisfaction levels, greater confidence in managing their medications, and

Figure 1: A number of factors are responsible for Influencing TOC services. These factors are shown in Above figure.

improved comprehension of their treatment regimens. Through proactive management of medication-related

issues, pharmacists mitigate the risk of adverse drug events, optimize treatment effectiveness, and foster seamless continuity of care throughout transitions. Ultimately, these efforts culminate in enhanced patient well-being and a better quality of life (62).

Enhancing Medication Safety:

Pharmacist-led interventions in TOC play a crucial role in safeguarding against medication errors during care transitions. Through meticulous medication reconciliation processes, pharmacists diligently identify and rectify any discrepancies, including issues such as drug interactions, duplications, or omissions. This proactive approach ensures the accuracy of medication regimens post-discharge, thereby significantly mitigating the risk of adverse drug events and the subsequent clinical complications that may arise (63).

Chronic Condition Support:

Pharmacists are instrumental in overseeing chronic conditions during care transitions. Their involvement encompasses optimizing medication regimens, providing support to enhance adherence, and offering education on disease management. These multifaceted efforts empower patients to effectively manage their chronic conditions, resulting in better disease control, fewer exacerbations, and ultimately, improved overall health outcomes (64) (65).

Patient Empowerment and Health Literacy:

Pharmacist-led ToC services promote patient empowerment and health literacy, encouraging active participation in health management. Utilizing education, counseling, and tailored care plans, pharmacists bolster patients' understanding of their conditions, treatment objectives, and medication routines. Empowered patients are inclined to adhere to prescribed regimens and embrace self-care strategies, resulting in enhanced clinical outcomes and decreased reliance on healthcare services (44).

Cntinuous Patient Care:

Pharmacist-led ToC services extend beyond the initial transition phase, offering long-term follow-up and support to patients. This sustained assistance involves consistent monitoring, comprehensive medication assessments, and continual patient education. Pharmacists play a crucial role in helping patients maintain positive health outcomes, preventing setbacks, and promoting ongoing medication adherence. By providing continuous support, pharmacists contribute to sustained enhancements in clinical outcomes and overall quality of life for patients (66) (3).

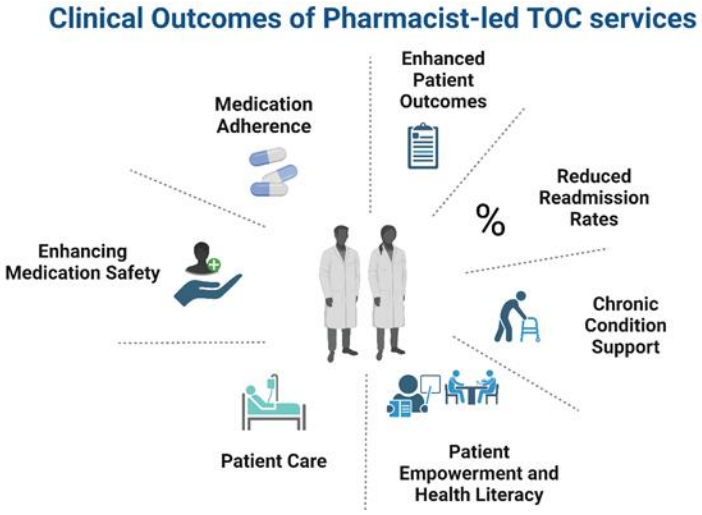

Figure 2: The Above figure depicts the clinical outcomes from Pharmacist led TOC services.

3.4 Economic impacts of Pharmacist led TOC services

Pharmacist-led transitional care services provide notable economic benefits by driving cost efficiencies and enhancing resource management within healthcare systems. Pharmacists excel in averting medication-related

issues, thereby diminishing the probability of hospital readmissions and the consequent financial burdens. Through tasks like medication reconciliation, fostering adherence, and offering patient education, pharmacists effectively lower the occurrence of adverse drug events, translating into significant reductions in healthcare spending (67).

Moreover, pharmacist-led initiatives play a pivotal role in optimizing the allocation of resources within healthcare systems. By closely monitoring and overseeing medication management during transitional phases of care, pharmacists effectively minimize the need for unnecessary utilization of healthcare facilities, such as emergency department visits or prolonged hospital stays resulting from medication-related issues. This proactive stance not only leads to direct cost savings but also eases the burden on healthcare facilities, enabling them to utilize beds, staff, and other resources more efficiently (68).

A pharmacist-led TOC program carried out by Weiyi Ni et al aimed at a high-risk Medicaid population post-hospitalization showed significant cost savings. The program, initially covering 30% and expanding to 60% of eligible patients over 2 years, reduced readmission risk by 32%, saving $2,139 per patient referred. A budget impact analysis estimated over $25 million in total healthcare cost savings over 2 years, primarily driven by reduced inpatient costs. Sensitivity analyses confirmed cost savings across various scenarios, with potential savings of over $25 million, equating to $4 per member per month (69).

4. Challenges and Barriers in Pharmacist led TOC services

The pharmacist-led transition of care services involves pharmacists overseeing patients' medication routines during shifts between healthcare settings, like hospitals, clinics, nursing homes, and home care. This phase is crucial because patients face higher chances of medication mistakes, negative drug reactions, and gaps in care coordination. Despite the advantages of pharmacist-led transition of care services, there are various obstacles and difficulties linked to putting them into practice. These barriers have been discussed below in **Figure 3** :

Limited Interprofessional Collaboration:

Achieving a successful transition of care necessitates smooth and efficient communication and collaboration among healthcare practitioners. Nevertheless, pharmacists often encounter obstacles when attempting to establish effective lines of communication with physicians, nurses, and other members of the healthcare team. These barriers can impede pharmacists' efforts to gather precise medication histories, address discrepancies, and uphold uninterrupted continuity of care for patients. Without robust collaboration, pharmacists may find themselves facing significant challenges in acquiring comprehensive patient information and coordinating interventions across various healthcare settings, potentially jeopardizing patient safety and the overall efficacy of transitional care initiatives (70) (71).

Navigating Healthcare Fragmentation in Transitional Care:

Healthcare fragmentation presents a formidable challenge in the seamless management of transitional care. Within this context, patients often traverse a complex web of healthcare providers and facilities, resulting in fragmented care transitions marked by discontinuities and gaps. Pharmacists find themselves grappling with the repercussions of this fragmentation as they endeavor to access and integrate fragmented medical records across disparate healthcare settings. This fragmented landscape poses significant hurdles in coordinating care effectively, leading to potential breakdowns in medication management processes and an increased vulnerability to adverse events. Consequently, efforts to navigate and mitigate the impacts of healthcare fragmentation are imperative for ensuring the smooth and safe transition of care for patients (72).

Financial Challenges:

Inadequate reimbursement policies often fail to acknowledge the significance of pharmacist-led transition-of-care initiatives. Pharmacists, despite investing considerable time and resources in delivering these vital services, frequently encounter insufficient financial compensation. This disparity undermines the sustainability and scalability of pharmacist-led transitional care programs, inhibiting their broader implementation. Without adequate reimbursement, pharmacists may face obstacles in dedicating themselves fully to transition of care efforts, potentially compromising patient outcomes and the overall effectiveness of transitional care interventions.

Addressing these financial challenges is crucial to ensuring the viability and expansion of pharmacist-led transition of care services in healthcare settings (67) (73)

Resource Limitations:

The successful execution of pharmacist-led transition of care services hinges on the availability of dedicated resources such as staffing, technology, and infrastructure. Nevertheless, healthcare organizations often grapple with resource constraints that hinder their capacity to allocate adequate resources to these essential services. As a consequence, pharmacists may find themselves constrained in their efforts to establish and maintain effective transition-of-care programs (74). Insufficient resources impede the implementation of comprehensive interventions, potentially compromising patient outcomes and the overall quality of care. Overcoming these resource limitations is imperative for healthcare organizations to fully harness the potential of pharmacist-led transition-of-care initiatives and ensure optimal patient transitions between healthcare settings (75).

Legal and Regulatory Hurdles:

Pharmacist-led transition of care services encounter obstacles stemming from regulatory and legal considerations. Pharmacists are tasked with maneuvering through state-specific scope of practice regulations, collaborative practice agreements, and stringent privacy laws while delivering care across diverse healthcare settings (76). Adhering to these regulatory mandates introduces layers of complexity to the transition of the care process, potentially constraining the scope of pharmacist-led services. Compliance with regulatory requirements is paramount but can inadvertently impede the efficiency and effectiveness of transitional care interventions. Navigating these legal and regulatory hurdles demands meticulous attention to detail and a nuanced understanding of jurisdictional nuances, ensuring that pharmacist-led transition-of-care programs operate within the confines of the law while optimizing patient outcomes (77).

Patient-Related changes:

Patient factors present significant barriers that can influence the effectiveness of pharmacist-led TOC services. Issues such as limited health literacy, language barriers, socioeconomic constraints, and individual patient preferences play pivotal roles in shaping the success of these interventions (70) (78). Patients facing these challenges may encounter difficulties comprehending medication instructions, accessing prescribed medications, or adhering to treatment plans, thereby impacting medication management during care transitions (79). Overcoming these patient-related barriers requires tailored strategies, including patient education, language assistance services, financial assistance programs, and personalized care plans. By addressing these factors proactively, pharmacists can enhance the quality and outcomes of transitional care interventions and mitigate potential risks associated with medication management during care transitions (80)

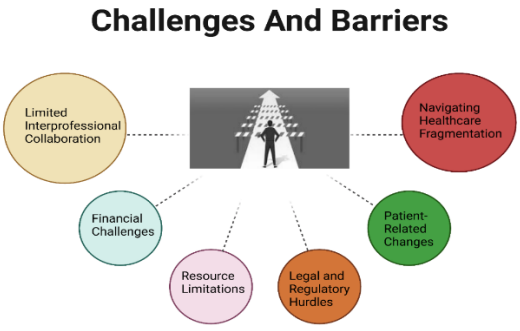

Figure 3: The challenges and barriers Faced during Pharmacist led TOC services.

4.1 Discussion of solutions and mitigation strategies.

A promising approach to enhancing several facets of healthcare delivery, such as prescription reconciliation, patient monitoring, and provider communication, is to incorporate artificial intelligence (AI) into the transition of care. Here is a thorough explanation of every facet.

Medication Reconciliation:

AI advancements offer a streamlined approach to medication reconciliation, which involves aligning a patient's current medication regimen with prescribed or intended medications. By leveraging AI algorithms, electronic health records (EHRs), pharmacy records, and other patient data sources can be analyzed to pinpoint disparities or potential drug interactions (81) (82). The integration of Natural Language Processing (NLP) techniques aids in extracting pertinent details from unstructured clinical notes, thereby enhancing the accuracy and efficiency of the reconciliation process (83). Furthermore, AI-driven decision support systems can furnish healthcare providers with tailored recommendations regarding medication adjustments or alternative therapies, drawing upon patient-specific considerations like medical history, allergies, and genetic markers (84).

AI-Enhanced Patient Monitoring:

Utilizing AI-driven monitoring systems facilitates the continuous observation of patient vital signs, symptoms, and adherence to medication schedules. Wearable gadgets embedded with sensors gather immediate data on physiological metrics such as heart rate, blood pressure, and glucose levels (85). Employing machine learning algorithms, this data can be scrutinized to identify deviations from standard patterns or initial indicators of decline, enabling healthcare providers to intervene promptly. Additionally, predictive analytics empowered by AI can pinpoint patients with elevated risks of readmission or adverse events, facilitating proactive interventions to avert complications and enhance outcomes (86).

AI-Enhanced Healthcare Communication:

AI can help the healthcare team's members communicate and share information more easily. AI chatbots and virtual assistants, for example, can help doctors get patient data, make appointments, and find clinical recommendations. These systems can read oral or written questions from healthcare professionals and give pertinent information or actions in response thanks to Natural Language Understanding (NLU) algorithms. Furthermore, by combining and synthesizing data from several sources, AI-driven systems can support interdisciplinary collaboration by helping doctors from different disciplines coordinate care plans and exchange insights more successfully (87).

5. Specific interventions undertaken by pharmacists during ToC

Enhancing Transitional Care Through Telepharmacy Services:

Utilizing telepharmacy services for transitional care involves employing remote pharmacy practices to enhance patient support during transitions in care settings. Through telepharmacy, pharmacists can remotely offer medication counseling, ensure adherence, and deliver follow-up care to patients after discharge. This approach leverages technology to bridge the gap between healthcare settings and patients' homes, ensuring continuity of care and promoting better health outcomes (24).

In telepharmacy-supported transitional care, pharmacists can conduct medication counseling sessions with patients via telecommunication platforms, such as video conferencing or teleconferencing. This allows pharmacists to educate patients about their medications, including proper usage, potential side effects, and adherence strategies. By addressing patients' questions and concerns remotely, pharmacists can help ensure that patients have a clear understanding of their treatment plans and are equipped to manage their medications safely and effectively (88).

Patient-Centric Medication Optimization Strategies:

Pharmacists' Interventions in Transitional Care - In transitional care contexts, pharmacists engage in multifaceted interventions aimed at optimizing medication management and safeguarding patient well-being. Central to these efforts is the critical process of medication reconciliation, where pharmacists meticulously scrutinize patients' medication profiles, pinpoint discrepancies, and harmonize them to maintain precise and current medication records. Furthermore, pharmacists collaborate closely with patients and healthcare teams to evaluate the suitability, safety, and efficacy of medication regimens, considering variables such as coexisting conditions, allergies, and potential drug interactions. Through tailored medication counseling sessions, pharmacists actively

engage with patients and their caregivers, addressing inquiries, imparting essential knowledge, and fostering medication adherence. Additionally, pharmacists adopt a proactive stance in identifying and addressing potential medication-related issues, including adverse reactions or instances of non-adherence, thus contributing significantly to improved patient outcomes and the overall quality of transitional care (89). In transitional care settings, pharmacists extend their role beyond mere medication reconciliation, employing a spectrum of tailored medication optimization strategies aimed at elevating patient outcomes. This encompasses the meticulous conduct of thorough medication reviews, evaluating the suitability and effectiveness of prescribed regimens while pinpointing potential drug therapy concerns. Recommendations for therapeutic alternatives or dosage adjustments are suggested as warranted. Moreover, pharmacists engage in collaborative partnerships with prescribers, intricately fine-tuning medication selection and dosing parameters, especially for patients navigating complex medical conditions or grappling with polypharmacy (90).

Integrating Medication Therapy Management (MTM) into Transitional Care: Optimizing Medication Use Across Care Settings

Incorporating Medication Therapy Management (MTM) services into transitional care processes is pivotal for ensuring seamless transitions between care settings and optimizing medication therapy for patients. MTM involves pharmacists conducting thorough medication reviews, identifying medication-related issues, and collaborating with patients and healthcare providers to enhance therapy outcomes during care transitions (65).

During transitional care, pharmacists play a central role in conducting comprehensive medication reviews as part of MTM services. They assess patients' medication regimens, including prescription medications, over-the-counter products, and dietary supplements, to identify potential drug-related problems such as medication errors, drug interactions, or inappropriate medication use. By conducting thorough assessments, pharmacists can uncover issues that may impact treatment effectiveness or patient safety during transitions between care settings (91). Furthermore, pharmacists utilize MTM services to identify and address medication-related problems collaboratively with patients and healthcare providers. Through patient-centered discussions, pharmacists engage patients in shared decision-making regarding their medication therapy, addressing concerns, preferences, and treatment goals. Additionally, pharmacists collaborate with healthcare providers, such as physicians, nurses, and other members of the care team, to develop and implement individualized care plans that optimize medication therapy and improve patient outcomes during transitions in care settings (92).

6. Future Directions and Innovations

As healthcare systems evolve to meet the changing needs of patients and address challenges like demographic shifts and technological advancements, the role of pharmacists in transition of care services is undergoing significant growth. One noteworthy development is the integration of pharmacists into advanced care teams, working closely with physicians, nurses, social workers, and other allied health professionals to deliver comprehensive and coordinated care to patients throughout their healthcare journey. This collaborative approach promotes synergy, improves communication, and harnesses the specialized knowledge of each healthcare provider to maximize patient outcomes. Predictions for future research and service expansion (93). Moreover, as the healthcare landscape increasingly prioritizes value-based care and population health management, there's a growing emphasis on preventive care, chronic disease management, and coordinated care. Pharmacists are strategically positioned to contribute significantly to these endeavors through proactive medication management, optimizing therapy regimens, and conducting patient education initiatives aimed at averting disease progression, reducing hospitalizations, and fostering overall health improvements.

Through actively involving patients in their treatment plans and fostering medication adherence, pharmacists play a crucial role in preventing adverse events, curbing healthcare expenditures, and augmenting the quality of life for individuals grappling with chronic illnesses (94). In the contemporary healthcare landscape, the proliferation of electronic health records (EHRs), telehealth platforms, and digital health technologies presents pharmacists with novel avenues to administer care remotely, conduct virtual consultations, and pioneer innovative patient engagement strategies. Through telepharmacy services, remote medication surveillance, and the utilization of mobile health applications, pharmacists are empowered to extend their reach to patients across various geographical and demographic spectra, including rural and underserved populations. This technological

integration not only facilitates enhanced access to care but also contributes to the mitigation of healthcare disparities by ensuring equitable delivery of service (55). In considering the future landscape, numerous pivotal directions and innovative approaches stand poised to influence the evolution of pharmacist-led transition of care endeavors.

Advanced Telehealth and Digital Health Solutions: Incorporating cutting-edge telehealth technologies and digital health solutions represents a transformative approach to augmenting pharmacist-led transition of care services. By integrating telepharmacy platforms, remote medication monitoring systems, and mobile health applications, pharmacists can extend their reach and influence, providing tailored care and virtual consultations to patients irrespective of geographical constraints. This advancement not only facilitates enhanced access to care but also fosters improved patient outcomes. Through remote engagement, pharmacists can personalize interventions, monitor medication adherence, and offer real-time support, thereby fortifying the efficacy of transition of care initiatives. Such integration of advanced telehealth and digital health solutions underscores a paradigm shift in healthcare delivery, leveraging technology to optimize patient care and bridge gaps in transitional care processes (95).

Precision medicine and pharmacogenomics represent groundbreaking advancements in healthcare, presenting remarkable prospects for customizing medication therapy based on individual patient attributes, such as genetic makeup, pharmacokinetics, and pharmacodynamics. Within this context, pharmacists are well positioned to harness the potential of pharmacogenetic testing, genomic data analysis, and personalized medicine strategies to refine medication selection, dosing, and prediction of treatment response. Through these approaches, pharmacists can effectively mitigate adverse drug reactions while optimizing therapeutic efficacy. This peer-reviewed paper aims to delve into the intricate landscape of precision medicine and pharmacogenomics, exploring the diverse applications and implications for pharmacy practice. By synthesizing existing research and evidence, this review seeks to shed light on the pivotal role of pharmacists in implementing personalized medicine approaches and advancing patient care in a scientifically rigorous manner (96).

Artificial Intelligence (AI) and Predictive Analytics represent promising avenues in healthcare, particularly concerning medication safety and patient risk assessment during care transitions. These technologies leverage advanced algorithms to sift through extensive datasets, discern patterns, and produce actionable insights vital for clinical decision-making, medication reconciliation, and care coordination. By harnessing AI-powered decision support systems, healthcare professionals can effectively identify high-risk patients, predict adverse events, and optimize medication management strategies. Such precision-driven approaches not only enhance patient outcomes but also offer potential cost savings by mitigating adverse incidents. In the forthcoming peer-reviewed paper, we delve into the scientific exploration of AI and predictive analytics applications within healthcare, emphasizing their transformative impact on medication safety protocols and the proactive identification of patient risks across care transitions (97).

In forthcoming advancements within pharmacist-led transition of care services, there is a notable resurgence in emphasis on patient-centered care ideals, health equity, and cultural competency. This trend anticipates tailored interventions, culturally attuned communication approaches, and initiatives targeting health literacy to empower both patients and caregivers in actively engaging with their care processes. By fostering improved medication adherence and addressing social determinants of health, these initiatives aim to mitigate healthcare disparities in access and outcomes. This renewed focus underscores the pivotal role of pharmacists in facilitating patient engagement and equity in healthcare delivery (22).

The ongoing evolution of pharmacy practice and legislative initiatives remains imperative for the broadening of pharmacist-led transition of care services, as well as for the attainment of provider status acknowledgment and the establishment of reimbursement frameworks for clinical pharmacy services. Collaborative endeavors with policymakers, healthcare administrators, and professional entities stand as indispensable avenues for championing policy modifications, propelling payment system reform, and fostering the seamless integration of pharmacists into multidisciplinary care coalitions (98).

Conclusion

In conclusion, pharmacist-managed transition of care (ToC) services play a crucial role in enhancing the quality, safety, and efficiency of patient care across healthcare settings. The evolving landscape of healthcare delivery, marked by technological advancements and complex treatment approaches, underscores the importance of seamless transitions between care settings. Pharmacists, through their expertise in medication management, patient education, and interdisciplinary collaboration, contribute significantly to improving ToC processes and outcomes. Effective implementation of pharmacist-led ToC services requires addressing various challenges, such as limited interprofessional collaboration, healthcare fragmentation, and financial constraints, through innovative strategies and solutions. The integration of artificial intelligence (AI) into ToC processes shows promise in enhancing prescription reconciliation, patient monitoring, and provider communication, thereby improving care continuity and patient outcomes. Moving forward, continuous evaluation, standardization of protocols, and patient engagement are key to maximizing the benefits of pharmacist-managed ToC services. By focusing on these areas, healthcare institutions can optimize transitional care, reduce readmission rates, enhance medication adherence, and ultimately improve the overall quality of patient care.

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Conflict of Interest

Authors declare they don’t have any conflict of interest.

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