

Pharmaceutical Care for Geriatric Populations: Challenges and Innovations in Hospital Settings

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Perspective

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DESCRIPTION

Pharmaceutical care for geriatric populations in hospital settings presents a unique set of challenges and requires innovative solutions. The elderly often have multiple chronic conditions, making them more vulnerable to medication-related issues. As life expectancy increases globally, healthcare systems must adapt to meet the complex needs of aging populations. Clinical pharmacists play an essential role in addressing these challenges, ensuring that elderly patients receive appropriate medications, avoid potential drug interactions, and ultimately improve their quality of life.

One of the most significant challenges in pharmaceutical care for geriatric patients is polypharmacy the use of multiple medications by a single individual. Older adults are more likely to suffer from several chronic conditions, such as diabetes, hypertension, heart disease, and arthritis, which often necessitate multiple prescriptions. The complexity of managing these medications increases the risk of adverse drug reactions (ADRs), drug-drug interactions, and medication nonadherence. Polypharmacy can also result in decreased functional status, confusion, and an overall decline in the patient's health, leading to hospital readmissions or prolonged stays. Clinical pharmacists are crucial in reviewing the medications of elderly patients, identifying inappropriate prescriptions, and suggesting alternatives or dosage adjustments to minimize the risks associated with polypharmacy. Their expertise helps streamline the medication regimen, ensuring that the patient receives the most appropriate treatment while avoiding unnecessary medications.

In addition to polypharmacy, elderly patients often experience age-related physiological changes that affect drug absorption, distribution, metabolism, and elimination. These changes can alter how drugs behave in the body, potentially leading to toxicity or suboptimal therapeutic effects. For example, renal and hepatic functions decline with age, which can affect the clearance of medications, requiring dosage adjustments. Clinical pharmacists are trained to account for these age-related changes when prescribing medications, ensuring that drug therapies are safe and effective for elderly patients. Pharmacists work closely with physicians to tailor medication regimens that consider the patient's altered pharmacokinetics, thereby preventing adverse outcomes associated with inappropriate drug dosing.

Cognitive decline, which is common in geriatric populations, adds another layer of complexity to pharmaceutical care. Older adults may have difficulty understanding the instructions for taking medications or remembering the timing of doses. This cognitive impairment can result in medication errors, nonadherence, or inappropriate use of medications. Clinical

pharmacists are often involved in educating patients and caregivers about proper medication use, as well as in simplifying medication regimens to improve adherence. Additionally, pharmacists can work with other healthcare professionals to develop strategies, such as blister packaging or pill organizers, to help patients manage their medications more effectively.

Geriatric patients are also at higher risk for Adverse Drug Events (ADEs), which occur when medications cause harm to a patient. ADEs can result from factors such as drug interactions, incorrect dosages, or inappropriate prescribing practices. Older adults are particularly vulnerable to ADEs due to their age-related physiological changes and the increased likelihood of polypharmacy. Clinical pharmacists help prevent ADEs by conducting thorough medication reviews, identifying potential interactions, and monitoring for side effects. Their ability to detect and address potential issues before they escalate is crucial in preventing hospital readmissions and improving patient outcomes.

Pharmaceutical care for geriatric populations in hospital settings is a complex and multifaceted challenge that requires a careful, patient-centered approach. Clinical pharmacists are at the forefront of addressing issues such as polypharmacy, drug interactions, cognitive impairment, and age-related physiological changes. Through medication optimization, patient education, and innovative approaches to care, pharmacists help improve the safety and efficacy of drug therapy, ultimately enhancing the quality of life for elderly patients. As the geriatric population continues to grow, the role of clinical pharmacists in hospital settings will only become more critical, and continued innovation and collaboration will be key to providing high-quality care for this vulnerable population.