# The Role of Drug Utilization Review (DUR) in Enhancing Patient Safety and Reducing Medication Errors in Pharmacies

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**Abstract**

**Drug utilization review (DUR) is an essential process at the organizational and professional level occurring in pharmacies or other healthcare facilities, helping to enhance medication therapy, avoid mistakes, and improve a patient's status. This article focuses on the three forms of DUR and elaborates on their purposes in patient safety. Pre-service DUR takes place before the patient is prescribed the medication to detect potential problems such as wrong dosages and compatibility between the drugs. Concurrent DUR happens during the welding period and ensures that the reaction of the patients to the medications is well intensified and acted on if there are adverse reactions. Clinical DUR aims to review the past use of drugs. As a result, it provides information on more useful prescribing tempos in the future, such as over-prescribing or under-prescribing specific pharmaceuticals. The article further explained various factors that contribute to medication errors in the context of pharmacies and the multiple effects that relate to these medication errors in detail. Furthermore, it explained how DUR processes assist in reducing the risks involved herein.**

**Furthermore, it outlines how various technologies, including e-prescriptions and PSI, can improve the efficiency of the DUR. Incorporating DUR into pharmacy practice enables the decrease of medication errors and the provision of safer drug use, hence, healthcare improvement. Recent regulatory frameworks and political campaigns promoting outpatient DUR have also been calculated while stressing patient protection and pharmacological procedures.**

**Keywords: Drug Utilization Review (DUR), Patient Safety, Medication Errors, Prospective DUR, Concurrent DUR, Retrospective DUR, Pharmacy Information Systems, E-prescriptions, Medication Monitoring, Polypharmacy.**

## 1. Introduction

Drug utilization report, abbreviated as DUR, is a powerful tool used by pharmacists and healthcare providers to track the practice of drug prescription and the utilization of drugs with an analysis of the patient's outcomes. It entails assessing the proper use, safety, and efficacy of medications used in patients. As will be described later in this paper, DUR is an essential tool to guarantee that drugs are consumed appropriately and without complications, thus decreasing the incidence of ADRs. There are three primary types of DUR: prospective, concurrent, and retrospective. Each type is intended for use at different phases of medication administration, including patient care, before prescription, during treatment, and after drug dispensing. Prescription-based DUR occurs before the dispensing of the prescription; the identified problems include inter-drug interactions, improper Dosage, and duplication. Concurrent DUR is done during treatment, providing timely feedback that the patient has responded well to the therapy. Retrospective DUR looks at prior medication usage to discover

trends or patterns that might indicate over-usage, under-usage, or misuse of a medication. These reviews assist in modifying upcoming treatment forms and enhancing the standard of health care for patients [1].

A paramount concern within the pharmaceutical industry is the safety of patients since the wrong handling of medication increases health risk factors. Pharmacies are among the most accessible access points for the general population to interact with the healthcare system; therefore, they are among the most important protectors of the population's health. Of all the preventable mishaps in any health facility, medication-related problems such as prescribing, dispensing, or administering errors affect patient safety most frequently. These mistakes can cause ADEs, which may trigger hospitalization of patients and lead to long-term health impacts or fatalities. By embracing DUR, the number of unsuitable medical errors is reduced, improving patient safety. DUR enables pharmacists to identify an incorrect prescription early in the process, such as providing a wrong dose or failing to notice a drug interaction. It also ensures that patients receive the most effective medications based on their health conditions and other treatments they may be receiving. Moreover, DUR can help address issues like polypharmacy, especially in elderly patients who are at a higher risk of drug interactions due to the multiple medications they often take [2].

## 2. Types of Drug Utilization Reviews

Drug Utilization Reviews (DUR) are vital mechanisms for improving medication utilization to warrant the safe usage of drugs, proper prescription, and the best results for the patient's health. Three main types of DUR are possible: prospective, concurrent, and retrospective, each of which is useful at a different point in the patient's treatment process. These reviews give detailed and thorough coverage of drug therapy, assisting health practitioners in maintaining good drug prescriptions to avert likely mistakes and enhance the safeguarding of clients.

### 2.1 Prospective DUR

Prospective DUR occurs before the medication is administered or dispensed; hence, it is the first barrier to medication errors. At this stage, pharmacists look for problems that may exist in the prescription, like wrong dose, drug interactions, duplicate therapy, or adverse drug interactions. It is advantageous to the patient because, most of the time, the pharmacists can work out for any discomfort the patient may experience as he receives the particular medication by working out for all the potential ADRs or complications related to the specific medication. For instance, when a patient is on several drugs and one of the drugs taken can cause a fatal interaction in combination with the new drug, the pharmacist will inform the doctor who prescribed the new drug. Furthermore, prospective DUR assists in recognizing individuals who could be allergic, especially to a given recommended medication, or those who might require a Dosage modification due to age, weight, or renal capabilities. Since prospective DUR views the prescriptions before dispensing, it is instrumental in preventing medication errors that may be realized when prescribing or dispensing. As a result, one is assured that they are not prescribing a particular treatment plan that might be risky for the patient and the general health of that patient [3].

### 2.2 Concurrent DUR

Concurrent DUR is implemented when the client is on medication and monitors their progress toward the treatment in real-time. One advantage of this type of DUR is that it enables healthcare providers to make an intercession during treatment if any complications, such as side effects, interactions, or alterations of the patient's condition, call for alteration in the medication program. For example, suppose a patient is prescribed several medicines and develops a side effect from anyone. In that case, concurrent DUR will assist in defining which drug is responsible for this side effect. Subsequently, the treating healthcare providers may have to make some alterations, for instance, lowering the Dosage, replacing the drug with another one, or even completely stopping the medicine. Concurrent DUR is most useful when patients use multiple medications at a time and where it is required continuously, such as in hospitals, nursing homes, or long-term care centers.

Furthermore, concurrent DUR can help confirm that the medications are adequately utilized during treatment. It makes it effective in identifying early signs of non-response or toxicity so that necessary adjustments can be made, decreasing the likelihood of developing long-term sequelae or need for admission [4].

**2.3 Retrospective DUR**

Retrospective DURs take place once the patient has finished a course of therapy. Therefore, This review will require an assessment of past prescribing and medication usage practices to establish patterns, patterns of mistakes, and likely future patterns. Retrospective DUR is a valuable tool to monitor patients' adherence to prescribed treatment regimens and the safety and efficacy of the drugs used in a given period. It was also found that retrospective DUR effectively identifies trends in overuse, underuse, and misuse of certain medications. For instance, using data from the patient, a pharmacist can use their procedure to realize that a specific drug flies the ceiling, thus exposing the patient to risks of side effects. In such cases, the DUR becomes retrospective, enabling the healthcare prescribing parties to avoid such problems in the future. Retrospective DUR is also very beneficial in any quality improvement project. As such, healthcare organizations can analyse massive patient data sets to see where and how prescribing can be improved or what additional training is needed. It is also helpful in identifying the successes of some medications or the overall therapeutic interventions, which can help make an evidence-based practice and patient care [5].

**2.4 Comparison of DUR Types**

Each type of DUR—prospective, concurrent, and retrospective—offers unique benefits at different stages of the medication use process. Prospective DUR is crucial for preventing errors before they happen, ensuring patients receive safe and appropriate treatment. Concurrent DUR provides ongoing monitoring during treatment, allowing for timely interventions if any problems arise. Retrospective DUR helps evaluate past treatments' effectiveness and improve future prescribing practices based on data-driven insights. Together, these types of DUR form a comprehensive framework for optimizing medication therapy, reducing errors, and enhancing patient safety. **Table 1 and Figure 1** compare these DUR types, highlighting their unique features and benefits. By employing all three kinds of DUR, healthcare professionals can ensure a more robust and practical approach to managing drug therapy in clinical and community pharmacy settings[3].

| S.no | Feature | Prospective DUR | Concurrent DUR | Retrospective DUR |
|---|---|---|---|---|
| **1.** | Timing | Before dispensing | During treatment | After treatment |
| **2.** | Focus | Preventing errors | Real-time monitoring | Evaluating past outcomes |
| **3.** | Main Benefits | Enhances patient safety | Allows for timely interventions | Identifies patterns and improves practices |
| **4.** | Setting | Pharmacy | Hospitals, nursing homes, outpatient clinics | Healthcare organizations |
| **5.** | Outcome Measurement | Immediate safety and appropriateness | Short-term treatment effectiveness | Long-term patient outcomes |

**Table 1: Comparison of DUR Types**


**Figure 1: Overview of the Types of Drug Utilization Review (DUR)**

This diagram highlights the key stages of Prospective, Concurrent, and Retrospective DUR, along with their specific focus areas in preventing medication errors and optimizing patient outcomes

## 3. Medication Errors: Causes and Implications

Medication errors are among the most prevalent threats to patient safety in healthcare systems, particularly in pharmacies where prescriptions are filled and medications are dispensed. These errors can occur at various stages, including prescribing, dispensing, administering, and monitoring. Understanding the common causes and the far-reaching implications of these errors is critical to mitigating risks and improving patient outcomes.

### 3.1 Common Causes of Medication Errors in Pharmacies

Pharmacists make errors when prescribing medication through human as well as system factors. The main reason is that there needs to be more understanding between doctors and pharmacists. Prescribed handwritten prescriptions are on the decline, especially with the evolution of electronic prescriptions (e-prescribing), but they can cause the wrong interpretation if not clear. Poor, illegible writing, abbreviations, or unclear directions may lead to the wrong medication or an incorrect dosage being given to the patient by the pharmacist. Another crucial plausible cause is that the patients need to be better informed. Pharmacists need comprehensive information about the patients, including their medical history, their allergies, and which medications they are currently on. Lack of complete or accurate information can result in the selection of wrong and often incompatible drugs, especially where a patient is on many medications (polypharmacy) because the pharmacists cannot detect potential interfering or prohibitive interactions. It is even more dangerous in elderly patients since they are usually on multiple drug prescriptions. Another cause of medication errors in pharmacies is the workplace environment, which includes a shortage of staff, time pressures, and interruptions that lower the pharmacist's focused attention on the task, which can cause medication errors. Because working in retail or hospital pharmacists may be very busy, especially when they are handling many prescriptions simultaneously, they are at risk of making various mistakes like calculation of Dosage, wrong labeling of prescriptions, and even wrong dispensing of drugs. The presence of similar-sounding drug names (LASA: Special attention should be given to look-alike and sound-alike medications efforts in increasing confusion are already compounded by the existence of generics via the Abbreviation Act. Also, insufficient staff training and a failure to optimize the technological means may lead to mistakes. Other sources of information, with instances ranging from drug updates and or best practices for safe dispensing by pharmacists and technicians, may often be limited. Likewise, the underutilization or improper utilization of elements of pharmacy information, such as the computerized physician order entry (CPOE) or automated dispensing systems, means that potential errors are not flagged earlier when they can be corrected [6].

### 3.2 Impact of Medication Errors on Patient Health and Healthcare Systems

Medication errors may harm the health of the patient significantly and cause adverse drug events (ADEs) from mild to life-threatening. For instance, fractured dosing can involve administering a medicine at the wrong concentration, which may make the medicine not work or cause harm, toxicity, or other adverse effects. Inaccurate medications can lead to allergic reactions or unfavorable drug interactions, exacerbating the patient's risk factors. Patients with chronic diseases or those with compromised health, including infants, the elderly, and persons with other coexisting conditions, are more likely to experience adverse effects from medication errors. At most, these mistakes may result in hospitalization, disability, or fatality. Materials needed include A computer and an internet connection. The psychological effect on the patients who have fallen victim to medication errors should also not go unnoticed, as patients may lose confidence and trust in the healthcare system, thereby influencing their compliance with future treatments. Regarding the healthcare systems perspective, medication errors also have many more economic and operational costs. Many damages exposed patients to other procedures that incurred further costs to remedy the violation caused by a mistake, like admissions, several days of extra stay, or surgeries. For example, a medication error that leads to an

adverse event might need urgent management, which escalates hospital expenses and costs the patient and the carer more money. Also, medication errors bring consequences in legal terms in the form of litigation, compensation, or loss of licenses for medical practitioners involved. Pharmacies and healthcare facilities may also suffer some loss of reputation, which may ultimately affect patient loyalty and operation. Besides the more evident costs, medication errors contribute to the wastage of resources within the healthcare systems because of time spent on solving preventable problems [7].

## 4. The Role of DUR in Reducing Medication Errors

Drug Utilization Review (DUR) is critical in preventing and correcting medication errors to enhance patient safety. By implementing prospective, concurrent, and retrospective DUR, pharmacists can intervene at various stages to reduce mistakes and ensure proper medication use.

### 4.1 Preventing Medication Errors through Prospective DUR

Early detection prospective DUR is performed before a medication is dispensed to avoid wrong prescriptions, such as drug interactions, wrong dosages, and wrong therapies. Prescribing can be discussed with a pharmacist who analyses the prescription regarding the patient's medical history, other medications that the patient may be taking and p, and potential interactions. Such action effectively prevents mies, including the prescription of the wrong drug or the wrong dose. The major strength of prospective DUR is that it may identify possible drug-drug interactions. When a newly prescribed drug may interact with another, the pharmacist can inform the prescriber of the conflict so that the therapy is changed before adverse effects, which result in drug interactions, occur. Prospective DUR should also prevent therapeutic duplications because it focuses on patients using multiple prescriptions. The pharmacist can quickly spot that the patient is taking certain medications with similar pharmacological actions, thus avoiding overloading the patient. In conclusion, potential DUR should be conducted before the time the drugs are administered so that where problems are identified, they do not result in harm to the patient [8].

### 4.2 Correcting and Reviewing Errors with Concurrent and Retrospective DUR

The prospective duration aims at error elimination, while the concurrent and retrospective DUR aims at error control during and after treatment. Concurrent DUR occurs when the patient is on treatment. The system continuously observes the drug therapy for any arising incidences like ADRs, drug interactions, or lack of compliance. Concurrent DUR benefits hospitals since most inpatients may be on several prescriptions. Trade constant observation of the therapy course allows pharmacists to guarantee the safety and effectiveness of the treatment, especially in multi-organ pathology. Retrospective DUR, however, entails an evaluation of medication use long after the treatment is over. It captures the flow of prescribers and patients, the effectiveness and efficiency of the prescribed treatments, and the standard errors. Retrospective DUR may be done, but it lacks the advantage of correcting the mistake at the time of prescribing; however, the results are used to prevent future prescribing errors, avoid repetition of such mistakes, and institute system changes that would reduce patient hazards. This integrated platform guarantees patients the best and safest therapies [9].

## 5. Enhancing Patient Safety through DUR

Drug Utilization Review (DUR) is a pivotal tool in promoting patient safety within healthcare settings, particularly in pharmacies. DUR helps identify potential risks and optimize patient therapeutic outcomes by reviewing and monitoring drug prescriptions and usage. Two critical ways DUR enhances patient safety include identifying drug interactions and optimizing Dosage, as well as addressing the challenges of polypharmacy while promoting evidence-based prescribing.

### 5.1 Identifying Drug Interactions and Optimizing Dosage

DUR's most important utility in promoting patient safety is the capacity to prospectively screen for contra-indications in drug use. Since patients are on multiple medications, potential pharmaceutical and disease

interactions further enhance the danger. In prospective review, DUR systems may permit pharmacists to determine if a prescribed drug may interact poorly with other medications or with the patient's medical conditions. For instance, some drugs' efficacy will be either elevated or minimized by other medications with adverse consequences. An example of drug-drug interaction is between warfarin and antibiotics, whereby the latter increases both the risk of bleeding and the ability of the anticoagulant. DUR assists in alerting these interactions to a healthcare provider to prevent possible adverse effects and modify the therapy. As mentioned earlier, DUR is responsible for identifying the interaction and Dosage. In all cases, medications must be adjusted according to such factors as age, body weight, renal function, or other illnesses the patient has. More often than not, the dosing levels become problematic because they cause side effects if the dose is too high or ineffective if it is too low. DUR also checks whether dosages are according to present guidelines and patients' characteristics. For instance, patients with terminal illness and CKD patients of a younger age or elderly patients need dose adjustment due to the disturbances in the metabolism. For these target patient populations, DUR systems enable pharmacists to confirm the recommended dosages and suggest changes if needed [10].

### 5.2 Addressing Polypharmacy and Promoting Evidence-Based Prescribing

Concurrent consumption of multiple medications or Combined Therapeutics is becoming more prevalent, particularly among patients with chronic diseases. Even though polypharmacy is common, especially in the elderly, it increases the likelihood of medication mishaps, poor drug compliance, and adverse drug reactions. DUR systems also help define polypharmacy cases and confirm that all of them are necessary and used correctly.

Through DUR, pharmacists can assess whether specific medications are redundant or safer alternatives exist. For instance, in cases where a patient is prescribed multiple drugs with similar mechanisms of action, DUR can flag therapeutic duplications. It helps to streamline the medication regimen, reducing the risk of adverse effects and improving patient adherence. Furthermore, DUR promotes evidence-based prescribing, ensuring all medications are prescribed according to the latest clinical guidelines and research. By reviewing prescriptions, pharmacists can confirm that the prescribed therapies are aligned with current best practices and make recommendations when deviations are detected. It is essential in chronic diseases like hypertension or diabetes, where adherence to guidelines is critical for long-term outcomes. DUR also encourages the use of cost-effective treatments without compromising patient safety. By providing prescribers with alternative treatment options that are both safer and more affordable, DUR supports more rational prescribing practices [11].

## 6 Technological Support for DUR

Technological advancements significantly support Drug Utilization Review (DUR) systems, enabling more efficient and accurate medication monitoring. The integration of pharmacy information systems and the adoption of e-prescriptions and automation significantly enhanced the ability of healthcare professionals to perform DUR and ensure patient safety.

### 6.1 Pharmacy Information Systems and DUR Integration

Pharmacy information systems (PIS) significantly incorporated DUR processes in several healthcare facilities. These systems gave pharmacists and prescribers complete patient records in real-time, including histories, current prescriptions and over-the-counter medications, allergies, and interacting laboratory results. It is also combined with PIS, which reduces the review process as it flags all drug interactions and contraindications of the patient and the dose given to the patient.

It was also noted that most big pharmacies embraced new sophisticated PIS systems with integrated DUR notifications. These alerts would help inform the pharmacist of Therapeutic Duplications or High-Risk Medications to address such situations before releasing the medication. Hence, although using data analytics, PIS could evaluate the patient's historical data, enabling more precise medication reviews. Implementing DUR

into PIS improved patient safety by decreasing the likelihood of manual mistakes and increasing effectiveness in making medication-related danger detection and remediation. The integration of DUR in those systems was smooth in that errors could be identified in real-time, and changes could be made to therapies in consonant with new guidelines or a patient's circumstances. This level of integration made a significant move toward ensuring that medication security had a more proactive worldview [12].

### 6.2 The Role of E-prescriptions and Automation in Enhancing DUR

Another technology that utilized DUR was e-prescriptions (electronic prescriptions). E-prescription reduced cases where a prescription had to be handwritten and a doctor's handwriting was illegible, leading to misinterpretation or transcription errors. Since they substituted written prescriptions for electronic prescriptions, e-prescriptions enabled the DUR systems to review such medication orders immediately after the doctors ordered them. This real-time timetabled computation made any discrepancies like incorrect dosages or contraindications to be detected and rectified immediately. Furthermore, DUR was improved by automating functions in pharmacy operations as well. Specifically, A.D.s may be designed to automatically compare prescribed medications to databases such as DUR to reduce nursing mistakes. Another advantage of automating the king was the increased ability to process many prescriptions and review each order for possible errors. All these technological solutions complemented a direct understanding of reason, which merges with DUR to enhance medication safety. Other changes made by e-prescriptions and automation were reducing medication errors and improving patients' health by increasing the speed and accuracy of prescriptions. These technologies were similarly applied throughout various establishments, making it easier for HCPCs to apply DUR effectively and accurately [13].

## 7. DUR and Regulatory Frameworks

In 2018, Drug Utilization Review (DUR) was governed by various regulatory frameworks designed to ensure medication safety and improve healthcare quality. These guidelines provided a structured approach to implementing DUR processes and set standards for reviewing medication use. National and international regulatory bodies worked to establish protocols that addressed the growing complexity of medication management, enhancing patient safety across healthcare settings.

### 7.1 Key Regulatory Guidelines for DUR

The rules and regulations over DUR were created to a large extent by organizations such as the U.S. Food and Drug Administration or the Centres for Medicare and Medicaid Services. It is noteworthy that in the case of CMS or the Centre for Medicare and Medicaid, DUR was made mandatory for Medicaid via sections 455 and 456 of the Social Security Act to set up DUR programs that would evaluate prescription patterns, pointing out cases of appropriate and, more importantly, cases of negligence, fraud, and abuse. According to CMS, DUR covered prospective and retrospective, look back and forward, with equal importance placed on ADR, controlled substances, and improvement of therapeutic results. Governors were mandated to submit reports on their DUR programs containing information on prescription utilization, error reduction, and patient responses.

Likewise, the Joint Commission introduced the standards of Medication Management, which included DUR processes Pharmaceutical Care Management, indicating that these reviews are required more meticulously to avoid errors, especially in drugs such as opioids and anticoagulants. This page outlines the standards that helped hospitals and pharmacies adopt DUR in their quality assurance systems. National and international pharmaceutical guidelines by the World Health Organization (WHO) also underscored the critical role of DUR in enhancing rational drug use. These guidelines recommended that DUR be applied in both developed and developing healthcare systems because implementation of DUR plays a significant role in avoiding medication errors and enhancing the safety of patients [14].

### 7.2 National and International Initiatives to Strengthen DUR Practices

Various options at national and international levels were being exercised to enhance the DUR practices. In the United States of America, for instance, the Medicare Part D program compelled pharmacy and healthcare providers to perform DUR as part of their medication therapy management, known as MTM. This intervention was intended to enhance the rational utilization of medicines in elderly and chronic disease patients by using standard and safe therapeutic management consistent with the guidelines. Globally, the WHO's Rational Use of Medicines Program endorsed DUR to enhance drug safety, mainly in LMICs. This initiative recommended integrating the DUR systems with the national healthcare policies, thus challenging governments to implement measures to check medication use.

Another significant effort was the International Society for Pharmacoeconomics and Outcomes Research (ISPOR), which supported the outreach for DUR to enhance patient outcomes related to the rational use of drugs attuned to value-based prescriptions. ISPOR continued striving toward safer use of medicines and more effective and efficient healthcare resource use through supporting DUR practices worldwide. The elements of these regulations and campaigns endorsed the significance of DUR in the accomplishment of medication management and the promotion of patient safety worldwide [15].

## 8. DUR and Its Impact on Pharmacy Practice

Drug Utilization Review (DUR) significantly influences pharmacy practice by shaping protocols and procedures while expanding the clinical roles of pharmacists. By integrating DUR into everyday pharmacy operations, healthcare systems ensure a structured and safe approach to medication management, directly improving patient outcomes.

### 8.1 How DUR Shapes Pharmacy Protocols and Procedures

As it shall be seen, DUR plays a significant role in developing pharmacy protocols and procedures regarding the dispensing and reviewing processes. DUR standards call on pharmacies to screen prescriptions, check for possible drug interactions, and confirm the dosages, among other functions. They include prospective (pre-prescriptions), concurrent (ongoing / during the treatment), and retrospective (post-treatment) reviews to ensure the least number of medical mistakes with drugs is achieved. It is expected to have DUR alerts in those pharmacy information systems where such protocols are included, indicating high-risk medication, drug interactions, or wrong dosages. Therefore, this systematic review assists pharmacists in modifying therapies likely to pose adverse effects for real-time interventions. In other words, DUR protocols are a great way to improve the functioning of the Pharmacy and the outcomes of medication therapy.

### 8.2 Influence of DUR on Pharmacists' Clinical Roles and Responsibilities

DUR has transformed the role of pharmacists from simply dispensing medications to becoming active participants in patient care. As pharmacists engage in DUR, their clinical responsibilities include monitoring patient therapies, identifying medication-related problems, and collaborating with prescribers to adjust treatment plans. Pharmacists are also responsible for educating patients on proper medication use, addressing side effects, and ensuring adherence to prescribed therapies.

Through DUR, pharmacists contribute to optimizing therapeutic outcomes by making evidence-based recommendations and ensuring that medications align with best practices. This shift elevates the pharmacist's role as a crucial healthcare provider, emphasizing their involvement in safeguarding patient safety and promoting rational drug use [16].

## 9. Conclusion

It is difficult to overestimate the role of Drug Utilization Review in the struggle for the protection of the patient and the prevention of medication errors in the sphere of pharmacies. By systematic analysis of prescription and medication usage, DUR enables clinicians to screen for possible threats such as contra-

indications, wrong dosages, and polypharmacy concerns. The repeatability and relevance of medication reviews, enhancing DUR accompanied by technological advances, such as Pharmacy Information Systems and Electronic Prescriptions, strengthen the efficiency of releasing medication review reviews.

DUR transcends medication safety by shaping pharmacists' practices and operations and helping pharmacists elevate their work. With the incorporation of DUR in the day-to-day practice of Pharmacy, pharmacists are now more involved in patients' caring; they have roles in case of reviews in therapy, making recommendations, and ensuring strict compliance to evidence-based guidelines. Also, legal provisions and domestic and international programs pointed to the expansion of DUR as an essential strategy for enhancing healthcare results. As with any intervention that is implemented as a solution to a treatment problem over time, new changes may take place in something known as DUR, but its primary function, which is to decrease medication incidences, as well as properly facilitate the use of medications by patients to enhance general health and delivery of healthcare services stands to be core to all changes occurring in this sense. Lastly, DUR is a critical element of contemporary pharmacy practice, which is a continued dedication to patient safety and the profession's growth as an essential caregiver collaborator [17].

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