

What are Drug Utilization Reviews (DUR)



Drug Utilization Reviews (DUR), also referred to as Drug Utilization Evaluations (DUE) or Medication Utilization Evaluations (MUE), are defined as an authorized, structured, ongoing review of healthcare provider prescribing, pharmacist dispensing, and patient use of medication. DURs involve a comprehensive review of patients' prescription and medication data **before, during, and after** dispensing to ensure appropriate medication decision making and positive patient outcomes.

DURs are classified into three categories:

- *Prospective* - evaluation of a patient's therapy **before** medication is dispensed
- *Concurrent* - ongoing monitoring of drug therapy **during** the course of treatment
- *Retrospective* - review of therapy **after** the patient has received the medication

Why DURs are important:

DUR programs play a key role in helping managed health care systems understand, interpret, and improve the prescribing, administration, and use of medications. Employers and health plans find DUR programs valuable because the results are used to foster more efficient use of scarce health care resources. Pharmacists play a key role in this process because of their expertise in the area of pharmaceutical care.

DURs afford the managed care pharmacist the opportunity to identify trends in prescribing within groups of patients such as those with asthma, diabetes, or high blood pressure. Pharmacists can then, in collaboration with other members of the health care team, initiate action to improve drug therapy for both individual patients and covered populations. DURs serve as a means of improving the quality of patient care, enhancing therapeutic outcomes, and reducing inappropriate pharmaceutical expenditures, thus reducing overall health care costs.

Value of DUR Programs:

Managed health care systems and pharmacy benefit management companies (PBMs) have the responsibility of managing the medication use in the client's membership. DUR programs are integral in helping to understand, interpret, and improve the prescribing, administration, and use of medications. DUR programs are able to provide physicians with feedback on their performance and prescribing behaviors as compared to pre-set criteria, accepted standards-of-practice or treatment protocols such as those established by national organizations such as the National Institutes of Health or the American Heart Association.

DUR information also allows for the compare and contrasting of healthcare providers in order to evaluate a particular provider's approach to treating certain diseases against their peers. These comparisons are useful in stimulating physicians to change their prescribing habits in an effort to improve care.

DUR information also assists managed health care systems and PBMs in designing educational programs that improve rational prescribing, formulary compliance, and patient compliance. These educational programs may take the form of face-to-face education of physicians and patients by clinical pharmacists, telephone calls, letters, newsletters, and educational symposia.

Extracted from The Academy of Managed Care Pharmacy's *Concepts in Managed Care Pharmacy*



Prospective DUR:

A Prospective DUR involves evaluating a patient's planned drug therapy **before** a medication is dispensed. This process allows the pharmacist to identify and resolve issues before the patient actually receives the medication. Pharmacists routinely perform prospective reviews in their daily practice by assessing a prescription medication's dosage and directions and reviewing patient information for possible drug interactions or duplicate therapy.

Issues Commonly Addressed by Prospective DUR:

- Drug-disease contraindications
- Therapeutic interchange
- Generic substitution
- Incorrect drug dosage
- Inappropriate duration of drug treatment
- Drug-allergy interactions
- Clinical abuse/misuse

Example of a Prospective DUR:

A patient being treated with warfarin to prevent blood clots may be prescribed a new drug by another specialist to treat arthritis. If taken together, the patient could experience internal bleeding. Upon reviewing the patient's prescriptions, the pharmacist notes the potential drug interaction and contacts the prescriber to alert him/her to the problem.



Concurrent DUR:

A Concurrent DUR is performed during the course of treatment and involves the ongoing monitoring of drug therapy to ensure positive patient outcomes. Some refer to this as case management or health management. It presents pharmacists with the opportunity to alert prescribers to potential problems and to intervene in areas such as drug-drug interactions, duplicate therapy, over or underutilization, and excessive or insufficient dosing. This type of review allows therapy for a patient to be altered if necessary. Concurrent DURs often occurs in institutional settings.

Issues Commonly Addressed by Concurrent DUR:

- Drug-drug interactions
- Excessive doses
- High or low dosages
- Duplicate therapy
- Drug-disease interactions
- Over and underutilization
- Drug-age precautions
- Drug-gender precautions
- Drug-pregnancy precautions

Example of a Concurrent DUR:

Patients in institutional settings often receive multiple medications. Periodic review of patient records can detect actual or potential drug-drug interactions or duplicate therapy. This type of review can also alert the pharmacist to the need for changes in medications such as antibiotics or the need for dosage adjustments based on laboratory test results. The key physician(s) must then be alerted to the situation so that corrective action can be taken.



Retrospective DUR:

A retrospective DUR is the simplest to perform since drug therapy is reviewed after the patient has received the medication. A retrospective review may detect patterns in prescribing, dispensing, or administering drugs to prevent recurrence of inappropriate use or abuse and serves as a means for developing prospective standards and target interventions. In retrospective DUR, patient medical charts or computerized records are screened to determine whether the drug therapy met approved criteria and aids prescribers in improving care for their patients, individually and within groups of patients, such as those with diabetes, asthma, or high blood pressure.

Issues Commonly Addressed by Retrospective DUR:

- Therapeutic appropriateness
- Over and underutilization
- Appropriate generic use
- Clinical abuse/misuse
- Therapeutic duplication
- Drug-disease contraindications
- Drug-drug interactions
- Incorrect drug dosage
- Inappropriate duration of treatment

Example of a Retrospective DUR:

An analysis of member prescription utilization may identify a group of patients whose therapy does not meet approved guidelines. Upon retrospective review the pharmacist may identify a group of patients with asthma who, according to their medical and pharmacy history, should be using orally inhaled steroids. Using this information, the pharmacist can then encourage physicians to prescribe the indicated drugs.