

The Pharmacist's Role in Significant Hazardous Interactions of Duplicative Therapy Focusing Antipsychotics and Antibiotics for Drug Utilization Review

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The purpose of the Drug Utilization Review (DUR) program is to improve patient care and reduce overall drug costs in medical insurance program. It accomplishes these tasks through retrospective analysis of patient drug usage, physician prescribing and pharmacy dispensing activities, identification and review of critical patient profiles, regular reporting of activities and important findings to medication providers and pharmacies, preparation and distribution of educational leaflets to physicians and pharmacists, awareness campaigns for new pharmaceutical products and techniques, and arch studies into drug-related trends and the application of those studies into cost-savings plans. When patients are adversely affected by drug-drug interactions from medication properly ordered by their physician and obtained from their pharmacist, pharmacists are responsible or liable for the harm suffered by patients as a result of drug-drug interactions. If a pharmacist knows or should know the potential for life-threatening drug-drug interactions to occur but fails to warn patients or physicians about the problem, pharmacists can be held liable. Screening and monitoring a patient are very important for drug regimen and drug-drug interactions. Many drug interactions can be avoided or managed safely if adequate time and precautions are taken by a patient and pharmacist. Having the pharmacist provide patient counseling on the use of prescription and nonprescription medication, disease state(s), and the safety of concurrent use of herbal products plays a major role in avoiding drug interactions. Preventing and/or managing drug interactions will be more likely to occur when the pharmacist takes time and utilizes an adequate patient data base that includes the patient, gender, age, vital signs, medical diagnoses, drug allergies, relevant laboratory tests, and a complete listing of medication being taken routinely or taken on an as-needed basis. If the pharmacist lacks essential patient data, he/she may obtain it from the patient. In addition, the pharmacist may call the physician to get essential monitoring information, such as results of recent lab tests or a complete list of medical diagnoses. The pharmacist could provide when counseling patients includes the following:

- 1) Make sure your pharmacist and your doctor know about every drug you are taking, including

prescription and nonprescription drugs, herbal products, and any dietary supplements, including vitamins and minerals;

- 2) Only take medication that has been specifically prescribed for you by your physician;
- 3) Medication must be taken properly to ensure its safety and effectiveness;
- 4) Unless otherwise instructed, take medicine on an empty stomach to achieve a faster onset of action;
- 5) When taking medicine with food or ! around a meal time is not recommended, take medicine one hour before meal/food or two hours after meals or eating food;
- 6) Take your medicine with a full glass (about 200ml) of water;
- 7) Avoid concurrent use of alcohol with medicine;
- 8) Avoid consuming excessive quantities of chocolate and beverages containing caffeine (coffee, tea, colas); and
- 9) If you have any questions or concerns about your medicine or you believe you are having an adverse drug reaction or drug interaction, consult your pharmacist or physician immediately. If there is a problem, your pharmacist can contact your physician, who can prescribe other medication to avoid the risk of drug-related problems.

Especially, duplicative therapy focusing antipsychotics and antibiotics have many significant hazardous interactions.

A small number of drugs are withdrawn from the market annually because patients experience harmful adverse drug reactions (ADRs) or drug interactions. Adverse drug reactions and drug interactions present alarming problems for our pharmacist's society and must be addressed by all healthcare providers. Beginning in January 2004, DUR program is mandated for medical insurance reimbursement from government in Korea. All pharmacists have to participate the DUR program considering clinical appropriateness, cost effectiveness, and, in some case, outcome.