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Issues

Information and ideas for those
 serving seniors.

on Aging

SENIORS AND THE MEDICATION MAZE

Advances in the development of new prescription drugs have allowed Americans to live longer, healthier lives than ever before. But along with the great benefits of medications, problems have arisen. Consider these facts about prescription and over-the-counter drug use by people over 65:

- Over 90% take at least one prescription drug daily.
- Over 80% take two or more prescription drugs daily.
- Over 65% of long term care facility residents take three or more prescription drugs daily.
- The average long term care facility resident takes seven different prescription drugs daily.
- There is a direct correlation between age and the number of prescription drugs.
- When hospitalized, 10% to 15% have adverse drug reactions.
- Adverse drug reactions account for 10% to 25% of geriatric hospital admissions.
- Adverse drug reactions account for 32,000 hip fractures, 163,000 cases of mental impairment and 61,000 cases of Parkinsonism annually (Kusserow, 1989).
- Adverse drug reactions are the fourth leading cause of death in America for people of all ages.
- Though constituting only 12% of the population, elders consume 32% of all prescription drugs and 40% of all over-the-counter (OTC) drugs.
- Elder spending on prescription drugs exceeds 13 billion dollars annually.

PATIENTS AND PHYSICIANS BOTH RESPONSIBLE FOR MEDICATION-RELATED PROBLEMS

With the huge numbers of prescription and OTC medications being consumed by seniors in America, it is not surprising that problems often occur. Consumers themselves play an important role in the development of these problems. This can begin with inaccurate reporting or non-reporting of their primary symptoms to physicians. Frequently seniors fail to clearly explain their health concerns to their doctors, especially if they are experiencing symptoms they feel are embarrassing or unacceptable. For example, many older people don't want to disclose feelings of depression, so instead may report that they have trouble sleeping. They then leave the doctor's office with a prescription for sleeping pills which will not help their depression and often increases their risk of falling.

Another significant source of drug problems arises from incorrect drug choices by physicians treating older adults. It is now well known that many, if not most, medications affect seniors differently than younger people. For

example, numerous studies have shown that seniors experience a decrease in the absorption of drugs in the stomach and intestines, in the metabolism of drugs by the liver, in the distribution of medication throughout the tissues and fluids of the body and in the rate of excretion of drugs by the kidneys. These differences can cause unintended effects in older people with serious results. Symptoms such as lethargy, confusion, depression, tremors, balance impairment, nausea, vomiting, diarrhea and others can be caused by ingestion of inappropriate medications.

Despite research showing that certain medications are considered unacceptable in seniors, a study by Wilcox et al found that of a group of community based people aged 65 and older, 23.5% received at least one contraindicated medication and that 20% received two or more contraindicated medications. In another study by Beers et al, 40% of nursing home residents received at least one unacceptable medication and 10% received two or more. A study in South Dakota by Mort et al found that in one quarter of seniors' visits to doctor's

PHYSICIAN-RELATED PROBLEMS	PATIENT-RELATED PROBLEMS
Prescribing inappropriate or unacceptable drugs.	Inaccurate or non-reporting of primary symptoms.
Prescribing incorrect drug dosages	Not reporting all drugs taken.
Prescribing incompatible drugs.	Inaccurate or non-reporting of side effects.
Prescribing new drugs to treat side effects.	Taking prescription medications incorrectly.
Failing to give adequate information about drugs.	Self-medicating with alcohol, OTC or illicit drugs.

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offices, doctors prescribed a medication for the patient's mental health that was risky for the patient's physical health. Most of these prescriptions were for antidepressants or anti-anxiety medications which are not considered appropriate for seniors, unfortunate as there are other drugs which offer the desired treatment with far fewer side effects. A study published by AARP recently said "surveys have shown that a substantial percentage of older patients receive at least one inappropriate drug."

In addition to prescribing inappropriate drugs, physicians may order incorrect dosages of drugs as well. This is again related to the physiological changes that occur in older people, making them more susceptible to adverse effects than younger people. For example, the same dose of a drug used to lower blood pressure may cause older persons to become lightheaded when standing up while having no such effects in younger people. There are a number of groups of drugs which must be prescribed in smaller doses for older people, at least until it is determined that the dose of the drug will not cause adverse effects.

The opportunity for incompatible drug prescribing by physicians occurs when more than one doctor is ordering medications, especially when the patient uses more than one pharmacy to fill prescriptions. Because most pharmacies have computer programs to track incompatibilities, this type of error is more likely to be noticed when consumers fill all their prescriptions at the same pharmacy. However, sometimes, individual doctors order incompatible medications because they are unaware of the incompatibility. If this is not detected by the pharmacist, complications can occur. For example, an elderly man was having difficulty controlling his urine and his hometown family physician prescribed a drug called Probanthine to treat this symptom. After seeing a urologist at a VA hospital for an enlarged prostate he received a prescription for urecholine, a urinary stimulant. These prescriptions were filled at different pharmacies and the patient had considerable urinary difficulty until a Care Consultant reviewed all his medications and noticed the incompatibility.

Patients frequently fail to notice or accurately report side effects from medications to their physicians. They may assume that their nausea and loss of appetite is due to old age or to a spell of illness, when it may actually be caused by too high a dose of medication such as digoxin, a drug frequently used to treat heart problems. When these adverse effects are not recognized as such and addressed by changing or adjusting the medication(s) causing the symptoms, they may be treated as new primary symptoms by the prescribing of additional drugs which have side effects themselves. It is not unusual for a patient to become confused due to ill effect from medications, and then to clear up mentally when the offending drug is removed.

Another patient responsibility for drug-related problems comes from incorrectly taking prescription and/or OTC drugs. Patients may not have heard or received information from their physicians or pharmacist about the purpose of the drug, the correct dosage or method of drug administration. Some individuals decide on their own to take more or less of a prescribed medication, while other seniors lack the mental capacity to correctly administer the drugs themselves or forget whether they have taken their daily medications. Older adults may also self-medicate various symptoms or feelings with OTC medications, alcohol, herbs or other such substances. All of these errors in medication administration can lead to very serious consequences of exacerbation of disease conditions due to inadequate treatment or serious overdosing of life-threatening medications.

SOLUTIONS TO MEDICATION-RELATED PROBLEMS

Just as both physicians and patients are responsible for the problems that arise from the use of medications, both must be involved in the solutions. Physicians must take responsibility for the problems of inappropriate drug choices and incorrect dosages of medications. While geriatric specialists are usually aware of these issues, family physicians and doctors who don't regularly treat large numbers of seniors may be less informed about inappropriate drugs and the need to consider dosage reductions in older

adults. Continuing medical education must focus on providing this type of information to physicians, particularly those in rural areas who must serve patients of all ages.

Pharmacists and pharmacy consultants are instrumental in detecting inappropriate drugs, higher than recommended doses and incompatible drug regimes. In fact, studies have shown that when pharmacists review medication profiles, they are able to identify these types of problems and bring them to the attention of the prescribing physicians for resolution. New software pharmacy programs assist pharmacists in identifying these issues when consumers patronize a single pharmacy for all their prescription needs.

To reduce the frequency of medicating adverse drug effects, doctors must take time to carefully question their older patients regarding symptoms reported after starting on new medications. Even though office time continues to be reduced due to managed care demands, it is imperative that complaints such as fatigue, nausea, loss of appetite, dizziness and other general constitutional symptoms be evaluated in light of the current medication regime. Failure of physicians to carefully evaluate each symptom is likely to result in continued unnecessary medication of elders.

Just as physicians and health professionals have responsibility in reducing problems related to prescription and OTC drug use, older adults need to become more knowledgeable about their medication. By seeking out physicians with expertise in treating older adults and questioning them about the drugs and dosages they are prescribing, seniors can reduce some of the common problems. It is also necessary that seniors be completely open and honest with their physicians about their symptoms, complaints and any type of drug or medication they are taking. This includes such things as vitamins, supplements, herbs, caffeine, alcohol, aspirin, acetaminophen (Tylenol) as well as their prescription drugs received from any doctor. Oftentimes eye drops are not mentioned as they are usually prescribed by an ophthalmologist, but some of these contain systemically absorbed drugs that may cause adverse

