ARE PATIENT REPORTS ACCURATE?

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The problem of having patients determine their own dosing during clinical trials is widely recognized. If data obtained in clinical trials where patients take medication once or twice a day are known to be inaccurate, it follows that data from patients taking medication intermittently over longer intervals will be even less accurate. Such studies generally rely on the patient recording the date and time of self-medication.

One area of clinical trials where patient compliance data are especially problematic is in studies of medications designed to be titrated by the patient against signs or symptoms of disorders such as:

- Chronic pain syndrome
- Angina pectoris
- Asthma - COPD
- Environmental allergies
- GERD/dyspepsia
- Gout
- Headache
- Side effects from other medications

Patient-determined dosing trials commonly use blister packaged medication with a place to record the date and time of dosing beside each blister. The package might be 6in x 9in (23cm x15cm) or larger and does not come with a pen attached. Is it likely that a patient will carry around a large blister package and pen for several months when only the occasional tablet will be required? It is more likely the patient will take one or two tablets out of the package and put them away in a purse or pocket. Are patients likely to remember to record the date and time they took the tablet? Probably not.

It should come as no surprise that very little is known about how patients self-administer such medications, and that at least two such medication categories - opiate analgesics and hypnotic sedatives - are widely abused and have high dependence liability. Unfortunately the methodology for obtaining accurate medication compliance data has fallen behind clinical research methodologies, research ethics, and the ability of pharmaceutical companies to develop new drugs. Compliance data is currently the weakest link in the chain. Empirical information into how such patients administer their as required (prn) medications is very limited

In clinical pharmacy applications, the situation is complicated by the fact that two categories of medication that are widely prescribed (in many cases inappropriately) in this way are also the largest sources of prescription drug abuse and dependence. Hypnotic sedatives, especially benzodiazepines, are often prescribed to be taken prn for the management of anxiety or to induce sleep. It is well known

that a significant number of such patients abuse benzodiazepines by taking more than is prescribed, taking them more often than is prescribed, using them to cope with other uncomfortable psychological states, or combining them with alcohol to augment effect. Abusers who are genetically predisposed to addiction and/or anxiety disorders are at high risk to progress to benzodiazepine dependence.

At the abuse stage the problem can be corrected in most patients without difficulty. Unfortunately, abusive patterns of benzodiazepine use are often difficult to detect until the problem has progressed to physical and psychological dependence. Monitoring the compliance of patients prescribed benzodiazepines to be taken on a prn basis would reduce the likelihood of progression to dependence by indicating to the prescribing physician or pharmacist early in the process that a problem may be developing.