



Small Doses.....

**By Mike Petry, MS, RPh
Clinical Pharmacist**

Misuse of Opioids and Benzodiazepines on the Rise

Rates of prescription drug overdose deaths increased rapidly in the United States (US) from 1999 through 2006. However, review and analysis of mortality data does not fully portray the morbidity associated with prescription drug overdoses. Data from emergency department (ED) visits can be used to better understand recent national trends in drug-related morbidity. The Drug Abuse Warning Network (DAWN) is a public health information system run by the federal government that tracks the impact of drug use, misuse, and abuse in the US by monitoring drug-related hospital ED visits.

DAWN is a division of The Substance Abuse and Mental Health Services Administration (SAMHSA). SAMHSA is a federal government agency established in 1992 to work in the areas of substance abuse and mental health services. DAWN uses a sample of EDs to estimate national ED visit rates. It collects data from a stratified, simple random sample of approximately 220 nonfederal, short-stay, general hospitals that operate 24-hour EDs in the US. DAWN's sampling is based on the American Hospital Association annual survey database and is updated annually. The DAWN sample is designed to produce estimates and trends for individual metropolitan areas (12 in 2008) and the US overall. Trained DAWN reporters review the medical charts of all patients treated in the participating hospital EDs to identify visits for conditions induced by or related to drug use. DAWN reporters record information from the ED medical records using standard abstraction forms. DAWN does not conduct interviews or follow-ups with clinicians, patients, or family members. Rates presented are based on the numbers of ED visits weighted so that they are representative of the entire country.

A new study done by the Centers for Disease Control and Prevention (CDC) and SAMHSA was recently published in *Morbidity and Mortality Weekly Report* (2010; 59:705-709) using the latest DAWN data. The study demonstrates a dramatic increase in the rates of ED visits involving nonmedical use of prescription drugs. The data collected covered 2004 to 2008 (the most recent five years for which data were available).

The DAWN review showed that the number of ED visits for the nonmedical use of opioid analgesics increased 111% during the five-year period; the number of ED visits for the nonmedical use of benzodiazepines rose 89% during the same period. An estimated 1.6 million ED visits for misuse and abuse of commercially available drugs occurred in 2004. By 2008, that number had increased to 2 million. Illicit drugs were involved in 1 million cases in both years; nonmedical use of prescription and over-the-counter drugs accounted for 500,000 visits in 2004 but rose to one million visits in 2008. The number of cases involving the nonmedical use of opioid analgesics increased from 144,600 in 2004 to 305,900 in 2008, with the highest number of ED visits recorded for oxycodone (OxyContin®), hydrocodone (Vicodin®, Norco®) and methadone (Dolophine®). Cases involving the nonmedical use of benzodiazepines increased from 143,500 in 2004 to 271,700 in 2007, with alprazolam (Xanax®), clonazepam (Klonopin®), diazepam (Valium®), lorazepam (Ativan®) and zolpidem (Ambien®) being the most common agents.

Over the five years studied, the largest increases in misuse or abuse rates of prescription drugs occurred in people 21 to 29 years old. In 2008, the misuse rates for both opioids and benzodiazepines increased sharply after age 17 and peaked in the 21-24 year old age group before

declining after age 54. The researchers did question the accuracy and completeness of the information regarding the drugs involved, and whether the drugs had been prescribed for a valid medical reason. Despite these potential flaws, the underlying message is still quite clear.

One major cause for this dramatic increase in this problem is the increase in the prescribing of these drugs. For example, CDC estimates that 8 million people in the United States use opioids long-term to manage their chronic pain, which is markedly higher than a decade ago. ED clinicians also attribute the problem to many other possible reasons. The economic problems experienced by many patients may motivate them to use illicit drugs as an escape. Patients that can't afford traditional health care who have a chronic pain condition may be self-medicating with opioids. Several patients report that they buy their prescription drugs online. Patients no longer have to go to the street corner to buy drugs, they just have to turn on their computer. Doctor shopping, drug diversion and other established strategies are still occurring as well.

As a result of this study, CDC has acknowledged that efforts to prevent misuse of these drugs have not been effective, calling for "stronger measures to reduce the diversion of prescription drugs to nonmedical purposes."

Please sign and date for pharmacy nursing in-service.

Signature

Date

Have Yourself
A Merry
Little Christmas