The Beckoning Emergency Room

Data from the emergency departments (ED)s of this nation are becoming accurate barometers of our country's health. To know when, where, and of what intensity a new strain of influenza might be infecting the nation, for example, check the intake registries of the EDs rather than rely upon anecdotal tales or letters to the editor. To appreciate the magnitude of the killing of innocents by firearms, go no further than the statistics emanating from our nation's EDs. And to appreciate the extent to which Americans are fond of—perhaps even dependent upon—certain mood-altering drugs, check out the records of the EDs.

Before World War II, American hospitals created back doors for the acutely injured, sick and weary arriving by ambulances. And the same back door, perhaps identified by an illuminated sign, also beckoned the ambulatory seeking help. Typically, it was a small, 24-hour facility monitored by a single nurse with an intern or two on call. It was used principally during the late night hours when physicians' private offices and the neighborhood pharmacies were closed. The acutely distressed, the injured, and sometimes the very lonely passed through these doors, generally past midnight. Their numbers were small, the rendered care was rapid, responding solely to the emergent problems, and the majority of those seeking aid were visibly injured. Only the most sophisticated EDs had access to such ancillary aids as radiography or clinical pathology laboratories.

The decades following the mid-20th Century witnessed an exponential growth in ED activity. Where formerly it might have been a single, utilitarian room (called the Emergency Room) for the most desperate of injuries, it now had evolved, by necessity, into a sanctuary treating the entire spectrum of medical ailments. It became a free-standing department with its own staff, diagnostic facilities, holding beds, emergency surgical suites, and for its physicians, even their own specialty accreditation.

By the 21st Century, the health of the nation had improved significantly; people were living longer and insurance contrivances such as federally-sponsored Medicare were bringing the benefits of rational care to a larger segment of the American population; yet, paradoxically, a greater fraction of the populace was now depending upon the EDs, not only for their unanticipated emergencies but for their non-emergent medical needs as well. A former president declared that the nation needed no further governmental medical insurance since there always were the EDs to meet the public's need. Truly, the nation's EDs were no longer the clinic of last resort but America's primary care facility, a function that they were not designed to fulfill.

Given their competency in profiling America's health problems, what can the EDs tell us about chemical addictions? The United States Public Health Service recently created a new surveillance facility, **Drugs Abuse Warning Network (DAWN)**, to monitor the nation's EDs in terms of drug-related morbidities incident to "the nonmedical use of prescription drugs" such as oxycodone, hydrocodone and methadone.

During the most recent five year interval (2004 – 2008) the EDs confronted swelling numbers of patients compromised by the unwarranted use of opium-like medications. In 2004, 144,600 such cases were recorded; by 2008 this number of patients reacting adversely to opioid drugs such as oxycodone had risen to 305,900 patients streaming into EDs.

Oxycodone is not a newly created analgesic. Chemists were seeking an opium-like medication with fewer side-effects than morphine or heroin, both of which were derived from crude opium. Oxycodone was synthesized by a German pharmaceutical laboratory in 1916, and was derived from another opium derivative called thebaine. Its unwanted side effects include dizziness, confusion, stupor (and paradoxically, sleeplessness), nausea, severe constipation and visual changes caused by constricted ocular pupils (miosis).

What is the profile of the population taking illicitly derived oxycodone? Adult women slightly more than adult males. And about two-thirds of those seeking ED help admitted to taking more than one pharmacologically-active drug. In addition, about 15% had also consumed measureable amounts of alcohol. The symptoms in about 24% were sufficiently serious to warrant immediate hospitalization.

The second most frequent medication prompting ED visits was from the excessive use of one or another of the benzodiazepines, a family of mood-altering agents including valium and ativan. Excessive side effects include dizziness, incoordination (with a tendency to falling), confusion, diminished libido and irrational behavior. An estimated 271,700 ED visits in 2008 were caused by benzodiazepine toxicity.

DAWN estimates that well over two million ED visits, per year, are the result of the illicit overuse of addictive medications. Of these, about one million were occasioned by chemical dependency on cocaine and heroin.

In the words of the USPHS, "These findings indicate substantial, increasing morbidity associated with the non-medical use of prescription drugs in the United States."

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Disclosure of Financial Interests

Stanley M. Aronson, MD, and spouse/significant other have no financial interests to disclose.

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