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Query**How many deaths
occur from
prescription
medications?Where healing, teaching and
discovery come together.OHSU includes four schools, two
hospitals, numerous primary care
and specialty clinics, multiple
research institutes and several
community service and outreach
units.OHSU is an equal opportunity,
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11/04(15)

The Prescription Drug Overdose Epidemic

By: Trinh Le, Pharm.D. Candidate 2011

The Problem

The steady rise in prescription drug overdose deaths has become a growing public health problem in Oregon and the U.S. Since 1970 the rate of drug overdose deaths in the U.S. has never been higher. Prescription drug overdoses account for more than 36,000 deaths and 1 million emergency department visits in the U.S. each year according to the Drug Abuse Warning Network (DAWN). In fact, drug overdose has become the leading cause of unintentional injury death in the U.S., surpassing motor vehicle crash deaths.

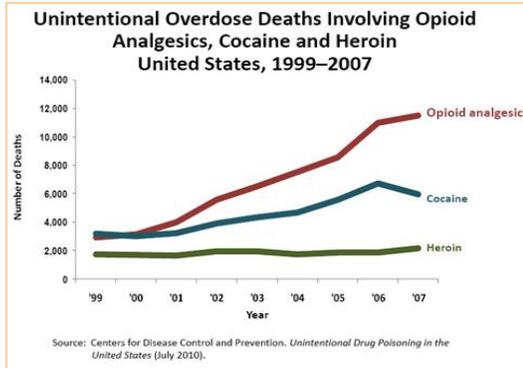
The extent of the prescription abuse problem is widely seen in Oregon. Most of the drug-related deaths in Oregon in 2010 were associated with prescription drug overdoses. According to the Oregon Dept of Health Services, between 2000 and 2009, there have been more than 1200 overdose deaths in Oregon that involved prescription painkillers.

The Cocktail

Prescription drugs of abuse can include opioid analgesics (e.g. *Vicodin, Oxycodone*), sedative-hypnotics (e.g. *Ativan, Xanax, Ambien*), stimulants (e.g. *Adderall, Ritalin*).

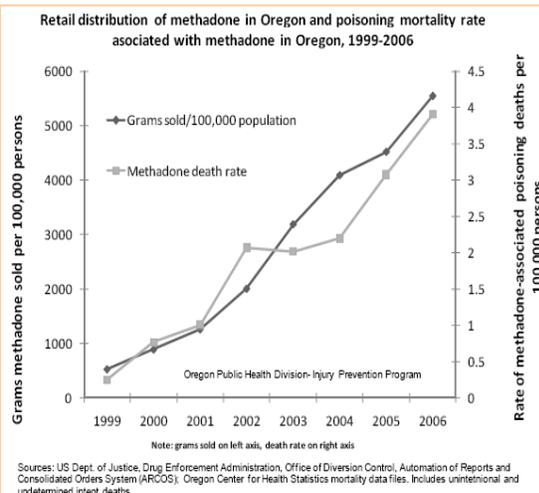
However, opioid drugs, particularly methadone and oxycodone, are the most common source of drug overdose deaths. Opioids are very potent

pain relievers; however, they can also cause respiratory depression. In recent years, prescription painkillers have surpassed illicit drugs like heroin and cocaine as the leading cause of fatal overdoses. In Oregon, the

(Continued on page 2)**“Fall Back”**Check your Smoke and
Carbon Monoxide detectors

When you turned your clocks back for Daylight Savings time in November, did you remember to check your smoke and carbon monoxide detector? This should be done annually every fall as the winter heating season starts. Each year we get carbon monoxide calls when old furnaces are put to use on those first cold days. A carbon monoxide detector saves lives! They are inexpensive and can be plugged in near a furnace or heating system. If you haven't yet gotten one, now is the time.

Also have a high suspicion for carbon monoxide exposure in patients with flu symptoms, who don't have runny noses or a fever. The seasons for flu and carbon monoxide poisoning and their symptoms overlap. Consider checking a CO level in patients with a winter headache.



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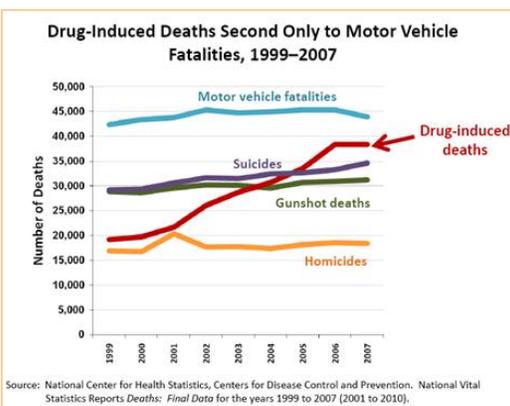
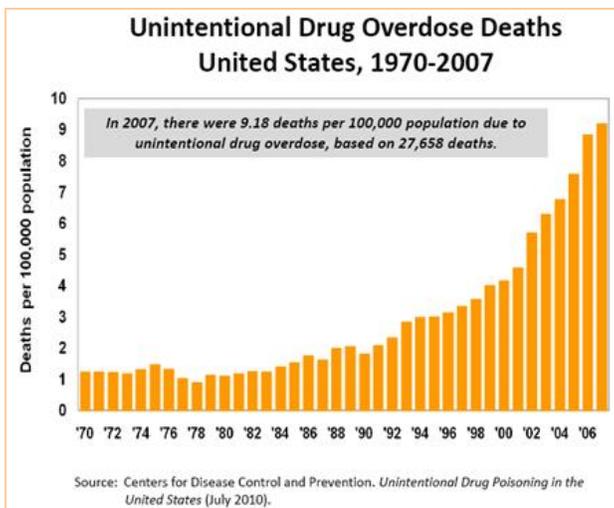
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number of deaths from prescription drug overdoses is twice the number of deaths from heroin or cocaine overdoses. More than 50% of drug overdoses in Oregon are associated with prescription opioids, which has had an overall 540% increase since 1999.

The Root of the Problem

The widespread abuse of opioid painkillers can be attributed to their increased availability for the treatment of acute and/or chronic pain. There is a strong parallel between the rise in fatal overdoses and the rise in prescription opioids sales, and medical prescriptions. In 2000, retail

pharmacies dispensed 174 million prescriptions for opioids. By 2009, 257 million opioid prescriptions were dispensed, which equated to a 48 percent increase. Methadone is the most commonly abused opioid because it is cheap. The problem with methadone, though, is that it has a very long half-life and can take several days (3-4 days) to clear from one's body. Thus, patients may die from overdosing on methadone because of how much drug they have in their system. According to the U.S. Drug Enforcement Agency, Oregon distributes more methadone per capita through pharmacies than any other states.



The Solution

The best way to address the problem of prescription drug overdoses is through both education and state prescription drug monitoring programs. There is a common misconception among parents and youth that prescription drugs are less dangerous when abused than illegal drugs because they are FDA-approved, prescribed by a healthcare professional, and dispensed by a pharmacist. Managing this problem will require educating the public on the dangers of these prescription

drugs if taken in excess as well as informing prescribers on the safe use of these drugs. Many states also rely on prescription drug monitoring programs (PDMP) to detect and prevent diversion and abuse of prescription drugs classified as Schedules II through IV at the retail level. Oregon just enacted this program and prescriptions for Schedule II through IV filled in the state are tracked on the website <http://www.orpdmp.com>.

References

- Centers for Disease Control and Prevention. Atlanta (GA): CDC; 2011. Unintentional Drug Poisoning in the U.S.; 2010 July.
- Substance Abuse and Mental Health Services Administration. Rockville (MD): SAMHSA; 2011. Substance Abuse Treatment; 2006 May.
- Hedberg K. Prescription Opioid Overdose in OR: A Public Health Perspective. OR Public Health Division Dept of Human Services.

Tox Quiz Answer

According to a recent release by the CDC, for the last full year of available data (2008) there were 36,450 deaths annually are from fatal drug overdoses, 74 % of these are from prescription opiates. This exceeds the number of fatal traffic accidents annually, which in 2008 was 34,172, and was down to 30,800 cases the following year.

Consider signing up for the Oregon Prescription Drug Monitoring Program and monitor how many narcotic refills your patients have, and work out ways within your health system to limit excessive and multiple provider prescriptions to patients. Trauma systems over the last several decades have reduced trauma deaths, hopefully this prescription monitoring system will be a first step to reduce opiate related fatalities.

Poison Is Bad

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POISON PALS

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A New Drug of Abuse Emerges

Just when you thought that you finally understood the difference between Spice and Bath Salts a new drug of abuse has been detected through poison centers call databases. The drug goes by the initials MXE, or Methoxetamine. but other names are M-KET , Kmax, and Mexxy. It acts like a dissociative anesthetic like ketamine, of which it is a derivative. It's complete pharmacology is not yet understood but appears to has some clinical effects that make it more like a MDMA or ecstasy derivative. Its chemical properties is that it is a dopamine reuptake inhibitor, making its risk for craving or addiction a plausible neurochemical effect. It is shipped by manufacturers outside the US, and purchased over the internet, and like many other designer drugs is not detectable by routine or forensic lab testing. So far only 3 cases have turned up nationwide, but like the other designer chemicals that have mushroomed in abuse over the last 2 years, we wanted to warn providers about its existence. Please call the poison center if you suspect a case.