Drug Diversion and Abuse in Healthcare Setting

Dae H. Yim, PharmD, MBA, BCPS
Palliative Care Pharmacist
PRMC, Salisbury, MD

Conflict of interest statement

• No financial relationship with pharmaceutical companies whose products or services are related to topic discussion.
• No commercial support was received for this educational activity.
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Topics of Discussion

• Prescription drug overdose data
• Overview on prescription drug abuse
• Patterns of drug diversion
• Detecting and responding to drug diversion
• Prescription Drug Monitoring Program
• Drug diversion resources
Every day in the US, 44 people die of opioid OD.

Most prevalent age group is 25 to 54 yr old.

Seven fold increase in age 55-64.

Among people 25-64 yr old, opioid OD caused more death than MVA.

In 2013, 43,982 drug OD deaths. 51.8% (22,767) were related to prescription drugs.

Of the 22,767 deaths in 2013, 71.3% (16,235) involved opioid pain meds and 30.6% (6,973) involved BDZ.

Deaths from RX pain meds have quadrupled since 1999, killing more than 16,000 people in the US 2013.

Nearly two millions Americans, age 12 or older, either abuse or were dependent on opioids in 2013.

In 2010, Tamper resistance OxyCONTin was introduced to market. Misuse of OxyCONTin fell by half after reformulation, but NOT addiction.
Americans, constituting only 4.6% of the world’s population, have been consuming 80% of the global opioid supply, and 99% of the global hydrocodone supply, as well as two thirds of the world’s illegal drugs.

Retail sales of opioids from 1999 to 2007, increased by 222% for morphine, 280% for hydrocodone, 319% for hydromorphone, 525% for fentanyl, 866% for oxycodone, 1,293% for methadone.

Source: Pain Physician 2010: 13:401-435

2012 US Census Bureau
US population = 314 million

What is Drug Diversion?

“Drug Diversion” means the transfer of a controlled substances from a lawful to an unlawful channel of distribution or use.

Uniform Controlled Substance Act (1994)

Traditionally, drug diversion considers as isolated events and terminates culpable employee without reporting outside authority or follow up.

By its nature, drug diversion is a clandestine activity, and it is significantly under reported.

Source: National Survey on Drug Use and Health (NSDUH), 2011-13
Dept of Health and Human Service
There are no reliable national estimates of the prevalence of drug diversion in healthcare setting in the Unites States.

One study showed 6.6% of nurses reported illicit use of prescription drugs within past years.

Substance abuse disorder among anesthesiologist residents was nearly 1%, and IV opioids accounting for 57%.

Minnesota task force identified 345 events of drug theft or loss of CS during 2005-2011.

Mr. D’Alessandro who worked 14 years at Beth Israel Med CTR in Manhattan, NY, diverted 193,376 oxycodone pills from 2009 to 2014.

- Use Investigational Drug Service for stealing
- Removing Oxycodone pills at 218 separate dates
- Cost to hospital: $212,727
- Street value: $5.6 million
- Several prescription forgeries; filled at hospital pharmacy
- Also worked at Staten University Hospital Pharmacy
- Negative urine drug test at time of arrest.

A former Gwinnett County anesthesiologist assistant is headed to prison for her crimes in a drug-induced car wreck that seriously injured five teenagers in 2012. Beverly Lynne Wilkins, who police have said injected herself with propofol before the Aug. 24 crash, pleaded guilty to all 16 counts against her and was sentenced to 15 years on Friday, with the first three years to be served in prison.
Largest Ever DEA Prescription Drug Enforcement Operation

May 27, 2015

- Operation PILLUTED: Four States, Arkansas, Alabama, Louisiana, Mississippi, are involved in illegal drug trafficking. 73 seizure warrants were executed which resulted in the seizure of $11,651,565 US currency.
- Total of 280 individuals were arrested; 22 were doctors and pharmacists.
- 42 DEA registrants (doctor’s office, pharmacy, clinics) to dispense or prescribe controlled substance were suspended or surrendered.
- Oxycodone, Hydrocodone, Xanax


Infection outbreaks due to drug diversion

<table>
<thead>
<tr>
<th>Year</th>
<th>State</th>
<th>Time</th>
<th>Description</th>
<th>Potential Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>Texas, District of Columbia</td>
<td>2004-2006</td>
<td>CRNA tempered fentanyl vial and 16 surgical pts developed HCV at Texas. Three hospital were involved</td>
<td>133, 1487, 362</td>
</tr>
<tr>
<td>2008</td>
<td>Florida</td>
<td>2004-2010</td>
<td>Interventional radiology tech tempered fentanyl vial. Later pt developed HCV infection</td>
<td>6132</td>
</tr>
<tr>
<td>2009</td>
<td>Colorado</td>
<td>2009-2010</td>
<td>Surgical tech tempered fentanyl vial. Later surgical pts developed HCV infection</td>
<td>18</td>
</tr>
<tr>
<td>2011</td>
<td>Minnesota</td>
<td>2010-2011</td>
<td>Surgical pts developed GN bacteremia from infected dilaudid PCA. Nurse tempered PCA vial.</td>
<td>25</td>
</tr>
<tr>
<td>2012</td>
<td>New Hampshire, Kansas, Maryland</td>
<td>2005-2012</td>
<td>HCV infected traveling radiology tech tempered narcotics vial on the surgical tray.</td>
<td>&gt; 12,000</td>
</tr>
</tbody>
</table>

Methods of Drug Diversion

- Frequent null transactions and discrepancies
- Wasting entire doses or fail to waste
- Delayed wasting
- Early replacement of PCA
- Theft from sharp container
- Falsifying a verbal or electronic order
- Using a colleague’s login to access ADC
- Tempering or substitution
- Intra-hospital transfer (narcotic vault to ADC)

How Do I Recognize a Drug Diverter?

- Work absenteeism – absence without notification
- Frequent disappearance from the work site
- Observation of unusual behaviors – long trip to bathroom, confusion, anxiety, disorientation
- Volunteers for overtime or works when not scheduled
- History of drug and alcohol addiction
- Agency worker

Regulatory Compliance

Centers for Medicare and Medicaid Service (CMS), Drug Enforcement Agency (DEA), The Joint Commission (TJC) require drug diversion surveillance program.

- Drug security from receipt to disposal
- Perpetual inventory of control substances
- Pre-employment screening (background check, drug screen)
- Policy & Procedure for drug diversion
- Documentation of internal & external reporting
- Risk management (e.g. RCA)
- Medication Diversion Prevention Committee
- Drug Diversion Response Team (e.g. 24/7 coverage)
Drug Diversion Response

When sufficient evidence shows suspected diversion has occurred, the suspect should be removed from work site and deactivate ADC access. Protect individual’s privacy.

Drug diversion respond team will conduct immediate safety assessment, e.g., patient, diverter, co-workers, visitor. Then follow institution’s P&P.

Once drug diversion is confirmed, the employee will be subject to corrective action; termination vs. rehabilitation.

External report – DEA (form106), State pharmacy board, physician board, nursing board, local police department.

Patient notification if patient is harmed by drug diversion.

Notify FDA office of criminal investigation if product tampering is suspected.

Prescription Drug Monitoring Program (PDMP)

Surveillance program for control substances maintained by State Health Department. Available in all states except Missouri.

Licensed Healthcare providers and law enforcement agents have access via registration.

Florida Data: Enacted PDMP in 2011
- 6.3% reduction in prescription drug deaths.
- 41% reduction Oxycodeone overdose deaths.

Kentucky Data: Mandatory PDMP in 2012
- 12.5% reduction in prescription drug deaths.
- 8.5% reduction in CS dispensing.

Drug Diversion Resources

CDC: Risks of Healthcare Associated Infections from Drug Diversion
CDC: Impacts Related to Unsafe Injections Practices
DEA: Office of Diversion Control
FDA: Office of Criminal Investigations
Minnesota Hospital Association Drug Diversion Prevention Toolkit