THE USE OF NALOXONE AND DISPOSAL OF
OPIOID MEDICATIONS: APPROACHING THE
PROBLEM FROM THE BACK END

Ernest J Dole, PharmD, PhC, FASHP, BCPS
Clinical Pharmacist; UNMH Pain Consultation & Treatment Center
Clinical Associate Professor; UNMH HSC
College of Pharmacy

Drug Overdose Death Rates
New Mexico and United States, 1990-2014

Deaths Involving Opioid Analgesics
• In 2013, 16,000 deaths involved opioid analgesics
• This accounts for 72% of all deaths from pharmaceutical overdose
  – 30% involved benzodiazepines
  – Some deaths involved more than 1 drug
POTENTIAL RISK FACTORS FOR PRESCRIPTION OPIOID OVERDOSE

- Eighteen cases with 2,448 controls
- Six factors were associated with opioid overdose:
  - Mean morphine dose equivalent (>50 mg/day) [Odds ratio (OR) 1.986 (1.509; 2.614)]
  - Methadone use (switching opioid to methadone vs. no methadone use) [OR 7.230 (2.346; 22.286)]
  - Drug/alcohol abuse [OR 3.104 (2.195; 4.388)]
  - Other psychiatric illness [OR 1.730 (1.307; 2.291)]
  - Benzodiazepine use [OR 2.005 (1.516; 2.652)]
  - The number of pharmacies utilized by the beneficiary (≥4 pharmacies vs. 1 pharmacy) [OR 1.514 (1.003; 2.286)]

- Ensure the availability of at-home intranasal naloxone for overdose rescue based on the presence of risk factors.


ASSESSING RISK AND ADDRESSING HARMs OF OPIOID USE

- Recommendation #8
- Before starting and periodically during continuation of opioid therapy, clinicians should evaluate risk factors for opioid-related harms.
- Clinicians should incorporate into the management plan strategies to mitigate risk, including considering offering naloxone when factors that increase risk for opioid overdose, such as history of overdose, history of substance use disorder, higher opioid dosages (>50 MME/day), or concurrent benzodiazepine use, are present.

(Recommendation category A: Evidence type: 4)


Barriers to Naloxone Use

- Lack of access
  - Neither the victims nor their companions typically carry naloxone
- Law partially responsible for lack of access
  - Discourage/prohibit third-party prescription
  - Discourage/prohibit prescription without examination by physician
- Liability concerns
  - Some prescribers wary of prescribing
- Fear of legal repercussions
  - Overdose bystanders may be afraid to administer naloxone, even when available
  - Overdose bystanders may fail to summon medical assistance

The Network for Public Health Law

Current Legal/Policy Environment

Government perceptions
- Some consider overdose as solely about abuse and addiction
  - Focus on allowing the use of naloxone in a “reactive” capacity
- Others recognize overdose potential in a broader group of people (eg, users of ER/LA opioids)
  - Focus on allowing the use of naloxone in a “proactive” capacity

Licensing board
- Geared toward proactive prescribing of naloxone to prevent opioid overdose
Current Legal/Policy Environment (cont)

REGULATORY ISSUES

- Definition of "at-risk" for opioid overdose varies by state
  - Some consider "at-risk" as only those who are in the process of an overdose
  - Others consider "at-risk" as first time opioid users on ER/LA opioids or with medical co-morbidities who may potentially have an adverse respiratory event with opioids

CURRENT LEGAL/POLICY ENVIRONMENT (cont)

Criminal prosecution for naloxone use

- Whether proactive or reactive will have a chilling effect on its use and will be a set back for efforts to prevent opioid overdose deaths
- Some may wish criminal prosecution for naloxone use as well as opioid prescribing
- States that provide immunity from criminal prosecution for naloxone use in line with regulations and guidelines will see fewer barriers to naloxone use

COMPARISON OFNALOXONE FORMULATIONS

<table>
<thead>
<tr>
<th>INTRANASAL</th>
<th>INTRAMUSCULAR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formulations</td>
<td></td>
</tr>
<tr>
<td>1 mg/mL Luer-Jet™ Luer-Lock needleless syringe; Narcan® 4 mg</td>
<td>0.4 mg/mL single-use 1 mL vial or 10 mL multi-dose vial; Evzio™ auto-injector 0.4 mg</td>
</tr>
<tr>
<td>Directions</td>
<td></td>
</tr>
<tr>
<td>Spray 1 mL (half of the syringe) into each nostril Narcan® contents of one device (4 mg) into one nostril</td>
<td>Inject 1 mL in shoulder or thigh Evzio: 0.4 mg SUBQ or IM in the thigh</td>
</tr>
<tr>
<td>Repeat after 3 minutes if no or minimal response.</td>
<td>Repeat after 3 minutes if no or minimal response.</td>
</tr>
<tr>
<td>Cost</td>
<td></td>
</tr>
<tr>
<td>$25-$50 (MAD: $4) Narcan®: $150 (2 units)</td>
<td>Single-use vial: $60 Evzio™: $$$</td>
</tr>
</tbody>
</table>
PHARMACIST PRESCRIBING NALOXONE UNDER PROTOCOL IN NEW MEXICO

- Patient Screening Criteria (continued)
  - Elderly patients (> 65) receiving an opioid prescription.
  - Households with people at risk of overdose, such as children and/or someone with a substance abuse disorder.
  - Patients who may have difficulty accessing emergency medical services (distance, remoteness, lack of transportation, homelessness, and/or without phone services).
  - Patients as determined by the Pharmacist using their professional judgment.

- Patient Records (continued)
  - Follow-up training and reinforcement is encouraged, the Pharmacist will provide their contact information for any questions or concerns.
  - In the event the naloxone is used or expired, the patient will return to the Pharmacist to request a new prescription; a thorough evaluation will be completed by the Pharmacist regarding the events leading to naloxone use and to determine whether appropriate medical follow-up was completed, as required.
  - On-site documentation of reported use to summarize approximate time/date naloxone was used, number of doses used, name of patient.
RESOURCES
- http://stopoverdose.org/recources.htm
- http://prescribetoprevent.org/prescribe-naloxone-now/
- http://www.ama-assn.org/ama/pub/adovocacy/topics/preventing-opioid-abuse/increase-naloxone-access.page
- http://recovergateway.org/professional-resources/CEU-Webinars/opioid-overdose-averted-naloxone

DISPOSAL OF MEDICATIONS: MEDICINE TAKE-BACK PROGRAMS
- Local waste management authorities to learn about medication disposal options and guidelines for their area
- AWAR.E’s Locator Tool
  - Permanent drug disposal sites only
  - http://www.awarerx.org/disposal-locator

DISPOSAL OF MEDICATIONS: OTHER OPTIONS
- Disposal in Household Trash
  - Mix medicines (do not crush tablets or capsules) with an unpalatable substance such as dirt, kitty litter, or used coffee grounds.
  - Place the mixture in a container such as a sealed plastic bag.
  - Throw the container in your household trash;
  - Scratch out all personal information on the prescription label of your empty pill bottle or empty medicine packaging to make it unreadable, then dispose of the container

DISPOSAL OF MEDICATIONS: CLINICS & PROVIDERS
- Title 21 Code of Federal Regulations
  - PART 1304 — RECORDS AND REPORTS OF REGISTRANTS
    - §1304.22 Records for manufacturers, distributors, dispensers, researchers, importers, exporters, registrants that reverse distribute, and collectors.
- Reverse Distributors
  - Definition: Collection of damaged, outdated, or unsold goods and bringing them back to the supplier or manufacturer
  - www.businessdictionary.com/definition/reverse-distribution.html
- Defined by the DEA under: 21 CFR 1301.71, 21 CFR 1301.72, 21 CFR 1304.22, 21 CFR 1304.33, 21 CFR 1304.71

DISPOSAL OF MEDICATIONS: ALBUQUERQUE’S HOUSEHOLD PHARMACEUTICAL DISPOSAL PROGRAM
- Medications may be properly disposed by taking them to the Metropolitan Forensic Science Center located at 5300 2nd St NW (south of Montana Road on 2nd Street behind the Gerald Cline Memorial Police Substation); Phone: (505) 823-4200; Hours: Monday through Friday, 8 a.m. to 5 p.m.
  - foothills Area Command, 12800 Lomas NE, (505) 332-5240
  - Northwest Area Command, 10401 Cibola Loop, NW, (505) 768-4850
  - James Dwyer Memorial Substation, 12700 Montgomery NE, (505) 332-5254
- Temporary drug disposal sites only
  - Old Town Community Substation, 2060 Central Avenue SW, (505) 244-6643
  - https://www.cabq.gov/police/programs/pharmaceuticals

- Visit DEA’s website for more information about drug disposal, National Prescription Drug Take-Back Day events and to locate a DEA-authorized collector in their area

- AWAR.E’s Locator Tool
  - Permanent drug disposal sites only
  - http://www.awarerx.org/disposal-locator

- Permanent drug disposal by following these steps:
  - Place the mixture in a container such as a sealed plastic bag;
  - Throw the container in your household trash;
  - Scratch out all personal information on the prescription label of your empty pill bottle or empty medicine packaging to make it unreadable, then dispose of the container
### Medicines That Can Beflushed

<table>
<thead>
<tr>
<th>Medicine</th>
<th>Active Ingredient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Actiq, Duragesic, and Onsolis</td>
<td>Fentanyl</td>
</tr>
<tr>
<td>Butrans, transdermal patch system</td>
<td>Buprenorphine</td>
</tr>
<tr>
<td>Suboxone</td>
<td></td>
</tr>
<tr>
<td>Daytrana, transdermal patch system</td>
<td>Methylphenidate</td>
</tr>
<tr>
<td>Demerol tablets, injection</td>
<td>Meperidine</td>
</tr>
<tr>
<td>Dilaudid oral tablets, liquid</td>
<td>Hydromorphone</td>
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<td>Hydromorphone</td>
</tr>
<tr>
<td>Dolophine</td>
<td>Methadone</td>
</tr>
<tr>
<td>Embedda, MS Contin, and Kadian</td>
<td>Morphine</td>
</tr>
<tr>
<td>Exalgo ER</td>
<td>Hydromorphone</td>
</tr>
<tr>
<td>Opana, Opana ER</td>
<td>Oxymorphone</td>
</tr>
<tr>
<td>Oxycontin, Percocet</td>
<td>Oxycodeine</td>
</tr>
<tr>
<td>Zohydro ER, Hysingla ER</td>
<td>Hydrocodone</td>
</tr>
</tbody>
</table>


### Conclusions

- The overdose deaths from prescription opioids and heroin have increased despite efforts to stem this tide.
- Intranasal & IM/SQ naloxone can be co-prescribed for patients prescribed chronic opioid therapy; this simple intervention may decrease OD deaths.
- Prescribing of naloxone to patients on COT can increase community access to naloxone.

### Conclusions

- Safe Disposal of Medications
  - Take-Back Programs
    - DEA
    - Albuquerque
    - AWARxE’s Locator Tool
  - At home disposal
  - Medications that can be flushed