Fatal drug overdoses are becoming a leading cause of accidental death, surpassing both motor vehicle and gun related fatalities, per a report from the National Safety Council. The increase in the number of fatal drug overdoses is due primarily to illicit opioids. Crime laboratories across the United States have been impacted by the opioid crisis. Particularly in the Controlled Substances and Evidence Intake sections, significant increases in case submissions containing synthetic opioids are occurring.

Summary

Though many drugs have the potential to cause harmful effects to first responders and to analysts, the current opioid crisis in the United States obligates us to take precautionary steps with fentanyl and other opioid compounds. While not intended to be all-inclusive, this document focuses primarily on safety recommendations for opioids.

Actions to Protect Individuals from Exposure

Adopt Personal Protective Equipment

Inhalation of airborne powder is most likely to cause harmful effects, but contact through skin is more probable in crime laboratories. Prescribed departmental use of personal protective equipment is vital.

- Lab coats with elastic cuffs and consistent use of soap at hand wash stations can minimize the risk of exposure
- Consider wearing double layers of non-porous gloves when fentanyl (or its derivatives) is suspected
- Use a properly fitted NIOSH-approved respirator and eye protection to help minimize the potential for exposure due to airborne powders
- Perform all analyses inside of a safety hood to decrease the potential for exposure
Adopt changes to packaging/storage

Small changes to packaging and storage guidelines may help reduce the risk of exposure to potentially hazardous materials for both laboratory and law enforcement personnel.

- Ensure that potential fentanyl is packaged within a sealed plastic bag within an outer package (packaging in multiple layers of plastic)
- Tape all seals and openings with clear tape or utilize heat sealing
- Clearly label potential fentanyl packages with fluorescent labels
- Store all potential fentanyl cases in a separate location, e.g. more isolated room with improved ventilation
- Clearly label confirmed fentanyl cases as such, and continue to store in separate location

Update practices for chemistry laboratories

Minimize any potential exposure to suspected fentanyl-containing packages with basic safety precautions.

- Require PPE at all times
- Minimum of two employees working in laboratory at same time
- Encase balances in protective shells
- Manipulate the sample within a hood
- Gross weigh powder items (i.e. leave powders in packaging), or items suspected to contain fentanyl type compounds

Investigate the use of alternative sampling devices

If available to the laboratory, alternative sampling practices could be used to further reduce the possibility of exposure to airborne hazards. It should be noted that low level compounds may not be detected by handheld devices, so care must be taken to ensure an alternative sampling device is capable of monitoring at low levels.

- Handheld Raman devices, which can test the sample without removing it from most packaging
- Limit field testing to laboratories: For example, samples may be brought to the laboratory for testing instead of by officers

Adopt a Narcan use policy for first responders and lab personnel

The use of Narcan® (Naloxone or similar product), may reduce the effects of an opioid exposure. All laboratory personnel should be trained in the administration of Narcan.

- Make Narcan available anywhere drug evidence may be present or handled. This includes evidence rooms, latent print areas, field response vehicles and equipment (e.g. for CSI and clandestine laboratories), etc. in addition to the chemistry lab
- Annual training/certification for Narcan as well as CPR
Educate first responders/stakeholders on dangers of fentanyl and fentanyl derivatives

The best way to safeguard law enforcement personnel is through education on the potential hazards of exposure to fentanyl and fentanyl derivatives. First responders should be directed to not open powdery material without the use of proper PPE (see above). Education on the safe transport and packaging of suspected fentanyl-containing material is a necessary part of any officer training program. An additional step to protect first responders should include ceasing or limiting officer field drug testing programs.

The following links are available for additional information:
https://dea.gov/druginfo/fentanyl.shtml
https://www.whitehouse.gov/ondcp/key-issues/fentanyl/