

PROJECT ECHO: OD-FIT

Overdose Fatality Investigation Techniques

Death Scene Investigation November 16, 2021



Agenda

- Introductions and Warm-Up
- Didactic Presentation: Overdose Scene Investigations, Alfarena McGinty
- BREAK
- Breakout room discussions and networking



Getting to Know the Project ECHO: Overdose Fatality Investigation Techniques

- 1) To provide a supportive space for coroners, medical examiners, and public health professionals to discuss the investigation and reporting of drug overdose deaths
- 2) Create opportunities for peer-to-peer engagement about overdose cases and trends
- 3) To offer opportunities to share and disseminate best practices as they relate to overdose investigation and reporting



Thinking outside the pill bottle

Death Scene Investigations require a



How many death investigation scenes have you attended or investigated?

1-50

51-200

201-500

501-1000

1000 +







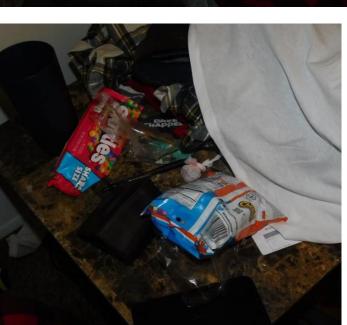




Overdose Fatality Investigation Techniques

Your scene investigation is critical







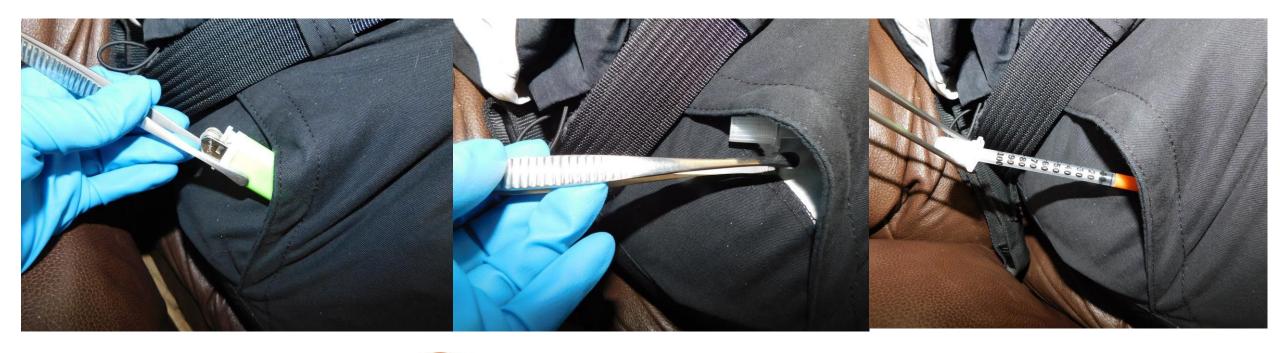






Body and Physical Examination

Safely remove items from pockets.. Use Forceps

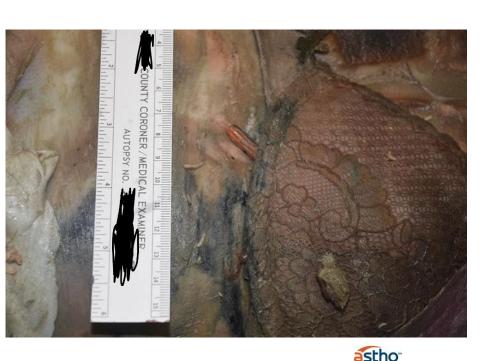


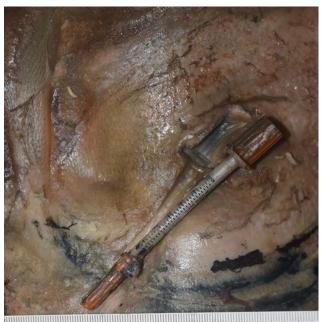
Look before you leap!

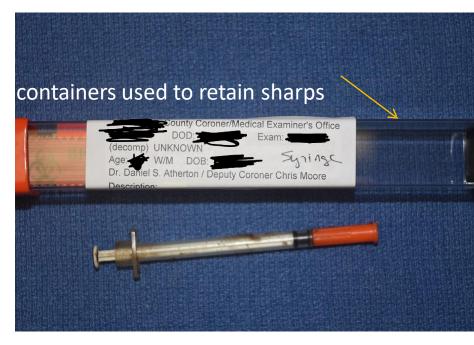




This case is from a decomposing body. The syringe found may be the best (or only) source of material for toxicological testing to determine what drug(s) caused or contributed to death.









Your scene findings matter....How Injury Occurred







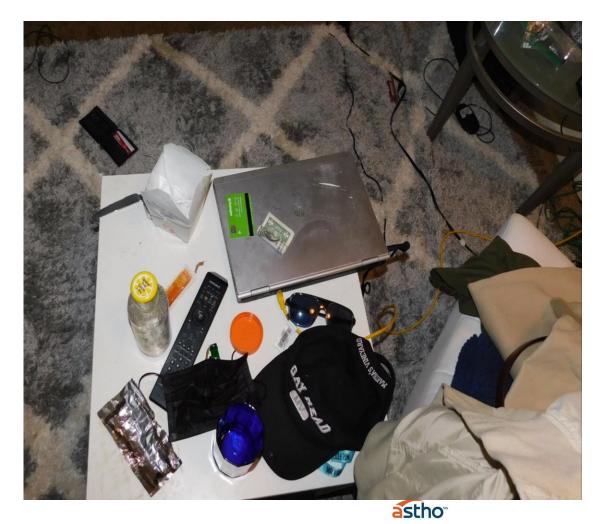
"How Injury Occurred"





Overdose Fatality Investigation Techniques

What would you do with this?





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DEAlssues Public Safety Alert on Sharp Increase in Fake Prescription Pills Containing Fentanyl and Meth (September 27, 2021)

DEAWarns that International and Domestic Criminal Drug Networks are Flooding the United States with Lethal Counterfeit Pills









Develop Partnerships

- Intelligence Research Specialist **Drug Enforcement Administration**
- Indianapolis Metropolitan Police Department/Drug Enforcement Administration Department of Public Safety/DEA

Authentic





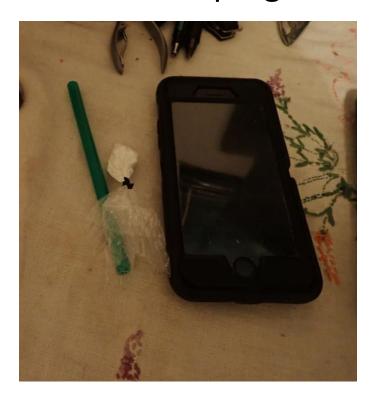


Information Sharing from Death Scenes

The new Violent Crime and Drug Overdose Reduction Strategy Project is soliciting statistical data from DEA intelligence analysts from all over the country. Indianapolis has been selected as one of the targeted cities for the program.



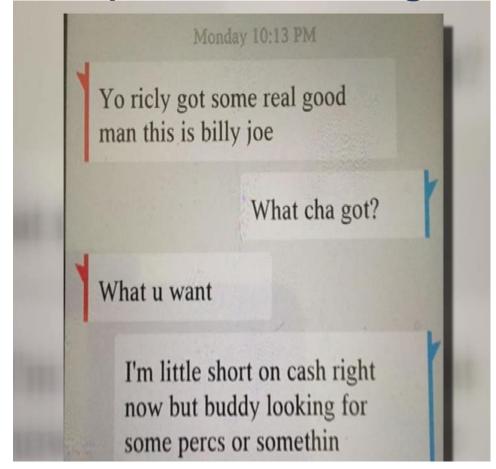






Cell phone Information used to prosecute drug dealers

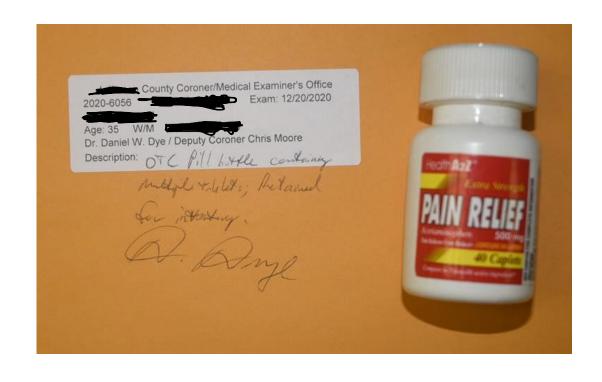






All Medications should be examined and collected







Notes for the day.....

- Take precaution when searching the decedent and pockets
- Collect drugs when possible for testing or safe guarding
- Photograph and document items on your scene
- Document drugs and drug paraphernalia
- Your scene is valuable for death certification documenting "How Injury Occurred"
- Develop partnerships with your local DEA and Law Enforcement



Acknowledgments

https://www.dea.gov/press-releases/2021/09/27/dea-issues-public-safety-alert

Daniel W. Dye M.D.

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Practice Cases





Case Report

- Called to the scene by the local sheriff office for an "apparent" suicide by gunshot to the head of a 42-year-old female.
- The husband stated he left the house with 2 children for grocery shopping.
- Last communication 1315 hr.
- Husband found the decedent and called at 1645hr.
- Children were taken next door to grandparents.



Social History

- Married stay-at-home mother since COVID-19
- She was struggling regarding her dental issues
- Father of the decedent suggested family discordance
- PMHx- back surgery x 2; + seizure disorder treated with Keppra; history of migraines; no alleged mental health disorder; non-smoker.
- Both husband and wife had guns- usually in the small gun safe.
- Medications: Keppra 500 mg daily
- Decedent's father on scene suggesting possible involvement in illicit drug or alcohol use

Scene Investigation



- Decedent 10-15 yards from the back deck of the house
- Facing a wooded area- in view from the house (?children?)
- Pink Taurus hand-gun P738 to the right side of the body
- Cell phone on the left (later interrogated) no direct messages but suggested swing behavior
- No suicide note
- House:
 - Rx for Keppra
 - Expired RX for Imitrex
 - Pills in a child-like change purse
 - Xanax 2mg (no Rx)
 - Xanax 1 mg (no Rx)
 - Round tablet R30 unknown

Physical Examon Scene

- General- gaunt thin female
- Wounds-
 - Patent entrance wound to right temporal area with exit wound on the left with boney fragments and brain matter on the left side of the body
- Skin-
 - Multiple tattoos and piercings
 - No other bruises or injuries
- Bullet casing retrieved and consistent with the angle and direction of fire.



Autopsy Findings

- Entrance wound to right temporal scalp
 - Injuries consistent with entrance wound as a contact perforating injury
 - Exit wound to left temporal scalp
 - Fractures consistent with evidence of injury
- Toxicology
 - NO benzodiazepines
 - NO narcotics or stimulants
 - LETHAL doses of dextromethorphan (10,373 ng/ml)



Literature Search

 M. Algarni. A mixed-methods systematic review of the prevalence, reasons, associated harms and risk-reduction interventions of over-the-counter (OTC) medicines misuse, abuse and dependence in adults.

Journal of Pharmaceutical Policy and Practice volume 14, Article number: 76 (2021)

- <u>Dextromethorphan</u>
 - Recreational use vs Suicide attempt
 - To get mind alerting effect / psychosis
 - For the believe that it helps women to more likely get conceived as it made secretions more receptive to sperm
 - Risk factors:
 - Personal problems
 - Living alone and relationship problems
 - Problems at work/school –Curiosity
 - Accidental administration
- J. Journey. Dextromethorphan Toxicity. https://www.ncbi.nlm.nih.gov/books/NBK538502/
 - "Dextromethorphan is also a commonly abused drug because of its euphoric, halucing enit and dissociative properties."

