PROTOCOL FOR "REAL-TIME" SURVEILLANCE OF DRUG OVERDOSE DEATHS IN KING COUNTY, WASHINGTON

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LEARNING OBJECTIVES

- Understand the utility of scene investigation and field drug testing in potential overdose deaths.
- Describe a method of effectively informing appropriate public health and criminal justice responses to the opioid epidemic.

OUTLINE

- Drugs are bad
- OD Surveillance Protocol

"REAL-TIME" OD SURVEILLANCE PROTOCOL

- Medicolegal investigators conduct scene investigation. 1.
- Full autopsy examination is performed. Urine is dipstick tested for fentanyl. 2.
- Drug evidence collected from scene is field tested. 3.
- Pathologists rate probability of drug OD, including the predicted drug(s). 4.
- Blood samples are submitted to the tox lab for expedited testing. Drug evidence may also be sent for chemical analysis. 5.
- 6.
- Pathologist or investigator contacts family to obtain additional information for identifying source of drug(s) or supplier.
- A weekly "Bulletin" is emailed to a network of federal, state, and local criminal justice and public health agencies. 7.
- Justice is served, lives are saved, hooray. 8.

59,000 to 65,000 DRUGS ARE BAD 50.000 175 OD deaths per day -10,000 2 deaths during this presentation ***** 10,000 ********** ********** ********** Drug Overdose De 1980 to 2016 ****************************** 1980 to 2016 Estimates for 2016 are based on preliminary data from hundreds of state health departmen and county coroners ar medical examiners. 2010 -30







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OD SURVEILLANCE NETWORK

Inform Public Health

- Recognize potential cases of public health importance.
 - Spatial/temporal clusters Potential novel substances
- Request expedited analysis of:
 Biological specimens Drugs retrieved from scene
- Flag cases of PH importance to OD surveillance workgroup.
- Closely monitor trends over time on ongoing basis.

Inform Law Enforcement

- Identify and report similarities across cases.
- Attempt to gather information that could help identify source of drug.
- Develop rapid reporting system to inform local law enforcement, DEA, HIDTA.

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1. SCENE INVESTIGATION

- History of drug use
- Drug paraphernalia
- Location
 - Hotel/motel room
 - Public restroom • Car
- Bath/hot tub
- Signs of possible overdose
- Needle clutched in hand
- Kneeling head down position
- External signs of drug use



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2. AUTOPSY

- Full autopsy with collection of samples for toxicology testing.
- Urine testing at time of autopsy.







3. DRUG EVIDENCE FIELD TESTS

- Colorimetric field tests (e.g. NarcoPouch).
 Urine dipsticks adapted for testing drug evidence samples.
- Raman spectroscopy (TruNarc).
- Field mass spectrometer (MX908).
- Chemical analysis (WSP or DEA laboratories).







4. PROBAI	BLE OD LIST		
	Overdose	Not overdose	Total
High	126 (95%)	7 (5%)	133 (100%)
Moderate	13 (43%)	17 (57%)	30 (100%)
Low	8 (29%)	20 (71%)	28 (100%)
Not Assigned	18 (4%)	408 (96%)	426 (100%)
Total	165 (27%)	452 (73%)	617 (100%)
KCMEO overdos	e probability predi	ctions March 1, 201	17 – July 31, 201











4. PROBABLE OD LIST: CRITERIA

Pathologist checks the "Probable OD" checkbox if <u>two</u> of the following conditions apply:

- 1. No alternative cause of death apparent / note of intent
- 2. Clinical symptoms of drug overdose described by investigator
- Suspected illicit drug substance present / reported proximal drug use 3.
- 4. Suspected illicit drug paraphernalia present
- 5. Prescription medication over-utilized
- 6. History of prior acute or illicit drug use (with overdose risk)
- 7. Valid hospital toxicology test result
- Investigator/police report it as possible drug overdose, or other indication of overdose identified by medical examiner 8.

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5. TOXICOLOGY: PRIORITY TESTING

- How to speed up the tox lab?
- Will throwing money at it help? (Yes.)

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6. CONTACT FAMILY

 Pathologist or investigator calls family to obtain additional information for identifying source of drug(s) or supplier.





7. COMPILE & DISTRIBUTE: OD SURVEILLANCE DATABASE

 Purpose: To provide a single, comprehensive repository of information regarding drug overdose deaths, collected during the multiple phases of investigation that would serve as a resource for rapidly disseminating information as well as an historical record available for epidemiological analysis.

7. COMPILE & DISTRIBUTE: **OD SURVEILLANCE DATABASE**

- Dataset imported from main MEO database.
- Predicted drugs(s) causing deaths.
- Results of drug evidence field testing, including circumstantial and historical information, distinctive packaging, similarities to other cases, relevant autopsy findings.
- · Results of autopsy urine testing.
- Details of drug evidence testing by analytical chemistry.
- Toxicology results from toxicology laboratory.
- Death certificate information as soon as the certificates are published.
- Follow-up information from family, friends, law enforcement and other sources.

7. COMPILE & DISTRIBUTE INFORMATION: **OD SURVEILLANCE NETWORK**

• "Bulletin" and "Highlights" distributed weekly

- "Bulletin" contains <u>detailed information</u> about each probable overdose case from the week
- · Distributed to law enforcement only
- "Highlights" (distributed to both LE and public health) covers the take-home points: • OD totals
 - OD trends
- Fentanyl numbers
- · Representative cases with photos
- Updates on previous cases (drug testing information, interesting toxicology)
- Just published death certificates (cause of death) on previous cases



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(OPTIONAL) 8. RESULTS

- Outcome measures and some actual results: Network of approximately 17 local and federal partner agencies.
- Drug overdose surveillance database
- Drug overcose surveiliance database. Weekly public Drug Surveiliance Highlights" containing information defailing recent suspected and confirmed drug overdose deaths. Partner agencies in network have access to information relevant to their respective activities.
- Timely monitoring of drug overdose statistics and trends (days versus months).
- Alerts with respect to novel drugs or packaging, counterfeit pills, supply sources, clustering of cases.
- Directed interventions such as community outreach, education, therapy.
- Multidisciplinary and multiagency OD Monitoring and Response Workgroup.

- Interagency collaboration with laboratories for expedited testing.
- Technology for rapid, safe field drug testing.
- Disruption of supply network. Linking concurrent investigations by different agencies
- Linkage of three deaths in two states
 Arrest made in Pennsylvania
- Seizure of large quantity of fentanyl analogue associated with an overdose death
- Investigations into deaths due to fentanyl sold as other drugs
- Investigation into large quantity of illicit fentanyl/tramadol pills
 Investigation of Chinese source of U-47700
- Investigation of domestic source of poppy pods Public awareness of fentanyl in pills in the community.



REVIEW: "REAL-TIME" OD SURVEILLANCE PROTOCOL

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THANKS!

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