


Slide 1

CWMD

COUNTERING WEAPONS OF MASS DESTRUCTION

# Opioid Panel

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Countering Weapons of Mass Destruction Office  
Department of Homeland Security

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Slide 2

## Disclosures

- I have no financial disclosures
- The opinions represented here are my own and may not represent the opinions of the Department of Homeland Security or the Federal Government.

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Slide 3


## Sacramento Outbreak


ORIGINAL CONTRIBUTION

Fatal Fentanyl: One Pill Can Kill

Mark E. Sutter, MD; Ben S. Goren, PhD; M. Tina Davis, MD; Rudy M. Burke, MD; Daniel K. Gable, MD; James A. Cleverworth, MD; Ariel J. Adams, BS; Kelly P. Owen, MD; Jonathan B. Ford, MD; Hugh S. Bunn, MD; and Timothy E. Silverman, MD, PhD

Acad Emerg Med. 2017 Jan;24(1):108-115.



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## Slide 4

March 23, 2016

- 24 y/o man calls 911 after taking "1 norco tablet"
- "I feel really high from my normal amount" -- "I feel like I am going to die"
- EMS arrives: the patient is not breathing, has low blood pressure & low heart rate, oxygen saturation measurement is too low to read
- 3 mg of naloxone given → minimal response (2 mg IN, 1 mg IM)
- CPR started
- Arrives in the emergency department, CPR is continued, has no pulse despite maximal support

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## Slide 5

March 23, 2016

- He is placed on heart-lung bypass
- This was a very sick patient, but...

Severity of toxicity ≠ what would be expected from his reported ingestion!

- More comprehensive toxicological testing was ordered

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## Slide 6

March 24, 2016

- Between 8 am-1 pm
  - 6 additional patients present requiring a naloxone drip
- By 2 pm, our hospital only has enough naloxone to last one more hour
- Emergency agreements for naloxone are activated
  - Surrounding hospitals and pharmaceutical vendor
- At 5 pm, the first patient's comprehensive drug screen result is positive for fentanyl and its metabolites
- **More patients keep arriving!**

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Slide 7

March 24, 2016

▪ By midnight, additional patients arrive

– The hospital's entire ICU is full

– The emergency department is holding 5 overdose patients on naloxone infusions

– Smaller hospitals are contacting us to transfer similar patients


▪ Our hospital is the regional referral center

– We had to deny transfers


– We had to triage trauma patients to other hospitals

– Major patient care and public health ramifications

▪ The community leadership meeting



Catchment Area

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Slide 8

March 25, 2016


▪ Patients keep coming...

▪ Triage volume is significantly up over the next 5 days

▪ Need more emergency shipments of naloxone

▪ Emergency department is now holding 36 patients (16 ICU)

▪ *Operating rooms essentially shut down because no place for patients to recover post-surgery*

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Slide 9


Pill Analysis and Serum Concentrations

Pill Bottle Case Number	Pill Mass (mg)	Naloxone (mg)	Hydrocodone (mg)	ATMP (mg)	Penicillamine (mg)
1	40.0	0.00	0	10.0	4.0
2	40.0	0.00	0	10.0	4.0
3	40.0	0.00	0	10.0	4.0
4	40.0	0.00	0	10.0	4.0
5	40.0	0.00	0	10.0	4.0



ATMP - acetaminophen

Therapeutic Serum Penicillamine concentration	5.00-2.0 ng/mL
Previously Reported Total concentrations	5-120 ng/mL
Outbreak Serum concentrations (Allies)	10.5-142 ng/mL

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Slide 10

Take Home Points

- One pill can kill
  - \* 12 confirmed deaths in Sacramento county
  - \* 20 suspected deaths (coroner protocols for fentanyl)
  - \* Regional numbers: 50 deaths confirmed
- This outbreak overwhelmed the resources of a city and region
- Antidote stocking was inadequate
- Our hospital could not accept transfers from a large region of California
- Information was not shared with law enforcement in a timely manner

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Slide 11

Lessons Learned

- Health Security
  - This fentanyl outbreak destabilized our health care system
    - \* Hospitals essentially frozen due to volume of ICU care
    - \* Denied transfers to specialty care
    - \* Operating rooms unable to perform surgeries that required ICU beds after surgery

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Slide 12

Federal CReDO Vision

A safe and secure nation that is protected against drug abuse and overdose through community based solutions

(Draft Statement)

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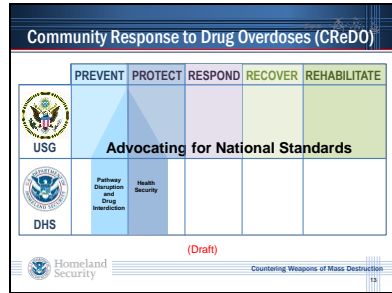
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Slide 13



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Slide 14



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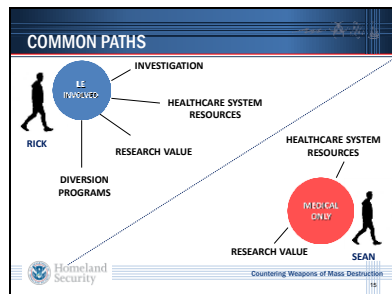
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Slide 15



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Slide 16

CReDO


▪ Development of national standards

– National Fire Protection Association has put this topic out for public comment

– Goal is to use NFPA-3000 – Active Shooter standard as a model

▪ Develop methods to better address gaps in information sharing while balancing civil rights/ civil liberties

– Data and information sharing has rapidly changed

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Slide 17

CReDO

Drug Related Event

Drug Related Event

Central Repository

NO PI | III | PI

Law Enforcement Actions

Public Health and Treatment


1) Standards

2) Expansion of Opioid Public Health Emergency

3) Overdose as a Reportable Disease

4) Legislative Changes

5) Toxicology-surveillance

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Slide 18

Normal Everyday Function

Patients coming to the hospital

Patients leaving the hospital

Relative Steady State

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Slide 19

Acute Unexpected Surges

Patients coming to the hospital

Patients leaving the hospital

Continued surges lead to operational changes that cause regional public health ramifications

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Slide 20

Improving Health Resilience

Patients coming to the hospital

Patients leaving the hospital

Stopping the Source

Internal Hospital Strategies

Decompression Plans

Components of CHaDO

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Slide 21

Questions?

3D figure with a question mark

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