



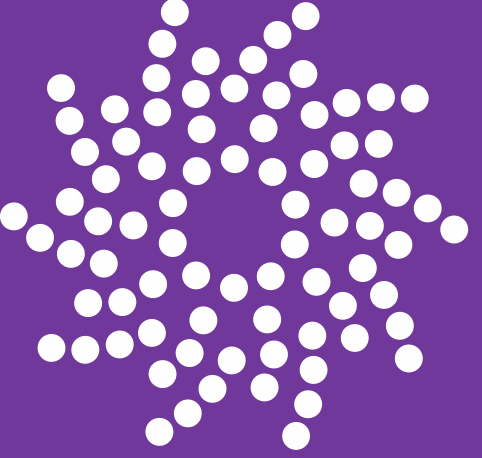
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ATSH Learning Session 2 Plenary

Medications for Opioid Use Disorder in an Era of Fentanyl

DAVID KAN, M.D.
NOVEMBER 10, 2021



Fentanyl and your practice



(Fentanyl's) arrival was a
question of “when” not “if”

Alexander Shulgin, 1975

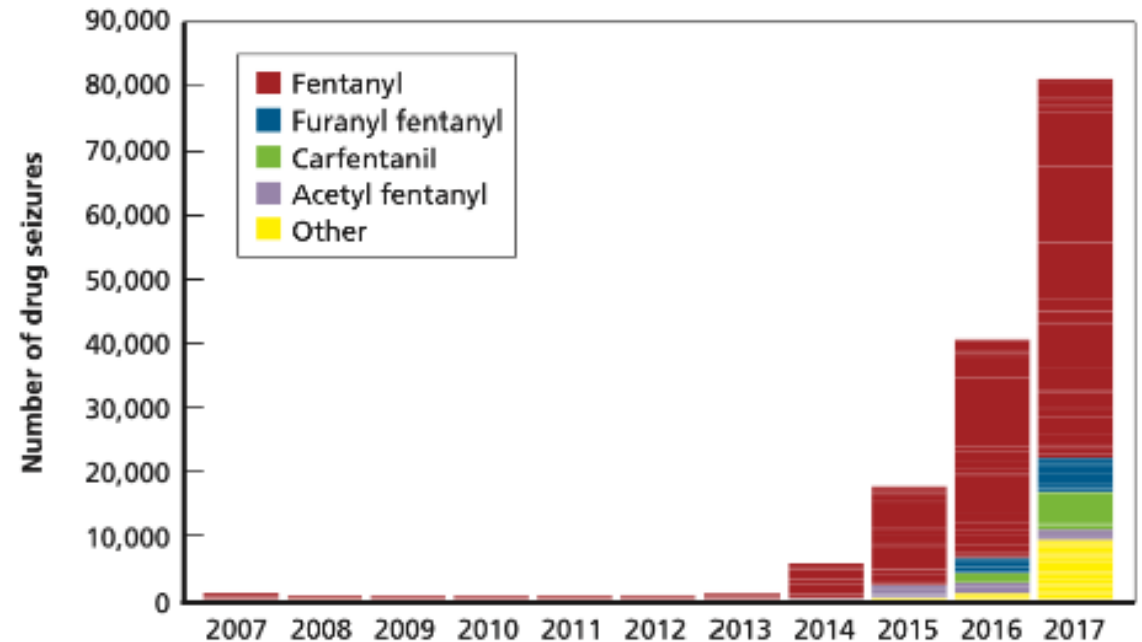
Source: The Future of Fentanyl, RAND Corporation

I Fentanyl – Pharmacology

SYNTHETIC OPIOID

- Fentanyl and Fentanyl-Related substances are much more potent than heroin
 - Fentanyl - 50x
 - Furanyl Fentanyl – 50x
 - Carfentanil - 5000x
 - Acetyl Fentanyl – 5-15x
 - Ohmefentanyl – 1500x

DRUG SEIZURES OF FENTANYL AND FENTANYL ANALOGUES 2007-2017



SOURCE: Data are from DEA NFLIS reports, 2007–2017.

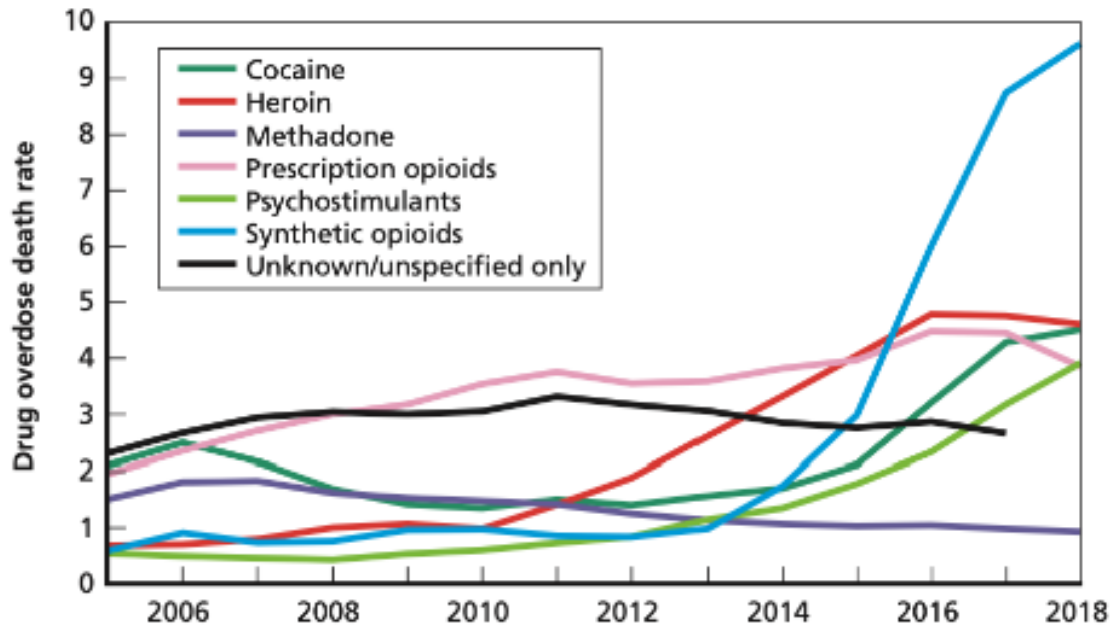
Fentanyl Pharmacology

- Opioid binds tightly to the mu opioid receptor
- Lipophilic
 - Rapidly crosses the blood-brain barrier
 - Theoretical tissue storage
 - Clinical application is controversial
- Overdose death
 - Heroin is usually slow – 30 minutes to hours
 - Fentanyl is faster – minutes
 - Mechanism: Respiratory suppression



Two Milligram dose – fatal without Tolerance

US Drug Overdose Death Rates per 100K people 2005-2017



SOURCE: Data for this figure are from deidentified MCOB certificate files produced by the National Center for Health Statistics, 2005–2017, shared with RAND researchers under a data use agreement.

NOTE: The rates for 2018 are provisional and subject to change.

2020 Overdose Deaths

93,000 Overdose deaths

30% increase from 2019

Opioids — 72.9% of opioid-involved overdose deaths involve synthetic opioids

- Mostly Fentanyl

Drug overdose deaths involving stimulants (methamphetamine) are increasing with and without synthetic opioid involvement

Higher rates of contamination with Fentanyl

Video of Officer's Collapse After Handling Powder Draws Skepticism

Medical experts said the video promoted a false narrative and confusion about fentanyl and ways it can lead to an overdose.



Deputy David Faiivae of the San Diego County Sheriff's Department collapsed on July 3 after being exposed to a substance believed to be fentanyl. San Diego County Sheriff's Department

Fentanyl Myths and Facts

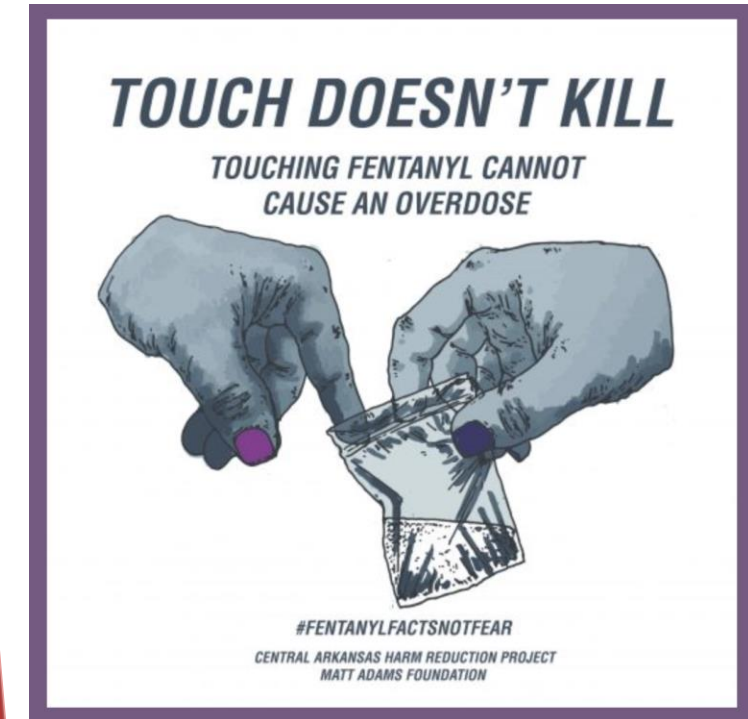
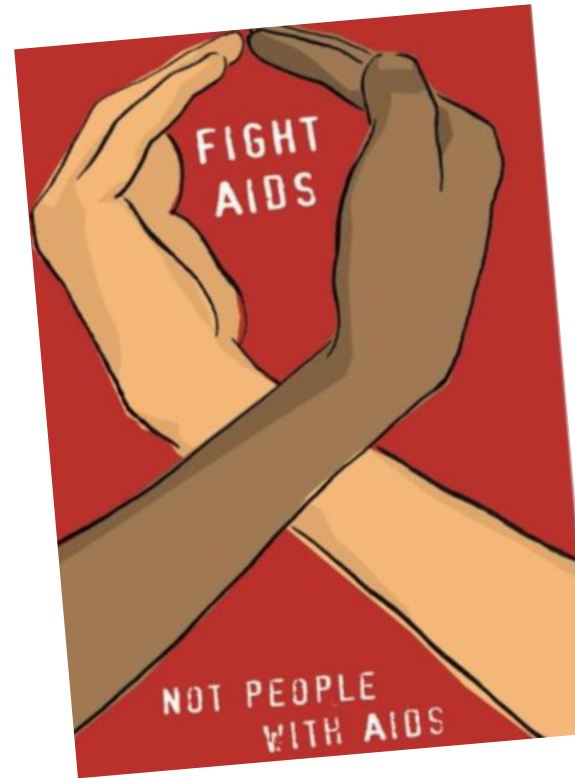
- Incidental Exposure results on overdose
 - Never proven
 - Fentanyl patch is a highly engineered product to allow transdermal fentanyl absorption
 - EMS/Police delay responses waiting for Hazmat Suits
- Don't trust pills from the street
 - Partially True
 - High numbers of street pills test + for fentanyl
- Fentanyl is everywhere
 - Partially true – contaminants of stimulants

I Fentanyl and HIV/AIDS Analogues

- Fear and stigma
 - First responders fear touching patients
 - "Otherism"
- Both Public Health Crises
 - Stigma is the enemy
 - Activism is the accelerator
 - Medicines work only with access
- We need medications but also infrastructure to address public health

Daniel Raymond

<https://www.inquirer.com/philly/opinion/hiv-aids-opioids-fentanyl-lessons-solutions-20180727.html>



Harm Reduction for Fentanyl

- Naloxone Distribution
 - California has a state standing order
 - Greatest Evidence
- Next Distro
 - Nextdistro.org
 - Provides supplies for PWUD
 - Fentanyl Test Strips
 - Naloxone
 - Great harm reduction resource
- MOUD
- Use Sparingly
- Insufflation vs PR vs Smoking vs Injection

Fentanyl Test Strips

1. Add sterile water to your **empty** baggie or the **cooker you just prepped** – mix well!
**Load your shot FIRST! Only test your rinse water!
2. **Dip the test strip** in the water, in up to the first line & **hold for 15 seconds**
3. **Place test strip** on sterile surface or across top of cooker.

One line POSITIVE



Two lines NEGATIVE



Positive Negative



**What does the literature say
about buprenorphine initiation
for patients using fentanyl?**





What does the literature say about buprenorphine initiation for patients using fentanyl?



I Buprenorphine Initiation Strategies

IN CLINIC INITIATION

Pros

- High level of observation
- Can dose precisely

Cons

- High touch
- Staff time
- No private bathroom
- Rush to initiation
 - Recommend COWS > 8 + 1 objective sign (sniffling, gooseflesh, yawning, tearing)

AT HOME INITIATION

Pros

- Comfort of own home
- Access to private bathroom

Cons

- Less control
- More patient education
 - Proper mode of administration

Other Considerations

- Telemedicine can smooth process

Buprenorphine Initiation Strategies

- High dose buprenorphine (>12mg) in Emergency Department – Herring 2021
 - 579 cases – mono product
 - No documented cases of respiratory depression or excessive sedation
 - Precipitated withdrawal was 0.8% (five) of cases
 - Dose didn't matter
 - Four started after 8mg of buprenorphine
 - Doses >28mg used in 23.8% of patients
 - Length of stay – 1.6 to 3.75 hours
 - Conclusion: safe and well tolerated





Buprenorphine Initiation Strategies

BERNESE METHOD

- Theoretically Withdrawal Sparing protocol
- Microdosing Strategy
 - Day 1: 0.5 mg once a day
 - Day 2: 0.5 mg twice a day
 - Day 3: 1 mg twice a day
 - Day 4: 2 mg twice a day
 - Day 5: 3 mg twice a day
 - Day 6: 4 mg twice a day
 - Day 7: 12 mg (stop other opioids)
- Can continue to use/taper use of other opioid



Success Strategies

- Patient empowerment
 - Give patients options
- ED setting – high dose reasonable
- Bernese method – withdrawal sparing
- At home – recommended in most clinic settings
- In clinic – increasingly rare
 - Buprenorphine was once conflated with Methadone
 - It is different



What is the future of Fentanyl?

- Synthetic Opioids likely to worsen before improvement
- Supplier decisions, not user demand, drive transition to fentanyl
- Synthetic Opioids drive deaths, not number of users
- Fentanyl spreads episodically fast and has ratchet like persistence
- Internet has revolutionized drug trafficking

The Future of Fentanyl - RAND Corporation 2019



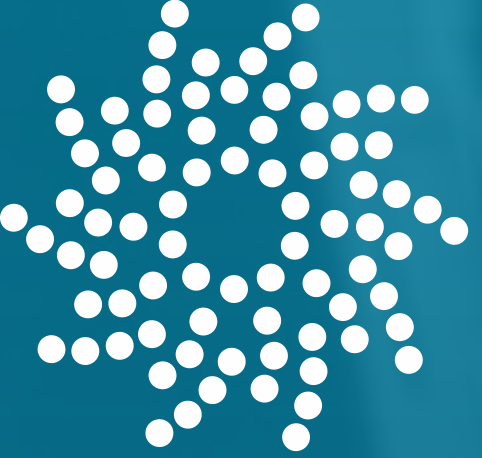
Rethinking Drug Policy

- Supply control is difficult
- MOUD is effective – 70% reduction in death
- Harm Reduction – Stigma grabs hold in the USA
 - Naloxone
 - Syringe exchange
 - Supervised Consumption Sites
- Reconsider harm of diverted medications for MOUD
 - Most diverted medications are for intended purposes
- Portugal lessons
 - Decriminalization and community intervention saved lives



MOUD for Fentanyl

- The goal of MOUD treatment is:
 - ✓ Fatal Overdose Prevention
 - ✓ Fatal Overdose Prevention
 - ✓ Fatal Overdose Prevention
 - ✓ Repeat for every patient



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