ATSH Learning Session 2 Plenary
Medications for Opioid Use Disorder in an Era of Fentanyl
Fentanyl and your practice
(Fentanyl’s) arrival was a question of “when” not “if”

Alexander Shulgin, 1975

Source: The Future of Fentanyl, RAND Corporation
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
US Drug Overdose Death Rates per 100K people 2005-2017

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

SOURCE: Data for this figure are from deidentified MCDD 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.
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

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
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
What does the literature say about buprenorphine initiation for patients using fentanyl?
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### 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
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
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  ✓ Repeat for every patient