SUD Technical Assistance Webinar Series

VIRGINIA MEDICAID: 8—OPIOIDS & STIMULANTS: AN OVERVIEW

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DECEMBER 14, 2020

Department of Medical Assistance Services
Welcome and Meeting Information

• WebEx participants are muted
  ▪ Please use Q&A feature for questions
  ▪ Please use chat feature for technical issues

• Focus of today’s presentation is practice-based – please Contact SUD@dmas.virginia.gov with technical or billing questions

• SUPPORT 101 Webinar Series slide decks are available on the DMAS ARTS website – www.dmas.virginia.gov/#/ARTS

• We are unable to offer CEUs for this webinar series
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• Last revision: December 7, 2020
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The Virginia Department of Medical Assistance Services (DMAS) SUPPORT Act Grant projects are supported by the Centers for Medicare and Medicaid Services (CMS) of the U.S. Department of Health and Human Services (HHS) as part of a financial assistance award totaling $4,836,765 with 100 percent funded by CMS/HHS. The contents are those of the author(s) and do not necessarily represent the official views of, nor an endorsement, by CMS/HHS, or the U.S. Government.
Pre-Webinar Survey

In conjunction with the VCU Wright Center and the VCU Institute for Drug and Alcohol Studies, we are conducting a survey for research purposes in order to gain a better understanding of provider impressions and experiences of individuals with substance use disorders (SUDs), medication assisted treatment, and Medicaid. The information obtained will be used to assist in identifying potential barriers to treating these individuals.

If you haven’t already, before the start of today’s webinar please use the link in the chat to access a brief (less than 5 minutes) electronic survey. https://redcap.vcu.edu/surveys/?s=C8HERT9N3P

• Your name and contact information will not be linked to your survey responses.
• Your decision to complete the survey is completely voluntary.
• When exiting this webinar, you will be directed to complete the survey again as a post-training assessment. Again, it will be your decision to complete the follow-up survey or not.
• You are able to complete one pre and post survey per each webinar topic you attend.
• Your completion of the pre-webinar survey will enter you into a drawing to win a $50 Amazon gift card as well as participation in the post-webinar survey will enter you into another $50 Amazon gift card drawing!

If you have any questions about the current study, please feel free to contact, Dr. Lori Keyser-Marcus at Lori.keysermarcus@vcuhealth.org or (804) 828-4164. Thank you for helping us with this effort!
Naloxone Resources

• Get trained now on naloxone distribution
  ▪ REVIVE! Online training provided by DBHDS every Wednesday
  ▪ https://getnaloxonенow.org/
    • Register and enter your zip code to access free online training

• Medicaid provides naloxone to members at no cost and without prior authorization!

• Call your pharmacy before you go to pick it up!

• Getting naloxone via mail
  ▪ Contact the Chris Atwood Foundation
  ▪ https://thecaf.acemlnb.com/lt.php?s=e522cf8b34e867e626ba19d229bbb1b0&i=96A94A1A422
  ▪ Available only to Virginia residents, intramuscular administration
Website Update

DMAS Home Page: https://www.dmas.virginia.gov/#/index
ARTS Home Page: https://www.dmas.virginia.gov/#/arts
SUPPORT Act Grant Website -
https://www.dmas.virginia.gov/#/artssupport

**SUPPORT Act Grant Overview**

The Virginia Department of Medical Assistance Services (DMAS) was awarded the Centers for Medicare & Medicaid Services SUPPORT Act Section 1003 Grant in September 2019. The purpose of this grant is to decrease substance use disorder (SUD) provider workforce barriers and increase the treatment capacity of providers participating under the state Medicaid program to provide SUD treatment or recovery services.

**Grant Goals**
- Learn from Addiction and Recovery Treatment Services (ARTS) program
- Decrease barriers to enter workforce
- Focus on specific subpopulations: justice-involved members and pregnant and parenting members
- Maintain our core values: person-centered, strengths-based, recovery-oriented

**Grant Components**
- Needs assessment
- Strengths-based assessment
- Activities to increase provider capacity

**Period of Performance**
September 2019 - September 2021

**Grant Email**
SUPPORTgrant@dmas.virginia.gov
The grant team has been working closely with Montserrat Serra, DMAS Civil Rights Coordinator, to provide closed captioning for our webinars and stakeholder meetings.

We were now able to provide closed captioning through Hamilton Relay for all upcoming webinars.

The link for transcription can be found on the Winter Webinar schedule and will be sent in the chat.
Today’s Presenter

Paul Brasler, MA, MSW, LCSW
Behavioral Health Addiction Specialist, DMAS

Paul Brasler is the Behavioral Health Addictions Specialist with the SUPPORT Grant Team at DMAS. Prior to working for DMAS, Paul was the Head of Behavioral Health at Daily Planet Health Services, a Federally-Qualified Health Center in Richmond, Virginia. Paul also works in Emergency Departments conducting Psychiatric and Substance Use Disorder assessments, and in a small medical practice. He has worked in community mental health and in residential treatment settings. He is a national presenter for PESI, specializing in training for clinicians working with high risk clients. His first book, *High Risk Clients: Evidence-based Assessment & Clinical Tools to Recognize and Effectively Respond to Mental Health Crises* was published in 2019.
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Substance Use Disorders

Many plants and chemicals have properties that create an affinity for neuro-receptors, typically mimicking existing neurotransmitters. Depending on the individual, their environment, and the chemical in question, this process can create a response called Substance Use Disorder (or addiction)

**SUD Symptoms:**

- Taken in larger amounts and longer than desired
- A lot of time is used to obtain, use and recovery from the drug’s effects
- Unsuccessful attempts to stop
- Failing to fulfill major responsibilities
- Continued use despite many problems in nearly all areas of life
- Continued use in dangerous situations
- Continued use despite medical and mental health problems that the client admits are due to drug use
- Cravings
- Tolerance
- Withdrawal symptoms
“Intoxication refers to the immediate effects of the drug and occurs during consumption of a drug in a large enough dose to produce significant behavioral, physiological or cognitive impairments. It is these intoxicating effects that drive initial use. When drugs are consumed, a cascade of short- and long-term effects follows. Although some of the effects of intoxication are pleasant and desired, other effects can be aversive” (Filbey, 2019, p. 64)

Some forms of intoxication require immediate medical treatment
• “Withdrawal is a negative state that occurs following cessation from use of a drug that has caused physical dependence. In other words, withdrawal most often occurs in those who have used a drug on a regular basis rather than occasionally” (Filbey, 2019, p. 81)

• Some forms of substance withdrawal (specifically alcohol, and other central nervous system depressants) may require immediate and ongoing medical attention to prevent further illness or death
Post-Acute Withdrawal Syndrome

• PAWS are prolonged emotional and psychological symptoms that persist long after more noticeable withdrawal symptoms fade

• Irritability, low frustration tolerance, anger, sadness, anxiety and depression are some of the more common symptoms

• Difficulty falling and staying asleep is common

• General fatigue is not uncommon

• Intrusive, painful or disturbing memories are also common

• Learning to live with one’s feelings, positive or negative, is a big part of working through PAWS

• PAWS can last for months or years
Stimulants
Signs of Stimulant Intoxication

- Dilated Pupils
- Fast heart rate (tachycardia)
- Hypertension
- Increased activity
- Fever
- Aggression
- Panic
- Paranoia
- Psychosis
- Seizures
Stimulants

- The most widely used psychoactive substances in the world (tobacco, caffeine, etc.)
- Typically impact epinephrine (physical energy), norepinephrine (confidence, feelings of well-being, motivation), serotonin and dopamine (keys reward system)
- The body must rest at some point, so no matter how much of a stimulant a person uses, they will eventually crash
- Tolerance can develop quickly, as can down-regulation of serotonin and dopamine receptor sites in the nucleus accumbens
Emerging Trends in Stimulant Misuse

- As national and local attention has been drawn to the opioid crisis, many areas have seen increases in cocaine and methamphetamine use.
- This is likely due to the attention being given to the opioid crisis.
- We have also seen increased stimulant use among people who are enrolled in Medication-Assisted Therapy (MAT).
- A disturbing trend in some areas is that fentanyl is being found in cocaine and methamphetamine (whether producers are doing this intentionally or accidentally remains unknown).
Cocaine is Used in 4 Forms

1. **Cocaine Hydrochloride Salt**: Powdered form that can be injected intravenously or insufflated (snorted)—reaches the brain in three to five minutes

2. **Free-base**: Smokable cocaine made by cooking cocaine hydrochloride with ether or sodium hydroxide, which removes the hydrochloride—five to eight seconds

3. **Crack**: Smokable cocaine made by cooking cocaine hydrochloride with baking soda or sodium bicarbonate—five to eight seconds (can also be dissolved and injected)

4. **Oxidado**: Cocaine paste—which is smoked
Cocaine Overdose

• About one-third of Emergency Department visits for drug misuse are due to cocaine overdoses, which typically present with shortness of breath, chest pain and other heart attack symptoms
  • Usually these situations are not fatal

• In situations where a death does occur, it is typically due to:
  • Seizures
  • Hypertension
  • Hyperthermia
  • Stroke
  • Cardiac electro-conductivity problems
Methamphetamine

HEALTH EFFECTS:

• Brain damage
• Inflammation of heart lining
• Damaged blood vessels
• Impaired memory & learning
• Skin lesions and burns
• Internal burns (mouth and lungs) from Anhydrous Ammonia

SIGNS OF INTOXICATION:

• Hyperactivity
• Dilated pupils
• Lack of interest in food or sleep
• Aggression & violence
• Psychotic behavior
• Paranoia
• Increased sex drive
Methamphetamine

- Meth is typically two to three times stronger than amphetamine, and lasts longer.
- Can be taken orally, insufflated, injected or smoked.
- P2P(phenylacetone) and ephedrine/pseudo-ephedrine are precursor chemicals; there are hundreds of ways to “cook” meth and most “cooks” learn from other “cooks.”
- Meth production labs are environmental disasters.
- Most meth is now produced in “super-labs” found in other countries and shipped to the U.S.
- In places where Meth becomes popular, it generally does so at the expense of cocaine.
Differences Between Cocaine & Methamphetamine

COCAINEx
- Plant-derived
- More-intense rush
- Smoking or shooting produces a brief, intense, high
- Not taken orally
- 50% of the drug is removed from the body in 1 hour
- Forces a release of dopamine and norepinephrine

METHAMPHETAMINE
- Human-made
- Less-intense rush
- Smoking or shooting produces a longer-lasting high
- Can be taken orally
- 50% of the drug is removed from the body in 12 hours
- Inhibits enzymes that metabolize norepinephrine and epinephrine

2020 Brasler, DMAS
“Bath Salts”: Methylenedioxypyrovalerone (MDPV) and Mephedrone

- Methcathinone derivatives, sold in powder, tablets and capsules; an average dose is five to 20 Mg

- **Four times the potency of methylphenidate**, but has entactogenic and hallucinogenic properties and appears to precipitate psychosis easier than other amphetamines because of its faster and stronger impact on the dopamine system

- Effects are typical for most amphetamines, but coming down from use is very unpleasant

- Tolerance can build quickly

- Most effects resolve in 3 – 4 hours, with milder effects lasting a total of 6 – 8 hours
Amphetamine Psychosis

• Typically appears after large doses or chronic use, although in rare cases some people may become psychotic after a relatively small dose

• Delusions, paranoia, hallucination, hyperactivity and panic are reported as the most common features

• Onset of amphetamine psychosis can be from 2 – 48 hours after the initial dose

• Psychotic symptoms generally disappear as abstinence continues, and rarely persist beyond 24 – 48 hours after the cessation of drug use

• The amphetamines essentially over-excite the brain’s fear centers
Stimulant Withdrawal Symptoms

- Anhedonia
- Anxiety
- Depressed mood
- Irritability
- Cravings
- Fatigue
- Insomnia or hypersomnia

- Psychomotor retardation at first, then agitation
- Paranoia
- Headaches
- Increase in appetite
- Apathy
- Social withdrawal
Stimulant Withdrawal Course

• Tolerance often develops quickly
• Acute withdrawal symptoms usually peak within two – four days...
• ...but depression, anxiety and irritability can continue for months
• Craving often continues for months or years
• Antidepressants may be used to address withdrawal –related depressive symptoms
Stimulant Pharmacotherapy

No medication has been shown to be effective in treating stimulant misuse disorder and no medication is approved for treatment of stimulant misuse disorder

• Symptoms are best treated supportively and non-medicinally
• Short-acting benzodiazepines can be used to treat agitation or sleep disturbance
• Persistent depression as a result of stimulant withdrawal syndrome may be treated with antidepressant medications
Opioids
Opioids & Opiates

• **Opiates**: Applies only to those chemicals that use opium derivatives

• **Opioids**: An umbrella term for all natural and synthetic medicines that are derived from and based on opium

• Opiates and Opioids suppress pain in lower doses, create euphoria in moderate doses and cause respiratory distress in high doses
Opiate Abuse
Physical signs someone you know is abusing opiates.

- Sedation
- Nausea
- Constipation
- Pinpoint Pupils
- Slowed Breathing
- Coma & Death

Are you concerned someone you love has an opiate addiction? Visit newroadstreatment.com and see what you can do to help.
Heroin

• “Dope, junk, smack, horse, shit, cheese...”

• One to four times the strength of morphine (metabolized into morphine in the body)

• First synthesized in 1874; marketed in 1898 by Bayer

• Crosses the blood-brain barrier quicker than morphine: Euphoria occurs 10 - 15 seconds after insufflation or smoking, 5 - 8 mins. after muscular injection and less than 20 seconds after intravenous injection

• Sold in two grades:
  • Lower grade (#3), “brown sugar;” “black tar” – usually injected (intravenous, intramuscular, or skin-popped)
  • Higher grade (#4 = up to 90% pure), “China White” – can be insufflated (snorted), smoked or injected
Heroin

• **The Rush**: Occurs once the heroin reaches the brain when it is IV injected (the rush is delayed and less-intense when heroin is consumed in other ways). The rush includes feelings of warmth and pleasure, followed by a long period of sedation (nodding).

• Overdose potential is extremely high; typically these are accidental overdoses.

• There were 42,249 opioid-related overdose deaths in 2016, with 37% involving heroin.

• Historically, there was no evidence of contaminants playing a major role in heroin overdose (but this has been changing due to the Fentanyl phenomena).
Heroin

• Shooting heroin (or any other injectable drug), increases the user’s potential of contracting HIV, Hepatitis B or C, and developing abscesses
  • Regular use causes the veins to narrow and harden

• Heroin, like all opioids, decreases respiration, which is the leading cause of overdose deaths

• Most heroin addicts use other drugs, particularly alcohol, nicotine, benzodiazepines and stimulants
  • Most fatal heroin overdoses are not the result of heroin alone, but heroin and another drug in combination, usually a depressant
Heroin Overdose “Predictors”

• A history of overdose

• Overdoses are associated with more frequent use and high levels of dependence

• Non-fatal overdoses commonly occur when the person is not enrolled in drug treatment

• Restarting use after periods of abstinence (in treatment or jail/prison)

• Most opioid overdoses (fatal and non-fatal) are due to multiple drugs
“SpeedBall”

• Injecting or insufflating heroin and cocaine simultaneously

• Use of these drugs in this manner extends the high from both drugs for most users

• The term can also be used to describe mixing any strong stimulant with a strong depressant
Fentanyl

• The most powerful of all opioids, about 80 times more potent than morphine

• Used to treat chronic pain and in surgical procedures

• Nearly half of opioid-related deaths in 2016 - 2019 involved fentanyl—most of it illicitly produced
  • Transdermal patches can be chewed by users or the drug is extracted physically and/or chemically

• Street versions are also available (“China White”), and this is sometimes confused with heroin, resulting in overdose deaths—much of this fentanyl is illicitly manufactured in China
Fentanyl

- Fentanyl is increasingly found in other drugs: Cocaine, methamphetamine, and illicitly-manufactured Alprazolam
- This is likely due to cross-contamination as drugs are diluted and repackaged as they move down the supply chain
- Fentanyl was involved in 40% of cocaine overdose deaths in 2016

- Sometimes sold in gelatin capsules (“Beans”) to users who prefer fentanyl to heroin

- The majority of illicit fentanyl comes into the U.S. through border crossings and the mail system

- There are dozens of Fentanyl analogues, including: Acetyl Fentanyl, Sufentanil and Carfentanil (100 times more potent than regular Fentanyl)
Perspective...
Fentanyl Analogues & Similar Chemicals

Fentanyl forms recently reported include:

- **p-FBF: 4-Fluorobutyrfentanyl:**
  - Created in the 1960’s, and found its way onto the Black Market in the 1980’s
  - Now a Schedule I drug
  - Sometimes sold in an intra-nasal spray formulary

- **MAF: Methoxyacetylfentanyl**

- **U47700:**
  - Created by Upjohn in the 1970’s; **eight** times more potent than morphine
  - Not a true Fentanyl analogue, but often taken with fentanyl
Kratom

- **Mitragyna speciosa**: An herb that grows into tree-like plants in Southeast Asia
- The raw leaves are eaten or brewed into a tea
- Legal in many states at this time; heavy internet sales presence
- Low to moderate doses (1 – 5g of dried leaves): Produce mild/pleasant stimulant effects
- Moderate to high doses (5 – 15g of dried leaves): Opioid-like effects, but are also used for opioid withdrawal symptom management
- Very high doses (>15g of dried leaves): Very sedating, stupor-inducing
- Some people use kratom to limit or stop their use of heroin
- Dose-sensitive and highly variable
Opioid Withdrawal Symptoms

- Cravings
- Irritability, depression, anxiety
- Nausea, vomiting, stomach cramps, diarrhea
- Muscle (and possibly bone) aches and pains
- Lacrimation, Rhinorrhea, Piloerection
- Hot and cold flashes; uncontrolled sweating
- Yawning
- Anorexia
- Insomnia
- Fever
- Dilated pupils
Opioid Withdrawal Course

• Symptoms appear within 6 – 8 hours of last dose
• Symptoms peak on the 2\textsuperscript{nd} or 3\textsuperscript{rd} day
• Symptoms usually disappear within 7 – 10 days
• Duration is much longer with Methadone (about twice as long as heroin takes)
  • Methadone withdrawal can last at least three weeks after the last use if the patient was using a large amount of Methadone
• Post-acute withdrawal symptoms continue for many months afterward
Pharmacotherapy for Opioid Use Disorder

• Methadone and Buprenorphine (the active ingredient in Suboxone) are both opioids—human-made chemicals that are like opiates (medicines made from opium)

• Methadone was approved for opioid use disorder treatment in 1947 and Buprenorphine in 2002
  • Used for opiate withdrawal management in inpatient settings and maintenance treatment in outpatient settings
  • Given by a licensed provider and administered in oral form (an injectable form of buprenorphine is available)

• Behavioral health treatment is an important part of MAT, but clients should not be forced to receive counseling to be able to receive pharmacotherapy
Methadone & Buprenorphine Therapies

• Methadone and Suboxone act as opioid agonists: They keep the client from experiencing opioid withdrawal symptoms (also called “dope sickness”) and block the euphoric effects should the client use heroin or another opioid, thus discouraging the client from continuing use
  • Neither of these chemicals, when used as prescribed, will get the client high

• However, methadone and buprenorphine are the most-regulated medicines in the U.S. when used for treating SUD

• Both chemicals allow the brain to heal from opioid use and provide opportunities for the client to address the underlying causes of their SUD
Methadone

- Chemically unlike heroin or morphine, but works as an agonist for both
  - Also used to treat chronic pain
  - “Methadone has the strongest evidence base of any opioid addiction treatment” (Andraka-Christou, 2020, p. 52)
- Delivered in liquid or pill form in Opioid Treatment Programs (OTPs), sometimes called Methadone Clinics
- Long-term effects: 24 – 36 hours
  - This allows the client to work, attend school, parent, and engage in pro-social activities as opposed to purchasing, using and recovering from illicit opioid use
  - Responsible for some opioid overdose deaths, since Methadone accumulates in tissues before binding to plasma proteins
  - Withdrawal develops slowly and is prolonged when compared to morphine or heroin
Buprenorphine

• An **opioid agonist** in low doses and an **antagonist** in high doses, often combined with Naloxone: Suboxone®
  • In this formulation, should the patient try to inject or insufflate the drug (instead of taking it orally), they will go into withdrawal symptoms (but people have found ways around this) (Kavanaugh & McLean, 2020)

  • Suboxone is delivered in a buccal film or pill
  • Less respiratory depression than Methadone

• Has a “ceiling effect” (at 32 mg) which makes overdose less likely—except when mixed with alcohol

• In 2017, the Food and Drug Administration approved Sublocade®, an injectable form of buprenorphine
Barriers in Buprenorphine Treatment

- Not enough providers prescribing medication
- Stigma
- Concerns about diversion-related dangers (often unfounded)
- Rigid program requirements (Jakubowski & Fox, 2020):
  - Abstinence as a treatment goal/No positive UDS
  - Must attend counseling (either before starting medication or to continue medication)

(ASAM highly recommends same-day treatment access)
- Must attend outside/peer-support groups
Naltrexone & Naloxone

These medications have antagonistic properties; they will cause an opioid user to go into withdrawal (Naloxone) if administered while the person is using opioids or will block the effects of opioids (Naltrexone)

- **Naltrexone** (Vivitrol®) is a deterrent, and is used to prevent relapse by limiting cravings
  - Also blocks the euphoric effects of opioids, cocaine, and alcohol
  - Time-release injectable versions and implant versions are available

- **Naloxone** (Narcan®) is injected or used intra-nasally to reverse an opiate overdose
References


References


