CIP – Addiction and Excited Delirium

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Consult - Collaborate - Communicate

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Co-Occurring Disorders

- Co-Occurring Disorders
  - Treating Mental Health and Substance Use
- Formally known as dual diagnosis or dual disorder
  - Mental health diagnosis and substance use diagnosis
  - The severity of addiction is broken up into mild, moderate, severe (depending on the number of criteria met)

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What Does This Mean?

- Any combination
  - Bipolar Disorder and Alcohol use disorder
  - Major Depressive Disorder and Amphetamine use disorder
- Often self-medicating
  - Depression = Stimulants
  - Anxiety = Downers/Depressants

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Why Is This Important?

- According to a Substance Abuse and Mental Health Services Administration (SAMHSA) studies:
  - 7.9 million adults in the United States have a co-occurring disorder
    - Both mental health and substance use disorders can have biological, psychological, and social components, making co-occurring disorders difficult to diagnose.
    - Which came first – chicken or the egg?

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Why Is This Important?

- The Criminal Justice System
  - Many people who enter the CJ system have co-occurring disorders
  - About 10 million adults each year enter US jails, about 700,000 of these individuals have co-occurring disorders
  - Oftentimes is a failure to accurately assess/screen
    - Assessments/screenings should be done by trained professionals, who can make appropriate referrals.

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Why Is This Important?

- Homelessness
  - Variety of issues that require services beyond behavioral health treatment, such as life skills development, employment assistance, and safe housing
  - Of an estimated 600,000 people who are homeless on any given day, approximately 25-30% have a mental illness and as many as half of those individuals also have a substance abuse disorder
  - Oftentimes these services are not available due to:
    - Lack of resources in community
    - No healthcare/insurance
    - THEREFORE – may go undiagnosed/untreated

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Why Is This Important?

- This equals: Chronic homelessness and further deterioration of physical and behavioral health, as well as social and economic functioning.
- The resources we do have should focus on:
  - Mandatory screening/assessments to diagnose co-occurring disorders
  - Further referrals

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Why Is This Important?

- Veterans
  - 1/3 of veterans seeking treatment for substance use disorders also meet criteria for PTSD
    - This only accounts for those seeking services
  - A percentage of this population is also struggling with homelessness

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Substance-Related Disorders

- 2 Groups:
  - Substance Use Disorders
    - Previously split into abuse or dependence
    - Involves: impaired control, social impairment, risky use, and pharmacological criteria
  - Substance-Induced Disorders

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Substance Classes

- Alcohol
- Caffeine
- Cannabis
- Hallucinogens
  - PCP
  - others
- Inhalants
- Opioids
- Sedatives, hypnotics, and anxiolytics
- Stimulants
- Tobacco
- Other

Gambling

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Addiction Redefined from DSM-IV to DSM-5

DSM-IV Abuse

- Failure to fulfill role obligations
- Hazardous use
- Recurrent legal problems due to use
- Continued use despite recurrent problems

DSM-IV Dependence (Abuse +)

- Tolerance
- Withdrawal
- Unintended use
- Unsuccessful attempts to cut down

DSM-5 Substance Use

- Larger amounts than intended
- Unsuccessful efforts to cut down
- Excessive time to obtain, use or recover
- Craving or strong desire to use
- Failure to fulfill role obligations
- Continued use despite recurrent problems
- Important activities reduced due to use
- Hazardous use
- Continued use due to a problem caused by the substance
- Tolerance
- Withdrawal

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Substance Use Disorder

- Using larger amounts or for longer time than intended
- Persistent desire or unsuccessful attempts to cut down or control use
- Great deal of time obtaining, using, or recovering
- Craving
- Fail to fulfill major roles (work, school, home)
- Persistent social or interpersonal problems caused by substance use

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Substance Use Disorder

- Important social, occupational, recreational activities given up or reduced
- Use in physically hazardous situations
- Use despite physical or psychological problems caused by use
- Tolerance
- Withdrawal (not documented after repeated use of PCP, inhalants, hallucinogens)

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Severity

- Severity
  - Depends on # of symptom criteria endorsed
  - Mild: 2-3 symptoms
  - Moderate: 4-5 symptoms
  - Severe: 6 or more symptoms

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Substance-Induced

- Intoxication
- Withdrawal
- Psychotic Disorder
- Bipolar Disorder
- Depressive Disorder
- Anxiety Disorder
- Sleep Disorder
- Delirium
- Neurocognitive
- Sexual Dysfunction

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Intoxication

- Reversible substance-specific syndrome due to recent ingestion of a substance
- Behavioral/psychological changes due to effects on CNS developing after ingestion:
  - ex. Disturbances of perception, wakefulness, attention, thinking, judgment, psychomotor behavior and interpersonal behavior
- Not due to another medical condition or mental disorder
- Does not apply to tobacco

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Clinical picture of intoxication depends on:

- Substance
- Dose
- Route of Administration
- Duration/chronicity
- Individual degree of tolerance
- Time since last dose
- Person's expectations of substance effect
- Contextual variables

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Withdrawal

- Substance-specific syndrome problematic behavioral change due to stopping or reducing prolonged use
- Physiological & cognitive components
- Significant distress in social, occupational or other important areas of functioning
- Not due to another medical condition or mental disorder
- No withdrawal: PCP; other hallucinogens; inhalants

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Substance-Induced Mental Disorder

- Potentially severe, usually temporary, but sometimes persisting CNS syndromes
- Context of substances of abuse, medications, or toxins
- Can be any of the 10 classes of substances

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Substance-Induced Mental Disorder

- Clinically significant presentation of a mental disorder
- Evidence (Hx, PE, labs)
  - During or within 1 month of use
  - Capable of producing mental disorder seen
- Not an independent mental disorder
  - Preceded onset of use
  - Persists for substantial time after use (which would not expect)

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Tolerance

- Need to use an increased amount of a substance in order to achieve the desired effect

OR

- Markedly diminished effect with continued use of the same amount of the substance

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Intervention and Treatment of Substance-Use Disorders

- Two phases:
  - Removal of abusive substance
  - Long-term maintenance without the substance
- Detoxification: Alcohol or drug treatment phase characterized by removal of the abusive substance, after which the user is immediately or eventually prevented from consuming the substance

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Intervention and Treatment of Substance-Use Disorders (cont'd)

- Self-help groups: Alcoholics Anonymous helps many alcoholics; Al-Anon and Alateen offer support to adults and teens living with alcoholics
- Pharmacological: Use of chemical substances (e.g., Antabuse) to produce aversion to drug
  - Often combined with psychotherapy to develop coping skills and alternative life patterns

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Cognitive and Behavioral Interventions and Treatment

- Aversion therapy: Response to a stimulus is decreased by pairing the stimulus with an aversive stimulus
- Covert sensitization: Imagine a noxious stimulus occurring in the presence of a behavior
- Skills training: Learn to resist peer pressure or temptation; resolve emotional conflicts or problems; more effective communication
- Reinforcing abstinence: Behavioral reinforcements for abstinence; effective for opioid dependence

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Cognitive-Behavioral Interventions and Treatment (cont'd)

- Relaxation and systematic desensitization
- Motivational: Important and realistic goal setting
- Stress management and cognitive restructuring; coping with negative emotions and stress
- Response prevention
- Controlled drinking: Controversial

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Other Interventions and Treatments of Substance-Use Disorders

- Multimodal treatment
- Prevention programs
  - Discourage use before it begins
  - Education
  - Media exposure

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Effectiveness of Treatment

- Effective, but some studies suggest outcomes have been modest
- Some individuals recover on their own without treatment
- No single "best" treatment: Find the best combination of treatments for particular individuals with substance use disorders

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Excited Delirium

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Excited Delirium

- Known about since 1849, exhaustive mania, (Bell's Mania)
  - Hallucinations, profound agitation, fever, death
- Decreased reports in the 1950's
- Rose again in the 1980s
- Why?

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Why Controversial?

- While recognized by EMS and ER physicians for decades
- Only recently recognized as a clinical condition
  - ACEP officially recognized in 2009
  - Integrated into EMS protocols and training since 2009
- Many die in police custody
- Civil liberty groups concerned about excessive use of force
- Not a recognized mental condition per the DSM-5
- Not recognized by either of the two APA's

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What is Delirium?

- Delirium is an acute and temporary change in cognition and mental status
  - Disorientation
  - Hallucinations
  - Disorganized thinking
  - Paranoia
  - Delusions

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What is Excited Delirium?

- A group of signs and symptoms that includes a transient change in mental status and cognition associated with uncontrollable and violent behavior
- Old term is agitated delirium

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Excited Delirium Presentation

- Subject presents with:
  - Paranoia, extreme agitation, rapid emotional changes
  - Disorientation to time, place, person
  - Hallucinations, delusions
  - Psychotic in appearance
  - Screaming, yelling for no reason
  - Loud, pressured speech
  - Elevated temperature, sweating
  - Difficulty breathing
  - Violent and bizarre behavior toward others and objects
  - May be running wildly into traffic, taking off clothes, naked
  - Resists violently, diminished sense of pain

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Excited Delirium

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Excited Delirium Triggers

- Drug use and psychiatric illness
- Stimulants or hallucinogens
  - Cocaine
  - Methamphetamine
  - PCP
  - LSD
  - K2 or spice can produce an agitated state
  - Designer drugs

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Cocaine

- Prototypal drug
- Cocaine epidemic in 1980s saw a spike of cases
- Cocaine increases dopamine (reward pathway = euphoria)
- Activates sympathetic nervous system
  - Tachycardia
  - Rapid breathing (tachypnea)
  - Hypertension
  - Dilatated pupils
  - Increased alertness

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ExDS Pathophysiology

- Excessive dopamine in central nervous system
- Impacts brain's temperature regulation system
- Schizophrenia and cocaine are both implicated with increased dopamine

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Excited Delirium Risk Factors

- Risk factors include:
  - Males (31-45, average age 36)
- Stimulant drug use
  - Cocaine, and to a lesser extent, methamphetamine, PCP, LSD
- Chronic users after acute binge
- Preexisting psychiatric disorder
  - (SCZ, bipolar D/O)

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Other Conditions That Look Like ExDS

- May be seen in ICU, other psychiatric and medical conditions
  - Hypoxia, hypoglycemia, head trauma, infection, epilepsy, heatstroke, infectious conditions, hyperthyroidism

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Excited Delirium

- MEDICAL EMERGENCY!
- Activate EMS
- Failure to involve EMS may lead to death
- Fatality rates of up to 10% in ExDS cases
- Patients die within 1 hour of symptom presentation

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Complications

- 10% of patients have cardiac arrest
  - Brief period of tranquility
  - Calm and lethargic
- May be caused by positional asphyxiation
- Restriction of pulmonary function
- Metabolic acidosis
- Rhabdomyolysis – breakdown of muscles

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Excited Delirium – Golden Window

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Scene Safety and Initial Approach

- Dual Response - EMS and LE must work together to ensure safety
  - Attempt verbal de-escalation
  - One person
  - Calm tone of voice
  - Short sentences, simple vocabulary
  - No sirens, lessen stimuli

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Scene Safety and Initial Approach

- How to prevent in custody deaths:
  - Identify it
  - Activate EMS immediately! Staged
  - Coordinate your response to safely capture, control, and restrain subject by standard department methods
  - No prone position!
  - No neck or chest compression while restraining
  - **Rescue position or sitting**
  - Chemical sedation and transport by EMS
    - Benzodiazepines (Versed, Ativan)
    - Ketamine, antipsychotics

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Tips and Tools for the Field

Note the use of:

- Distance, space
- Being calm, patient, reassuring
- Planning action once additional units arrive
- TASER
- Calling for medics

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Treatment Scenario

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When in Doubt

- Always activate EMS
- Transport to ER
  - Overdoses
  - Suspected Excited Delirium
  - Mental Status Changes
  - Psychosis
  - Suicide attempts
  - Homicidal Ideation

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Websites

- SAMHSA – www.samhsa.gov
  - Substance Abuse and Mental Health Services Administration
- NIDA – www.drugabuse.gov
  - National Institute on Drug Abuse
- AAAP – www.aaap.org
  - American Academy of Addiction Psychiatry
- ASAM – www.asam.org
  - American Society of Addiction Medicine

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Reminders

- Anyone you encounter has the potential to be physically ill and or mentally ill
- Lifetime prevalence is over 50% of the population to have a mental illness
- Medication compliance, overdose, errors
- Biological, psychological, and psychosocial factors
- Never underestimate, verbal de-escalation may not be effective – DON'T BE COMPLACENT!

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