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What Is Addiction? History, Terminology, and Core Concepts 1
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Medicine's acceptance of addiction as a medical concept has waxed and waned over time. Addiction, as a disease, fits with modern disease definitions and scientific advances in elucidating the interactions between neurobiology and environment. Definitions of addiction need to acknowledge the complex interactions of brain circuits, genetics, environmental factors, and individual life experiences. Addiction aligns with SEVERAL diagnostic categories of substance use disorders that THEMSELVES do not rely on tolerance and withdrawal as SOLE defining characteristics. Shifts in social and political views of addiction continue to propel and mirror changes in addiction treatment approaches and terminology within the medical community.

Screening for Unhealthy Alcohol and Drug Use in General Medicine Settings 13
Jennifer McNeely and Leah Hamilton

Unhealthy alcohol and drug use are among the top 10 causes of preventable death in the United States, but they are infrequently identified and addressed in medical settings. Guidelines recommend screening adult primary care patients for alcohol and drug use, and routine screening should be a component of high-quality clinical care. Brief, validated screening tools accurately detect unhealthy alcohol and drug use, and their thoughtful implementation can facilitate adoption and optimize the quality of screening results. Recommendations for implementation include patient self-administered screening tools, integration with electronic health records, and screening during routine primary care visits.

Disparities in Addiction Treatment: Learning from the Past to Forge an Equitable Future 29
Danielle S. Jackson, Max Jordan Nguemeni Tiako, and Ayana Jordan

The Half-Century long problem of addiction treatment disparities. We cannot imagine addressing disparities in addiction treatment without first acknowledging and deconstructing the etiology of this inequity. This article examines the history of addiction treatment disparities beginning with early twentieth-century drug policies. We begin by discussing structural racism, its contribution to treatment disparities, using opioid use disorder
as a case study to highlight the importance of a structural competency framework in obtaining care. We conclude by discussing diversity in the workforce as an additional tool to minimizing disparities. Addiction treatment should be aimed at addressing care delivery in the context of the social, economic, and political determinants of health, which require appreciation of their historical origins to move toward equitable treatment.

The Spectrum of Alcohol Use: Epidemiology, Diagnosis, and Treatment

Shawn M. Cohen, Ryan S. Alexander, and Stephen R. Holt

In the United States, alcohol is the most common substance used and the spectrum of unhealthy alcohol use is highly prevalent. Complications of unhealthy alcohol use affect nearly every organ system. One of the most frequent and potentially life-threatening of these complications is alcohol withdrawal syndrome for which benzodiazepines remain first-line therapy. Pharmacologic treatment of alcohol use disorder, the most severe form of unhealthy alcohol use, is underutilized despite the availability of multiple effective medications. Although behavioral therapies are an important component of treatment, they are often overemphasized at the expense of pharmacotherapy. While abstinence may be an appropriate goal for many, it should not be pursued at the expense of reductions in alcohol use which have been shown to improve outcomes and be long lasting.

Current Best Practices for Acute and Chronic Management of Patients with Opioid Use Disorder

Alyssa Peterkin, Jordana Laks, and Zoe M. Weinstein

This comprehensive review on opioids summarizes the scope of the current opioid epidemic, the diagnosis and treatment of opioid use disorder, and the medical and psychiatric complications of opioid use.

Understanding Stimulant Use and Use Disorders in a New Era

Daniel Ciccarone and Steve Shoptaw

Extending from the triple wave epidemic of opioid-related overdose deaths, a fourth wave of high mortality involving methamphetamine and cocaine use has been gathering force. This article provides a review of the published literature on stimulants including epidemiology, pharmacology, neurobiology, medical and psychiatric consequences, withdrawal management, and medical and behavioral treatments.

Tobacco Use Disorder

Frank T. Leone and Sarah Evers-Casey

Tobacco use disorder is highly prevalent; more than a billion individuals use tobacco worldwide. Popular views on the addictive potential of tobacco often underestimate the complex neural adaptations that underpin continued use. Although sometimes trivialized as a minor substance, effects of nicotine on behavior lead to profound morbidity over a lifetime of exposure. Innovations in processing have led to potent forms of tobacco and delivery devices. Proactive treatment strategies focus on pharmaco-therapeutic interventions. Innovations on the horizon hold promise to
help clinicians address this problem in a phenotypically tailored manner. Efforts are needed to prevent tobacco use for future generations.

**Benzodiazepines and Related Sedatives**

Linda Peng, Kenneth L. Morford, and Ximena A. Levander

Benzodiazepine and related sedative use has been increasing. There has been a growing number of unregulated novel psychoactive substances, including designer benzodiazepines. Benzodiazepines have neurobiological and pharmacologic properties that result in a high potential for misuse and physical dependence. Options for discontinuing long-term benzodiazepine use include an outpatient benzodiazepine taper or inpatient withdrawal management at a hospital or detoxification facility. The quality of evidence on medications for benzodiazepine discontinuation is overall low, whereas cognitive behavioral therapy has shown the most benefit in terms of behavioral treatments. Benzodiazepines may also have significant adverse effects, increasing the risk of overdose and death.

**Clinical Approaches to Cannabis: A Narrative Review**

Deepika E. Slawek, Susanna A. Curtis, Julia H. Arnsten, and Chinazo O. Cunningham

Cannabis use in the United States is growing at an unprecedented pace. Most states in the United States have legalized medical cannabis use, and many have legalized nonmedical cannabis use. In this setting, health care professionals will increasingly see more patients who have questions about cannabis use, its utility for medical conditions, and the risks of its use. This narrative review provides an overview of the background, pharmacology, therapeutic use, and potential complications of cannabis.

**Prevention of Substance Use Disorders**

Leah F. Nelson, Elissa R. Weitzman, and Sharon Levy

Methods to prevent substance use disorders (SUDs) act on the individual risk factors for addiction. Most adults with SUD initiated substance use during their teenage years, so preventive interventions during adolescence are critical. Antisubstance use messaging, routine screening, and pathways for referral to treatment can be extended into all settings whereby trusted adults interact with adolescents such as sports, mentoring programs, child protective services, and juvenile justice settings. Pediatric primary care is an ideal place to incorporate preventive counseling and screening for substance use. Evidence-based technologic interventions for primary, secondary, and tertiary prevention are needed.

**Perioperative Buprenorphine Management: A Multidisciplinary Approach**

Thomas Hickey, Audrey Abelleira, Gregory Acampora, William C. Becker, Caroline G. Falk, Mitchell Nazario, and Melissa B. Weimer

Buprenorphine formulations (including buprenorphine/naloxone) are effective treatments of pain and opioid use disorder (OUD). Historically, perioperative management of patients prescribed buprenorphine involved abstinence from buprenorphine sufficient to allow for unrestricted mu-
opioid receptor availability to full agonist opioid (FAO) treatment. Evidence is mounting that a multimodal analgesic strategy, including simultaneous administration of buprenorphine and FAO, nonopioid adjuncts such as acetaminophen and nonsteroidal anti-inflammatory drugs, and regional anesthesia, is a safe and effective perioperative strategy for the patient prescribed long-term buprenorphine treatment of OUD. This strategy will likely simplify management and more seamlessly provide continuous buprenorphine treatment of OUD after hospital discharge.

**Infectious Complications of Injection Drug Use**

Laura R. Marks, Nathaniel S. Nolan, Stephen Y. Liang, Michael J. Durkin, and Melissa B. Weimer

The opioid overdose epidemic is one of the leading causes of death in adults. Its devastating effects have included not only a burgeoning overdose crisis but also multiple converging infectious diseases epidemics. The use of both opioids and other substances through intravenous (IV) administration places individuals at increased risks of infectious diseases ranging from invasive bacterial and fungal infections to human immunodeficiency virus (HIV) and viral hepatitis. In 2012, there were 530,000 opioid use disorder (OUD)-related hospitalizations in the United States (US), with $700 million in costs associated with OUD-related infections. The scale of the crisis has continued to increase since that time, with hospitalizations for injection drug use-related infective endocarditis (IDU-IE) increasing by as much as 12-fold from 2010 to 2015. Deaths from IDU-IE alone are estimated to result in over 7,260,000 years of potential life lost over the next 10 years. There have been high-profile injection-related HIV outbreaks, and injection drug use (IDU) is now the most common risk factor for hepatitis C virus (HCV). As this epidemic continues to grow, clinicians in all aspects of medical care are increasingly confronted with infectious complications of IDU. This review will describe the pathogenesis, clinical syndromes, epidemiology, and models of treatment for common infectious complications among persons who inject drugs (PWIDs).

**Harm Reduction in Health Care Settings**

Carolyn A. Chan, Bethany Canver, Ryan McNeil, and Kimberly L. Sue

Harm reduction is an approach to reduce the risk of harms to an individual using substances without requiring abstinence. This review discusses substance-specific interventions for opioids, alcohol, and stimulants that can minimize harms for individuals who use these substances. Topics discussed include overdose prevention, infection prevention, and low-barrier substance use disorder treatment.

**Gender Dynamics in Substance Use and Treatment: A Women’s Focused Approach**

Miriam T.H. Harris, Jordana Laks, Natalie Stahl, Sarah M. Bagley, Kelley Saia, and Wendee M. Wechsberg

Gender impacts substance use initiation, substance use disorder development, engagement with treatment, and harms related to drug and alcohol use. Using the biopsychosocial model of addiction, this review provides a
broad summary of barriers and facilitators to addiction services among women. It also reviews substance use among pregnant and parenting women and approaches to care. Given the increasing rates of substance use among women, there is a need to implement and scale-up gender-responsive addiction programming and pursue advocacy at the policy level that addresses the root drivers of substance use inequities among women.