**Body System:** Psychogenic

**Session Topic:** Substance Use and Misuse

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<tr>
<th>Educational Format</th>
<th>Faculty Expertise Required</th>
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<td><strong>REQUIRED</strong></td>
<td>Interactive Lecture Expertise in the field of study. Experience teaching in the field of study is desired. Preferred experience with audience response systems (ARS). Utilizing polling questions and engaging the learners in Q&amp;A during the final 15 minutes of the session are required.</td>
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<td><strong>OPTIONAL</strong></td>
<td>Problem-Based Learning (PBL) Expertise teaching highly interactive, small group learning environments. Case-based, with experience developing and teaching case scenarios for simulation labs preferred. Other workshop-oriented designs may be accommodated. A typical PBL room is set for 50-100 participants, with 7-8 each per round table. Please describe your interest and plan for teaching a PBL on your proposal form.</td>
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<th>Professional Practice Gap</th>
<th>Learning Objective(s) that will close the gap and meet the need</th>
<th>Outcome Being Measured</th>
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<td>• Drug use trends are constantly emerging and changing and often involve manipulation of basic chemical structures to avoid legal ramifications</td>
<td>1. Describe current drug use trends across the country, including emerging trends and new substances of misuse.</td>
<td>Learners will submit written commitment to change statements on the session evaluation, indicating how they plan to implement presented practice recommendations.</td>
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<td>• Knowledge gap with regard to strategies to encourage prevention of substance misuse, particularly in children and adolescents.</td>
<td>2. Use evidence-based strategies to establish appropriate screening protocols to help identify potentially risky drug and alcohol use/misuse.</td>
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<td>• Knowledge gap regarding tools to aid in the assessment of patients they suspect of having problematic drug use or symptoms of substance use disorders. In the event that patients require referral to sub-specialists for more comprehensive screening, evaluation and/or treatment, family physicians should remain the coordinators of patient care.</td>
<td>3. Develop evidence-based strategies to educate patients on the safe use of prescribed medications that have addictive potential (for example opioid pain medications, stimulants prescribed for ADHD and benzodiazepines).</td>
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<td>4. Describe the diagnostic criteria for substance use disorder, and compare that to the definition of substance misuse.</td>
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<td>5. Formulate plans to orchestrate care for patients who require referral to or treatment from sub-specialists, and community-based support services for substance use disorders.</td>
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**ACGME Core Competencies Addressed** (select all that apply)

| X | Medical Knowledge  | Patient Care                                      |
|   | Interpersonal and Communication Skills | Practice-Based Learning and Improvement |
|   | Professionalism | Systems-Based Practice |
Faculty Instructional Goals

Faculty play a vital role in assisting the AAFP to achieve its mission by providing high-quality, innovative education for physicians, residents and medical students that will encompass the art, science, evidence and socio-economics of family medicine and to support the pursuit of lifelong learning. By achieving the instructional goals provided, faculty will facilitate the application of new knowledge and skills gained by learners to practice, so that they may optimize care provided to their patients.

- Provide up to 3 evidence-based recommended practice changes that can be immediately implemented, at the conclusion of the session; including SORT taxonomy & reference citations
- Facilitate learner engagement during the session
- Address related practice barriers to foster optimal patient management
- Provide recommended journal resources and tools, during the session, from the American Family Physician (AFP), Family Practice Management (FPM), and Familydoctor.org patient resources; those listed in the References section below are a good place to start
  - Visit http://www.aafp.org/journals for additional resources
  - Visit http://familydoctor.org for patient education and resources
- Provide updates on new treatment therapies, changes to therapies, or warnings associated with existing therapies. Provide recommendations regarding new FDA approved medications; including safety, efficacy, tolerance, and cost considerations relative to currently available options. Include relevant FDA REMS education for any applicable medications.
- Provide case-based examples of evidence-based recommendations and guidelines for appropriate screening protocols for patients with identified or suspected drug abuse and addiction
- Provide specific strategies to assist patients with safe self-administration of prescription medications
- Provide specific strategies to assist physician-learners to formulate plans to orchestrate care for patients who require referral to or treatment from sub-specialists, and community-based support services for substance abuse

Needs Assessment

*Note – the scope of this session is to cover abuse and addiction of drugs of abuse (old, new, and emerging)

According to 2015 Centers for Disease Control and Prevent (CDC) data, over 10.1% of persons 12 years of age and over, report to have used an illicit drug in a thirty day period, with 2.4% reporting a nonmedical use of a psychotherapeutic drug.1,2 Young adults (age 18 to 25) are the biggest abusers the most likely to misuse of prescription opioid pain relievers, ADHD stimulants, and anti-anxiety drugs, with more than 8 persons per day dying from prescription-drug related overdose.3,4 In 2011 there were more than 2.4 million ER visits for drug misuse.5 More than 28,531 emergency room visits in 2011 were linked to synthetic cannabinoids.6 Synthetic legal intoxicating drugs have risen dramatically in recent years and have powerful adverse effects, including acute psychosis with delusions, hallucinations, and potentially dangerous abnormal

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behavior. In 2012 President Obama signed the Food & Drug Administration Safety & Innovation Act that illegalizes all synthetic marijuana compounds along with two stimulants sold as bath salts and nine hallucinogens called 2C substances by adding them to the list of controlled Schedule I substances.

Data from a recent American Academy of Family Physicians (AAFP) CME Needs Assessment Survey indicate that family physicians have a statistically significant and meaningful gap in knowledge and skills necessary to manage patients with substance abuse and addition problems. More specifically, data from a 2016 AAFP CME Training Needs Survey, indicates that family physicians report knowledge and practice gaps regarding disease management of patients experiencing problems with drug abuse and addiction. CME outcomes data from 2013 and 2014 AAFP Assembly: Abuse and Addiction sessions suggest that physicians have knowledge and practice gaps with regard to having an awareness of abuse and addiction, including screening recommendations; recognizing one’s own biases regarding addiction patients; use of cognitive behavioral and/or motivational interviewing techniques; utilization of urine drug testing for monitoring; thorough and appropriate documentation; effective use of pain contracts, and using state prescription monitoring programs.

A review of the literature suggests the following physician knowledge and practice gaps:

- Past-year illicit or nonmedical drug use was common (28%) in primary care patients, is a leading cause of morbidity and mortality, but frequently go unidentified in medical settings.
  - Provider barriers include: lack of clinical knowledge and training, as well as systems-level factors including time pressure, resources, lack of space, and difficulty accessing addiction treatment
- Patients may not be ready to disclose substance use
- Over 1 in 3 (36%) adult primary care patients had a DSM-5 substance abuse disorder (SUD), but are greatly under-treated
- About 5% of primary care patients had opioid/heroin use disorder in the past year.
- The majority of adults with SUD had a moderate/severe use disorder.
- Data suggest that primary care providers tend to have inadequate information or training to identify or treat SUDs
- There is a need for increasing SUD research in primary care to inform integration of SUD services
- Prior data from primary care patients frequently focus on substance use only
- The findings of prevalent SUDs highlight a need to improve primary care providers’ training and willingness to provide screening and treatment for SUDs
- Emerging drugs of abuse are forever changing and involve manipulation of basic chemical structures to avoid legal ramifications
- Most new drugs of abuse have no specific antidote and management largely involves symptom based goal directed supportive care with benzodiazepines as a useful adjunct

U.S. Department of Justice Drug Enforcement Administration – 2017 Drugs of abuse
In addition to controlled substances (narcotics, depressants, stimulants, hallucinogens, and anabolic steroids), physicians should also be aware of inhalants, “drugs of concern”, and
designer drugs, including their effect on the mind, effect on the body, overdose effects, which drugs cause similar effects, and the legal status of the drug.

- Inhalant street names include, Gluey, Huff, Rush, and Whippets
- “Drugs of Concern” street names include, CCC, Dex, DXM, Poor Man’s PCP, Robo, Rojo, Skittles, Triple C, and Velvet
- Kratom
- Salvia Divinorum
- Designer Drugs such as, bath salts, K2/Spice, Synthetic Opioids

Physicians may improve their care of patients with drug abuse and addiction by engaging in continuing medical education that provides practical integration of current evidence-based guidelines and recommendations into their standards of care, including, but not limited to the following:18-24

- Rapid screening for substance misuse or substance use disorders can be performed in the primary care setting with a validated single-question screening tool.
- Patients with hazardous substance use or substance use disorders may benefit from brief counseling by their primary care physician.
- Systematic review for alcohol; randomized controlled trial and before-after study for other substance use
- Office-based pharmacotherapy for opioid dependence using buprenorphine is safe and effective.
- Patients with substance use disorders may benefit from identification and treatment of comorbid psychiatric disorders.
- Patients with substance use disorders should be routinely screened for intimate partner violence.
- Cultural and ethnic factors affect patterns of substance misuse and treatment response in adolescents who use substances.
- Screening for substance use is recommended for all adolescents.
- Motivational interviewing is effective in adolescents.
- Primary care treatment for adolescent substance abuse should occur in conjunction with treatment from psychiatrists or other mental health experts.
- Immunoassay tests are the preferred initial test for urine drug screening.
- Positive results from an immunoassay test should be followed by gas chromatography/mass spectrometry or high-performance liquid chromatography.
- An extended opiate panel is needed to detect commonly used narcotics, including fentanyl, hydrocodone, methadone, oxycodone, buprenorphine, and tramadol.
- Appropriate collection techniques and tests of specimen integrity can reduce the risk of tampering.
- At dosages greater than 2 mg per day, buprenorphine maintains treatment retention better than placebo. At 16 mg or more per day, buprenorphine was found to reduce illicit substance use compared with placebo as monitored by urinalysis.

U.S. Preventive Services Task Force (USPSTF) Recommendations:25,26

- The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of primary care–based behavioral interventions to prevent or reduce
illicit drug or nonmedical pharmaceutical use in children and adolescents. This recommendation applies to children and adolescents who have not already been diagnosed with a substance use disorder. [As of 6/12/18, this topic is in the process of being updated. Faculty should be prepared to provide an update upon publication]

- The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of screening adolescents, adults, and pregnant women for illicit drug use. [As of 6/12/18, this topic is in the process of being updated. Faculty should be prepared to provide an update upon publication]

Additionally, physicians should be aware of current AAFP substance abuse and addiction policies, generally summarized as follows:

- Recognition of the gravity, extent, and broad-based nature of substance abuse and addiction in our society, including the development of novel mechanisms to ingest medications and alcohol;
- Inclusion of substance abuse prevention in patient education;
- Early diagnosis, treatment and referral of those struggling with substance abuse and addictive disorders;
- Recognition of the effects of addiction on family members, especially children, offering support and treatment for family members and inclusion of family members in the treatment of the addicted member when possible; and
- Partnering with community resources in the prevention, education and treatment of substance abuse and addiction.

- Advocating for inclusion of and parity for substance abuse treatment in all health care plans;
- Advocating for legislation and governmental policies facilitating the prevention, diagnosis and treatment of substance abuse, including funding for further research into substance abuse;
- Reinforcement of laws and strategies to limit exposure of the population, particularly adolescents and children, to the abuse and misuse of these substances;
- Supporting harm reduction strategies such as bystander naloxone programs, syringe exchange programs, educational programs and policy initiatives to prevent the secondary diseases associated with abuse and addiction.

These recommendations are provided only as assistance for physicians making clinical decisions regarding the care of their patients. As such, they cannot substitute for the individual judgment brought to each clinical situation by the patient's family physician. As with all clinical reference resources, they reflect the best understanding of the science of medicine at the time of publication, but they should be used with the clear understanding that continued research may result in new knowledge and recommendations. These recommendations are only one element in the complex process of improving the health of America. To be effective, the recommendations must be implemented. As such, physicians require continuing medical education to assist them with making decisions about specific clinical considerations.

Physicians also need continuing medical education to understand the differences between Diagnostic and Statistical Manual of Mental Disorders 4th edition (DSM-IV) and the new DSM-V edition, namely the revised chapter of “Substance-Related and Addictive Disorders” which
includes substantive changes to the disorders grouped there plus changes to the criteria of certain conditions.\textsuperscript{28} Physicians should keep up to date on new FDA approved medications and devices for addiction treatment, as well as new warnings. In April 2014, the FDA approved a prescription treatment that can be used by family members or caregivers to treat a person known or suspected to have had an opioid overdose.\textsuperscript{29}

However, in their role as primary care providers, they can take measures to help to prevent substance abuse in certain patient populations, particularly adolescents who may be at risk of developing addictive behaviors after early initiation.\textsuperscript{30} Research indicates that chemical changes in the brain may most profoundly affect adolescents because their brains are still developing; drug and alcohol use can disrupt critical areas of functioning such as behavior control, judgment, memory, learning and motivation. It can also predispose them to addiction later in life.\textsuperscript{31} Family physicians can encourage their children and adolescents to participate in science-validated prevention programs, such as: \textit{universal programs}, which address children in schools or community centers about risks and protective factors; \textit{selective programs}, which target groups of children and teens who have certain risk factors; and \textit{indicated programs}, which are designed for youth who have already begun abusing drugs. As the National Institute of Drug Abuse states, “while many events and cultural factors affect drug abuse trends, when youths perceive drug abuse as harmful, they reduce their level of abuse.”\textsuperscript{31} Similarly designed education programs can also benefit older patients who may be at risk of developing substance abuse disorders.

Addiction to prescription pain relievers, in particular—notably hydrocodone, oxycodone, and morphine—has risen dramatically in recent years; in fact, it is listed as the second most prevalent type of illicit drug use, after marijuana use, among people over the age of 12. The proportion of admissions to substance abuse treatment facilities due to pain medication abuse increased fourfold over a span of 10 years (from 2.2% in 1998 to 9.8% in 2008). Physicians who prescribe pain medication should educate patients on correct dosages, safe storage, and proper disposal of leftover medication; they should also be prepared to identify patients with drug-seeking or addictive behavior and offer resources (i.e., referral to treatment facilities or services) to those with substance abuse problems.\textsuperscript{32}

Research also indicates that people with mood disorders—particularly bipolar disorder type II—are at significant risk for developing substance abuse problems, suggesting that early detection and interventions for patients with mental health disorders may prevent dependence on alcohol or prescription medications.\textsuperscript{33,34} Additionally, rates of intimate partner violence exceed 50% in patients with drug use disorders in some settings; it is recommended that physicians screen all patients who present with substance use disorders for intimate partner violence.\textsuperscript{22,35,36}

Family physicians should be aware of recent trends in substance use and abuse in certain patient populations (such as adolescents, young adults, and those with diagnosed psychiatric conditions) in order to be prepared to offer comprehensive treatment plans, often involving a multidisciplinary team approach to care. Family members should also be involved in the treatment of patients with substance abuse, which family physicians are uniquely prepared to coordinate and oversee.

Patients with a confirmed diagnosis of substance abuse typically require treatment that includes behavioral therapy, pharmacologic treatment (such as in the case of withdrawal), and occasionally
inpatient or outpatient treatment for detoxification or complications. The American Medical Association (AMA)-convened Physician Consortium for Performance Improvement (PCPI) lists the following as performance measures for substance abuse disorders, which are also endorsed by the APA and National Committee for Quality Assurance:

- Counseling regarding psychosocial and pharmacologic treatment options for alcohol dependence
- Counseling regarding psychosocial and pharmacologic treatment options for opioid addiction
- Screening for depression among patients with substance abuse or dependence.

Such performance measures are intended to foster accountability among health professionals, as well as enhance quality and patient safety. (However, physicians should remember that clinical decisions about patient care should be made on an individual basis.) As family physicians orchestrate care for patients who require referral to or treatment from sub-specialists, they can ensure patients comply with treatment and return to or maintain an optimal level of functioning and overall health.

Resources: Evidence-Based Practice Recommendations/Guidelines/Performance Measures

- A primary care approach to substance misuse
- Urine Drug Screening: A Valuable Office Procedure
- Adolescent Substance Use and Abuse: Recognition and Management
- Managing Opioid Addiction with Buprenorphine
- Buprenorphine Maintenance vs. Methadone Maintenance or Placebo for Opioid Use Disorder
- VA/DoD clinical practice guideline for management of substance use disorders (SUD)
- Interagency guideline on opioid dosing for chronic non-cancer pain: an educational aid to improve care and safety with opioid therapy
- Alcohol-use disorders. Diagnosis, assessment and management of harmful drinking and alcohol dependence
- Clinical guidelines for the use of chronic opioid therapy in chronic noncancer pain
- Thinking on paper: documenting decision making
- Engaging Patients in Collaborative Care Plans
- A systematic approach to identifying drug-seeking patients
- Integrating a behavioral health specialist into your practice
- FamilyDoctor.org: Substance Abuse (patient resource)
- FamilyDoctor.org: Opioid Addiction (patient resource)
- FamilyDoctor.org: Alcohol Abuse (patient resource)

References:


