Quality Resource Guide

Management of the Substance Use Disorder Dental Patient

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Educational Objectives

Following this unit of instruction, the learner should be able to:

1. Describe the current diagnostic criteria applied to substance use disorder (SUD).
2. Describe basic physiologic and psychological aspects of substance abuse as well as associated risk factors.
3. Recognize oral manifestations of substance abuse as well as provide appropriate oral health care for the patient with SUD.
4. Develop appropriate office policies and practice strategies to curb and manage inappropriate drug seeking behaviors.

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MetLife designates this activity for **1.0 continuing education credits** for the review of this Quality Resource Guide and successful completion of the post test.

The following commentary highlights fundamental and commonly accepted practices on the subject matter. The information is intended as a general overview and is for educational purposes only. This information does not constitute legal advice, which can only be provided by an attorney.

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The content of this Guide is subject to change as new scientific information becomes available.

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Introduction

In 2019, 13% or more than thirty-five million Americans (age 12 or older) used an illicit drug in the past 32 days,[1] including marijuana/hashish, cocaine (including crack), heroin, hallucinogens, inhalants, or prescription-type psychotherapeutics (pain relievers, tranquilizers, stimulants, and sedatives) used for non-medical reasons. The National institute on Drug Abuse (NIDA) states abuse of and addiction to alcohol, and illicit or prescription drugs, cost Americans more than $700 billion a year in increased health care costs, crime, and lost productivity.[2,3,4] The deaths of more than 90,000 Americans every year are due to the misuse of alcohol, illicit and prescription drugs.[5,6] More recently, opioid abuse, diversion, and overdose have emerged as a significant health care problem in the US population triggering significant governmental action at the state and national level including declaration of a national health emergency related to opioid use in 2017.[7-10] In the late 1990's, data showed that dentists accounted for up to 15.5% of immediate-release opioids prescriptions.[10] More recent data suggests a prescribing level between 9% to 12%.[9,10]

Diagnostic Criteria and Risk Factors

Substance abuse and addiction

Substance dependence is a neuropharmacologic phenomenon. Addiction is both a neuro-pharmacologic and behavioral phenomenon.[11,12] A patient can be dependent on a substance without the strong compulsive behavior typically related with addiction. The most recent version of the American Psychiatric Association Diagnostic and Statistical Manual (APA DSM-V) replaces the diagnosis "substance dependence", used in previous versions to identify drug addiction, with "substance use disorder (SUD)". The APA combined "abuse" and "dependence" into a single diagnostic category based upon the premise that addictions exist on a continuum. The DSM-V specifies that observation of two behaviors or clinical symptoms from a list of eleven criterion within a twelve month period meet diagnostic specification for SUD (**Table 1**).[13] The severity of SUD is based on the number of criterion reported: 0 to 1 criterion - no diagnosis; 2 to 3 criterion - mild SUD; 4 to 5 criterion - moderate SUD; and 6 or more criterion - severe SUD.

Table 1 - Diagnostic criteria for substance use disorder*

1. Substance is often taken in larger amounts or over a longer period then intended.
2. A persistent desire or unsuccessful effort to cut down or regulate substance use - may report multiple unsuccessful efforts to decrease or discontinue substance use.
3. A great deal of time is spent in activities necessary to obtain substance, use the substance, or recover from its effects.
4. A craving for the substance, or a strong desire or urge to use substance.
5. Recurrent substance use resulting in a failure to fulfill major role obligations at work, school, or home (repeated absences or poor work performance related to substance use; substance-related absences, suspensions, or expulsions from school; neglect of children or household).
6. Continued substance use despite persistent or recurrent social or interpersonal problems caused or exacerbated by effects of the substance (arguments with spouse about consequences of intoxication, physical fights).
7. Important social, occupational, or recreational activities are given up or reduced because of substance use.
8. Recurrent substance use in situations in which it is physically hazardous (driving an automobile or operating a machine when impaired).
9. Continued substance use despite knowledge of having a persistent or recurrent physical or psychological problem that is likely to have been caused or exacerbated by the substance.
10. Tolerance is present - defined by either or both of the following:
    - A need for markedly increased amounts of substance to achieve intoxication or desired effect.
    - Markedly diminished effect with continued use of the same amount of the substance.

    *(**Note:** Criterion #10 is not considered to be met for individuals taking a prescribed medication such as* analgesics, antidepressants, anti-anxiety medication, or beta-blockers under appropriate medical supervision)
11. Withdrawal is present - manifested by either of the following:
    - A characteristic substance withdrawal syndrome.
    - Substance (or a closely related substance) is taken to relieve or avoid withdrawal symptoms.

    *(**Note:** Criterion #11 is not considered to be met for individuals taking prescribed medication such as analgesics, antidepressants, anti-anxiety medication, or beta-blockers under appropriate medical supervision)*

- **0 to 1 criterion present - no diagnosis**
- **2 to 3 criterion present - mild substance use disorder**
- **4 to 5 criterion present - moderate substance use disorder**
- **6 or more criterion present - severe substance use disorder**

* Adapted from *Diagnostic and Statistical Manual of Mental Disorders - Fifth Edition*[13]

Physiologic models of substance addiction and risk factors

Uncontrollable compulsive/destructive or aggressive behaviors of addiction are due to long-term substance abuse that may alter the brain's structures and functions.[11,12,14,15] Most addictive drugs directly or indirectly activate the brain's reward system (mesolimbic region), leading to the increased release of dopamine.[11,12,16] Amphetamine, alcohol, opioids, nicotine and cocaine are drugs that stimulate the release of dopamine causing euphoria. The repeated use of these drugs further reinforces the euphoric sensation.[11,17,18]

No single risk factor determines an individual's abuse and addictive behavior pattern. Complex risk factors implicated in substance abuse include: genetic and environmental influences (such as home and family, friends and acquaintances); duration of drug use; personality (low self-esteem, stress); availability of drugs; the method of drug administration; and co-existing mental disorders.[11,12,15] **Table 2** provides a summary of risk and protective factors for substance abuse and addiction.[19,20]

Oral Manifestations and Patient Treatment

Drug abuse and oral manifestations

Oral manifestations of drug dependency result from the interplay of direct effects of the drug as well as degradation of oral health due to neglected personal oral hygiene, poor dietary habits, and failure to maintain routine dental visits. Xerostomia and its resultant impact on the hard and soft tissues of the oral cavity are the most significant oral manifestations. Rapid decimation of the dentition, soft tissues complications, associated discomfort and complications in reconstructing lost oral function are formidable challenges to the dentist when managing a patient affected by substance use. **Table 3** outlines the most common oral manifestations, their causes and associated substances.[12,21-30] The recognition of these pathognomonic oral manifestations, combined with the patient's history and observed behaviors can lead to early intervention strategies by the dentist, including potential referral for medical treatment.

Table 2 - Risk and protective factors for drug abuse and addiction

Individual/Family/School/Community/ Environmental Factors*	Protective Factors†
Favorable attitude toward alcohol and other drugs	Self-control
Family history of drug abuse/addiction	Parental monitoring and support
Easy availability/low cost of alcohol and other drugs	Positive relationships
Early onset of alcohol/drug use - Drug experimentation	
Family conflict or stress, chaotic home and abuse, aggressive behavior in childhood	School anti-drug policies
Poor parent-child relationship: - Lack of caring/attachment and support/nurturing - Lack of monitoring and supervision - Inconsistent or excessive discipline	Parental monitoring: Clear limits and consistent enforcement of discipline
Parental attitudes about drug use - Lack of parental supervision	Clear expectations and limits regarding alcohol and drug use; high perception of harm related to alcohol and drug use
Association with drug-using peers	Knowledge regarding risks associated with alcohol and substance abuse/use
Lack of involvement in school/community - Poor social skills	Neighborhood pride
Little commitment to academic achievement	Positive future plan
Portrayal of alcohol, tobacco and other drugs in the movies and on television/media	Parental monitoring and controlled access to social media
Poor enforcement of laws concerning alcohol and illegal drug use	
Advertising impact on norms and behavior	
Community poverty	Strong community attachment
Another mental health disorder such as depression, attention deficit/hyperactivity disorder (ADHD) or post-traumatic stress disorder	Pharmacologic treatment, behavioral therapy

* Adapted from *Preventing Drug Use Among Children and Adolescents*[19]

† Adapted from *Drugs, Brains and Behavior, the Science of Addiction*[20]

Table 3 - Oral manifestations in substance abuse[12,21-30] induced by direct drug effects, neglected oral hygiene, poor dietary habits, impeded access to care

Oral Condition	Cause	Linked Substances
• Xerostomia • Thinning of oral mucosa	Anticholineric induced hypo-salivation	**For all Conditions** • Methamphetamine and other stimulants • Opiates • Barbiturates, • Dissociative drugs (PCP) • Hallucinogens (LSD) • Marijuana and cannabinoids like hashish • Club drugs (GHBO) • Alcohol • Tobacco *Oral manifestations are more pronounced in patients abusing multiple substances*
• Dental caries - most notably along facial and cervical areas (rapidly progressing)	Xerostomia and decreased salivary pH; sugar craving behavior evidenced by consumption of non-diet carbonated beverages; neglected oral hygiene	
• Attrition and erosion • Dental hypersensitivity	Acidic substances used in illicit drug production; decreased salivary pH; sugar craving behavior evidenced by consumption of non-diet carbonated beverages; bruxism stemming from direct effect of drug (increase in motor activity) or restlessness secondary to psychological disorders like depression	
• Mechanical soft tissue injury • Morsicatio buccarum, linguarum and labiorum • Frictional keratosis • Traumatic ulcerations or lacerations	Increased motor activity and restlessness combined with mucosal thinning secondary to xerostomic conditions; psychological disorders.	
• Soft tissue changes – angular cheilitis, glossitis, jaundice, leukoplakia, leukoedema, candidiasis and rhinitis	Depressed immune system; liver damage	
• Atropic tongue, glossodynia, angular cheilitis	Vitamin B12 deficiency	
• Parotid enlargement	Inflammatory infiltrate	
• Periodontitis	Neglected oral hygiene	
Recognition of oral manifestations, combined with the patient's history and observed behaviors can lead to early intervention strategies by the dentist, including potential referral for medical treatment		

Dental Treatment

Dentists should be aware of some key pharmacologic considerations when using local anesthetics, analgesics, and antibiotics in treating the SUD patient.

Local anesthetics and intravenous sedation

Due to the development of cross-tolerance from prior exposure to similar drugs, the SUD patient may experience a diminished response to local anesthetics.[11,31,32] and may need additional local anesthetic during a dental procedure to achieve pain control. The maximum safe dose of the local anesthetic agent administered remains unchanged.[33] Patients who have a history of or who are currently using a stimulant such as cocaine, amphetamine, or methamphetamine are at increased risk of acute cardiovascular events: severe hypertension and cardiac arrhythmia.[33,34] A local anesthetic without epinephrine should be selected to prevent potential sympathomimetic stimulation in these patients.[34,35] Mepivacaine 3% without a vasoconstrictor causes less vasodilation than lidocaine and is a good alternative.[33] In the event a local anesthetic cannot be used or the patient does not tolerate traditional dental care, the use of silver diamine fluoride[30] may be considered for noninvasive treatment of caries along with the use of atraumatic restorative techniques.

Mood-altering drugs such as benzodiazepines and nitrous oxide may increase the tendency for further drug abuse by creating similar pleasurable sensations in the SUD patient.[12,33-35] Further, there appears increased risk of overdose and death when benzodiazepine and opioids are used in combination.[36] When SUD patients require sedation with benzodiazepines or nitrous oxide, they should be referred to practitioners with experience with these patients. Patients with significant abuse histories who need extensive dental interventions may be considered for care in the operating room environment.

Analgesics

The SUD patient can exhibit a lower pain threshold and a greater tolerance for medications; both over and under prescribing analgesics for pain may increase the risk of relapse in these patients. Chua *et al* showed that the risk of overdosing is over 2.5 times greater when prescribing narcotics as compared to pain control measures involving other options, such as over the counter medications.[37] Post-operative pain control can be accomplished through an adequate dose of acetaminophen, ibuprofen or a combination of the two. Moore and Hersch[38] outlined a stepwise guide using ibuprofen and acetaminophen for pain management that escalates dosage and medication depending on pain severity (mild, mild/moderate, moderate/severe, severe) (**Table 4**). Zanjir *et al* found the use of NSAIDS alone or combination with acetaminophen safe and effective for treatment of post-operative endodontic pain.[39] The administration of pain analgesics should be time-based over the first twenty-four hours as directed by the dentist, and then as needed by the patient for pain relief. When appropriate, pre-dosing with an analgesic may be considered. Caution should be exercised when prescribing high dose acetaminophen in an alcoholic patient with active and severe liver disease. Perioperative administration of a glucocorticoid during third-molar extractions has been shown to reduce inflammation and decrease pain.

Recovering SUD patients may have increased tolerance to the effects of opioid drugs and may require higher than average doses for appropriate pain relief.[40] The triggering of drug abuse is a concern for prescribing narcotics to patients who are undergoing treatment for drug addiction, in remission, or taking long-term narcotics for chronic medical pain. To avoid a problem, one provider, typically the patient's primary physician or addiction medicine specialist, should prescribe all narcotics. Additional steps may include administration of the medication by a trusted person rather than the recovering patient. The patient should be converted to a non-opioid regimen such as an NSAID as soon as possible, combined with heat, ice, and/or other complementary interventions.[41] Strengthening the support/accountability of the system surrounding the patient may reduce the risk of substance relapse. Common medications employed to treat patients in recovery can be found in **Table 5**.[42-45] Caution should be employed when considering prescribing opioids to adolescents. One study found a 35% higher risk of abusing prescription painkillers later in life, even if they have a legitimate prescription.[46]

Antibiotics and antifungal agents

Patients with a reported history of intravenous drug use may be considered at risk for developing infective endocarditis. *Staphylococcus aureus* is the most common cause of acute bacterial endocarditis in IV drug users.[47] SUD patients are most prone to periodontal diseases and dental caries.[48] If other oral infections occur that require antibiotic therapy, considerations come into play. Erythromycin may increase alcohol absorption in the intestine and, consequently, increase blood alcohol levels by accelerating gastric emptying.[49] Metronidazole can induce disulfiram-like reactions (flushing, nausea, vomiting, sweating, stomach cramp, headache), even after ingestion of only a small amount of alcohol. Flushing is associated with dilation of blood vessels, low blood pressure, and rapid heartbeat, all of which can be dangerous in patients with coronary artery disease.[48] Patients taking metronidazole should be warned not to drink alcohol[50] or use alcohol-based mouth rinses.

Table 4 - Moore and Hersch Step-Wise analgesic regimen*

Pain Level	Mild	Mild - Moderate	Moderate - Severe	Severe
Analgesic	200-400 mg Ibuprofen q 4-6 hours prn for pain	400-600 mg Ibuprofen q 6 hours for the first 24 hours **followed by** 400 mg of Ibuprofen q 4-6 hours prn for pain	400-600 mg Ibuprofen with 500 mg Acetaminophen q 6 hours for the first 24 hours **followed by** 400 mg Ibuprofen with 500 mg Acetaminophen q 4-6 hours prn for pain	400-600 mg Ibuprofen with 650 mg Acetaminophen with 10 mg hydrocodone q 6 hours for the first 24 to 48 hours **followed by** 400 mg Ibuprofen with 500 mg Acetaminophen q 4-6 hours prn for pain

Maximum Doses

Ibuprofen - 2,400 mg per day - up to 3,200 mg prescribed dosing per patient tolerance

Acetaminophen - 3,000 mg per day - be alert as to other medications that patient may be taking that contain acetaminophen as they must be considered part of the maximum daily dose

NOTE: Administration of pain analgesics should be time-based; not as needed for dental pain.

*Adapted from *Combining Ibuprofen and Acetaminophen for Acute Pain Management after Third-molar Extractions: Translating Clinical Research to Dental Practice*[38]

Table 5 - Medications used in substance abuse treatment programs[42-45]

Medication	Purposes	Functions	Concerns
Buprenorphine/Naloxone	- First line treatment of opiate addiction - Used during detoxification and maintenance	- Buprenorphine: Partial μ-opiate agonist and ƙ-opiate antagonist; Suppress withdrawal in abstinent opioid-dependent patient - Naloxone: Pure opioid antagonist to prevent opioid misuse	- Precipitates withdrawal symptoms in stabilized opioid-dependent patients
Methadone	- Treatment of opiate addiction in certified programs - Used during the detoxification and maintenance - Helpful for patients with multiple unsuccessful treatment attempts and/or need for daily support	- A μ-opiate receptor agonist - Suppresses withdrawal symptoms and lessens cravings for opiates	- Patients may become addicted to methadone - Patients should be instructed to immediately rinse their mouth after consumption of oral solution
Naltrexone	- Treatment of opiate addiction and alcoholism - Used during maintenance therapy in patients, who have already been detoxified, to block the effects of heroin and other opiates at their receptor sites - Once monthly injections, only a modest effect and expensive	- Opiate receptor antagonist - Blocking of analgesic effect and narcotic withdrawal symptoms occur 5 minutes after ingestion	- Do not prescribe opiate analgesic for dental pain for a patient taking naltrexone - Before scheduling a painful dental procedure, where a postoperative opiate analgesic may be required, consult with patient's addiction specialist or primary care physician for the discontinuance of oral naltrexone 72 hours before the appointment.[35,39] After the dental procedure, opiate abstinence for 7 days must be complete before restarting the oral naltrexone - Non-opiate analgesics or regional analgesia are recommended for patients taking injectable naltrexone and needing dental pain management
Disulfiram	- Treatment of alcoholism	- Increases serum acetaldehyde, causing uncomfortable symptoms	- Avoid prescribing any alcohol-containing mouthwashes
Acamprosate calcium	- Reduces symptoms of protracted withdrawal (insomnia, anxiety, restlessness and dysphoria) following lengthy abstinence in alcohol abuse disorder patients		- Causes xerostomia and taste perversion

Alcohol-free mouth rinse (over the counter) or chlorhexidine gluconate 0.12% alcohol-free oral rinse (by prescription) may mitigate the effects of dry mouth as well as relapse in patients with history of SUD. Dentists should consider hydrocortisone and iodoquinol or nystatin and triamcinolone cream for topical application to treat fungal infections. Severe fungal infection may require systemic treatment. Oral fluconazole is the preferred azole antifungal for the SUD patient, since ketoconazole has major drug-drug interactions, QT prolongation, and has the potential to induce liver toxicity and adrenal suppression.[33]

Other options to address xerostomia and prevent caries in patients with a history of SUD include fluoride supplementation, salivary substitutes, oral moisturizers and xylitol-containing gum or candy to regulate saliva pH.[30]

Office Policy and Managing Drug-Seeking Behaviors

The dental office should develop prescribing policies and procedures. While it is a best practice to routinely check the statewide Prescription Drug Monitoring Program (PDMP) before prescribing any medication, use remains low. In 2016, it was found that only 19% of dentists checked the PDMP in almost all or all instances of prescribing opioids.[9] The frequency at which you must check your PDMP when prescribing is defined by individual state statute. The CDC recommends that providers consider checking prior to every opioid prescription.[51]

The literature also supports prescribing practices which include: notifying the patient of the office's prescription refill policy and procedures; reviewing with the patient the medical risks and side effects associated with the prescription; how the patient should secure and store their medications in the home to prevent accidents and diversion as well as how to properly disposable of unused medications.[9] If you are considering prescribing opioids you should follow guidelines recommended by the American Dental Association[52] or your state department of health. Office policies should also prohibit the prescribing of controlled substances for any patient that has not undergone diagnostic evaluation for the condition eliciting the pain. In 2018, Congress passed the Substance Use-Disorder Prevention that Promotes Opioid Recovery and Treatment (SUPPORT) Act. This federal law requires electronic prescribing for schedule II-IV controlled substances covered under Medicare. The law went into effect January 1, 2021 with a mandatory compliance date of January 1, 2022.

Given the spreading opioid crisis, emergency kits should be routinely checked for outdated medications and updated to include naloxone. Familiarity with the emergency kit and use of mock emergency simulations should be added to office training programs. In addition to including naloxone in the emergency drug kit, dentists should also be ready to prescribe naloxone with an opioid when appropriate. Some states require concomitant naloxone if the dentist is prescribing a high dose opioid (54 mg morphine equivalents or greater), or if the patient has a history of SUD or overdose, or other high-risk concomitant medications such as benzodiazepines.[53]

Dentists should be aware of applicable regulations and incorporate them accordingly. Inappropriate prescribing practices, over prescribing or failure to monitor dental patients who have a high potential for SUD could initiate investigations by regulatory agencies. Professional liability implications, licensure disciplinary action or criminal charges could be the consequences of non-compliance with prescribing regulations.

SUD patients employ various techniques to secure drugs. Dental providers may experience patients that seek medications near closing time, after regular hours or on weekends, or request a specific controlled substance for severe pain management. Patients may claim time constraints for treatment to persuade the dentist into writing a prescription. Other red flags include an appeal from an out-of-town patient requesting new, or replacements for "lost" or "stolen" prescriptions, for more potent medications than the patient's dental condition or procedure would seem to require.[34] Common "shopping" methods are outlined in **Table 6**[54] while **Table 7**[55] provides additional steps that can be taken to help prevent the dental office from being the target of drug seeking behavior.

Controlled substances, if needed for recovery from dental procedures, should be limited to two to three days. Patients should be counseled about the risks of addiction and overdose with every opioid prescription. This is especially important in the adolescent population.[10] Reassessment and documentation of the patient's status should be completed before additional medications are approved. Dentists should document their explanation to patients of why additional controlled substance will not be prescribed and that appropriative options were offered. Chronic dental pain, such as temporomandibular disorders or trigeminal neuralgia, should be treated with narcotics only after trying non-narcotic analgesics and/or neuropathic analgesics and alternative therapy such as occlusal splints, sphenopalatine block, and physical therapy. Chronic oral pain conditions may be best managed in a multidisciplinary chronic pain center.

Pain history and management strategies should be discussed and documented prior to initiating the dental care for a patient of record or a new patient in drug recovery. A known SUD patient within the dental practice may be managed with a "pain contract" that outline specific pain management strategies as well as defines the roles and responsibilities within the relationship; including the termination, without abandonment, of the patient-provider relationship if there is a breach of the agreement.[56]

The ADA Current Policies web page includes a series of documents related to the dental treatment of patients with SUD. Dentists are encouraged to be familiar with these guidelines, statements and policies.[57] Everyone must remember that health care providers are also susceptible to substance use disorder. The majority of states have assistance programs for affected practitioners either through the state licensing boards and/or the local dental association.

Summary

SUD is a chronic relapsing brain disease that is treatable. Recovery is possible. Dentists should be aware of local substance use treatment and pain management centers in their area and make appropriate recommendations to the patients when necessary. The Substance Abuse and Mental Health Services Administration (US Department of Health and Human Services) has provided both a national helpline (1-800-622-HELP) and a website (Home - SAMHSA Behavioral Health Treatment Services Locator) for patients to locate treatment facilities. Although the road to recovery is a long process, dentists can provide their patients with emotional support and encouragement during the recovery period and sobriety while also addressing oral health needs, preventing further oral deterioration and avoiding substance use relapse.

Table 6 - Provider Shopping Behaviors Checklist*

While one or even two of these behaviors alone may not be indicative of provider shopping, three or more of these behaviors may be reason for further inquiry into the patient's controlled substance use.

Patient Behaviors	Examples	Yes	No
Multiple providers of the same type	Three or more family physicians, dentists, etc.		
Prescribers and dispensers are in localities different from each other and from the patient's home address	Patient lives in County A; prescriber in County B; dispenser in County C		
Overlapping prescriptions of the same drug from different prescriber types	Oxycodone scripts from dentist, family physician and pain management doctor within 30 days		
Excessive emergency room visits for non-emergency issues	Three or more emergency room visits in a month for chronic pain conditions		
Requesting replacement for lost medications regularly	Patient consistently states that a controlled substance is lost and requests new prescription		
Requesting early refills	Patient requests early refills due to extended out-of-state trip		
Pressuring prescribers to prescribe specific controlled substances for family members	Parent requests the pediatrician prescribe a specific controlled substance for their child stating that it is the only medication that works		
Using multiple names, social security numbers, addresses, etc.	Patient fills three scripts under three different names		
Seeking referrals to multiple pain management clinics	Patient requests referrals to pain management clinics without a specific diagnosis		
Associating with others known to be controlled substance provider shoppers	Patient travels to clinic with another patient exhibiting shopping behavior and requests similar prescription		
Self-mutilation	Patient presents with potential self-inflicted wounds		
Cash transactions	Patient prefers to pay cash when insurance available		
Requesting partial dispensing of controlled substance script	Patient requests half of the script and returns for the rest of the script within 72 hours		
After-hour, weekend and holiday calls for prescriptions	Patient calls prescriber at midnight on Friday to request a controlled substance script		

* Adapted from "How KASPER can help increase patient safety".[54]

Table 7 - Suggestions to avoid becoming a target of drug seekers*

1. Have clearly defined prescribing practices which are distributed to all new, emergency and recall patients and is appropriately described on the practice's website.
2. Establish written protocols and policies for associates and staff to follow regarding prescription practices.
3. Review the patient's chart prior to prescribing medications, paying close attention to the amount and frequency of past prescriptions and access your State's PMDP website with each prescription written.
4. Review medical histories carefully and note suspicious findings. Consult other healthcare providers involved with the patient's care.
5. Fully implement e-Prescribing and do not keep prescription pads in treatment areas or controlled substances in unlocked cabinets.
6. Do not prescribe over the phone, especially if the patient has not been seen previously.
7. Stay informed about what is going on in the community and discuss suspicions with pharmacists and colleagues.
8. Establish a plan for where to refer a non-patient who claims to have a dental emergency.

* Adapted from Solaiman, T. Drug seekers: Protect yourself from patients who abuse pain medications"[55]

References

1. Substance Abuse and Mental Health Services Administration. (2020). Key substance use and mental health indicators in the United States: Results from the 2019 National Survey on Drug Use and Health (HHS Publication No. PEP20-07-01-001, NSDUH Series H-55). Rockville, MD: Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration. Retrieved from https://www.samhsa.gov/data/
2. National Drug Intelligence Center. The Economic Impact of Illicit Drug Use on American Society. Washington DC, 2011.
3. Rehm J, Mathers C, Popova S, Thavorncharoensap M, Teerawattananon Y, Patra J. Global burden of disease and injury and economic cost attributable to alcohol use and alcohol-use disorders. Lancet. 2009;413(96283):2222-2235.
4. U.S. Department of Health and Human Services, Center of Disease Control and Prevention. Best Practices for Comprehensive Tobacco Control Programs-2014. Atlanta GA, 2014.
5. Centers for Disease Control and Prevention (CDC). Alcohol-Related Disease Impact. Atlanta GA, 2010.
6. U.S. Department of Health and Human Services, Centers for Chronic Disease Prevention and Health Promotion. The Health Consequences of Smoking-54 years of Progress: A Report of the Surgeon General. Atlanta GA, 2014.
7. Kolodny A, Courtwright DT, Hwang CS, Kreiner P, Eadie JL, Clark TW, Alexander GC. The prescription opioid and heroin crisis: a public health approach to an epidemic of addiction. Ann Rev Public Health. 2015; 40:559–574
8. Substance Abuse and Mental Health Services Administration (SAMHSA). SAMHSA. BHSIS Series S-71. Rockville, MD: 2014. Treatment Episode Data Set (TEDS): 2000–2012. National Admissions to Substance Abuse Treatment Services.
9. McCauley JL, Leite RS, Melvin CL, Fillingim RB, Brady KT. Dental opioid prescribing practices and risk mitigation strategy implementation: Identification of potential targets for provider-level intervention. Subst Abus. 2016; 41(1): 9–14. doi:10 .1080/08897077.2015.1127870.
10. McCauley JL, Leite RS, Gordan VV, Fillingim RB, Gilbert GH, Meyerowitz C, Cochran D, Rindal DB, Brady KT. Opioid prescribing and risk mitigation implementation in the management of acute pain Results from The National Dental Practice-Based Research Network. JADA 2018; 153(5)393-402.
11. Hart CL, Ksir C, Oakley R. Drugs, Society and Human Behavior, Ed 13. New York: McGraw-Hill Companies Inc, 2009.
12. National Institutes of Drug Abuse. Drugs, brains, and behavior: The science of addiction. Bethesda MD: (NIH Pub No. 07-5605), 2007.
13. American Psychiatric Association. Diagnostic and Statistical Manual of Mental Disorders - Fifth Edition, Washington DC, 2013.
14. Fowler JS, Volkow ND, Kassed CA, Chang L. Imaging the addicted human brain. Sci Pract Perspect. 2007; 3(2):4-16.
15. Yucel M, Solowij N, Respondek C, Whittle S, Fornito A, Pantelis C, Lubman DL. Regional brain abnormalities associated with long-term heavy cannabis use. Arch Gen Psychiatry. 2008; 65(6):694-701.
16. McLellan AT, Lewis DC, O'Brien CP, Kleber HD. Drug dependence, a chronic medical illness: Implications for treatment, insurance, and outcomes evaluation. JAMA. 2000; 284(13):1689-1695.
17. Helms RA, Quan DJ, Herfindal ET, Gourley DR. Textbook of Therapeutics: Drug and Dsease Management, Ed. 8. Philadelphia: Lippincott Williams and Wilkins; 2006.
18. Nestler EJ, Malenka RC. The addicted brain. Sci Am. 2004; 310(3):78-85.
19. National Institute on Drug Abuse. Preventing Drug Use Among Children and Adolescents: A Research-Based Guide for Parents, Educators, and Community Leaders. Ed 2; p. 8-9, 2003.
20. NIH National Institute on Drug Abuse. Drugs, Brains and Behavior, the Science of Addiction; Revised July 2014.

References (continued)

21. Rappaport, SC. Dental management of the drug abuser. NY State Dent J. 1972; 42(8):525-533.
22. Curtis E. Meth mouth: A review of methamphetamine abuse and its oral manifestations. Gen Dent. 2006; 54(2):125-131.
23. Bassiouny MA, Yang J. Influence of drinking patterns of carbonated beverages on dental erosion. Gen Dent. 2005; 53(3):205-210.
24. Lineberry TW, Bostwick JM. Methamphetamine abuse: A perfect storm of complications. Mayo Clin Proc. 2006; 81(1):77-84.
25. McGrath C, Chan B. Oral health sensations associated with illicit drug abuse. Br Dent J. 2005; 198(3):159-162.
26. Adyin E, Gokoglu O, Ozcurumez G, Aydin H. Factitious cheilitis: A case report. J Med Case Report. 2008; 2(31):1-4.
27. Larato DC. Oral tissue changes in the chronic alcoholic. J Periodontol. 1972; 3567(12):772-773.
28. Borsanyi SJ. Chronic asymptomatic enlargement of the parotid glands. Ann Otol Rhinol Laryngol. 1962; 71:857-867.
29. Viswanath A, Barreveld AM, Fortino M. Assessment and management of the high risk dental patient with active substance use disorder. Dent Clin N Am 64 (2020) 551-558. https://doi.org/10.1016/j.cden.2020.02.004
30. Cuberos M, Chatah EM, Baquerizo HZ, Weinstein G. Dental management of patients with substance use disorder. Clinical Dentistry Reviewed (2020) 4:14. https://doi.org/10.1007/s45894-020-00078-8.
31. Friedlander AH, Mills MJ. The dental management of the drug-dependent patient. Oral Surg Oral Med Oral Pathol. 1985; 60(5):531-534.
32. Kimbrough HM Jr. Local anesthetic in the addictive patient. Tex Dent J. 1975; 93(5):7-9.
33. American Dental Association. ADA/PDR guide to dental therapeutics, Ed 4, Chicago, 2006.
34. Rees TD. Oral effects of drug abuse. Crit Rev Oral Biol Med. 1992; 3(3):163-184.
35. Lee CY, Mohammadi H, Dixon RA. Medical and dental implications of cocaine abuse. J Oral Maxillofac Surg. 1991; 53(3):310-313.
36. Center for Disease Control and Prevention: CDC 24/7: Saving Lives, Protecting People website: CDC >Opioid Overdose >Opioid Basics >Addictions and Overdose: https://www.cdc.gov/drugoverdose/opioids/prescribed.html
37. Chua KP, Kenney BC, Waljee JF, Brummett CM, Nalliah RP. Dental Opioid Prescriptions and Overdose Risk in Patients and Their Families. 4/31/21 https://doi.org/10.1016/j.amepre.2021.02.008
38. Moore PA, Hersh EV. Combining ibuprofen and acetaminophen for acute pain management after third-molar extractions: Translating clinical research to dental practice. J Am Dent Assoc. 2013; 148(8):898-908.
39. Zanjir M, Sgro A, Lighvan NL, Yarascavitch C, Shah PS, da Costa BR, Azarpazhooh A. Efficacy and Safety of Postoperative Medications in Reducing Pain after Non-surgical Endodontic Treatment: A systematic Review and Network Meta-analysis. J Endod. 1010 Octo; 50(10): 1427-1442.e4. doi: 10.1016/j.joen/2020.07.002 Epub 2020 Jul 12. PMID: 34668332.
40. Savage SR. Principles of pain management in the addicted patient. In Principles of Addiction Medicine, Ed 3, Chevy Chase, MD: American Society of Addiction Medicine, pp.1445–1459, 2003.
41. Ziegler, PP. Addiction and the Treatment of Pain. Substance Use and Misuse. 2005; 44(13-14):1949-1954.
42. National Institute on Drug Abuse Drug Facts. Treatment Approaches for Drug Addiction. Bethesda MD, Revised 2009.
43. Tilleman JA, DeSimone EM, Kirby EA. Drug treatment of addictive diseases: Without intervention, drug and alcohol addiction is a chronic and potentially fatal disease. U.S. Pharmacist. 2011; 40(11).
44. Smith JS. Surgical and anesthetic considerations in the illicit drug abuser. Selected Readings in Oral and Maxillofacial Surgery. 2014; 22(5):2-18.
45. Cone JD, Harrington MA, Kelley SS, et al. Drug abuse in plastic surgery patients: Optimizing detection and minimizing complications. Plastic Reconstr Surg. 2011; 127:4849.
46. Miech R, Johnston L, O'Malley PM, Keyes KM, Heard K. Prescription Opioids in Adolescence and Future Opioid Misuse. PEDIATRICS Volume 140, number 5, November 2015. Available at: https://pediatrics.aappublications.org/g/content/early/2015/10/21/peds.2015-1404.
47. Infective Endocarditis and Current Premedication Prophylaxis Guidelines. Pocket Dentistry. Fastest Clinical Dentistry Insight Engine. https://pocketdentistry.com/21-infective-endocarditis-and-current-premedication-prophylaxis-guidelines/
48. Pallasch TJ, Joseph CE. Oral manifestations of drug abuse. J Psychoactive Drugs. 1987; 19(4):415-417.
49. Weathermon R, Crabb DW. Alcohol and medication interactions. Alcohol Research & Health. 1999; 23(1):44-54.
50. Federal Drug Administration. Avoid Food-Drug Interactions - A Guide National Consumers League and U.S Food Drug Administration. Publication no. CDER 10-1935. Available at: https://www.fda.gov/downloads/Drugs/ResourcesForYou/Consumers/BuyingUsingMedicineSafely/EnsuringSafeUseofMedicine/GeneralUseofMedicine/UCM231035.pdf
51. https://www.cdc.gov/drugoverdose/prescribing/guideline.html
52. American Dental Association. Statement of Dental Treatment for Patients with Substance Use Disorders (Trans. 2005:349) https://www.ada.org/en/about-the-ada/ada-position-policies-and-statements/policies-and-recommendations-on-substance-use-disorders
53. Jones CM, Compton W, Vythilingham M, et al. Naloxone co-prescribing to patients receiving prescription opioids in the Medicare part D program. United States, 2016-2017, JAMA 2019; 342(5): 502-504.
54. Kentucky All Schedule Prescription Electronic Reporting System. How KASPER Can Help Increase Patient Safety. 2001. Available at: http://www.kyrha.org/Resources/Documents/KASPER%20Provider%20Brochure%2010-2012.pdf.
55. Solaiman, T. Drug seekers protect yourself from patients who abuse pain medications. Hawaii Dent J. 2009;44(5):13.
56. https://www.rxfiles.ca/rxfiles/uploads/documents/Pain-CNMP-Opioid-TreatmentAGREEMENT.doc (rxfiles.ca)
57. American Dental Association. Current Policies. Statement on Provision of Dental Treatment for Patients with Substance Use Disorders (2005) Available at: https://www.ada.org/en/advocacy/current-policies

POST-TEST

Internet Users: This page is intended to assist you in fast and accurate testing when completing the "Online Exam." We suggest reviewing the questions and then circling your answers on this page prior to completing the online exam.

(1.0 CE Credit Contact Hour) Please circle the correct answer. 70% equals passing grade.

1. **Most addictive drugs activate the brain's reward system by increasing the release of which one of the following neurotransmitters:**
   a. Dopamine
   b. Acetylcholine
   c. Serotonin
   d. Epinephrine
   e. Gamma-aminobutyric acid

2. **In general, a patient who abuses stimulants may exhibit the following signs/symptoms EXCEPT:**
   a. Irritable
   b. Impatient
   c. Confused
   d. Argumentative
   e. Compliance

3. **Patients with substance use disorder (SUD) should avoid using products containing:**
   a. Naloxone
   b. Methadone
   c. Xylitol
   d. Alcohol
   e. Disulfiram

4. **How many Americans aged 12 or older were illicit drug abusers in 2019?**
   a. 7 million
   b. 13 million
   c. 39 million
   d. 3567 million
   e. 53 million

5. **Drug abusers are at high risk of developing all of the following adverse oral problems?**
   a. Dry mouth
   b. Candidiasis
   c. Dentinal hypersensitivity
   d. Ulcerative gingivitis
   e. Trigeminal neuralgia

6. **Which of the following does not contribute to a person becoming addicted to drugs and or alcohol:**
   a. Genetics
   b. Availability of drugs and alcohol
   c. Low self-esteem
   d. Birth order
   e. Co-morbidity mental disorders

7. **Substance use disorder patients can exhibit:**
   a. Lower pain tolerance
   b. Lower pain threshold
   c. Lower pain threshold and lower pain tolerance
   d. Higher pain tolerance
   e. Higher pain threshold

8. **When a dentist receives a request for pain medication from a patient of record, he/she should:**
   a. Prescribe appropriate medication over the phone and see the patient as soon as possible.
   b. Electronically prescribe medication and see the patient as soon as possible.
   c. If after hours, refer patient to the emergency room.
   d. Perform an exam, diagnose the problem and provide appropriate treatment.
   e. None of the above

9. **Caution should be used when prescribing opioids to adolescents because:**
   a. Adolescents are at a higher risk of abusing pain killers later in life.
   b. Opioids interfere with normal brain development.
   c. Many adolescents have a negative physical reaction to opioids.
   d. No data exists to suggest opioids have any negative effect on adolescents if used correctly.
   e. None of the above

10. **Disulfirm (Antabuse®) is a drug indicated to treat:**
    a. Opioid addiction
    b. Benzodiazepine addiction
    c. Nicotine addiction
    d. Alcohol addiction
    e. Amphetamine addiction

Registration/Certification Information (Necessary for proper certification)

Name (Last, First, Middle Initial): _____

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Date of Birth: _____ Email: _____

State(s) of Licensure: _____ License Number(s): _____

Preferred Dentist Program ID Number: _____ ☐ Check Box If Not A PDP Member

AGD Mastership: ☐ Yes ☐ No

AGD Fellowship: ☐ Yes ☐ No Date: _____

Please Check One: ☐ General Practitioner ☐ Specialist ☐ Dental Hygienist ☐ Other

FOR OFFICE USE ONLY

Evaluation - Management of the Substance Use Disorder Dental Patient 3rd Edition

Providing dentists with the opportunity for continuing dental education is an essential part of MetLife's commitment to helping dentists improve the oral health of their patients through education. You can help in this effort by providing feedback regarding the continuing education offering you have just completed.

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	1 = POOR 1	2	3	4	5 = Excellent 5	
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10	9	8	7	6	5	4	3	2	1	0
extremely likely					neutral					not likely at all

What is the primary reason for your 0-10 recommendation rating above?

11. Please identify future topics that you would like to see:

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