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Pain Relief in Substance Abusers

I. Understand the disease of addiction and know its basis in the biopharmacology and neurophysiology of the central nervous system.

   A. Be aware of the joint statement of the American Academy of Pain Medicine (AAPM), the American Pain Society (APS), and the American Society of Addiction Medicine (ASAM) defining addiction: "Addiction is a primary, chronic, neurobiologic disease, with genetic, psychosocial, and environmental factors influencing its development and manifestations. It is characterized by behaviors that include one or more of the following: impaired control over drug use, compulsive use, continued use despite harm, and craving" (Savage et al. 2002).

   B. Know that the behavioral, emotional, and cognitive changes of addiction in large part reflect alterations in brain biopharmacology caused by drugs of abuse, and that the risk of addiction is partially influenced by genetic predisposition (Leshner 1999; Lichterman et al. 2000; Koob and Moal 2001; Nestler 2001).

   C. Know that all drugs of abuse share the ability to activate specific dopaminergic pathways in the brain known as the "reward center" and share the ability to drive motivational systems and behaviors; there is genetically determined variability in the intracellular and physiological response to the drugs (Compton and Gebhart 2003; Wise 2003).

   D. Know that alcohol is an important drug of abuse or addiction; in this outline the term "drug" includes alcohol.

II. Understand the interactions between addiction and pain (Compton et al. 2003; Savage 2003a).

   A. Know that nociception and the physiological and behavioral responses to pain can be altered by the acute and chronic neurobiological and systemic physiological changes caused by drugs of abuse and by the physiological states consistent with drug addiction.

   B. Know that many abused drugs have analgesic properties, including central nervous system (CNS) depressants; CNS stimulants; NMDA antagonists; alcohol in high doses; and cannabinoids, for which the clinical role is not yet established (Cichewicz 2004).

   C. Know that drugs of abuse may induce psychological sequelae, including sleep disorders, anxiety, depression, cognitive impairment, and other psychiatric symptoms or illnesses, and that such sequelae can increase the experience of pain and decrease the response to treatment of pain (Bair et al. 2003; Goldsmith and Reis 2003; Savage 2003a).

   D. Know that addiction commonly occurs concurrently with anxiety and affective disorders, including post-traumatic stress disorder and the sequelae of childhood sexual abuse (Breslau et al. 1997; Kendler 2000), and that such disorders may be associated with an increased experience of pain.

   E. Know that the sequelae of active addiction and those of untreated pain are often similar, including sleep disturbance, alterations in mood, cognitive abnormalities, increased stress, aberrant drug use patterns, and problems with work and recreation. Adequate pain treatment will be difficult or may fail without concurrent treatment of addiction.

F. Be aware that fear, anxiety, stress, undertreatment of pain, and/or exposure to mind- and mood-altering drugs used to treat pain may trigger craving and influence the risk of relapse to active addiction in a patient in recovery from addiction (Halikas 1997).

III. Know how to screen for drug abuse or addiction problems in patients with pain.

A. Be knowledgeable regarding, and comfortable asking, questions that may indicate abuse or addiction issues, including use of standard, culturally appropriate screening tests (Conigliaro et al. 2003; Gastfriend et al. 2003; Graham 2003).

B. Be aware that patients may not disclose a history of addiction, or may under- or over-report drug use, for fear that pain will not be treated or will be inadequately treated (Savage 2003a).

C. Know the biochemical and physical markers for alcoholism and for intravenous drug abuse (Warner 2003).

D. Understand the therapeutic use and limitations of urine drug tests, and be aware of false-positives, false-negatives, the sensitivity and specificity of tests, and the time course for detecting drugs in different body fluids (Heit 2003b; Heit and Gourlay 2004).

E. Be familiar with, and inquire about, medical conditions that occur more frequently in the presence of substance use/addiction disorders, for example trauma, alcoholic or viral hepatitis, esophagitis/gastritis, HIV, or skin abscesses (Jaffe 1997; Selwyn and Merino 1997; Blondell 2003; Saitz 2003).

F. Understand that tolerance, physical dependency/abstinence syndrome, and concern (preoccupation) with securing medications to control pain meet the American Psychiatric Association criteria for dependency (DSM-IV-TR), but are insufficient for the diagnosis of addiction in patients maintained on psychoactive medication for control of pain, especially opioids (Portenoy and Payne 1997; American Psychiatric Association 2000).

G. Recognize behaviors that raise concern about abuse, diversion, or addiction, including apparent loss of control over medication use, adverse consequences due to the prescribed medications or other drug use, preoccupation with medications due to craving, noncompliance with other recommended treatment approaches, and failure to improve function. Also be aware that diversion of drugs may occur in patients without addiction (Heit 2003a; Ling et al. 2003; Savage 2003a; Passik and Kirsh 2004).

H. Understand that patients with a poor response to certain opioids or to low doses of opioids may appear opioid seeking, and may be falsely labeled as addicted and be undertreated for pain when opioids are indicated; such drug-seeking behavior, called “pseudoaddiction,” is corrected by adequate pain relief, including adequate prescribing of opioids (Weissman and Haddox 1989; Compton et al. 2003).

IV. Understand the general principles for the comprehensive approach to pain management in patients with addictive disease, whether with active disease or in recovery (Portenoy and Payne 1997; Covington and Kotz 2003; Curie et al. 2003; Ireck 2003; Savage 2003a; Portenoy et al. 2005).

A. Know the stages of addiction (active/currently using, in treatment or recently abstinent, or long-term abstinent with or without recovery support) and the significance of each stage to pain management.

B. Understand the multidimensional approach to pain management, including cognitive-behavioral techniques, physical conditioning, pharmacological management, and rehabilitation strategies; such comprehensive treatment enhances pain management, may decrease the need for medications that may be abused or trigger a relapse, and may be effective in addressing addiction as well.

C. Know how to prescribe, and when to refer, patients for adjunctive pain therapies including physical approaches, psychological interventions, and invasive therapies.

D. Know the principles of establishing a supportive environment and therapeutic relationship that improve the outcome of pain treatment; hyperadrenergic states, such as fear and anxiety, may mimic or increase the abstinence syndrome and thus influence pain management.

E. Be aware that cancer patients, and other patients with progressive painful conditions, may experience fear, grief, depression, anger, and spiritual conflict; such symptoms may affect management of both pain and addiction.

F. Be aware that patients may be more receptive to referral for addiction assessment and/or treatment after experiencing adverse consequences of drug or alcohol use, such as trauma or medical complications (Gentilello et al. 1995; Blondell 2003).

G. Identify resources and assist patients to initiate or continue participation in 12-step recovery groups and/or addiction treatment, concurrent with pain management.

H. Know that therapeutic urine drug testing may provide a deterrence for use of nonprescribed or illicit drugs and may detect relapses, allowing for earlier interventions.

V. Understand the use of pharmacological agents in patients with addiction (Savage 1999, 2003a).

A. Be aware of environmental strategies and medication management that may reduce the risk of active addiction if opioids or other abusable drugs are needed for pain management. Strategies include: close monitoring of the patient; prescribing manageable quantities of medication including smaller, more frequently dispensed prescriptions; having a trusted person hold and dispense medication if needed; and use of a formal treatment agreement when indicated (Joranson et al. 2002).

B. When prescribing controlled medications, recognize behaviors that raise concern about abuse, diversion, or addiction (see section IIIG).

C. In general, long-acting opioids and medications taken on schedule are preferable except in titrating for acute pain, although the efficacy of short- versus long-acting opioids in patients with addiction has not been demonstrated.

D. In patients who are physically dependent on opioids, whether used for pain management or for agonist (maintenance) treatment of addiction, avoid the use of opioid agonist/antagonist or full antagonist medications (See section IXD).

E. Know that, in some patients, use of sedative hypnotics such as benzodiazepines may be intoxicating and may be a risk factor for relapse. Anxiety and insomnia can usually be managed with drugs that will not produce euphoria, such as sedating antidepressants or antihistamines for insomnia and buspirone for anxiety; however, buspirone may be ineffective for patients on methadone agonist (maintenance) therapy (McRae et al. 2004).

F. Know how to taper opioids and sedative-hypnotics, providing substitution therapy when appropriate, and how to modulate abstinence effects from these drugs and from alcohol with adjuvant medications. Patients with prior addiction may require intensive structure and medical supervision (Dickinson et al. 2003; Mayo-Smith 2003; O'Connor et al. 2003).

G. Avoid oral medications containing alcohol (elixirs) in general, and especially for patients in recovery. Know that patients on disulfiram should not take alcohol-based medications (elixirs, tinctures), nor should alcohol-based skin preparations be used.

VI. Know the principles of acute pain management, including perioperative management, for patients with active addiction or in recovery (Alford 2003; Compton and Athanasos 2003; Saitz 2003).

A. Recognize the characteristic symptoms of intoxication, overdose, and withdrawal for each class of drugs of abuse, including alcohol. Understand that a patient may be intoxicated with one drug while withdrawing from a different drug. Recognition of all active drug responses will improve management

of intoxication and withdrawal, which will facilitate pain management and minimize disruptive behaviors (Myrick et al. 2003).

B. Treat to prevent the development of perioperative abstinence syndromes, especially from alcohol, opioids, and sedative hypnotics. Loading doses of a long-acting opioid or sedative hypnotic will help to prevent withdrawal (see section IVE; Compton et al. 2003).

C. Know that patients dependent on opioids or sedative hypnotics, whether from prescriptions for pain, from opioid maintenance therapy for addiction, or from illicit use, should not be purposefully withdrawn from these classes of drugs during acute medical or surgical interventions.

D. Know that parenteral and/or oral opioid analgesics should not be withheld if needed for acute pain control. Be aware that patients with tolerance to opioids require higher than usual doses, often for a longer time, for management of acute pain and that ineffective doses of opioid analgesics for pain will result in “drug-seeking” behaviors (Scimeca et al. 2000; Payte et al. 2003; Savage 2003b).

VII. Understand how the analgesic response to opioids is complicated in patients with addiction (Harden 2002; Joranson et al. 2002; Ling et al. 2003, 2005; Savage 2003b).

A. Know that multiple factors can influence the opioid dose required for effective analgesia, including a high tolerance for opioids (South and Smith 2001), variations in receptor binding to specific opioids (Pasternak 2001), and alterations in drug metabolism (Lawford et al. 2000; Lichtermann et al. 2000; Pasternak 2001; Compton and Ling 2002; Andersen et al. 2003).

B. Be aware that some patients on chronic opioid therapy for addiction, i.e., agonist or “maintenance” treatment, may have a lowered threshold for, and decreased tolerance to, some types of experimental acute pain, and be aware that chronic opioid therapy may increase the sensitivity to some types of pain, thus complicating the response to pain management in patients with prior exposure and a high tolerance to opioids (Chavkin et al. 2001; Doverty et al. 2001).

VIII. Understand the potential risks and benefits concerning the use of opioids in the treatment of chronic pain and cancer pain in patients with abuse or addiction (Adams et al. 2001; Harden 2002; Joranson et al. 2002; Nedeljkovic et al. 2002; Andersen et al. 2003; Savage 2003b; Zacny et al. 2003).

A. Know that approaches to the treatment of cancer pain and of chronic pain in patients with addiction follow the treatment of cancer pain and chronic pain in general: physical modalities, cognitive-behavioral interventions, invasive treatments, and non-opioid and opioid medications (Covington and Kotz 2003; Otis 2003; Savage 2003a).

B. Be aware that undertreatment of pain may trigger craving and increase the risk of relapse to active addiction.

C. Know that cancer may occur somewhat more frequently in persons with addictive disorders, probably because of the pathological effects of alcohol and tobacco, which are used with higher frequency. In such patients, be comfortable using the World Health Organization therapeutic ladder, while addressing the addiction disorder and offering appropriate treatment and psychospiritual intervention and support.

D. In the treatment of cancer-related pain, opioids should never be withheld when needed for effective pain relief because of concerns regarding the development or diagnosis of addiction; however, increased patient monitoring and attention to prescriptions are indicated.

E. Be aware of the lack of controlled studies concerning the use of opioids for chronic pain in patients with abuse and/or addiction. Reports of clinical observations include cases with improved function and decreased pain, without concomitant observation of aberrant behaviors, when opioids are carefully prescribed.

F. When opioids are indicated for chronic noncancer pain, good prescribing practices should be followed (see section VA). Know how to use opioids with other pharmacological and adjuvant approaches (Ireck 2003). Detailed medical records are important and should include the rationale for use of opioids, goals of treatment, and response to treatment.

G. When pain persists beyond apparent healing, the patient should be thoroughly assessed for nociceptive and neurogenic causes. If no physical origin of the pain is detected, pain in some patients may resolve or may improve following discontinuation of opioid medications and with treatment of addiction.

IX. Understand the needs of special populations or treatment groups of patients with addiction.

A. Know that pregnant women with addiction have special needs regarding management of non-obstetric pain, obstetric pain, and pain during lactation (Jarvis et al. 1999; Rathmell et al. 2002; Weaver 2003; Finnegan and Kandall 2004).

B. Know that patients with HIV infections often have a variety of painful conditions and that the World Health Organization recommends that HIV-related pain be treated aggressively using a cancer pain model of treatment. In patients with HIV, opioids should never be withheld when needed for effective pain relief (see VIIIB) (Swica and Breitbart 2002; Pohl 2003).

C. Know that the pain of sickle cell crisis requires a prompt and effective response, because the physical sequelae of unrelieved pain can worsen the crisis (Pohl 2003).

D. Know how to manage acute and chronic pain in patients on opioid agonist (maintenance) therapy, for example methadone or levo-alpha methadyl acetate (LAAM) maintenance (Rosenblum et al. 2003). Important points include:

1. Maintenance doses do not provide analgesia for acute pain, but should be maintained as a baseline during pain management with opioids.
2. Tolerance to opioids is increased; higher than usual doses, in addition to baseline opioid maintenance, are needed for analgesia.
3. Antagonist or agonist-antagonist drugs will produce an immediate and painful abstinence syndrome and should not be used.
4. When methadone is used for analgesia, dosing is usually every 6 to 8 hours, not once daily as used for agonist maintenance (Scimeca et al. 2000; Payte et al. 2003).

E. Know that sublingual buprenorphine, a long-acting partial mu agonist that is used for opioid maintenance therapy, may significantly decrease the effectiveness of usual doses of mu-opioid analgesics, and that patients maintained on buprenorphine have special needs for acute pain management (Johnson 2003).

F. Know that naltrexone, a long acting mu-opioid antagonist, is used in the treatment of patients with alcoholism to decrease craving and in opioid addiction to assist in relapse prevention. Naloxone has an extended half-life; therefore, patients presenting in acute pain require management that may include discontinuing naltrexone, adjunctive treatment, regional blockade, and closely monitored high opioid dosing. Potential receptor hypersensitivity to mu opioids may follow cessation of naltrexone, but clinical problems have not been observed (Leavitt 2002; Miotto et al. 2002).

G. Be aware that many incarcerated persons have addiction problems. Opioid maintenance therapy and opioids for pain management are frequently abruptly discontinued at the time of incarceration, thus pain from any pre-existing condition will be exacerbated.

X. Be aware of legal, regulatory, and reimbursement issues that limit access to care for patients with pain and addiction (Joranson and Gilson 2003; Stimmel 2003).

A. Be familiar with the laws, rules, and regulations that govern the use of opioids for treatment of pain and for the treatment of addiction, at local, regional, and national levels.

B. Know that fear of sanction and misunderstanding of regulations limit physicians' use of opioids for the treatment of pain, especially in patients with addictive disorders.

C. Know the national and regional regulations that apply to confidentiality of medical records for treatment of addictive disease and for treatment of mental health. Understand and respect the patient's concern about confidentiality and the potential negative consequences for the patient if confidentiality regarding addiction diagnosis or treatment is breached.

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