Perioperative Management in the Patient with Substance Abuse

Sharon Moran, MD*, Jason Isa, MD, Susan Steinemann, MD

KEYWORDS

• Drug screening • Substance abuse • Perioperative management

KEY POINTS

- Chronic substance use and acute intoxication may affect all aspects of perioperative care, including starting an intravenous line, securing an airway, intraoperative management, and postoperative pain control.
- The clinician should screen for alcohol and drug use in all patients and obtain serum or urine tests on those who are likely by history, physical examination, or circumstances to be intoxicated.
- Operations on acutely intoxicated patients should be delayed, if possible, because of the potential for hemodynamic instability.
- Those caring for a substance user postoperatively should be wary of the potential for hemodynamic compromise, poor wound healing, altered consciousness, and difficulty with pain management.

INTRODUCTION

Alcohol and drug use and abuse have been an increasing problem in the United States. The major categories of drugs of abuse include alcohol, stimulants, opiates, cannabinoids, and hallucinogens. Both acute intoxication and chronic abuse of these substances present challenges for anesthetic management during and after an operation. Whereas some procedures may be delayed while the issue is addressed, others are urgent or emergent and the surgeon and anesthesiologist must be able to deal with the physiologic changes that may occur in these patients.

According to the 2012 National Survey on Drug Use and Health,[1] which interviews persons aged 12 or older, 23.9 million Americans, or 9.2% of the population, were current users of illicit drugs (**Fig. 1**). This was an increase compared with 2008. Current

The authors have nothing to disclose.
Department of surgery, The Queen's Medical Center, University of Hawaii, 1356 Lusitana 6th floor, Honolulu, HI 96813, USA
* Corresponding author.
E-mail address: sharonemoran@gmail.com

Surg Clin N Am 95 (2015) 417–428
http://dx.doi.org/10.1016/j.suc.2014.11.001 **surgical.theclinics.com**
0039-6109/15/$ – see front matter

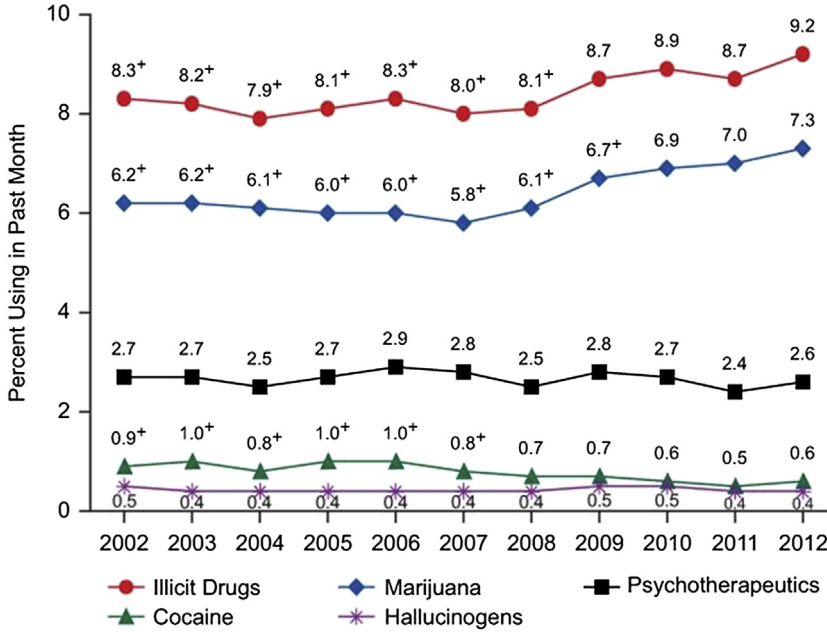

Fig. 1. Past month use of selected illicit drugs among persons aged 12 or older: 2002–2012. (*From* National Survey on Drug Use and Health (US), United States, Substance Abuse and Mental Health Services Administration, Office of Applied Studies, Center for Behavioral Health Statistics and Quality (US). Results from the 2012 National Survey on Drug Use and Health: summary of national findings, NSDUH Series H-46, HHS Publication No. (SMA) 13-4795. Rockville (MD): Substance Abuse and Mental Health Services Administration; 2013.)

drinkers of alcohol represent 52.1% of the population, with 6.5% reporting heavy use (**Fig. 2**). Those rates are similar to 2008. A total of 8.5% were considered to have a substance dependence or abuse disorder.

SCREENING FOR SUBSTANCE USE

Questions regarding alcohol and drug use should be part of any history and physical. The surgeon and anesthesiologist should emphasize that the question allows them to better take care of the patient and is not meant to be judgmental or to be used for criminal charges. Most patients are honest with the provider, but testing should be considered in the unconscious patient and in certain populations.[2,3] Substance abuse has been well studied in the trauma population because screening and intervention programs are required elements for a trauma center. Cost-benefit analysis supports testing those who arrive meeting trauma team activation criteria.[4] Patients seeking liver transplants are often enrolled in routine testing, but other organ transplant patients can be at risk for substance use disorders.[5] The bariatric surgery population has also been studied for increased substance use.[6] Features of the physical examination, such as tachycardia, tremors, a smell of alcohol, and poor dentition, may lead the physician to suspect substance use.

Results of urine testing are typically reported within a half hour of the sample being received. Serum alcohol results may take an hour to process. There are several different drug screen panels available, but most test for marijuana, amphetamines/methamphetamines, phencyclidine (PCP), cocaine, opioids, barbiturates, and benzodiazepines