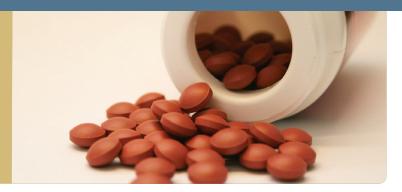
# Screening for Prescription Drug Use Problems

Screeners are short questionnaires that employees can use on their own to recognize prescription drug use problems that could interfere with their health and safety at home and at work. This Issue Brief introduces the purpose of screeners and describes several tools that employers could easily place in existing wellness materials and messages.

Lyndsey works in a manufacturing plant. Her daughter, Cheryl, just started college and lives at home. Lyndsey has noticed that Cheryl is staying up late at night studying and recently seems jittery and irritable much of the time. This is unlike her usually laid-back daughter. Lyndsey is concerned.

Mike is an auto mechanic. He has had chronic back pain for several months following an incident at work where he "pinched his back" while lifting a tire. His work performance has not been up to par lately, and he often seems sleepy.

Cheryl and Mike are both misusing prescription drugs. Cheryl got a stimulant (amphetamine) from a classmate to help her concentrate and stay awake cramming for a test. She liked the drug so much that she began using it regularly and buys it from a guy she met at a party. Mike was given a prescription for OxyContin by his doctor. It helped a lot for a while, but he found himself craving more and more of the drug and, without his doctor's knowledge, has gone to several other providers for prescriptions. Neither Cheryl nor Mike considers this misuse of prescription drugs to be a problem. Are they abusing these prescription drugs?



The Substance Abuse and Mental Health Services Administration (SAMHSA) defines nonmedical use of prescription drugs as the use of prescription pain relievers, tranquilizers, stimulants, or sedatives without a prescription for perceived medical need or for the experience or feeling the drug causes.<sup>1</sup> This definition covers a wide range of behaviors, from using someone else's medication to address a legitimate medical need to misusing prescription medications to stay awake, get to sleep, calm down, or get high. Nonmedical prescription use, or misuse, is especially common among those with chronic pain, teenagers and young adults, and those with a history of addiction or other mental health problems, such as depression and anxiety.<sup>2</sup> A national survey conducted in 2012 shows that prescription drug misuse is a serious public health problem. Approximately 6.8 million Americans age 12 and above (2.6% of those surveyed) admitted to using prescription drugs nonmedically in the past month.<sup>1</sup> Many people at risk for misusing prescription drugs are working adults who may not understand the dangers of misusing drugs either not prescribed for them or not as prescribed by a health professional.

This Issue Brief was written to educate workers, employers, and community health center visitors about brief questionnaires (< 20 questions) called *screeners*. The screeners described here do not involve drug testing of bodily fluids. Instead, these screeners use questions or interviews to detect signs of prescription drug misuse or abuse in apparently healthy individuals so that health care can be provided early (before the problem becomes obvious).<sup>3</sup> Screening for prescription drug misuse is performed for two reasons:

- to identify people at *high risk for developing prescription drug abuse*, and
- to determine whether an individual shows key indicators of prescription drug abuse.

Screening can help prevent misuse of prescription drugs, identify those at risk, discover a potential addiction problem, or point to a need for further evaluation and treatment. This is relevant for employers because early identification of prescription misuse symptoms may prevent prescription drug abuse and costly problems related to worker safety risks, reduced productivity, and medical treatment for substance abuse.

# Screening Instruments in the Workplace

Traditionally, workplaces have relied on biological drug testing to detect drug users. Few question-based screeners have been developed specifically for use in the workplace, yet they could be very useful in helping employees, such as Lyndsey or Mike, to recognize the signs of prescription drug abuse by loved ones or to recognize and deal effectively with their own prescription drug misuse. Screeners for prescription drug abuse are needed to evaluate risk for the three classes of medications that are most often abused: opiate pain relievers (such as OxyContin and Vicodin), stimulants (such as Adderall and Vyvanse), and tranquilizers (agents that reduce anxiety, such as Valium and Xanax).

To address prescription drug abuse in the workplace, SAMHSA established the Preventing Prescription Abuse in the Workplace (PAW) program. This program provides technical assistance to workplaces across America to reduce prescription drug abuse. The SAMHSA PAW program is facilitating the development of a number of occupation-specific screeners for prescription drug abuse, such as the one developed for flight attendants to help them recognize potential abuse (see sidebar). Screeners geared to other workplace settings and occupations are in development.

While more studies are needed in this area, screeners such as the one developed for flight attendants may prove to be effective prevention tools for employees and their supervisors in the effort to reduce injuries and deaths.



# **Example Screener: Flight Attendant Drug Use Screening Test**

Take the six-question drug use screening tool designed just for flight attendants. Routinely evaluate your drug use just as you would other health issues. Should you answer "yes" to two or more of the below questions, it means that your use may have moved into risky use. Please follow up with your flight attendant peer with the Flight Attendant Drug and Alcohol Program (FADAP). Your conversations are confidential.

- 1. I have not shown up for a trip because of my use of a drug or medication one or more times in the past 12 months.
- 2. I have used a flying partner's prescription medication one or more times in the past 12 months.
- I have shared my prescription medication with a flying partner one or more times in the past 12 months.
- 4. I have used a prescription pain medication while performing my flight duties one or more times in the past 12 months.
- 5. I have bid my flying schedule to avoid a drug test one or more times in the past 12 months.
- I have bid my flying to have access to a drug or medication one or more times in the past 12 months.

#### Available at

http://www.fadap.org/FlightAttendantDrugScreeningTool.

### Screeners Should Be Scientifically Sound

Screeners are developed based on their ability to identify correctly people with and without a condition. The two measures that determine a screener's accuracy are *sensitivity* and *specificity*.<sup>4</sup> The *sensitivity* of a test refers to the ability of the test to identify correctly those patients with a given condition (in this case, prescription drug abuse). For example, a test with 90% sensitivity correctly identifies 90% of those who are at risk for prescription drug abuse. The *specificity* of a screener refers to the ability of the screener to identify correctly those patients not at risk for prescription drug abuse. It is desirable to have a test that is both highly sensitive and highly specific. Screeners with a solid research base are recommended (see Table 1) because they have scientific evidence supporting their accuracy.

#### Currently Available Screeners

Screeners for substance abuse may be *general*—asking about tobacco, alcohol, illegal drug, and prescription drug use—or *specific*—meaning they target only one substance or class of drugs. General screeners for substance abuse detection typically are used for universal health screening (see Table 1). Most were developed to be administered by medical professionals but could be adopted for use by employees as selfadministered, "take-home" flyers, or as part of wellness, health education, or workplace prescription drug abuse prevention programs. Tables 1 and 2 list the substances asked about in each screener, the populations they are intended to reach, websites where these screeners can be found, the number of questions asked in each screener, and studies supporting screeners' use.

Currently, there are no brief specific screeners geared to detect stimulant or tranquilizer abuse. A 37-item questionnaire has been developed to identify risks for stimulant abuse among college students.<sup>5,6</sup> Several brief screeners are being developed to detect prescription drug abuse risk among patients seeking opiate medications to control pain. Screeners are also available to monitor behaviors that may indicate medication abuse in patients being prescribed opiates (see Table 2).\* This effort is in response to the widespread use of opiate medications that has led to high rates of overdose deaths in the United States.<sup>13</sup> Opiates are especially dangerous when taken with other commonly used substances, such as alcohol and anti-anxiety agents.<sup>14</sup> If providers are considering prescribing opiates, they can begin the process by using a screener to help guide them in developing a treatment plan.<sup>15;16</sup> Screeners shown in Table 2 also could be adapted for use in workplaces or community health settings.

\*Longer screeners were recommended in a recent review;<sup>7</sup> these screeners included the Screener and Opioid Assessment for Patients with Pain–Revised,<sup>8</sup> Addiction Behaviors Checklist,<sup>9</sup> Prescription Drug Use Questionnaire,<sup>10</sup> and the Patient Assessment and Documentation Tool.<sup>11;12</sup>

## Response to a Positive Screen for Prescription Drug Abuse

No screener is 100% accurate. While science-based screeners are useful for predicting who is at risk for prescription drug abuse, they cannot be used to confirm a diagnosis. Screeners can miss people who have the condition, and people with a positive screen should be evaluated further.<sup>4</sup> If someone screens positive, it is important that he or she seeks professional support. The first step is to schedule an appointment with a health care provider to talk about the problem or seek help from an Employee Assistance Program.

Table	1. Screening	Instruments That In	1. Screening Instruments That Include Prescription Drug Abuse		
Instrument	Populations studied	Substances assessed	Instrument use and availability	Number of questions	Citations/rating*
Alcohol, Smoking and Substance Involvement Screening Test (ASSIST) <sup>17</sup>	Adults	Tobacco, alcoholic beverages, cannabis, cocaine, amphetamine- type stimulant, inhalants, hallucinogens, opioids, other	The document may be freely reviewed, abstracted, reproduced, and translated, in part or in whole, but it may not be sold or used in conjunction with commercial purposes. Available at <u>http://www.who.int/substance_abuse/activities/assist/en/</u> . Copyright 2000, World Health Organization (WHO).	ω	Strong support <sup>17-22</sup>
CAGE- Adapted to Include Drugs (CAGE-AID) <sup>23</sup>	Adolescents, adults, co occurring disorders	Drugs other than alcohol	Available from the Substance Abuse and Mental Health Services Administration (SAMHSA)–Human Resources and Services Administration (HRSA) Center for Integrated Health Solutions at http://www.integration.samhsa.gov/images/res/CAGEAID.pdf.	4	Strong support <sup>22-27</sup>
CRAFFT <sup>28</sup>	Adolescents	Alcohol and other drugs	Available from the Center for Adolescent Substance Abuse Research at <u>http://www.ceasar-boston.org/CRAFFT/index.php</u> .	9	Strong support <sup>28-31</sup>
Drug Abuse Screening Test (DAST-10)∞	Adults, college students, pregnant women (an adolescent version is available)	Cannabis, inhalants, tranquilizers, barbiturates, cocaine, stimulants, hallucinogens, narcotics	This instrument may be used for noncommercial use (clinical, research, training purposes) as long as you credit the author, Dr. Harvey A. Skinner. Available at <a href="http://archives.drugabuse.gov/diagnosis-treatment/dast10.html">http://archives.drugabuse.gov/diagnosis-treatment/dast10.html</a> . Copyright 1982 by Harvey A. Skinner, PhD, and the Centre for Addiction and Mental Health, Toronto, Canada.	10	Strong support <sup>22,32,40</sup>
Drug Use Disorders Identification Test (DUDIT) <sup>41</sup>	Adults	Cannabis, amphetamines, cocaine, opiates, hallucinogens, inhalants, GHB/other, sleeping pills/ sedatives, painkillers	DUDIT is in the public domain, but the layout is copyrighted. This means that if one wants to use the DUDIT clinically or in research or to use the data presented in the DUDIT manual or the Berman et al. articles, <sup>41,42</sup> then the DUDIT must be used as presented in the manual. The DUDIT is available at http://www.emcdda.europa.eu/attachements.cfm/att_10455_EN_DUDIT.pdf.	1	Strong support <sup>22,41,44</sup>
National Institute on Drug Abuse (NIDA)- Modified ASSIST (NM ASSIST)		Cannabis, cocaine, prescription stimulants, methamphetamine, inhalants, sedatives or sleeping pills, hallucinogens, street opioids, prescription opioids, other	NM ASSIST was adapted from the WHO ASSIST, Version 3.0, and is available at <a href="http://www.drugabuse.gov/sites/default/files/pdf/nmassist.pdf">http://www.drugabuse.gov/sites/default/files/pdf/nmassist.pdf</a> .	ω	Strong support <sup>17-22</sup>
NIDA Quick Screen		Alcohol, tobacco, prescription drugs for nonmedical use, illegal drugs	The NIDA Quick Screen was adapted from the single-question screen for drug use in primary care by Smith et al. <sup>45</sup> and the National Institute on Alcohol Abuse and Alcoholism's screening question on heavy drinking days. A paper version is available at http://www.drugabuse.gov/sites/default/files/pdf/nmassist.pdf. An electronic version can be found at http://www.drugabuse.gov/nmassist/?q=nida_questionnaire.	-	Moderate/limited support⁴₅
RAFFT <sup>46</sup>	Adolescents	Alcohol and other drugs	The assessment is available in the source reference.	5	Moderate/limited support <sup>46:47</sup>
*Rating scale: sti	ong support—valid	ated by three or more; modera	*Rating scale: strong support-validated by three or more; moderate/limited support-validated by one or two independent trials.		

Instrument	Populations studied	Prior to/during treatment	Instrument information and availability	Number of questions	Citations/rating*
Opioid Risk Tool (ORT) <sup>48</sup>	Adults	Prior to treatment	Self-administered, office-based tool used to assist clinicians in assessing chronic pain patients' risk for prescription opiate misuse. Available at <u>http://www.painknowledge.org/</u> <u>physiciantools/ORT/ORT%20</u> <u>Patient%20Form.pdf</u> .	5	Strong support <sup>16;48-50</sup>
Diagnosis, Intractability, Risk, Efficacy (DIRE) <sup>51</sup>	Adults	Prior to treatment	Clinician-administered tool used to assess which chronic, non-cancer pain patients will have effective analgesia and be compliant with long-term opioid maintenance treatment. Available at http://www.opioidrisk.com/node/1202.	7	Moderate/limited support <sup>49;51</sup>
Current Opioid Misuse Measure <sup>52</sup>	Adults	During treatment	Self-administered, office-based tool used to document patient compliance and appropriate use of their prescribed opioids for pain. Available at <u>http://www.emergingsolutionsinpain.</u> <u>com/images/pdf/reslib/COMM_Tool.</u> <u>pdf</u> .	17	Moderate/limited support <sup>53;54</sup>
The Chabal 5-Point Opiate Abuse Checklist <sup>55</sup>	Adults	During treatment	Clinician-administered checklist that, within a clinic setting, relies on observable behaviors to identify chronic pain patients who are misusing their medication.	5	Moderate/limited support <sup>55</sup>

#### For More Information

- Screening in Medical Settings:
  - » National Coalition Against Prescription Drug Abuse: <u>www.ncapda.org</u> provides a list of the signs of prescription drug abuse.
  - » National Institute on Drug Abuse quick screen:
    - <u>http://www.drugabuse.gov/nmassist/?q=nida\_guestionnaire</u>
    - http://www.drugabuse.gov/sites/default/files/ resource\_guide.pdf
    - <u>http://www.drugabuse.gov/sites/default/files/</u> sensitive-topics.pdf
  - Clinician's Screening Tool for Drug Use in General Medical Settings:
    - http://www.drugabuse.gov/nmassist/
  - Substance Abuse and Mental Health Services Administration:
    - <u>http://store.samhsa.gov/product/A-Guide-to-Substance-Abuse-Services-for-Primary-Care-Clinicians/SMA09-3740</u>
- Screening Adolescents:
  - » Substance Abuse and Mental Health Services Administration:
    - <u>http://store.samhsa.gov/product/TIP-31-</u> <u>Screening-and-Assessing-Adolescents-for-</u> <u>Substance-Use-Disorders/SMA12-4079</u>
  - » National Institute on Drug Abuse:
    - <u>http://www.drugabuse.gov/news-events/</u> <u>meetings-events/2010/05/adolescent-drug-abuse-</u> <u>screening-in-general-medical-settings-resources-</u> <u>clinicians</u>

#### References

- Substance Abuse and Mental Health Services Administration. Results from the 2011 National Survey on Drug Use and Health: Summary of national findings. Rockville, MD: Substance Abuse and Mental Health Services Administration; 2012. NSDUH Series H-44, HHS Publication No. SMA 12-4713.
- Compton WM, Volkow ND. Abuse of prescription drugs and the risk of addiction. *Drug Alcohol Depend*. 2006;83:S4-S7.
- O'Toole MT. Miller-Keane Encyclopedia and Dictionary of Medicine, Nursing, and Allied Health, 7th Ed. 2005. New York: Elseiver Health Sciences.
- Akobeng AK. Understanding diagnostic tests 1: Sensitivity, specificity and predictive values. Acta Paediatr. 2007;96:338-341.
- Bavarian N, Flay BR, Ketcham PL, Smit E. Illicit use of prescription stimulants in a college student sample: A theory-guided analysis. *Drug Alcohol Depend*. 2013;132:665-673.
- Bavarian N, Flay BR, Ketcham PL, Smit E. Development and psychometric properties of a theory-guided prescription stimulant misuse questionnaire for college students. *Subst Use Misuse*. 2013;48:457-469.
- Frankel GEC, Intrater M, Doupe M, Namaka M. Opioid misuse in Canada and critical appraisal of aberrant behavior screening tools. *World J Anesthesiol*. 2014;3:61-70.
- Butler SF, Fernandez K, Benoit C, Budman SH, Jamison RN. Validation of the revised Screener and Opioid Assessment for Patients with Pain (SOAPP-R). J Pain. 2008;9:360-372.
- Wu SM, Compton P, Bolus R et al. The Addiction Behaviors Checklist: Validation of a new clinician-based measure of inappropriate opioid use in chronic pain. J Pain Symptom Manage. 2006;32:342-351.
- Michna E, Ross EL, Hynes WL et al. Predicting aberrant drug behavior in patients treated for chronic pain: Importance of abuse history. J Pain Symptom Manage. 2004;28:250-258.
- Passik SD, Kirsh KL, Whitcomb L et al. A new tool to assess and document pain outcomes in chronic pain patients receiving opioid therapy. *Clin Ther.* 2004;26:552-561.
- Nuckols TK, Anderson L, Popescu I et al. Opioid prescribing: A systematic review and critical appraisal of guidelines for chronic pain. *Ann Intern Med.* 2014;160:38-47.
- Centers for Disease Control and Prevention. CDC grand rounds: Prescription drug overdoses—A U.S. epidemic. *Morb Mortal Wkly Rep.* 2012;61:10-13.
- 14) Stephens E, Tarabar A. Toxicity, Opioids. 2010; Available from: Medscape Reference: Drugs, Diseases and Procedures. Accessed May 14, 2012.
- 15) Bohn TB, Levy LB, Celin S, Starr TD, Passik SD. Screening for abuse risk in pain patients. *Adv Psychosom Med*. 2011;30:113-124.
- 16) Chou R, Fanciullo GJ, Fine PG, Miaskowski C, Passik SD, Portenoy RK. Opioids for chronic noncancer pain: Prediction and identification of aberrant drug-related behaviors: A review of the evidence for an American Pain Society and American Academy of Pain Medicine clinical practice guideline. J Pain. 2009;10:131-146.
- WHO ASSIST Working Group. The Alcohol, Smoking and Substance Involvement Screening Test (ASSIST): Development, reliability and feasibility. *Addiction*. 2002;97:1183-1194.
- Humeniuk R, Ali R, Babor TF et al. Validation of the Alcohol, Smoking And Substance Involvement Screening Test (ASSIST). Addiction. 2008;103:1039-1047.
- Newcombe DA, Humeniuk RE, Ali R. Validation of the World Health Organization Alcohol, Smoking and Substance Involvement Screening Test (ASSIST): Report of results from the Australian site. *Drug Alcohol Rev.* 2005;24:217-226.
- 20) Humeniuk, R, Ali, R. Validation of the Alcohol, Smoking and Substance Involvement Screening Test (ASSIST) and pilot brief intervention: A technical report of phase II findings of the WHO ASSIST Project. Geneva, Switzerland: World Health Organization; 2006.

#### References (cont)

- Hides L, Cotton SM, Berger G et al. The reliability and validity of the Alcohol, Smoking and Substance Involvement Screening Test (ASSIST) in first-episode psychosis. *Addict Behav.* 2009;34:821-825.
- 22) Mdege ND, Lang J. Screening instruments for detecting illicit drug use/ abuse that could be useful in general hospital wards: A systematic review. Addict Behav. 2011;36:1111-1119.
- Brown RL, Rounds LA. Conjoint screening questionnaires for alcohol and other drug abuse: Criterion validity in a primary care practice. *Wis Med J.* 1995;94:135-140.
- 24) Couwenbergh C, Van Der Gaag RJ, Koeter M, De RC, van den Brink W. Screening for substance abuse among adolescents validity of the CAGE-AID in youth mental health care. *Subst Use Misuse*. 2009;44:823-834.
- 25) Leonardson GR, Kemper E, Ness FK, Koplin BA, Daniels MC, Leonardson GA. Validity and reliability of the audit and CAGE-AID in Northern Plains American Indians. *Psychol Rep.* 2005;97:161-166.
- 26) Hinkin CH, Castellon SA, Dickson-Fuhrman E, Daum G, Jaffe J, Jarvik L. Screening for drug and alcohol abuse among older adults using a modified version of the CAGE. *Am J Addict*. 2001;10:319-326.
- 27) Brown RL, Leonard T, Saunders LA, Papasouliotis O. A two-item screening test for alcohol and other drug problems. *J Fam Pract*. 1997;44:151-160.
- 28) Knight JR, Shrier LA, Bravender TD, Farrell M, Vander BJ, Shaffer HJ. A new brief screen for adolescent substance abuse. Arch Pediatr Adolesc Med. 1999;153:591-596.
- 29) Knight JR, Sherritt L, Shrier LA, Harris SK, Chang G. Validity of the CRAFFT substance abuse screening test among adolescent clinic patients. *Arch Pediatr Adolesc Med.* 2002;156:607-614.
- 30) Knight JR, Sherritt L, Harris SK, Gates EC, Chang G. Validity of brief alcohol screening tests among adolescents: A comparison of the AUDIT, POSIT, CAGE, and CRAFFT. *Alcohol Clin Exp Res.* 2003;27:67-73.
- Dhalla S, Zumbo BD, Poole G. A review of the psychometric properties of the CRAFFT instrument: 1999-2010. *Curr Drug Abuse Rev.* 2011;4:57-64.
- 32) Skinner HA. The Drug Abuse Screening Test. Addict Behav. 1982;7:363-371.
- 33) Yudko E, Lozhkina O, Fouts A. A comprehensive review of the psychometric properties of the Drug Abuse Screening Test. J Subst Abuse Treat. 2007;32:189-198.
- 34) Cassidy CM, Schmitz N, Malla A. Validation of the alcohol use disorders identification test and the Drug Abuse Screening Test in first episode psychosis. *Can J Psychiatry*. 2008;53:26-33.
- 35) Grekin ER, Svikis DS, Lam P et al. Drug use during pregnancy: Validating the Drug Abuse Screening Test against physiological measures. *Psychol Addict Behav.* 2010;24:719-723.
- 36) Maisto SA, Carey MP, Carey KB, Gordon CM, Gleason JR. Use of the AUDIT and the DAST-10 to identify alcohol and drug use disorders among adults with a severe and persistent mental illness. *Psychol* Assess. 2000;12:186-192.
- Skinner HA, Goldberg AE. Evidence for a drug dependence syndrome among narcotic users. *Br J Addict*. 1986;81:479-484.
- 38) Bohn MJ, Babor TF, Kranzler HR. Validity of the Drug Abuse Screening Test (DAST-10) in inpatient substance abusers: Problems of drug dependence. Proceedings of the 53rd Annual Scientific Meeting, Committee on Problems of Drug Dependence.
- 39) Staley D, El-Guebaly N. Psychometric properties of the Drug Abuse Screening Test in a psychiatric patient population. *Addict Behav.* 1990;15:257-264.

- Gavin DR, Ross HE, Skinner HA. Diagnostic validity of the Drug Abuse Screening Test in the assessment of DSM-III drug disorders. Br J Addict. 1989;84:301-307.
- 41) Berman AH, Bergman H, Palmstierna T, Schlyter F. Evaluation of the Drug Use Disorders Identification Test (DUDIT) in criminal justice and detoxification settings and in a Swedish population sample. *Eur Addict Res.* 2005;11:22-31.
- 42) Berman AH, Palmstierna T, Kallmen H, Bergman H. The self-report Drug Use Disorders Identification Test: Extended (DUDIT-E): Reliability, validity, and motivational index. J Subst Abuse Treat. 2007;32:357-369.
- 43) Durbeej N, Berman AH, Gumpert CH, Palmstierna T, Kristiansson M, Alm C. Validation of the Alcohol Use Disorders Identification Test and the Drug Use Disorders Identification Test in a Swedish sample of suspected offenders with signs of mental health problems: results from the Mental Disorder, Substance Abuse and Crime study. J Subst Abuse Treat. 2010;39:364-377.
- 44) Voluse AC, Gioia CJ, Sobell LC, Dum M, Sobell MB, Simco ER. Psychometric properties of the Drug Use Disorders Identification Test (DUDIT) with substance abusers in outpatient and residential treatment. *Addict Behav.* 2012;37:36-41.
- 45) Smith PC, Schmidt SM, Allensworth-Davies D, Saitz R. A singlequestion screening test for drug use in primary care. *Arch Intern Med.* 2010;170:1155-1160.
- 46) Bastiaens L, Francis G, Lewis K. The RAFFT as a screening tool for adolescent substance use disorders. Am J Addict. 2000;9:10-16.
- Bastiaens L, Riccardi K, Sakhrani D. The RAFFT as a screening tool for adult substance use disorders. *Am J Drug Alcohol Abuse*. 2002;28:681-691.
- Webster LR, Webster RM. Predicting aberrant behaviors in opioidtreated patients: Preliminary validation of the Opioid Risk Tool. *Pain Med.* 2005;6:432-442.
- 49) Passik SD, Kirsh KL, Casper D. Addiction-related assessment tools and pain management: Instruments for screening, treatment planning and monitoring compliance. *Pain Med.* 2008;9:145-166.
- 50) Butler SF. Evidence of co-occurring alcohol and prescription opioid abuse in clinical populations: Implications for Screening. Presented at the Tufts Health Care Institute, Program on Opioid Risk Management Conference on Co-Ingestion of Alcohol with Prescription Opioids.
- Belgrade MJ, Schamber CD, Lindgren BR. The DIRE score: Predicting outcomes of opioid prescribing for chronic pain. *J Pain*. 2006;7:671-681.
- Butler SF, Budman SH, Fernandez KC et al. Development and validation of the Current Opioid Misuse Measure. *Pain*. 2007;130:144-156.
- Butler SF, Budman SH, Fanciullo GJ, Jamison RN. Cross validation of the current opioid misuse measure to monitor chronic pain patients on opioid therapy. *Clin J Pain*. 2010;26:770-776.
- 54) Meltzer EC, Rybin D, Saitz R et al. Identifying prescription opioid use disorder in primary care: Diagnostic characteristics of the Current Opioid Misuse Measure (COMM). *Pain*. 2011;152:397-402.
- 55) Chabal C, Erjavec MK, Jacobson L, Mariano A, Chaney E. Prescription opiate abuse in chronic pain patients: Clinical criteria, incidence, and predictors. *Clin J Pain*. 1997;13:150-155.



The Substance Abuse and Mental Health Services Administration supports the Preventing Prescription Abuse in the Workplace Technical Assistance Center. For more information, contact <u>PAWTArequest@PIRE.org</u>.

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