



Uploaded to the VFC Website

▶▶▶ 2015 ◀◀◀

This Document has been provided to you courtesy of Veterans-For-Change!

Feel free to pass to any veteran who might be able to use this information!

For thousands more files like this and hundreds of links to useful information, and hundreds of "Frequently Asked Questions, please go to:

[Veterans-For-Change](#)

If Veterans don't help Veterans, who will?

Note:

VFC is not liable for source information in this document, it is merely provided as a courtesy to our members & subscribers.



Clinical Practice Guideline

Management of Substance Use Disorders (SUD)

August, 2009



VA/DoD Evidence Based Practice

**VA/DoD CLINICAL PRACTICE GUIDELINE FOR MANAGEMENT
OF
SUBSTANCE USE DISORDERS (SUD)**

Department of Veterans Affairs
Department of Defense

Prepared by:

**The Management of Substance Use Disorders
Working Group**

With support from:
The Office of Quality and Performance, VA, Washington, DC
&
Quality Management Office, United States Army MEDCOM

QUALIFYING STATEMENTS

The Department of Veterans Affairs (VA) and The Department of Defense (DoD) guidelines are based on the best information available at the time of publication. They are designed to provide information and assist in decision-making. They are not intended to define a standard of care and should not be construed as one. Also, they should not be interpreted as prescribing an exclusive course of management.

Variations in practice will inevitably and appropriately occur when providers take into account the needs of individual patients, available resources, and limitations unique to an institution or type of practice. Every healthcare professional making use of these guidelines is responsible for evaluating the appropriateness of applying them in any particular clinical situation.

Version 2.0 – 2009

Table of Contents

	<i>Page</i>
Introduction	1
Guideline Update Working Group	4
Definitions	6
Algorithms and Annotations	8
Module A: Screening and Initial Assessment for Substance Use	10
Module B: Management of SUD in Specialty SUD Care	24
Module C: Management of SUD in (Primary) General Healthcare	39
Module P: Addiction-Focused Pharmacotherapy	54
Module S: Stabilization and Withdrawal Management	74
Appendices	
Appendix A: Guideline Development Process	91
Appendix B: Screening and Assessment Tools	98
Appendix C: Addiction-Focused Psychosocial Interventions	122
Appendix D: Department of Defense Instruction (DoDI 1010.6)	133
Appendix E: Sedative-Hypnotic Equivalent Oral Doses	135
Appendix F: Acronym List	136
Appendix G: Participant List	137
Appendix H: Bibliography	142

INTRODUCTION

The Clinical Practice Guideline for the Management of Substance Use Disorders (SUD) was developed under the auspices of the Veterans Health Administration (VHA) and the Department of Defense (DoD) pursuant to directives from the Department of Veterans Affairs (VA). VHA and DoD define clinical practice guidelines as:

“Recommendations for the performance or exclusion of specific procedures or services derived through a rigorous methodological approach that includes:

- Determination of appropriate criteria such as effectiveness, efficacy, population benefit, or patient satisfaction; and
- Literature review to determine the strength of the evidence in relation to these criteria.”

The intent of the guideline is to:

- Reduce current practice variation and provide facilities with a structured framework to help improve patient outcomes
- Provide evidence-based recommendations to assist providers and their patients in the decision-making process for patients with SUD
- Identify outcome measures to support the development of practice-based evidence that can ultimately be used to improve clinical guidelines.

BACKGROUND

Substance use disorders (SUD) constitute a major public health problem with a substantial impact on health, societal costs, and personal consequences.

- **SUD in the VA population:** In 2007 fiscal year, over 375,000 VA patients had a substance use disorder diagnosis and nearly 500,000 additional patients had a nicotine dependence diagnosis in the absence of other substance use disorders. (Dalton A, Saweikis M, McKellar JD: Health Services for VA Substance Use Disorder Patients: Comparison of Utilization Fiscal Years 2005, 2004, 2003 and 2002. Palo Alto, CA, Program Evaluation and Resource Center, 2004.)
- **SUD in the DoD population:** The substantial negative consequences of alcohol use on the work performance, health, and social relationships of military personnel have been a continuing concern assessed in DoD surveys. In 2005, 8.1 percent of military personnel anonymously responding to a survey reported one or more serious consequences associated with alcohol use during the year, a decline from 9.6 percent in 2002. Using AUDIT criteria, 2.9 percent of respondents were estimated to be highly likely to be dependent on alcohol in 2005. (Bray RM, Hourani LL, Olmsted KLR, et al. 2005 Department of Defense Survey of Health Related Behaviors Among Active Duty Military Personnel. Research Triangle Park, NC: Research Triangle International, December, 2006.) Available at: http://www.ha.osd.mil/special_reports/2005_Health_Behaviors_Survey_1-07.pdf

Target population

This guideline applies to **adult patients with substance use conditions** treated in any VA/DoD clinical setting, including patients who have both substance use and other health conditions; and patients with any level of severity ranging from hazardous and problematic use to substance use disorders.

Audiences

The guideline is relevant to all healthcare professionals providing or directing treatment services to patients with substance use conditions in any VA/DoD healthcare setting, including specialty SUD care, and both general and mental healthcare settings.

Goals of the Guideline

- To identify patients with substance use conditions, including at-risk use, substance use problems and substance use disorders
- To promote early engagement and retention of patients with substance use conditions who can benefit from treatment
- To improve outcomes for patients with substance use conditions (cessation or reduction of substance use, reduction in occurrence and severity of relapse, improved psychological and social functioning and quality of life, improved co-occurring medical and health conditions and reduction in mortality).

Content of the Guideline

The guideline consists of five modules that address inter-related aspects of care for patients with SUDs.

Module A: **Screening and Initial Assessment for Substance Use** includes screening, brief intervention, and specialty referral considerations.

Module B: **Management of SUD in Specialty SUD Care** focuses on patients in need of further assessment or motivational enhancement or who are seeking remission.

Module C: **Management of SUD in General Healthcare** (including primary care) emphasizes earlier intervention for less severe SUD, or chronic disease management for patients unwilling or unable to engage in treatment in specialty SUD care or not yet ready to abstain.

Module P: **Addiction-Focused Pharmacotherapy** addresses use of medication approved by the Food and Drug Administration for the treatment of alcohol and opioid dependence.

Module S: **Stabilization and Withdrawal Management** addresses withdrawal management including pharmacological management of withdrawal symptoms.

Each module consists of an algorithm that describes the step-by-step process of the clinical decision-making and intervention that should occur in the specified group of patients. General and specific recommendations for each step in the algorithm are included in the annotations following the algorithm. The links to these recommendations are embedded in the relevant specific steps in the algorithm.

Each annotation includes a brief discussion of the research supporting the recommendations and the rationale behind the grading of the evidence and the determination of the strength of the recommendations.

Related Guideines

Tobacco use should be addressed in all patients and is a major cause of morbidity and mortality among patients with non-nicotine SUDs. For management of nicotine dependence, refer to the Clinical Practice Guideline: Treating Tobacco Use & Dependence: 2008 Update from the U.S. Department of Health and Human Services available at:

http://www.surgeongeneral.gov/tobacco/treating_tobacco_use08.pdf and the VA/DoD Clinical Practice Guideline for Management of Tobacco Use.

For management of patients presenting with SUDs and depression, refer to the VA/DoD Clinical Practice Guideline for the Management of Major Depressive Disorder (MDD). For management of prescribed opioids for chronic pain, refer to the VA/DoD Clinical Practice Guideline for the Management of Chronic Opioid Therapy. Additional recommendations for patients with co-occurring conditions may be found in the VA/DoD Clinical Practice Guideline for the Management of Post Traumatic Stress (ASD and PTSD).

Development Process

The development process of this guideline follows a systematic approach described in “Guideline-for-Guideline,” an internal working document of VA/DoD Evidence-Based Practice Working Group.

The literature was critically analyzed and evidence was graded using a standardized format. The evidence rating system for this document is based on the system used by the U.S. Preventative Services Task Force (see [Appendix A – Development Process](#)).

If evidence exists, the discussion of the recommendations includes an evidence table that identifies the studies that have been considered, the quality of the evidence, and the rating of the strength of the recommendation [SR]. The strength of recommendation, based on the level of the evidence and graded using the USPSTF rating system (see Table: Evidence Rating System), is presented in brackets following each guideline recommendation. Recommendations that are based on consensus of the Working Group include a discussion of expert opinion on the given topic. No [SR] is presented for these recommendations. A complete bibliography of the references found in this guideline can be found in Appendix H.

Evidence Rating System

SR*	
A	A strong recommendation that the clinicians provide the intervention to eligible patients. <i>Good evidence was found that the intervention improves important health outcomes and concludes that benefits substantially outweigh harm.</i>
B	A recommendation that clinicians provide (the service) to eligible patients. <i>At least fair evidence was found that the intervention improves health outcomes and concludes that benefits outweigh harm.</i>
C	No recommendation for or against the routine provision of the intervention is made. <i>At least fair evidence was found that the intervention can improve health outcomes, but concludes that the balance of benefits and harms is too close to justify a general recommendation.</i>
D	Recommendation is made against routinely providing the intervention. <i>At least fair evidence was found that the intervention is ineffective or that harms outweigh benefits.</i>
I	The conclusion is that the evidence is insufficient to recommend for or against routinely providing the intervention. <i>Evidence that the intervention is effective is lacking, or poor quality, or conflicting, and the balance of benefits and harms cannot be determined.</i>

* SR= Strength of Recommendation

Lack of Evidence – Consensus of Experts

Where existing literature was ambiguous or conflicting, or where scientific data were lacking on an issue, recommendations were based on the clinical experience of the Working Group. These recommendations are indicated in the evidence tables as based on “Working Group Consensus.”

This Guideline is the product of many months of diligent effort and consensus-building among knowledgeable individuals from the VA, DoD, and academia, and a guideline facilitator from the private sector. An experienced moderator facilitated the multidisciplinary Working Group. The draft document was discussed in one face-to-face group meeting. The content and validity of each section was thoroughly reviewed in a series of conference calls. The final document is the product of those discussions by all members of the Working Group.

The list of participants is included in [Appendix G](#).

Implementation

The guideline and algorithms are designed to be adapted to individual facility needs and resources. The algorithms will serve as a guide that providers can use to determine best interventions and timing of care for their patients to optimize quality of care and clinical outcomes. This should not prevent providers from using their own clinical expertise in the care of an individual patient. Guideline recommendations are intended to support clinical decision-making but should never replace sound clinical judgment.

Although this guideline represents the state-of-the-art practice at the time of its publication, medical practice is evolving and this evolution will require continuous updating of published information. New technology and more research will improve patient care in the future. The clinical practice guideline can assist in identifying priority areas for research and optimal allocation of resources. Future studies examining the results of clinical practice guidelines such as these may lead to the development of new practice-based evidence.

Outcomes

1. Reduction of consumption
2. Improvement in quality of life (social and occupational functioning)
3. Improvement of symptoms
4. Improvement of retention (keeping patients engaged in the program)
5. Improvement in co-occurring conditions
6. Reduction of mortality.

Guideline Update Working Group *

VA	DoD
Katherine Bradley, MD, MPH	Darrel Dodson, LTC, MD
Karen Drexler, MD	Diane Flynn, COL, MD
Francine Goodman, PharmD	Nicole Frazer, Maj, PhD
Adam Gordon, MD	William Haning, CPT, MD
Daniel Kivlahan, PhD	James McCrary, Lt Col, DO
Joseph Liberto, MD	Edward McDaniel, LTC, MD
James McKay, PhD	Paul Morrissey, LTC, MD
Andrew Saxon, MD	Jay Stone, Lt Col, PhD
Office of Quality and Performance, VHA Carla Cassidy, RN, MSN, NP	Quality Management Division US Army Medical Command Ernest Degenhardt, RN, MSN, ANP-FNP Joanne Ksionzky RN, CNOR, RNFA Mary Ramos, PhD, RN
FACILITATOR Oded Susskind, MPH	
RESEARCH TEAM – ECRI Vivian H. Coats, MPH Eileen G. Erinoff Karen Schoelles, MD David Snyder, PhD	HEALTHCARE QUALITY INFORMATICS, INC. Martha D’Erasmus, MPH Rosalie Fishman, RN, MSN, CPHQ Joanne Marko, MS, SLP

* *Bolded names are Co-Chairs of the guideline.
Additional contributor contact information is available in [Appendix G](#).*

DEFINITIONS

CONDITIONS AND DISORDERS OF UNHEALTHY ALCOHOL USE

The spectrum of alcohol use extends from abstinence and low-risk use (the most common patterns of alcohol use) to risky use, problem drinking, harmful use and alcohol abuse, and the less common but more severe alcoholism and alcohol dependence. (Saitz, 2005)

UNHEALTHY ALCOHOL USE

Risky users: For women and persons > 65 years of age, > 7 standard drinks per week or >3 drinks per occasion; for men ≤ 65 years of age, > 14 standard drinks per week or >4 drinks per occasion; there are no alcohol-related consequences, but the risk of future physical, psychological, or social harm increases with increasing levels of consumption; risks associated with exceeding the amounts per occasion that constitute “binge” drinking in the short term include injury and trauma; risks associated with exceeding weekly amounts in the long term include cirrhosis, cancer, and other chronic illnesses; “risky use” is sometimes used to refer to the spectrum of unhealthy use but usually excludes dependence; one third of patients in this category are at risk for dependence.

Problem drinking: Use of alcohol accompanied by alcohol-related consequences but not meeting DSM-IV criteria; sometimes used to refer to the spectrum of unhealthy use but usually excludes dependence.

DIAGNOSED SUBSTANCE USE DISORDERS (DSM IV, American Psychiatric Association, 1994)

DSM-IV-TR Criteria for Substance Abuse:

“A maladaptive pattern of substance use, leading to clinically significant impairment or distress, as manifested by one (or more) of the following, occurring at any time in the same 12-month period:

- Recurrent substance use resulting in a failure to fulfill major role obligations at work, school, or home
- Recurrent substance use in situations in which it is physically hazardous
- Recurrent substance-related legal problems
- Continued substance use despite having persistent or recurrent social or interpersonal problems caused or exacerbated by the effects of the substance.”

DSM-IV-TR Criteria for Substance Dependence:

“A maladaptive pattern of substance use, leading to clinically significant impairment or distress, as manifested by three (or more) of the following seven criteria, occurring at any time in the same 12-month period:

1. Tolerance, as defined by either of the following:
 - A need for markedly increased amounts of the substance to achieve intoxication or desired effect
 - Markedly diminished effect with continued use of the same amount of the substance.
2. Withdrawal, as defined by either of the following:
 - The characteristic withdrawal syndrome for the substance (refer to DSM-IV-TR for further details)
 - The same (or a closely related) substance is taken to relieve or avoid withdrawal symptoms.
3. The substance is often taken in larger amounts or over a longer period than was intended.

4. There is a persistent desire or there are unsuccessful efforts to cut down or control substance use.
5. A great deal of time is spent in activities necessary to obtain the substance (e.g., visiting multiple doctors or driving long distances to see one), use the substance (e.g., chain smoking), or recover from its effects.
6. Important social, occupational, or recreational activities are given up or reduced because of substance use.
7. The substance use is continued despite knowledge of having a persistent or recurrent physical or psychological problem that is likely to have been caused or exacerbated by the substance (e.g., current cocaine use despite recognition of cocaine-induced depression or continued drinking despite recognition that an ulcer was made worse by alcohol consumption).

Dependence exists on a continuum of severity: remission requires a period of at least 30 days without meeting full diagnostic criteria and is specified as *Early* (first 12 months) or *Sustained* (beyond 12 months) and *Partial* (some continued criteria met) versus *Full* (no criteria met).”

SETTINGS OF CARE

General healthcare settings can be broadly defined as outpatient clinic settings including primary care, psychiatry, or other specialty clinics (e.g., HIV, hepatology clinics, medical, pre-operative) and may include emergency departments and surgical care clinics.

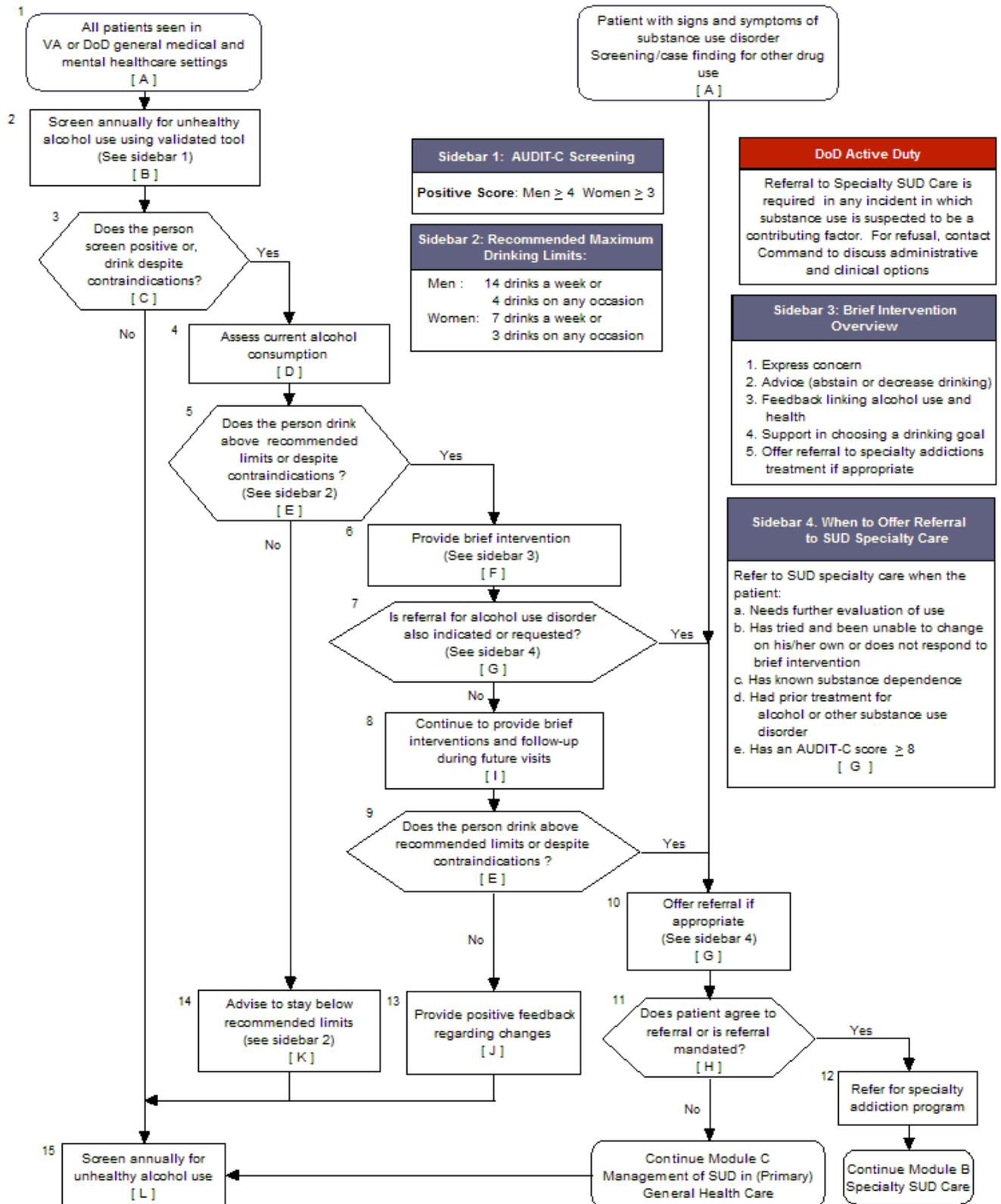
Specialty SUD Care focuses on patients in need of further assessment or motivational enhancement or who endorse rehabilitation goals.

ALGORITHMS AND ANNOTATIONS

MODULE A: SCREENING AND INITIAL ASSESSMENT FOR SUBSTANCE USE	11
A. All Patients Seen in VA or DoD General Medical and Mental Healthcare Settings	11
B. Screen Annually for Unhealthy Alcohol Use Using Validated Tool	11
C. Does the Person Screen Positive or Drink Despite Contraindications?	14
D. Assess Current Alcohol Consumption	15
E. Does the Person Drink Above Recommended Limits or Despite Contraindications?	16
F. Provide Brief Intervention	17
G. Is Referral for Alcohol Use Disorder Also Indicated or Requested?/Offer Referral, if Appropriate	19
H. Does Patient Agree to the Referral or is the Referral Mandated?	20
I. Continue to Provide Brief Interventions During Future Visits	20
J. Provide Positive Feedback Regarding Changes	22
K. Advise to Stay Below Recommended Limits	22
L. Screen Annually for Unhealthy Alcohol Use	23
MODULE B: MANAGEMENT OF SUD IN SPECIALTY SUD CARE	25
A. Patient with Presumptive or Possible Substance Use Disorder (SUD) Referred or Self-Referred to Specialty Care	25
B. Ensure Behavioral or Physiological Stabilization, if Necessary	25
C. Obtain a Comprehensive Biopsychosocial Assessment	25
D. Determine Diagnosis of SUD; Develop Integrated Summary and Initial Treatment Plan	27
E. Initiate Addiction-Focused Pharmacotherapy (If Indicated)	31
F. Initiate Addiction-Focused Psychosocial Interventions	31
G. Address Psychosocial Functioning and Recovery Environment	32
H. Manage General Medical and Psychiatric Co-occurring Conditions	33
I. Assess Response to Treatment / Monitor Biological Indicators	34
J. Reinforce and Follow Up	34
K. Are Treatment Goals Achieved?	35
L. Discontinue Specialty SUD Treatment; Develop Aftercare/Recovery Plan	35
M. Reevaluate Treatment Plan Regarding Setting and Strategies	37
MODULE C: MANAGEMENT OF SUD IN (PRIMARY) GENERAL HEALTHCARE	40
A. Patient with Presumptive or Possible Substance Use	40
B. Ensure Behavioral or Physiological Stabilization, if Necessary	40
C. Complete Assessment and Diagnostic Evaluation	41
D. Assess Co-Occurring Conditions (Psychiatric Illness, Medical Conditions, Legal or Psychosocial Conditions)	42
E. Summarize the Patient's Problem(s), Discuss Treatment Options, and Arrive at Shared Decision Regarding the Treatment Plan	43
F. Referral to Specialty SUD Care	45

G. Treatment: Consider Addiction-Focused Pharmacotherapy	45
H. Treatment: Medical Management and Monitoring	46
I. Treatment: Psychosocial Support for Recovery	48
J. Management of Medical and Psychiatric Co-occurring Conditions	49
K. Assess Response to Treatment / Monitor Biological Indicators	51
L. Follow-Up	52
M. Educate About Substance Use, Associated Problems, and Prevention of Relapse	52
N. Reevaluate Treatment Plan Regarding Setting and Strategies	52
MODULE P: ADDICTION-FOCUSED PHARMACOTHERAPY	55
A. Patient with Substance Use Disorder (SUD)	55
B. Does the Patient Meet DSM-IV Criteria for Opioid Dependence?	55
PHARMACOTHERAPY FOR OPIOID DEPENDENCE.....	55
C. Is Opioid Agonist Treatment (OAT) Medication Appropriate for, and Acceptable to, the Patient?	55
D. Is Treatment in a Specialized Opioid Agonist Treatment Program (OATP) Setting Appropriate for the Patient?	58
E. Initiate Opioid Agonist Treatment in an Opioid Agonist Treatment Program (OATP) or Office-Based Opioid Treatment (OBOT)	61
F. Is Naltrexone Appropriate for and Acceptable to the Patient?	63
G. Assure Patient is Withdrawn from Opioids and Opioid Free Before Continuing	65
H. Initiate Naltrexone for Opioid Dependence with Patient Education and Monitoring	66
PHARMACOTHERAPY FOR ALCOHOL DEPENDENCE.....	67
I. Is the Patient Alcohol Dependent?	67
J. Initiate Pharmacotherapy for Alcohol Dependence?	67
MODULE S: STABILIZATION and WITHDRAWAL MANAGEMENT	75
A. Substance-Using Patient Who May Require Physiological Stabilization	75
B. Obtain History, Physical Examination, Mental Status Examination (MSE), Medication Including Over-The-Counter (OTC), and Lab Tests as Indicated	75
C. Is the Patient in Any Immediate Medical or Psychiatric Crisis or Intoxicated?	75
D. Provide Appropriate Care To Stabilize; or, Follow Policies For DoD Active Duty Members: Keep Commanding Officer Informed	77
E. Assess Level of Physiological Dependence and Indications for Stabilization Including Risk of Withdrawal	78
F. Is the Patient in Need of Withdrawal Management?	79
G. Does Patient Require Inpatient Medically Supervised Withdrawal?	81
H. Admit to Inpatient Withdrawal Management or Initiate Ambulatory Withdrawal Management	82
I. Was Withdrawal Management Successful?	89
J. Is Care Management Indicated?	89

MANAGEMENT OF SUBSTANCE USE DISORDERS (SUD)
Module A: Screening and Initial Assessment for Substance Use



MODULE A: SCREENING AND INITIAL ASSESSMENT FOR ALCOHOL USE

A. All Patients Seen in VA or DoD General Medical and Mental Healthcare Settings

All patients seen in primary care settings are the target population for alcohol screening.

BACKGROUND

Screening for Unhealthy Alcohol Use

Unhealthy Alcohol Use screening and counseling is ranked third of the top five prevention priorities for U.S. adults among preventive practices recommended by the U.S. Preventive Services Task Force (USPSTF).

Screening for Other Drug Use

Population-based screening for drug use disorder is not recommended. This reflects the lower prevalence of drug use disorder and the lack of high-quality randomized controlled trials (RCT) demonstrating the efficacy of primary care interventions for drug abuse and dependence. Instead, selective case finding in high-risk populations (e.g., Hepatitis C or HIV clinics), is recommended so that substance use disorders can be addressed (National Quality Forum, 2007; USPSTF, 2008).

DISCUSSION

Based on rigorous evaluation of clinically preventable burden, the U.S. Prevention Priorities Commission concluded that of the practices recommended by the USPSTF (2008), Unhealthy Alcohol Use screening and counseling is similar to screening for hypertension, colorectal cancer, or vision in older adults, and a higher priority than breast and cervical cancer screening, as well as cholesterol screening. Clinically preventable burden was based on both the cost-effectiveness of alcohol screening and counseling, as well as the alcohol-attributable fraction of morbidity and mortality (Maciosek et al., 2006; Solberg et al., 2008).

B. Screen Annually for Unhealthy Alcohol Use Using Validated Tool

BACKGROUND

Screening should identify patients along the entire continuum of Unhealthy Alcohol Use including those who drink above recommended limits (often called risky or hazardous drinking) to those with severe alcohol dependence. Most screen-positive patients will *not* be in treatment for alcohol use disorders and the initial approach to Unhealthy Alcohol Use will include brief alcohol counseling (often termed “brief interventions”) or referral.

RECOMMENDATIONS

1. Patients in general and mental healthcare settings should be screened for Unhealthy Alcohol Use annually. [A]
2. Use a validated screening questionnaire for past-year Unhealthy Alcohol Use. [A]
3. Select one of two brief methods of screening: [A]
 - a. The Alcohol Use Disorders Identification Test Consumption Questions (AUDIT-C) or

- b. Ask whether patient drank any alcohol in the past year and administer the Single-Item Alcohol Screening Questionnaire (SASQ) to assess the frequency of heavy drinking in patients who report any drinking. (see Annotation C)
 4. The CAGE questionnaire alone is not a recommended screen for past-year Unhealthy Alcohol Use (e.g., risky or hazardous drinking). [D]
 5. The CAGE questionnaire, used as a self-assessment tool, may be used in addition to an appropriate screening method to increase patient's awareness to unhealthy use or abuse of alcohol.
- See [Appendix B for examples of the Screening Instruments](#)

DISCUSSION

Annual Screening for Unhealthy Alcohol Use

Annual screening for Unhealthy Alcohol Use of all patients is recommended based on extensive evidence that alcohol screening followed by brief alcohol counseling is efficacious for reducing drinking as shown in reviews (Maciosek et al., 2006, USPSTF, 2004).

Screening should identify patients along the entire continuum of Unhealthy Alcohol Use including those who drink above recommended limits (often called risky or hazardous drinking) to those with severe alcohol dependence. Most screen-positive patients will *not* have alcohol dependence and will be appropriate candidates for brief alcohol counseling as the initial treatment approach for Unhealthy Alcohol Use (Kaner et al., 2007; Moyer et al., 2002; Whitlock et al., 2004).

A validated screening questionnaire should be used to identify past-year Unhealthy Alcohol Use. One of two brief screens is recommended: the AUDIT-C or a single item alcohol screening questionnaire (SASQ) for drinking above recommended daily limits (Bradley et al., 2003; Bradley et al., 2007; Bush et al., 1998; Seale et al., 2006; Williams & Vinson, 2001).

Alcohol Use Disorders Identification Test Consumption Questions (AUDIT-C)

The AUDIT-C comprises the first three questions of the World Health Organization (WHO) AUDIT (see [Appendix B-1](#)). AUDIT-C scores range from 0 to 12 with ≥ 4 points for men and ≥ 3 points for women considered a positive screen for Unhealthy Alcohol Use. The AUDIT-C was first described in VA patients (Bush et al., 1998; Bradley et al., 2003), but has now been validated in other U.S. clinical populations (Bradley et al., 2007; Frank et al., 2008; Seale et al., 2006; Williams & Vinson, 2001).

Single-Item Alcohol Screening Questionnaire (SASQ)

Patients can be screened using single questions regarding drinking 4 or more (women) or 5 or more (men) drinks in a day. This approach to screening first assesses whether a patient drinks alcohol, "Have you had more than 6 alcoholic drinks in the past year?" This is followed by the screening question "When was the last time you had more than X drinks in one day?" with "X" being 4 drinks for women and 5 for men. This approach has been validated in several studies (Seale et al., 2006; Williams & Vinson, 2001). Patients who report drinking above the daily limit in the past 3 months screen positive (Seale et al., 2006; Williams & Vinson, 2001). The National Institute on Alcohol Abuse and Alcoholism (NIAAA) recommends a variation on this approach that asks about heavy drinking in the past year (NIAAA, 2007).

Selection of an Approach to Unhealthy Alcohol Use Screening in a Particular Setting Should Reflect Local Factors

The AUDIT-C may be preferable in the following situations:

- When the clinician preference is to obtain information regarding:
 - Any drinking (for those with contraindications)
 - Typical drinking (for medication interactions)

- Episodic heavy drinking
- The severity of Unhealthy Alcohol Use provided by the AUDIT-C (Au et al., 2007; Bradley et al., 2004)
- When there is a specific service requirement (i.e., VHA performance measures)
- When an electronic medical record can score the AUDIT-C (Vinson et al., 2007).

The SASQ screen is easier to integrate into clinician interviews, as primary care clinicians are unlikely to recall response options and scoring for the AUDIT-C.

Other Commonly Recommended Screening Tests (CAGE augmented with 2-3 additional questions and 10-item AUDIT)

Several longer screening questionnaires are generally as effective but less practical for population-based screening. They include augmented 7 to 8-item versions of the CAGE and the WHO 10-item AUDIT (Bradley et al., 2007; Bradley et al., 1998; Fleming & Barry, 1991; Seale et al., 2006; Steinbauer et al., 1998; Volk et al., 1997). If the 10-item AUDIT is used, the appropriate screening cut-points for Unhealthy Alcohol Use are 4 or more (women) or 5 or more (men) to balance sensitivity and specificity in U.S. outpatients (including VA outpatients) (Bradley et al., 2007; Steinbauer et al., 1998; Volk et al., 1997), not 8 or more as is sometimes misreported (Fiellin et al., 2000; Reinert & Allen, 2002).

Screening for a History of Alcohol Use Disorders

Screening for lifetime substance use disorders (e.g., with the CAGE alone) may be desirable in some settings, but is not recommended as part of routine care unless the CAGE is added to a brief screen that also identifies risky drinking.

EVIDENCE TABLE

	Evidence	Source	QE	Overall Quality	SR
1	Screening for Unhealthy Alcohol Use should be offered to all VA/DoD general and mental health care patients routinely	Maciosek et al., 2006 Solberg et al., 2008 USPSTF, 2004	I	Good	A
2	Screening for Unhealthy Alcohol Use should be offered annually	Working Group Consensus	III	Poor	I
3	The AUDIT-C is a valid and reliable screening instrument for identifying the spectrum of Unhealthy Alcohol Use in U.S. outpatients	Bradley et al., 2003; 2007 Bush et al., 1998 Dawson et al., 2005 Frank et al., 2008 Gordon et al., 2001	I	Good	A
4	Single-item alcohol screening questionnaires (SASQ) regarding heavy episodic drinking are valid and reliable instruments for identifying the spectrum of Unhealthy Alcohol Use in US outpatients	Bush et al., 1998 Seale et al., 2006 Williams & Vinson, 2001 NIAAA, 2007	I	Good	A
5	There is insufficient evidence to support screening for drug use/abuse in unselected primary care populations	AHRQ, 2008 McPherson & Hersch, 2000 USPSTF, 2008 Yudko et al., 2007	III	Poor	I
6	The CAGE is not recommended alone for screening for risky drinking as well as alcohol use disorders	Bradley et al., 2001 Fleming & Barry, 1991 Wallace & Haines, 1985	I	Good	D
7	The WHO full AUDIT is also valid and reliable for identifying the spectrum of Unhealthy Alcohol Use in US outpatients, but is 10 items long	Bradley et al., 1998 Bradley et al., 2007 Steinbauer et al., 1998 Volk et al., 1997	I	Good	A

QE = Quality of Evidence; SR = Strength of Recommendation (See Appendix A)

C. Does the Person Screen Positive or Drink Despite Contraindications?

BACKGROUND

Screening is intended to identify patients with Unhealthy Alcohol Use but also patients who are drinking despite contraindications to alcohol use even if they screen negative for Unhealthy Alcohol Use.

RECOMMENDATIONS

1. Consider a screen positive for Unhealthy Alcohol Use if: [B]
 - a. AUDIT-C score (range from 0 to 12) is ≥ 4 points for men or ≥ 3 points for women
 - b. Patients report drinking 4 or more (women) or 5 or more (men) drinks in a day in the past year on the single-item screening question.
2. Identify contraindications for any alcohol use [C]. Contraindications to alcohol use include:
 - a. Pregnancy or trying to conceive
 - b. Liver disease including hepatitis C
 - c. Other medical conditions potentially exacerbated or complicated by drinking (e.g., pancreatitis, congestive heart failure)
 - d. Use of medications with clinically important interactions with alcohol or intoxication (e.g., warfarin)
 - e. An alcohol use disorder.

DISCUSSION

Choice of Screening Cut-Points

Cut-points recommended here are those that balance sensitivity and specificity, and take prevalence into account.

The AUDIT-C cut-points of 3 or more for women and 4 or more for men are recommended because these cut-points tend to balance sensitivity and specificity in diverse studies (Bradley et al., 2007; Bradley et al., 2003; Bush et al., 1998; Dawson et al., 2005; Frank et al., 2008). Patients screen positive on the AUDIT-C because they under-report typical drinking on questions 1 and 2 of the AUDIT-C as they do on other quantity frequency questions (Bradley et al., 1998; Canagasaby & Vinson, 2005; Kerr et al., 2002; Kerr & Ye, 2007). In a study by Bradley (1998), reliance on reported drinking on AUDIT-C questions 1-2 alone would result in identification of only 54 percent of male VA patients who drank over 14 drinks a week. Therefore, while the AUDIT-C score is an effective screen, self-report of alcohol consumption on questions 1-2 is not an accurate reflection of typical drinking. Multiple validation studies—both inside and outside the VA — have shown that screening cut-points of 3 or more in women and 4 or more in men balance sensitivity and specificity for identification of risky drinking and alcohol use disorders.

The recommended cut-point for Single Item Alcohol Screening Questionnaires (SASQ) is based on Working Group consensus. Some experts recommend considering 4 or more drinks per occasion in the past year for women (5 or more for men) as a positive screen, whereas others have recommended a cut-point of over 4 drinks for both women and men. Screening questions that assess the frequency or recency of drinking above the recommended limits have used a threshold of any drinking above daily limits in the past year to drinking above these limits in the past 3 months. The Working Group adopted the NIAAA guidelines approach (patients who report drinking 4 (women) or 5 (men) or more drinks in a day in the past year as screen positive), as a reflection of the expert opinion.

Several issues can be taken into account when choosing a screening cut-point for a specific purpose.

- Lower screening cut-points in women: This reflects the fact that women develop problems due to drinking at lower levels (Bradley et al., 1998); therefore lower levels of alcohol use are defined as risky drinking in women.
- The role of prevalence: When the prevalence of Unhealthy Alcohol Use is low (e.g., in women in certain settings) a slightly higher screening threshold will often be optimal to avoid excess false positive tests. Therefore, although a screening threshold of ≥ 2 for the AUDIT-C also balances sensitivity and specificity in women (Bradley et al., 2007; Bradley et al., 2003); the higher cut-point (≥ 3) is typically used.
- The cost of false positives: The exact cut-point used for any particular setting differs depending on the costs of a false positive compared to the benefits of a true positive screening test (Cantor et al., 1999). For example, in FY 2008, the VA Office of Quality and Performance used the recommended cut-points for a positive AUDIT-C screening test, but only *required* documented follow-up brief alcohol counseling in patients screening positive at cut-points of 5 or more. This choice was made to simplify implementation (no gender-specific cutoff), target brief alcohol counseling to patients most likely to benefit and decrease provider concerns about effort devoted to false positive screens (Bradley et al., 2007; Bradley et al., 2003).

EVIDENCE TABLE

	Evidence	Source	QE	Overall Quality	SR
1	In primary care settings AUDIT-C scores of ≥ 4 for men and ≥ 3 for women should be considered positive.	Bradley et al., 2003 Bradley et al., 2007 Dawson et al., 2005 Frank et al., 2008	II-2	Good	B
2	Use of a higher AUDIT-C cut-point may be supported in some clinical environments.	Bradley et al., 2003 Bradley et al., 2007 Dawson et al., 2005 Frank et al., 2008	II-2	Good	B
3	In primary care settings, the optimal definition of a positive screen for Unhealthy Alcohol Use on the SASQ is: drinking 4 or more drinks on an occasion for women or 5 or more drinks on an occasion for men in the past year.	NIAAA, 2007	II-2	Good	B

QE = Quality of Evidence; SR = Strength of Recommendation (See Appendix A)

D. Assess Current Alcohol Consumption

BACKGROUND

If a patient does not have contraindications to any drinking, experts recommend that alcohol consumption be evaluated as the first step in a brief intervention. Most, if not all, clinical trials of brief alcohol counseling have assessed patients' drinking after screening and only included those who reported drinking above recommended limits on reassessment.

Epidemiologic studies have shown that drinking above weekly or daily limits is associated with development of alcohol-related problems.

RECOMMENDATIONS

1. Determine the number of drinks consumed by the patient in a typical week and the maximum number of drinks on an occasion in the past month.

DISCUSSION

Patients under-report their typical drinking on screening questions (Bradley et al., 1998; Canagasaby & Vinson, 2005; Kerr et al., 2003; Kerr & Ye, 2007). Among men who reported drinking above 14 drinks a week according to structured interview, only 54 percent have reported doing so on AUDIT-C questions 1 and 2 (Bradley et al., 1998).

One approach is to ask the patient how often, what beverages, and when he/she drinks and then follow with specific questions on how often he/she drinks 5 or more drinks on an occasion for men or 4 or more for women. This approach will allow the provider to review the drinking throughout the day, the drink/bottle sizes, and the number of standard-sized drinks the patient consumes. Another is to review drinking for each of the previous 7 days (retrospective drinking diary). Either way, the goal is to assess whether the patient drinks above recommended limits.

EVIDENCE TABLE

	Evidence	Source	QE	Overall Quality	SR
1	Patients who screen positive for Unhealthy Alcohol Use should be assessed regarding current alcohol consumption to identify if they drink above recommended limits prior to brief intervention	Working Group Consensus	III	Poor	I

QE = Quality of Evidence; SR = Strength of Recommendation (See Appendix A)

E. Does the Person Drink Above Recommended Limits or Despite Contraindications?

BACKGROUND

Patients who drink above the recommended limits or those who have clinical conditions that contraindicate alcohol use are candidates for a brief intervention.

RECOMMENDATIONS

1. Determine whether patient drinks above recommended limits. [A]
 - a. The recommended limits are:
 - FOR MEN— no more than 14 standard-sized drinks a week and no more than 4 standard-sized drinks on any day
 - FOR WOMEN— no more than 7 standard-sized drinks a week and no more than 3 standard-sized drinks on any day
 Standard-sized drinks are: 12 oz beer, 5 oz wine, or 1.5 oz hard liquor.
2. Contraindications for any alcohol use include:
 - a. Pregnancy or trying to conceive
 - b. Liver disease including hepatitis C
 - c. Other medical conditions potentially exacerbated or complicated by drinking (e.g., pancreatitis, congestive heart failure)

- d. Use of medications with clinically important interactions with alcohol or intoxication (e.g., warfarin)
- e. An alcohol use disorder.

Table A- 1: Recommended Drinking Limits

Men	No more than 14 drinks a week; and No more than 4 drinks on any occasion	Women	No more than 7 drinks a week; and No more than 3 drinks on any occasion
<i>Standard-sized drinks are: 12 oz beer, 5 oz wine, or 1.5 oz hard liquor</i>			

F. Provide Brief Intervention

BACKGROUND

A brief intervention typically lasts from several minutes up to an entire visit and is a patient-centered, empathetic brief counseling intervention that can be offered by a clinician who is not a specialist addictions provider or counselor.

A brief intervention for Unhealthy Alcohol Use is a single session or multiple sessions that include motivational discussion focused on increasing insight and awareness regarding alcohol use and motivation toward behavioral change. Brief interventions can be tailored for variance in population or setting and can be used as a stand-alone treatment for those at-risk as well as a vehicle for engaging those in need of more extensive levels of care.

RECOMMENDATIONS

1. Provide a brief intervention (counseling) for alcohol use, which includes the following components: [A]
 - a. Express concern that the patient is drinking at unhealthy levels known to increase his/her risk of alcohol-related health problems
 - b. Provide feedback linking alcohol use and health, including:
 - Personalized feedback (i.e., explaining how alcohol use can interact with patient’s medical concerns [hypertension, depression/anxiety, insomnia, injury, congestive heart failure (CHF), diabetes mellitus (DM), breast cancer risk, interactions with medications]) OR
 - General feedback on health risks associated with drinking.
 - c. Advise:
 - To abstain (if there are contraindications to drinking) OR
 - To drink below recommended limits (specified for patient).
 - d. Support the patient in choosing a drinking goal, if he/she is ready to make a change
 - e. Offer referral to specialty addictions treatment if appropriate.

DISCUSSION

Evidence for Brief Intervention (Counseling) for Unhealthy Alcohol Use

The evidence for the efficacy of brief alcohol counseling has been summarized in a Cochrane review (Kaner et al., 2007), and a USPSTF Review (Whitlock et al., 2004), as well as 7 other meta-analyses and reviews (Ballesteros et al., 2004; Bertholet et al., 2005; Bien et al., 1993; Kahan et al., 1995; Moyer et al., 2002; Poikolainen, 1999; Wilk et al., 1997). While none of these reviews were restricted to VA or DoD patients, and no trial has included VA or DoD patients, there is no reason to expect that VA patients would respond differently than other patients to brief intervention given the robust international findings, including studies of older patients (Fleming et al., 1999).

A negative review (Beich et al., 2002) made assumptions that recruitment for screening in the real world would be similar to low participation rates in RCTs. In fact, high rates of alcohol screening have been achieved in VA clinical settings (Bradley et al., 2006).

Recent studies have also shown that telephone- or web-based brief interventions can be efficacious (Brown et al., 2007; Kypri et al., 2008), although none of these studies have been conducted in VA or DoD facilities.

Few trials have directly compared brief interventions with different components (e.g., advice alone versus advice, feedback and goal setting). There was no significant benefit of longer over shorter brief interventions, based on the Cochrane review (Kaner et al., 2007).

The Alcohol, Smoking and Substance Involvement Screening Test (ASSIST) is an eight item pencil and paper questionnaire developed in 1997 by World Health Organization in response to the overwhelming burden of disease caused by substance use. The ASSIST screens for problem or risky use of tobacco, alcohol, cannabis, cocaine, amphetamine-type stimulants, sedatives, hallucinogens, inhalants, opioids and other drugs. The findings from studies demonstrated that the ASSIST is a feasible, reliable and valid screening instrument for use in primary health care settings across various cultures. A five-minute brief intervention was developed using the ASSIST Feedback Form to give personalized feedback and advice to clients about their ASSIST scores and their associated level of risk. Preliminary findings from the Australian site based on analysis of 100 subjects demonstrated a significant reduction in illicit drug use ($F=12.0$; $df=1,98$; $p=0.001$) for those subjects receiving a brief intervention compared with control subjects not receiving an intervention. These results demonstrate that ASSIST screening and brief intervention is a timely and effective way of identifying and intervening with substance-using clients in primary health care settings (Ali et al., 2006)

EVIDENCE TABLE

	Evidence	Source	QE	Overall Quality	SR
1	Brief intervention (advice, feedback, and goal setting) by clinicians who are not addictions specialists decreases drinking	Ali et al., 2006 Ballesteros et al., 2004 Bertholet et al., 2005 Bien et al., 1993 Kahan et al., 1995 Kaner et al., 2007 Moyer et al., 2002 Poikolainen, 1999 Solberg et al., 2008 Wilk et al., 1997	I	Good	A

QE = Quality of Evidence; SR = Strength of Recommendation (See Appendix A)

G. Is Referral for Alcohol Use Disorder Also Indicated or Requested?/Offer Referral, if Appropriate

BACKGROUND

Scores of controlled studies over several decades consistently show that a variety of forms of alcohol dependence treatment including behavioral interventions and pharmacotherapies significantly reduce alcohol consumption among alcohol-dependent patients.

Specialty addictions programs or mental health providers integrated in primary care settings who have addictions expertise can be helpful for assessment, motivational interviewing and treatment. Patients who are open to assessment or who are ready for assistance should be referred to a specialty addictions provider or program, or mental health provider integrated in primary care.

RECOMMENDATIONS

1. Offer referral to specialty SUD care for addiction treatment if the patient:
 - a. May benefit from additional evaluation of his/her drinking or substance use and related problems or from motivational interviewing
 - b. Has tried and been unable to change drinking or substance use on his/her own or does not respond to brief intervention
 - c. Has been diagnosed for alcohol or other substance dependence
 - d. Has previously been treated for an alcohol or other substance use disorders
 - e. Has an AUDIT-C score ≥ 8 .
2. DoD active duty members involved in an incident in which substance use is suspected to be a contributing factor are required to be referred to specialty SUD care for evaluation. Command should be contacted to discuss administrative and clinical options if the member refuses to be evaluated (see [Appendix D](#)).

DISCUSSION

Experts recommend that certain groups of patients be offered referral to specialty addictions treatment at the time of the initial brief intervention. The efficacy of referral to specialty addictions care by a primary care provider has not been extensively evaluated but is indicated because many brief intervention trials have excluded patients with the most severe problem drinking, and instead referred such patients to specialty treatment. Brief intervention should nevertheless be offered to patients who are referred, because many will not follow through with the referral.

A meta-analysis of 7 multi-site controlled trials (total of 8,389 patients with alcohol dependence) that examined the efficacy of either medications or behavioral interventions indicated that 24 percent of patients maintained total abstinence for 12 months. Additionally, among the patients not totally abstinent the percent days abstinent increased 128 percent while standard drinks per drinking day decreased by 57 percent (Miller et al., 2001). When one considers that medical harm from alcohol consumption shows a strong dose-response effect, these treatment-related reductions in consumption appear to be highly clinically meaningful.

EVIDENCE TABLE

	Evidence	Source	QE	Overall Quality	SR
1	Offer referral to specialty addictions care if indicated	Working Group Consensus	III	Poor	I

QE = Quality of Evidence; SR = Strength of Recommendation (See Appendix A)

H. Does Patient Agree to the Referral or is the Referral Mandated?

BACKGROUND

Many patients may initially decline voluntary referral, but provider encouragement and support may improve patient willingness to complete the referral.

RECOMMENDATIONS

1. Agree on a set of specific goals with the patient.
 - a. Review with the patient results of previous efforts of self-change and formal treatment experience, including reasons for treatment dropout
 - b. Ask patient about willingness to accept referral
 - c. Consider bringing an addiction specialist into a general medical or mental health visit to assist with referral decision.
2. Patients at high risk for alcohol use disorder but who are not ready for specialty addictions treatment should be engaged in monitoring of alcohol-related medical problems in the medical setting.
3. DoD active duty members involved in an incident in which substance use is suspected to be a contributing factor are required to be referred to specialty SUD care for evaluation. Command should be contacted to discuss administrative and clinical options if the member refuses to be evaluated (see [Appendix D](#)).

DISCUSSION

Many patients will not accept referrals (Oslin et al., 2006). However, attempted referral may have some benefit (Elvy et al., 1988), and patients who recall a physician's advice prior to alcohol treatment have better outcomes (Walsh et al., 1992). More patients are successfully referred to alcohol counselors in primary care settings if nurses refer patients directly instead of relying on primary care providers to refer (Goldberg et al., 1991). An older study showed that addressing the patient's needs and concerns increased the acceptance of referral (Chafetz, 1968).

I. Continue to Provide Brief Interventions During Future Visits

BACKGROUND

Patients should be frequently re-evaluated to follow progress, assessed for changes in alcohol-related biomarkers if possible, and supported to problem-solve if barriers to improvement are encountered. Periodically, the patient's interest in specialty treatment and mutual support groups should be re-evaluated. Patient-centered approaches such as motivational interviewing may be helpful.

The interval of follow-up for a particular patient will depend on individual circumstances including (but not limited to) the severity of their Unhealthy Alcohol Use, the existence of co-occurring conditions, readiness to change, and personal circumstances (difficulty making appointments due to employment or other responsibilities).

RECOMMENDATIONS

1. Address alcohol at the next medical visit scheduled to address other issues, or schedule a separate appointment to specifically address drinking if the patient agrees. [B]
2. Repeat brief intervention at the follow-up visit if the patient has not responded to a previous brief intervention. [B]

DISCUSSION

There is evidence that most patients will not respond to a single brief intervention and that repeated brief interventions can be efficacious. Moreover, there are additional interventions that should be offered to patients who do not respond to brief intervention.

Although there is not consistent evidence of a dose-response relationship for brief interventions (Kaner et al., 2007), most brief intervention trials, especially those with improvement in outcome measures other than self-reported drinking, have included follow-up visits (Fleming et al., 1997; Wallace et al., 1988).

Repeated brief interventions appear to be especially efficacious when they have a medical focus. For example, monitoring of medications to decrease drinking was efficacious with active medications for alcohol dependence (Addolorato et al., 2007; Anton et al., 2006; Johnson et al., 2007) as well as placebo (Anton et al., 2006). In addition, monitoring lab or physiologic measures and feedback to patients on abnormal laboratory tests associated with Unhealthy Alcohol Use (Fleming et al., 2004; Kristenson et al., 1983; Willenbring & Olson, 1999) or blood pressure (Maheswaran et al., 1992) is associated with improved outcomes. One study of VA patients hospitalized for medical problems due to drinking (who were not willing to enter addictions treatment) showed that such repeated primary care interventions could result in abstinence even when the intervention did not require that the patient start with a goal of abstinence (74 percent vs. 48 percent reported 30-day abstinence at 2 years for the intervention and usual care groups, respectively) (Willenbring & Olson, 1999).

No research comparing different follow-up intervals was identified. No other guideline specifies the exact timing when patients should be followed up after a brief intervention. Most brief intervention trials included a “booster” at 1 to 2 and 3 to 4 months. Some studies found that patients who returned for more sessions had improved outcomes.

Repeated Interventions for Severe Unhealthy Alcohol Use using Labs and Medications

The focus of these medical visits is on clinical engagement without requiring immediate abstinence and can include monitoring any or all of the following:

- A physiologic biomarker of Unhealthy Alcohol Use, including blood pressure or laboratory tests (Gamma Glutamyl Transferase (GGT), Mean Corpuscular Volume (MCV), Glycosylated hemoglobin (HbA1c), Carbohydrate-Deficient Transferrin (CDT))
- Use of medications: naltrexone, acamprosate, or disulfiram (see Module P).
- Other medical symptoms the patient cares about that are related to alcohol use (e.g., hypertension, GERD, depression).

A number of studies have shown that repeated interventions focused on the physical complications of drinking or medication management can be effective even with patients with severe Unhealthy Alcohol Use. The first of these studies included men in Malmo, Sweden who had abnormal liver function tests (LFTs). Repeated medical interventions decreased both LFTs and alcohol-related deaths (Kristenson et al., 1983; Kristenson et al., 2002).

A study of patients with diabetes and/or hypertension showed that using percent carbohydrate deficient transferrin (%CDT) as a biomarker to provide monthly feedback on excessive drinking significantly decreased drinking and %CDT at 12-month follow-up (Fleming et al., 2004). A study of patients willing to enter a trial for a medication to improve alcoholic liver disease, showed that nurse monitoring was associated with marked decrease in drinking from an average of 16 to an average of 2.5 drinks daily (Lieber et al., 2003). A study of medications for alcohol dependence found that medical monitoring and placebo were as effective as acamprosate or a combined behavioral intervention among patients with alcohol dependence recruited to a trial of medications to help decrease drinking (Anton et al., 2006).

EVIDENCE TABLE

	Evidence	Source	QE	Overall Quality	SR
1	Patients who do not respond after first brief intervention should have a repeat brief intervention	Ballesteros et al., 2004 Bertholet et al., 2005 Bien et al., 1993 Kahan et al., 1995 Kaner et al., 2007 Moyer et al., 2002 Poikolainen, 1999 Solberg et al., 2008 Wilk et al., 1997	II-2	Fair	B
2	Monthly monitoring decreases drinking in alcohol-dependent patients or patients with Unhealthy Alcohol Use with chronic diseases or complications of drinking (e.g., elevated GGT)	Fleming et al., 2004 Kristenson et al., 1983 Kristenson & Osterling, 2002 Lieber et al., 2003 Willenbring & Olson, 1999	II-1	Fair	B

QE = Quality of Evidence; SR = Strength of Recommendation (See Appendix A)

J. Provide Positive Feedback Regarding Changes

BACKGROUND

Expert opinion supports optimistic, empathetic interventions that note the importance of the changes patients have made to their health, provide positive feedback and encourage continued drinking below recommended limits.

RECOMMENDATIONS

1. Provide positive feedback to patients for decreases in drinking.
2. Relate changes in drinking to any changes in presenting health conditions.

EVIDENCE TABLE

	Evidence	Source	QE	Overall Quality	SR
1	Provide positive feedback regarding changes patient makes in drinking	Working Group Consensus	III	Poor	I

QE = Quality of Evidence; SR = Strength of Recommendation (See Appendix A)

K. Advise to Stay Below Recommended Limits

BACKGROUND

Patients who screen positive near the screening threshold of the AUDIT-C (3-5) can report drinking within recommended limits, but many are under-reporting drinking. Therefore, based on Working Group consensus, patients who initially screen positive for Unhealthy Alcohol Use but report drinking below recommended limits should nevertheless be explicitly advised about recommended limits and encouraged to continue drinking below those limits.

RECOMMENDATIONS

1. Advise patients who screen positive for Unhealthy Alcohol Use but who report drinking below recommended limits to continue to drink below recommended limits.

EVIDENCE TABLE

	Evidence	Source	QE	Overall Quality	SR
1	Advise patients who report drinking below recommended limits to avoid drinking above recommended limits.	Working Group Consensus	III	Poor	I

QE = Quality of Evidence; SR = Strength of Recommendation (See Appendix A)

L. Screen Annually for Unhealthy Alcohol Use

BACKGROUND

No trials have compared different intervals of screening. This recommendation for annual screening is based on Working Group consensus consistent with routine annual preventive screening for other disorders in VA/DoD primary care setting and the past-year assessment window of the AUDIT-C.

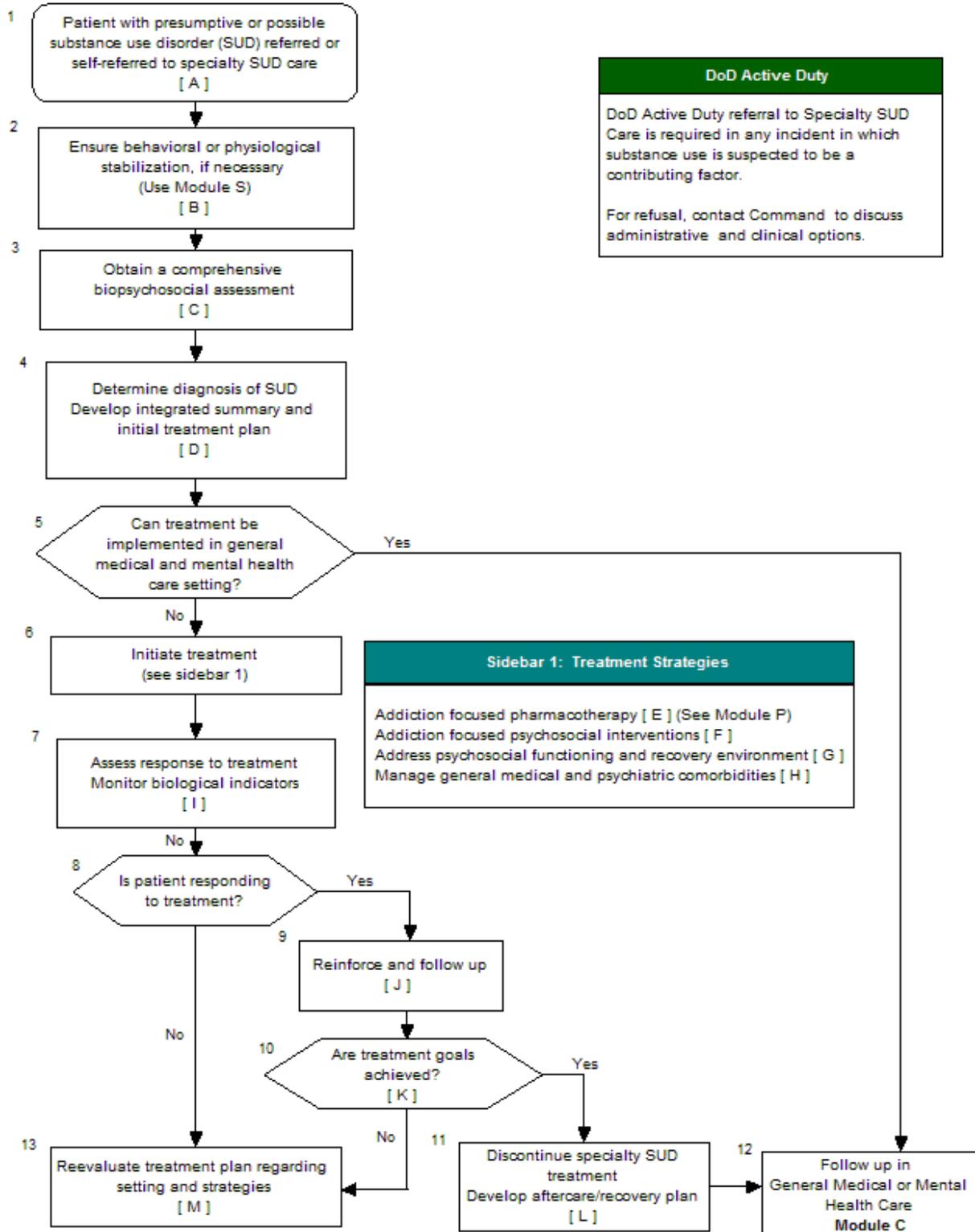
RECOMMENDATIONS

1. Repeat alcohol screening annually.

7/25/2009

Management of Substance Use Disorder Module B: Specialty SUD Care

B



MODULE B: MANAGEMENT OF SUBSTANCE USE DISORDERS IN SPECIALTY SUD CARE

A. Patient with Presumptive or Possible Substance Use Disorder (SUD) Referred or Self-Referred to Specialty Care

BACKGROUND

Patients may be referred to this module based on the following indications for treatment: hazardous substance use, substance abuse, substance dependence, risk of relapse, suspected or possible SUD, or mandated referral within the DoD. Patients seeking to achieve remission may be appropriately managed using this module. Other patients may be ambivalent about rehabilitation goals and may benefit from more comprehensive assessment and discussion of treatment options. Finally, patients may be referred to a specialist for more extensive evaluation of risks related to substance use.

B. Ensure Behavioral or Physiological Stabilization, if Necessary

BACKGROUND

Most patients referred to specialty SUD care are not acutely intoxicated or in need of immediate physiological stabilization prior to initiating assessment and treatment planning. Others may have been stable at the time of referral, but require stabilization when they present for specialty SUD care evaluation or treatment and should be managed using [Module S: Stabilization and Withdrawal Management](#).

RECOMMENDATIONS

1. Assure patient safety and readiness to cooperate with further assessment by referring the patient to an emergency department or appropriate setting for stabilization as needed.

C. Obtain a Comprehensive Biopsychosocial Assessment

BACKGROUND

Comprehensive and multidimensional assessment procedures are needed to evaluate an individual's strengths, needs, abilities, and preferences, and to determine priorities so that an initial treatment plan can be developed. In less severe cases, the assessment should at least involve screening of these elements, through the use of a multidimensional screening instrument.

RECOMMENDATIONS

1. Obtain a comprehensive biopsychosocial assessment that includes all of the following: *
 - a. History of the present episode, including precipitating factors, current symptoms and pertinent present risks:
 - Family history:
 - Family alcohol and drug use history, including past treatment episodes
 - Family social history, including profiles of parents (or guardians or other caretakers), home atmosphere, economic status, religious affiliation, cultural influences, leisure activities, monitoring and supervision, and relocations

- Family medical and psychiatric history
 - Developmental history, including pregnancy and delivery, developmental milestones and temperament
 - Comprehensive substance use history, including onset and pattern of progression, past sequelae and past treatment episodes (include all substances, e.g., alcohol, illicit drugs, tobacco, caffeine, over-the-counter medications, prescription medications, inhalants)
 - Nearly all daily nicotine users are nicotine dependent. Identification and treatment of co-morbid nicotine dependence may improve recovery rates of other SUDs. For patients using nicotine, offer and recommend tobacco use cessation treatment. Use the Clinical Practice Guideline: Treating Tobacco Use & Dependence: 2008 Update from the U.S. Department of Health and Human Services available at: http://www.surgeongeneral.gov/tobacco/treating_tobacco_use08.pdf and the VA/DoD Clinical Practice Guideline for Management of Tobacco Use
 - Recent pattern of substance use based on self-report and urine drug screening
 - Personal/social history (including housing issues, religious/spiritual affiliation, cultural influences)
 - School history
 - Military history
 - Marital history
 - Peer relationships and friendships
 - Leisure activities
 - Sexual activity
 - Physical or sexual abuse
 - Legal/non-judicial punishment history, including past behaviors and their relation to substance use, arrests, adjudications and details of current status
 - Psychiatric history, including symptoms and their relation to substance use, current and past diagnoses, treatments and providers
 - Medical history, including pertinent medical problems and treatment, surgeries, head injuries, present medications and allergies
 - Review of systems, including present and past medical and psychological symptoms
- b. Laboratory tests for infectious diseases (HIV, Hepatitis C, sexually transmitted disease) and consequences of substance use (e.g., liver function tests)
 - c. Mental status examination
 - d. Survey of assets, vulnerabilities and supports
 - e. Patient's perspective on current problems, treatment goals and preferences
2. Use empathic and non-judgmental (versus confrontational) therapist style, being sensitive to gender, cultural and ethnic differences.

**Adapted from ASAM Patient Placement Criteria, 2nd Edition-Revised (ASAM PPC-2R, 2001)*

DISCUSSION

Assessment is the beginning of the therapeutic process. A comprehensive biopsychosocial assessment covers physical, emotional, cognitive, behavioral, emotional, and environmental domains.

The guidelines do not exclusively endorse the use of any particular instrument as the basis for a comprehensive assessment. However, the Addiction Severity Index (ASI) (Fureman et al., 1990; McLellan et al., 1992) is a standardized, rater-administered interview that assesses seven functional domains considered important in an overall addiction evaluation: medical status, employment status, legal problems, family/social relations, drug use, alcohol use, and psychiatric status. Formal DSM-IV-TR psychiatric diagnoses are derived from the clinical interview.

Ensuring appropriate housing and access to care is an important part of the assessment process. The term "housing" is used generically as the residence of a patient while receiving treatment. It can involve the same setting within which treatment takes place or it can refer to a variety of living situations with varying degrees of supervision that are separate from the location of treatment services (see [Appendix B-10](#)).

For military service members, access to care and housing may be dependent on the echelons of military medical care, particularly in a deployed environment. For example, a soldier requiring substance abuse treatment may need to be evacuated to higher levels of care from Level I (Battalion Aid Station) to Level II (Forward Surgical Team) to Level III (Combat Support Hospital) to Level IV (Definitive Care).

The clinician's empathic and non-judgmental interest during assessment can help the patient make sense of his or her condition, decrease the patient's sense of isolation, increase the likelihood of treatment adherence, and foster growth of the therapeutic alliance. Conclusions from the assessment should be shared with the patient. The clinician's attitude and manner are important components of the assessment process. A nonjudgmental, respectful attitude that reflects genuine interest and empathy will facilitate rapport. Reliability and validity of the assessment will be affected by the degree of trust in the interviewer and by consideration of the degree to which the patient presents voluntarily or feels coerced. In determining reliability and validity of the assessment the clinician should also recognize that recent substance use might affect the patient's presentation during the interview. Memory and cognitive deficits and impairment of judgment and mood, secondary to drug use, may be present. The clinician should monitor the patient's cognitive function and mental status during the assessment. If it is possible to gain permission from the patient to do so, consulting with collateral informants (e.g., spouse/partner, family, friends, co-workers, and/or chain of command) will provide a useful adjunct to gathering information directly from the patient.

EVIDENCE TABLE

	Evidence	Source	QE	Overall Quality	SR
1	Conduct comprehensive biopsychosocial assessment	Working Group Consensus	III	Poor	I

QE = Quality of Evidence; SR = Strength of Recommendation (See Appendix A)

D. Determine Diagnosis of SUD; Develop Integrated Summary and Initial Treatment Plan

BACKGROUND

The comprehensive intake assessment report should include a diagnostic formulation, summary of past treatment response, and integrated summary of all clinically relevant information. Treatment recommendations should incorporate an interdisciplinary perspective. The patient's motivational level and personal goals should be assessed, and this information taken into consideration in selecting treatment goals and options.

RECOMMENDATIONS

1. Provide a narrative to consolidate and interpret the information obtained during the assessment process.
2. Include a diagnostic formulation.
3. Include past treatment response and patient’s perspective on current problems.
4. Review the patient’s motivational level, treatment preferences and goals, and consider these factors, along with an interdisciplinary perspective and available programming, in recommending specific treatment options. [B]
5. Present and discuss the treatment options with the patient and significant others.
6. Determine whether the treatment plan can be implemented in general health care (including primary care) based on availability of a willing provider, severity and chronicity of the SUD, active involvement with recovery supports in the community, prior treatment response, and patient preference and likelihood of adherence.
7. If treatment in specialty SUD care is appropriate, determine the appropriate initial intensity and level of specialty SUD care, based on ASAM patient placement criteria. [B]
8. If treatment in specialty SUD care is recommended, determine if it is an acceptable mode of treatment to the patient.
9. Involve the patient in prioritizing problems to be addressed in the initial treatment plan, and in selecting specific treatment goals, regardless of the level of care selected (see Table B-1).
10. If the patient does not agree to the treatment plan, provide motivational intervention and offer to renegotiate the treatment plan.

For DoD Active Duty Members

11. A treatment team shall convene with the patient and command to review the treatment plan and goals.

Table B- 1. Treatment Plan and Expected Outcomes

Treatment Plan	Expected Outcomes
Patient seeking to achieve remission	<ul style="list-style-type: none"> - Complete and sustained remission of all SUDs - Resolution of, or significant improvement in, all coexisting biopsychosocial problems and health-related quality of life
Patient seeking help but not committed to abstinence	<ul style="list-style-type: none"> - Short- to intermediate-term resolution or partial improvement of SUDs for a specified period of time - Resolution or improvement of at least some coexisting problems and health-related quality of life
Patient not willing to engage in treatment and not yet ready to abstain	<ul style="list-style-type: none"> - Engagement in general health treatment process, which may continue for long periods of time or indefinitely - Continuity of care - Continuous enhancement of motivation to change - Availability of crisis intervention - Improvement in SUDs, even if temporary or partial - Improvement in coexisting medical, psychiatric, and social conditions - Improvement in quality of life - Reduction in the need for high-intensity health care services - Maintenance of progress - Reduction in the rate of illness progression

DISCUSSION

Determination of Appropriate Treatment

The integrated summary has also been referred to as the case formulation. The purpose of the integrated summary is to blend the disparate pieces of the assessment process into a more cohesive summarization. The summary needs to include biopsychosocial strengths and weaknesses that the patient brings to treatment. The summary also describes the history and etiology and maintenance factors for the SUD. The integrated summary serves as the foundation for the development of the treatment plan. Consistent with The Joint Commission standards, it is important that the information upon which the treatment plan is based appears within the assessment database and does not appear de novo in the integrated summary (JCAHO, 1999).

The integrated summary is intended to be interpretive in nature, providing more than a restatement of facts already present in the assessment. The clinician must use professional judgment to evaluate the information and discuss with the patient how his/her various strengths and problems interrelate to affect the treatment process. For example, patients may indicate that some problems, such as homelessness or ambivalence about change, may need to be addressed before others.

Some patients may be able to be managed effectively outside of specialty care, and will not require referral to specialty care. Factors that are associated with the potential for good outcome in non-specialty care include the availability of a willing primary care provider with whom the patient has an established relationship, lower severity and chronicity of the SUD, active involvement with recovery supports in the community, favorable prior treatment response, and the patient's preference for non-specialty care rather than specialty care treatment.

With regard to patient level of care placement, the ASAM criteria (2001) are the most widely accepted placement system. The criteria consider problem severity in seven areas in making recommendations for specific levels of care. In that regard, there is now a fair amount of research that indicates patients with greater substance use severity and co-occurring problems such as psychiatric disorders and housing problems will do better in more intensive forms of treatment. Conversely, those with lower severity levels will do as well or better in less intensive forms of treatment. However, there is little controlled evidence to support the validity of the ASAM criteria.

Involving the Patient in the Selection of Treatment Level and Goals

It has become accepted best practice to establish treatment goals in the context of a working collaboration or negotiation between the treatment provider and the patient. In the case of a patient who does not find standard specialty care rehabilitation to be an acceptable form of treatment, the patient's treatment history and previous efforts at self-change should be reviewed. The patient's perception of reasons for failure to engage in or early dropout from prior treatment episodes should be reviewed and discussed.

When both the patient and provider agree on what is to be accomplished and how this is to be done, the chances of achieving a good outcome are enhanced (Putnam et al., 1994; Sanchez-Craig & Lei, 1986). Motivational Interviewing (MI) techniques and style should be used in SUD treatment sessions. Confrontational counseling styles should generally be avoided. However, highly skilled therapists with good alliances with their patients may use a more directive counseling style under certain circumstances. Miller et al. (1993) found that a more confrontational counseling style was associated with worse alcohol use outcomes. However, a more detailed study of counseling processes in MI indicated that confronting, warning, and directing patients may actually produce better outcomes if the therapist has strong interpersonal skills and has developed a good alliance with the patient (Moyers et al., 2005).

Motivational interviewing techniques should be used in clinical sessions with patients who remain ambivalent about or resistant to standard specialty care. Prior studies have supported the efficacy of MI interventions. Providing MI at the beginning of more intensive treatment-as-usual programs led to larger effect sizes compared to treatment as usual alone in a review by Dunn et al. (2001) and to sustained effects favoring MI in a review by Hettema et al. (2005).

DoD active duty members who fail to engage in recommended treatment should be informed that such a decision could result in involuntary separation from military service.

EVIDENCE TABLE

	Evidence	Source	QE	Overall Quality	SR
1	Consolidate and interpret the information obtained during the assessment process in a narrative form	Working Group Consensus	III	Poor	I
2	Include a diagnostic formulation	Working Group Consensus	III	Poor	I
3	Review comprehensive assessment and integrated summary, including past treatment response	Working Group Consensus	III	Poor	I
4	Determine the appropriate initial intensity level of treatment	Chen et al., 2006 Maguara et al., 2003 McKay et al., 2002 PRISM-E, 2007 Tiet et al., 2007 Timko & Sempel, 2004 Witbrodt et al., 2007 Working Group Consensus	I	Fair	B
5	Review the patient's motivational level and goals and match the patient's needs with available programming	Burke et al., 2003 Dunn et al., 2001 Friedmann et al., 2004 Heather, 1996 Hetteema et al., 2005 McLellan et al., 1997 McLellan et al., 1998 Miller et al., 2003 Monti et al., 1989 Project MATCH, 2003 Rohsenow et al., 2004	I	Fair	B
6	Incorporate an interdisciplinary perspective in presenting treatment recommendations	Working Group Consensus	III	Poor	I
7	If rehabilitation is recommended, determine whether it is an acceptable or mandated mode of treatment to the patient	Working Group Consensus	III	Poor	I
8	Involve the patient in prioritizing problems to be addressed in the initial treatment plan	Working Group Consensus	III	Poor	I
9	If patient does not agree to the treatment plan, provide motivational intervention and renegotiate treatment plan	Working Group Consensus	III	Poor	I

QE = Quality of Evidence; SR = Strength of Recommendation (See Appendix A)

E. Initiate Addiction-Focused Pharmacotherapy (If Indicated)

BACKGROUND

Addiction-focused pharmacotherapy should be considered, available and offered if indicated, for all patients with opioid dependence and/or alcohol dependence. Addiction-focused pharmacotherapy should be provided in addition to indicated pharmacotherapy for co-occurring psychiatric conditions. In addition, it should be directly coordinated with specialty psychosocial treatment and adjunctive services for psychosocial problems as well as with the patient's primary care and/or general mental health providers.

RECOMMENDATIONS

1. Discuss addiction-focused pharmacotherapy options with all patients with opioid and/or alcohol dependence.
2. Initiate addiction-focused pharmacotherapy if indicated and monitor adherence and treatment response.

(See [Module P](#) for specific recommendations and evidence.)

F. Initiate Addiction-Focused Psychosocial Interventions

BACKGROUND

The goals of evidence-based psychosocial treatment for SUD are to engage the patient to establish early problem resolution or remission, improve psychosocial functioning and prevent relapse to substance use. A number of effective psychosocial interventions have been developed and evaluated, and there is no clear evidence that any one of these approaches is the treatment of choice or can be accurately matched to specific patient characteristics. There is considerable evidence from psychotherapy research that general factors such as therapist skill, the strength of the therapeutic alliance, and the structure provided by regular treatment contact can have as powerful an effect as the specific content or conceptual approach of the interventions. Therefore, attention to these general therapeutic factors is at least as important as the specific treatment approach selected.

RECOMMENDATIONS

1. Indicate to the patient and significant others that treatment is more effective than no treatment (i.e., "Treatment works").
2. Consider the patient's prior treatment experience and respect patient preference for the initial psychosocial intervention approach, since no single intervention approach has emerged as the treatment of choice.
3. Regardless of the particular psychosocial intervention chosen, use motivational interviewing style during therapeutic encounters with patients and emphasize the common elements of effective interventions including: enhancing patient motivation to stop or reduce substance use, improving self-efficacy for change, promoting a therapeutic relationship, strengthening coping skills, changing reinforcement contingencies for recovery, and enhancing social support for recovery.
4. Emphasize that the most consistent predictors of successful outcome are retention in formal treatment and/or active involvement with community support for recovery.
5. Use strategies demonstrated to be efficacious to promote active involvement in available mutual help programs (e.g., Alcoholics Anonymous, Narcotics Anonymous).

6. Based on locally available expertise, initiate addiction-focused psychosocial interventions with empirical support. Consider the following interventions that have been developed into published treatment manuals and evaluated in randomized trials:
 - a. Behavioral Couples Counseling
 - b. Cognitive Behavioral Coping Skills Training
 - c. Community Reinforcement Approach
 - d. Contingency Management/Motivational Incentives
 - e. Motivational Enhancement Therapy
 - f. Twelve-Step Facilitation.
7. Addiction-focused psychosocial interventions should be coordinated with evidence-based intervention(s) for other biopsychosocial problems to address identified concurrent problems.
8. Intervention should be provided in the least restrictive setting necessary for safety and effectiveness.

(See [Appendix C](#) for description of evidence-based psychosocial interventions.)

G. Address Psychosocial Functioning and Recovery Environment

BACKGROUND

Many patients have co-existing psychosocial problems that affect their likelihood of establishing and maintaining good clinical outcome and improved functional status.

Some of these problems are consequences of SUD that persist even after early recovery is established. Others occur independently of SUD, but can complicate access to care or present relapse risk. These problems include access to a supportive recovery environment (housing and social support for sobriety), difficulties with family and social relationships, unemployment/underemployment, and/or unresolved legal issues.

RECOMMENDATIONS

1. Prioritize and address other coexisting biopsychosocial problems with services targeted to these problem areas, rather than increasing intensity of addiction-focused psychosocial treatment alone. [B]
2. Address transitional housing needs to facilitate access to treatment and promote a supportive recovery environment.
3. Provide social/vocational/legal services in the most accessible setting to promote engagement and coordination of care.
4. Address deferred problems as part of treatment plan updates and monitor emerging needs.
5. Coordinate care with other social service providers or case managers.

EVIDENCE TABLE

	Evidence	Source	QE	Overall Quality	SR
1	Identifying and addressing other biopsychosocial problems may be more effective than increasing the intensity of addiction focused treatments	Friedmann et al., 2004 McLellan et al., 1997 McLellan et al., 1998	I	Fair	B

QE = Quality of Evidence; SR = Strength of Recommendation (See Appendix A)

H. Manage General Medical and Psychiatric Co-occurring Conditions

BACKGROUND

In addition to the standard addiction-focused services, programs should address psychiatric and general medical conditions that exist in association with the SUD. Treatment services directed toward these additional problems, when they exist, are associated with improvement. Problems typically show little spontaneous improvement if services are not provided.

RECOMMENDATIONS

1. Prioritize and address other medical and psychiatric co-occurring conditions.
2. Recommend and offer cessation treatment to patients with nicotine dependence.
3. Treat concurrent psychiatric disorders consistent with VA/DoD clinical practice guidelines (e.g., Major Depressive Disorder, Bipolar Disorder, Post Traumatic Stress, Psychoses) including concurrent pharmacotherapy.
4. Provide or arrange treatment via referral for medical conditions (e.g. management of diabetes, chronic heart failure, management of unexplained medical symptoms). (See other VA/DoD Clinical Practice Guidelines at: www.healthquality.va.gov)
5. Provide multiple services in the most accessible setting to promote engagement and coordination of care.
6. Monitor and address deferred problems and emerging needs through ongoing treatment plan updates.
7. Coordinate care with other providers.

DISCUSSION

Treatment providers should identify psychiatric and medical comorbidities, and evaluate the degree to which they are associated with the SUD. The ASI and other information from the biopsychosocial assessment (e.g., urine drug screen, tests for HIV and Hepatitis C and other lab results, physical exam, mental status exam, and patient report) and integrated summary can be used to make this evaluation.

When problems are identified, and their severity and relationship to the SUD determined, the provider and treatment team should determine the optimal timing and setting for the interventions. For example, the need for immediate or delayed referral to a specialized program for a patient with a chronic co-occurring psychiatric condition.

Nicotine and alcohol interact in the brain, each drug possibly affecting vulnerability to dependence on the other (Schiffman & Balabanis, 1995). Initial studies suggest that recovery rates from non-nicotine SUDs are significantly improved in patients who reduce their nicotine usage prior to discharge from structured rehabilitation settings, versus those nicotine addicts who do not reduce their nicotine use (Frosch, et al., 2000). Consequently, some researchers postulate that treating both addictions simultaneously might be an effective, even essential, way to help reduce dependence on both (NIAAA, 2000).

When unavailable through the primary treatment team, patients may need referral to other clinics in order to access needed services, such as primary medical care or psychiatric evaluation. Providing these services in a single setting (one-stop service) may be more effective (Umbricht-Schneiter et al., 1994). Other facilities will need to develop referral resources and feedback mechanisms. Either way, ongoing communication and coordination among service providers is essential to quality care.

I. Assess Response to Treatment / Monitor Biological Indicators

BACKGROUND

At each periodic reassessment, the patient may have achieved the goals set for specialty SUD care, be successfully completing interim steps toward each goal, not improving, or may have dropped out of treatment altogether. Periodic monitoring of progress toward treatment goals helps to coordinate care and to motivate the patient and treatment team members to accomplish interim steps. Periodic reassessments also provide opportunities to address emerging problems and to change treatment strategies when the initial plan is not fully successful.

RECOMMENDATIONS

1. Reassess response to treatment periodically and systematically, using standardized and valid self-report instrument(s) and laboratory tests. Indicators of treatment response include ongoing substance use, craving, side effects of medication, emerging symptoms, etc. (see example for a treatment response monitor; [Appendix B-9: Brief Addiction Monitor](#)).

DISCUSSION

Reassess and document clinical response throughout the course of treatment:

- Daily in the acute inpatient setting, including reevaluation of the continued need for that level of care.
- At least weekly in the residential setting, including reevaluation of the continued need for that level of care.
- In the outpatient setting:
 - Weekly during the first few weeks for a new episode of care
 - At least monthly thereafter.

J. Reinforce and Follow Up

BACKGROUND

For many patients, substance use disorders are chronic conditions that warrant extended efforts at relapse prevention and encouragement by providers for progress.

RECOMMENDATIONS

1. For patients who accomplish their initial goals in early recovery, the treatment team should collaborate with the patient to develop a continuing care plan (e.g., aftercare plan) which may include:
 - a. Transition to an appropriate alternative specialty care setting (see [Annotation L - Aftercare](#)), such as PTSD specialty treatment, etc.
 - b. Return to primary care.
2. For patients who are progressing toward goals, providers should:
 - a. Provide positive feedback and encouragement to remain engaged in specialty SUD care
 - b. Involve patients in identifying the next interim steps toward achieving the goals.

DISCUSSION

Consider reduced treatment intensity or discontinuing some treatment components based on:

- Accomplishment of treatment goals and objectives
- Full, early remission
- Early problem resolution
- Greater involvement in community support
- Improvements in other associated problem areas.

Coordinate follow-up with the patient's primary medical or behavioral health provider during transitions to less intensive levels of care in order to reinforce progress and improve monitoring of relapse risks.

K. Are Treatment Goals Achieved?

BACKGROUND

In general, longer lengths of time in treatment correlate with better outcomes for more severely dependent patients. However when no further addiction-focused specialty treatment visits are scheduled, care should be transitioned to their primary medical or behavioral healthcare provider for relapse monitoring and ongoing management of co-occurring general medical and/or psychiatric conditions.

RECOMMENDATIONS

1. Use the patient's progress in attaining recovery goals to individualize treatment continuation and avoid adopting uniform treatment plans with standardized duration and intensity.
2. Consider patient report of craving and other subjective indications of relapse risk.
3. For patients who achieve sustained remission or problem resolution, provide appropriate continuity of care and follow-up with providers in the general medical or mental health care setting (see [Module C](#)).

DISCUSSION

Emphasize the increased risk of relapse in early recovery and the importance of follow-up, until the recovery is well-established and the patient no longer meets diagnostic criteria. Monitoring of the patient's response to treatment should inform decisions regarding continuation until recovery support in the patient's daily life is adequately established.

L. Discontinue Specialty SUD Treatment; Develop Aftercare/Recovery Plan

BACKGROUND

An aftercare or recovery plan is a mutual effort between the patient and treatment team to identify and promote those aspects of continuing care for SUDs that are associated with success in recovery. At the point that the patient has achieved the initial stabilization goals of intensive treatment, he/she receives a written plan for continuing care to maintain recovery.

RECOMMENDATIONS

1. Provide continuing care following intensive outpatient or residential rehabilitation (individual, group or telephone follow-up).
2. Consider objective monitoring of substance use and medical consequences. [A]
3. Encourage active involvement in community support for recovery (e.g., Alcoholics Anonymous, Cocaine Anonymous). [A]
4. As part of the discharge instructions from the intensive phase, provide the patient a written plan to facilitate compliance with aftercare which may include “the basic things I need to do to meet my treatment goals,” such as:
 - a. Information on treatment appointments and prescribed medications
 - b. Recognizing relapse warning signs and triggers and appropriate coping responses
 - c. Maintaining contact with recovery support network and identifying mutual help meetings to attend.
5. *For DoD Active Duty*: Rehabilitation and Referral Services for Alcohol and Drug Abusers, requires an individualized aftercare plan designed to identify the continued support of the patient with monthly monitoring (minimally) during the first year after inpatient treatment.

DISCUSSION

There is good evidence that aftercare (continuing care) following intensive addiction rehabilitation is associated with improved outcomes for substance use and psychosocial functioning. Common elements of aftercare include periodic contact with an addiction treatment professional (case management, group, individual or phone contact), active involvement in 12-step mutual help programs, and ongoing monitoring of indicators of substance use and/or its medical consequences (urine drug screens, liver function tests, etc.).

Although there is no direct evidence that a written recovery plan improves outcome, this recommendation is based in part on regulatory requirements and in part on evidence from compliance with other medical and mental health treatment that clear written instructions and specific appointment times improve rates of follow-up.

Recovery Plans can be personalized to the individual patient's needs or the treatment team's discretion. However, some basic areas to be considered include the following descriptive (rather than prescriptive) list:

- A listing of the names, dates, and times of *mutual support meetings and recovery activities*. For example: 12 Step (or non-12 Step) support meetings the patient will be attending after rehabilitation (including the frequency of attendance) and first name and phone number of sponsor(s)
- Follow-up appointments for aftercare and other medical appointment dates, times and locations as well as phone numbers/addresses (and provider's names, if known).
- A summary of the primary issues the patient has been working on during rehabilitation treatment and the specific methods the patient intends to use towards resolution of these issues
- The patient's personally identified relapse warning signs and triggers (with the help of their sponsor, rehabilitation counselor, etc.), and the respective countering coping skills planned (Gorski & Miller, 1986)
- A listing of individuals within the patient's identified recovery support network (Galanter, 1997) (other than sponsors and providers) along with some description regarding the role of each in the patient's recovery.

For a DoD individualized aftercare plan, a quarterly evaluation of the patient's progress shall be conducted by a committee comprised of the patient's commanding officer, his or her representative, the patient, and an aftercare coordinator or the patient's substance abuse counselor. Following the completion of outpatient treatment, the aftercare program shall assist the individual in developing a continuing support plan that will involve the patient's commander. The patient shall have a written plan describing the military member's further rehabilitative responsibilities with a copy to his or her commander. The patient's progress shall be evaluated on a quarterly basis during the first year of recovery by a committee comprised of the patient, an alcohol counselor or aftercare coordinator, and the patient's commanding officer or representative (DoDI 1010.6, 1985) (see [Appendix D](#)).

EVIDENCE TABLE

	Evidence	Source	QE	Overall Quality	SR
1	Provide continuing care after intensive rehabilitation	Bennett et al., 2005 Brown et al., 2004 Hornig & Chueh, 2004 McKay et al., 2005 O'Farrell et al., 1998 Patterson et al., 1997 Sannibale et al., 2003 Siegal et al., 2002	I	Good	A
2	Encourage participation in 12-step mutual help groups (Alcoholics Anonymous)	Cloud et al., 2004 Mueller et al., 2007 Timko et al., 2006	I	Good	A
3	Provide a written plan for continuing care	Working Group Consensus	III	Poor	I

QE = Quality of Evidence; SR = Strength of Recommendation (See Appendix A)

M. Reevaluate Treatment Plan Regarding Setting and Strategies

BACKGROUND

Relapse can be used as a signal to reevaluate the treatment plan rather than evidence that the patient cannot succeed or that the patient was not sufficiently motivated.

RECOMMENDATIONS

1. For patients who are not improving, providers should consider either:
 - a. Adding or substituting another medication or psychosocial intervention, or
 - b. Changing treatment intensity by:
 - Increasing the intensity of care, or
 - Increasing the dose of the medication, or
 - Decreasing the intensity to a minimum level of care that is agreeable to the patient such as monitoring in general health care (see [Module C](#)).
2. If patients drop out of treatment, the treatment team should make efforts to contact the patient and re-engage him/her in treatment.

DISCUSSION

Modify treatment plans based on changes in a patient's clinical and psychosocial condition rather than imposing uniform treatment plans (ASAM, 2001). If possible, use treatment algorithms that clearly specify when to consider a modification to treatment and suggest adaptations to treatment when progress is less than adequate.

Indications to change treatment intensity or provide adjunctive treatments may include:

- Relapse based on self-report or urine toxicology
- Increased risk of relapse (e.g., craving or personal loss)
- Emergence or exacerbation of co-occurring medical and psychiatric conditions
- Suboptimal response to medication, psychotherapy, or social intervention
- Emergence of medication side effects
- Subsequent substance-related misconduct.

Discuss relapse as a signal to reevaluate the treatment plan rather than evidence that the patient cannot succeed or was not sufficiently motivated (Miller & Rollnick, 1991).

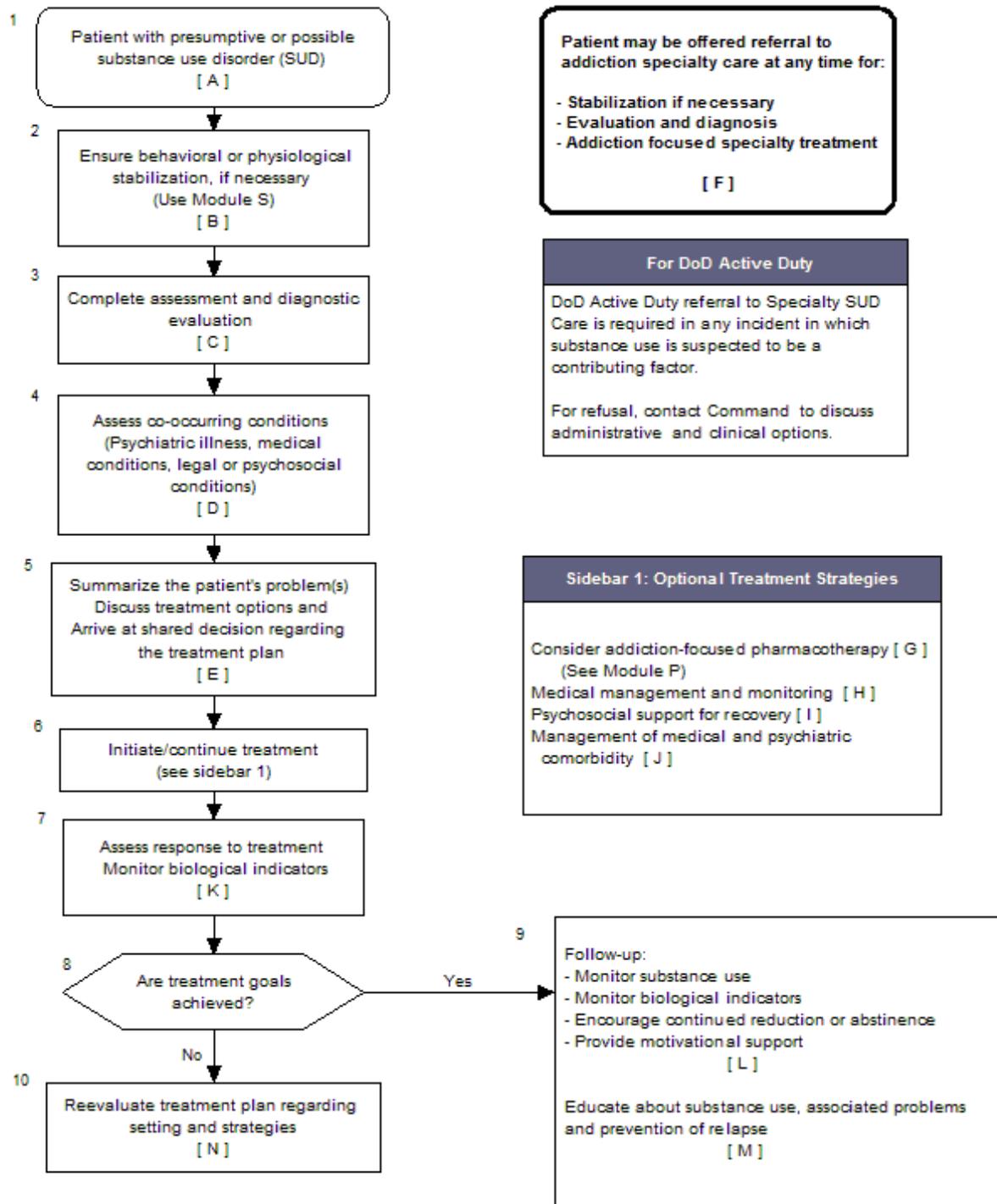
Target services to identified problems (e.g., psychiatric, medical, family/social, legal, vocational, and housing) that increase the risk of relapse, rather than increasing drug and alcohol counseling alone (McLellan et al., 1997).

Consider care management for patients with persistently sub-optimal response, rather than routinely intensifying rehabilitation or discharging (see [Module C](#)).

**Management of Substance Use Disorder
Module C: General Health Care**

7/24/2009

C



MODULE C: MANAGEMENT OF SUD IN (PRIMARY) GENERAL HEALTHCARE

A. Patient with Presumptive or Possible Substance Use

BACKGROUND

Clinicians in general medical and mental health care settings are likely to encounter patients with presumptive or possible substance use who are either referred, self-referred, or otherwise seek help related to substance use. Substance use can include Unhealthy Alcohol Use, misuse of prescription medications, and illegal substance use (e.g., heroin, cocaine). Substance use conditions are prevalent among outpatient clinic populations.

General health care settings can be broadly defined as outpatient clinic settings including primary care, psychiatry, or other specialty clinics (e.g., HIV, hepatology clinics, medical sub-specialty, pre-operative) and may include emergency departments and surgical care clinics.

All patients in general or in mental healthcare settings should be screened for Unhealthy Alcohol Use. Population-based screening for other drug use disorder is not recommended. This reflects the lower prevalence of drug use disorder and the lack of high-quality randomized controlled trials demonstrating the efficacy of primary care interventions for drug abuse and dependence. Instead, selective case finding in high-risk populations (e.g., Hepatitis C or HIV clinics), is recommended.

Patients who are diagnosed with SUD or who are seeking help with problem drinking or drug use, should be offered treatment and/or a referral to specialty addiction treatment, and monitored for unstable medical or psychiatric conditions. Patients should be referred for acute stabilization or withdrawal management if needed.

Management of SUD in the general or mental healthcare settings is likely to be a more acceptable and effective alternative for the patient when one of the following applies:

- a. The patient refuses referral to specialty SUD care but continues to seek some services, especially medical and/or psychiatric services
- b. The patient has serious co-morbidity that precludes participation in available specialty SUD care
- c. The patient has been engaged repeatedly in specialty SUD treatment with minimal progress toward abstinence or sustained improvement.

B. Ensure Behavioral or Physiological Stabilization, if Necessary

BACKGROUND

Patients who are intoxicated, undergoing withdrawal, or who are at risk for imminent severe harm associated with their substance use may be considered medically unstable or at risk for harm of self or others. These patients may be delirious or otherwise not able to engage collaboratively with a provider regarding their assessment and treatment. Screening, assessment, or treatment of substance use disorders should occur in patients who are medically stable.

For example, patients with severe physical dependence on alcohol may undergo alcohol withdrawal syndrome and may incur hallucinations, seizures, delirium, and delirium tremens. Treatment of withdrawal symptoms, as well as intoxication with alcohol or opioids, may require specialty treatments in an inpatient acute care or addiction specialty setting. Patients with cocaine intoxication may require close cardiac monitoring.

RECOMMENDATIONS

1. Assure patient safety and readiness to cooperate with further assessment by referring the patient to an emergency department or appropriate acute care setting for stabilization as needed.
See [Module S – Stabilization and Withdrawal Management](#).

DISCUSSION

An initial evaluation of a patient with SUD should occur to assess medical and psychiatric stability. Patients with problems that require emergency care or urgent action should not be further managed in non-addiction specialty settings. Medical conditions (e.g., acute trauma, myocardial infarction, and stroke) and mental conditions (e.g., delirium, suicidal ideation, or psychosis) may preclude immediate action on SUD and may not be effectively treated.

C. Complete Assessment and Diagnostic Evaluation

BACKGROUND

Comprehensive and multidimensional assessment procedures are needed to evaluate an individual's strengths, weaknesses, needs, and preferences and to determine priorities so that an initial treatment plan can be developed. In less severe cases, the assessment should at least involve screening of these elements through the use of a multidimensional screening instrument.

A complete evaluation that includes history, physical, and laboratory assessments is important to properly diagnose patients with SUD. Many patients may be involved with more than one substance and poly-substance use may not be readily apparent.

For diagnostic criteria of substance abuse and dependence, see Introduction: Definitions ([page 6](#)).

RECOMMENDATIONS

1. Patients with suspected, presumed, or identified substance use disorder (SUD) should receive a comprehensive assessment to include:
 - a. Medical history, including pertinent medical problems and treatment, surgeries, head injuries, present medications and allergies and family history of substance use
 - b. Physical examination including mental status examination (MSE)
 - c. Laboratory evaluation as indicated.
2. Comprehensive substance use history, including onset and pattern of progression, past sequelae and past treatment episodes (include all substances, e.g., alcohol, illicit drugs, tobacco, caffeine, over-the-counter medications, prescription medications, inhalants).
3. Use empathic and non-judgmental (versus confrontational) therapist style, being sensitive to gender, cultural, and ethnic differences.
4. DoD active duty members involved in an incident in which substance use is suspected to be a contributing factor are required to be referred to specialty SUD care for evaluation. Command should be contacted to discuss administrative and clinical options if the member refuses to be evaluated (see [Appendix D](#)).

DISCUSSION

Proper diagnosis of SUD is essential for medical, medico-legal, and fit-to-duty purposes. Every attempt should be made to formally diagnose patients. This diagnosis aids in management and triage decisions. Providers should inform the patient that these symptoms or diagnosis are related to SUD. Baseline laboratory evaluation may also assist in assessing response to treatment. Ongoing

improvement in laboratory abnormalities may encourage patients to continue therapy; lack of improvement may encourage a provider to intensify therapy.

During the engagement in non-specialty care settings, providers should perform an appropriate assessment but pay particular attention to assessing suicide risk. Providers in non-specialty care settings should assess patients' willingness to engage in addiction treatment and offer referral to specialty care at any point in the process. Finally, in non-specialty care settings, providers should monitor for any unstable condition and refer to stabilization if needed.

D. Assess Co-Occurring Conditions (Psychiatric Illness, Medical Conditions, Legal or Psychosocial Conditions)

BACKGROUND

Co-occurring disorders (CODs) are common with SUD and must be identified and addressed as a part of comprehensive care. CODs, also termed co-morbid disorders, are defined as sub-clinical or diagnosed medical and/or behavioral health conditions that occur with and influence the SUD condition. CODs threaten the health of patients and may complicate the treatment of SUD.

SUD is highly correlated with posttraumatic stress disorder and other psychological disorders that may occur after stressful and traumatic events, such as those associated with war.

RECOMMENDATIONS

1. Identify and document any co-occurring disorders (CODs) in patients with substance use disorders.
 - a. Psychiatric history, including symptoms and their relation to substance use, current and past diagnoses, treatments and providers
 - b. Infectious diseases (HIV, Hepatitis C, sexually transmitted disease)
 - c. Nearly all daily nicotine users are nicotine dependent. Identification and treatment of co-morbid nicotine dependence may improve recovery rates of other SUDs. For patients using nicotine offer and recommend tobacco use cessation treatment. Use the Clinical Practice Guideline: Treating Tobacco Use & Dependence: 2008 Update from the U.S. Department of Health and Human Services at http://www.surgeongeneral.gov/tobacco/treating_tobacco_use08.pdf and the VA/DoD Clinical Practice Guideline for Management of Tobacco Use
 - d. Medical COD that may be related to or affected by substance use (e.g., diabetes, cardiovascular disease, digestive disorders, skin infections, respiratory disorders).
2. Individuals with SUD should be assessed for any significant, unmet psychosocial needs or situational stressors. These include but are not limited to:
 - a. Inadequate or no housing
 - b. Financial difficulties, especially if unable to meet basic needs
 - c. Problematic family relationships or situations (including caregiver burden or domestic violence)
 - d. Poor social support
 - e. Religious and spiritual problems
 - f. Occupational problems
 - g. Difficulties with activities of daily living or instrumental activities of daily living
 - h. Any other acute or chronic situational stressors.

DISCUSSION

Most of what is known about the number of cases of CODs was taken from convenience samples. Those studies in mental health settings found that 20 to 50 percent of patients with lifetime co-occurring SUD had a lifetime co-occurring mental disorder, while those in SU/SUD treatment settings found that 50 to 75 percent of patients had such a disorder. One report found that 73 percent of patients with drug dependence disorder in SUD treatment had a co-occurring mental disorder at some point during their lifetime.

Of the COD cases reported in substance abuse settings a substantial proportion either had a mental disorder of low severity or an antisocial personality disorder. In the former instance, SU/SUD treatment has been found to be effective; in the latter instance, SU/SUD treatment is widely acknowledged as the treatment of choice. The literature also suggests elevated rates of other forms of mental disorders, including major depressive disorder and other mood or affective disorders, or posttraumatic stress disorder, and indicates the diagnosis of more than one mental disorder is not unusual.

Ongoing data regarding the incidence and prevalence of CODs are obtained from national epidemiologic studies including the National Comorbidity Survey (NCS, funded by the NIMH), the National Survey on Drug Use and Health (NSDUH, funded by SAMHSA), and the National Epidemiologic Study on Alcohol and Related Conditions (NESARC, funded by the NIAAA and NIDA). (<http://ncadi.samhsa.gov/>; www.cece.samhsa.gov)

Data also suggest that the type and severity of COD depend on the specific substance used or SUD. High-risk CODs includes a variety of liver (e.g., hepatitis B and C) and cardiac (e.g., cardiomyopathy, congestive heart failure, arrhythmias, valve disease) disorders. Furthermore, environmental morbidity such as unemployment, homelessness, family dysfunction and criminality are important and should be attended to in non-specialty care settings.

An analysis of the Millennium Cohort Study data found that combat deployment in support of the wars in Iraq and Afghanistan was significantly associated with new-onset heavy weekly drinking, binge drinking, and other alcohol-related problems among Reserve/Guard and younger personnel after return from deployment (Jacobson et al., 2008).

Additional information on COD can be found in Treatment Improvement Protocol (TIP) 42, *Substance Abuse Treatment for Persons with Co-Occurring Disorders* (Center for Substance Abuse Treatment [CSAT], 2005).

E. Summarize the Patient's Problem(s), Discuss Treatment Options, and Arrive at Shared Decision Regarding the Treatment Plan

BACKGROUND

Informed decision-making involves explaining the medical condition, outlining treatment options, and guiding the patient to a decision about their own care. Even when patients refuse referral or are unable to participate in specialized addiction treatment, many are accepting of general medical or psychiatric care.

RECOMMENDATIONS

1. Recognize that feedback about laboratory assessments may improve patients' motivation to change and may serve as a baseline to monitor SUD treatment progress.
2. Review the assessment, including diagnosis, past treatment response and the patient's perspective on current problems; co-occurring disorders related to SUD; the patient's motivational level, treatment preferences and short- and long-term goals.

3. Present and discuss with the patient appropriate treatment options in a way that motivates ongoing cooperation with the provider and supports subsequent decisions about referral or brief intervention.
4. Present and discuss the treatment options with the patient and significant others.
5. Determine which treatments could be offered in general healthcare (including primary care), based on availability of a provider, severity and chronicity of the SUD, active involvement with recovery supports in the community, prior treatment response, and patient’s preference and likelihood of adherence.
6. Involve the patient in prioritizing problems to be addressed in the initial treatment plan, and in selecting specific treatment goals, regardless of the level of care selected (See Table C – 1).
7. If the patient is not willing to engage in any addictions focused care, provide motivational intervention and determine whether treatment for medical and psychiatric problems can be effectively and safely provided. Continue to try to engage the patient in addictions treatment (see annotation K).

Table C- 1. Treatment Goals and Expected Outcomes

Treatment Goals	Expected Outcomes
Patient seeking to achieve remission	Complete and sustained remission of all substance use disorders (SUDs) Resolution of, or significant improvement in, all coexisting biopsychosocial problems and health-related quality of life
Patient seeking help but not committed to abstinence	Short- to intermediate-term remission of SUDs or partial remission of SUDs for a specified period of time Resolution or improvement of at least some health-related quality of life
Patient not willing to engage in treatment and not yet ready to abstain	Engagement in general health treatment process, which may continue for long periods of time or indefinitely Continuity of care (case management) Continuous enhancement of motivation to change Availability of crisis intervention Improvement in SUDs, even if temporary or partial Improvement in coexisting medical, psychiatric, and social conditions Improvement in quality of life Reduction in the need for high-intensity healthcare services Maintenance of progress Reduction in the rate of illness progression

DISCUSSION

Some patients may be able to be managed effectively in non-specialty care, and will not require referral to specialty care. Factors that are associated with the potential for good outcome in non-specialty care include the availability of a willing provider with whom the patient has an established relationship, lower severity and chronicity of the SUD, active involvement with recovery supports in the community, favorable prior treatment response, and patient’s preference for non-specialty care rather than specialty care treatment.

For DoD active duty members, a specialty referral is required for patients with presumptive or possible substance use disorder or following any substance-related incident, and refusal requires contact with command to discuss administrative and clinical options.

F. Referral to Specialty SUD Care

BACKGROUND

Referral should be offered to patients who are open to assessment or who are ready for assistance from a specialty addictions provider or program.

RECOMMENDATIONS

1. Offer referral to specialty SUD care for addiction treatment if the patient: [A]
 - a. May benefit from additional evaluation or motivational interviewing regarding his/her substance use and related problems
 - b. Has tried and been unable to change substance use on his/her own or does not respond to repeated brief intervention
 - c. Has been diagnosed with substance dependence
 - d. Has previously been treated for an alcohol or other substance use disorder
 - e. Has an AUDIT-C score of ≥ 8 .

For active duty members, coordinate care with the unit commander.

2. DoD active duty members involved in an incident in which substance use is suspected to be a contributing factor are required to be referred to specialty SUD care for evaluation. Command should be contacted to discuss administrative and clinical options if the member refuses to be evaluated (see Appendix D).

EVIDENCE TABLE

	Evidence	Source	QE	Overall Quality	SR
1	Referral to specialty care	Gerstein & Harwood, 1990 Institute of Medicine, 1990	I	Good	A

QE = Quality of Evidence; SR = Strength of Recommendation (See Appendix A)

G. Treatment: Consider Addiction-Focused Pharmacotherapy

BACKGROUND

Currently, the Food and Drug Administration (FDA) has approved pharmacotherapy for patients diagnosed with alcohol or opioid dependence. While non-pharmacologic treatment has been the mainstay of treatment for SUD, recent scientific advances have encouraged the use of pharmacologic treatments. Pharmacologic treatments can serve as an effective adjunct to non-pharmacologic treatments to help patients reduce or eliminate alcohol consumption.

RECOMMENDATIONS

1. Discuss pharmacotherapy options with all patients with opioid and/or alcohol dependence.
 2. Initiate pharmacotherapy if indicated and monitor adherence and treatment response.
- (See [Module P](#) for specific recommendations and evidence.)

DISCUSSION

While non-pharmacologic treatment has been the mainstay of treatment for SUD, recent scientific advances have encouraged the use of pharmacologic treatments. Pharmacologic treatments for problem alcohol consumption can serve as an effective adjunct to non-pharmacologic treatments to help patients reduce or eliminate alcohol consumption. The advance in the understanding of the neurobiology of alcohol dependence and success of pharmacotherapy in other addictions has supported the use of pharmacotherapy to help in the treatment of problem drinking. The lack of awareness among clinicians that effective pharmacotherapy options exist is a primary reason for low utilization of pharmacotherapy in clinical practice.

Current approved medications for alcohol use disorders include acamprosate, disulfiram, oral naltrexone, and injectable naltrexone. Several other medications (e.g., topiramate) also show promise in the treatment of alcohol use disorders. Similarly, buprenorphine has been effective at improving the treatment of opioid dependence in office-based settings. Opioid agonist therapy (OAT) has historically been restricted to delivery in licensed opioid agonist treatment programs (OATPs).

In 2002, sublingual buprenorphine and buprenorphine/naloxone tablets (hereafter collectively termed buprenorphine) were approved for OAT. Buprenorphine has been shown to be a safe and effective treatment of opioid dependence in non-specialized, outpatient, office-based settings (Fiellin et al., 2006).

H. Treatment: Medical Management and Monitoring

BACKGROUND

The provider in general healthcare settings can and should provide evidence-based medical management to reduce substance use. A structured, focused format can provide an initial pathway towards recovery. Brief interventions are effective in the initial phase and may be repeated as part of medical monitoring. For patients who do not respond to brief intervention, comprehensive medical management and monitoring as well as opportunistic referral to specialty SUD care are the emphases of general healthcare treatment. In some cases, medical management will lead to remission of the SUD or referral for specialty SUD care, while in others it serves a more palliative function.

RECOMMENDATIONS

1. Provide a brief intervention (counseling) for Unhealthy Alcohol Use, which includes the following components: [A]
 - a. Express concern that the patient is drinking at unhealthy levels known to increase his/her risk of alcohol-related health problems
 - b. Provide feedback linking alcohol use and health, including:
 - Personalized feedback (i.e., explaining how alcohol use can interact with the patient's medical concerns [e.g., hypertension, depression/anxiety, insomnia, injury, diabetes, breast cancer risk, interactions with medications]) OR
 - General feedback on health risks associated with drinking.
 - c. Advise:
 - To abstain (if there are contraindications to drinking) OR
 - To drink below recommended limits (specified for the patient by gender, age and health status)
 - d. Support the patient in choosing a drinking goal, if he/she is ready to make a change.

2. Provide medical management in the treatment of alcohol use disorder and consider medical management for other substance use disorders that includes: [C]
 - Monitoring self-reported use, laboratory markers and consequences
 - Use of medication, adherence monitoring, response to treatment and adverse effects
 - Education and referral to community support for recovery (e.g., Alcoholics Anonymous).
3. Offer referral to a specialty addictions program when indicated.

RATIONALE

A number of modalities of psychosocial therapy have been studied and validated for treatment of SUDs (McCaul & Petry, 2003). Referral to specialty care is an ongoing consideration for arranging access to more extensive evidence-based psychosocial therapy interventions. In the context of the primary care setting, delivering particular psychosocial therapies may be difficult due to time constraints, patient population, and lack of training. Brief interventions and comprehensive medical management and monitoring have been shown to be the most studied (and effective) interventions in the context of non-specialty care settings (Anton et al. 2006).

Brief interventions (see discussion Module A, [Annotation F](#)).

Medical Management strategy was developed as part of the NIAAA-supported COMBINE study to provide a basic form of clinical intervention supporting effective pharmacotherapy (Anton et al., 2006). Medical Management is a manualized treatment designed to approximate a primary care approach to alcohol dependence (<http://pubs.niaaa.nih.gov/publications/combine/index.htm>) (Pettinati et al., 2000). The treatment, delivered by a medical professional (e.g., nurse or physician), provides strategies to increase medication adherence and monitoring of substance use and consequences as well as supporting abstinence through education and referral to support groups-

The initial session (40–60 minutes) involves discussion of the alcohol dependence diagnosis and negative consequences from drinking, a recommendation to abstain, medication information, strategies to enhance medication adherence, and referral to support groups such as Alcoholics Anonymous. In the subsequent monitoring visits, the clinician assesses the client’s drinking, monitoring lab or physiologic measures, assessing overall functioning, medication adherence, and any medication side effects.

Session structure varies according to the client’s drinking status and treatment compliance. When the client does not adhere to the medication regime, the clinician evaluates the reasons and helps the client devise plans to address the problem(s). Clinicians urge clients who drink to attend support groups and offer common sense recommendations, such as avoiding bars. If the client suffers from medical side effects, the clinician specifies procedures for using concomitant medication to ameliorate them or reduces the dosage of either one or both study agents, resuming the study agents if side effects remit. If a client discontinues medication because he or she cannot tolerate it, the clinician schedules a monthly 15- to 25-minute “medical attention” meeting, during which the clinician employs a similar approach that focuses on the client’s drinking and overall health, omitting the medication adherence component.

In COMBINE, Medical Management appeared to be an excellent treatment to reduce alcohol consumption even when the medication prescribed was placebo. Medical management can be adapted to help treat substances other than alcohol use and alcohol use disorders, although further studies will be required to support its effectiveness.

EVIDENCE TABLE

	Evidence	Source	QE	Overall Quality	SR
1	Medical monitoring and placebo are as effective as acamprosate or a combined behavioral intervention for alcohol	Anton , 2006	I	Good	C

QE = Quality of Evidence; SR = Strength of Recommendation (See Appendix A)

I. Treatment: Psychosocial Support for Recovery

BACKGROUND

Psychosocial rehabilitation services can be an important part of the treatment of SUD when indicated. Negative life events and stressful circumstances may contribute to the onset or relapse of a substance use disorder. They also may influence treatment adherence and outcome.

RECOMMENDATIONS

1. Referral to psychosocial rehabilitation services should be offered to individuals with identified, unmet psychosocial needs, regardless of the population or setting, and regardless of the type of pharmacotherapy or psychotherapy being administered.
2. Prioritize and address other coexisting biopsychosocial problems with services targeted to these problem areas, rather than increasing intensity of addiction-focused psychosocial treatment alone. [B]
 - a. Address transitional housing needs to facilitate access to treatment and promote a supportive recovery environment
 - b. Provide social/vocational/legal services in the most accessible setting to promote engagement and coordination of care
 - c. Address deferred problems as part of treatment plan updates and monitor emerging needs
 - d. Coordinate care with other social service providers or case managers.

DISCUSSION

The Guideline for Detoxification and Substance Abuse Treatment: An Overview of the Psychosocial and Biomedical Issues during Detoxification (SAMHSA, 2006) recommends the following:

“Patients are more likely to engage in treatment if they believe the full array of their problems will be addressed, including those needs typically addressed by social services (e.g., housing, vocational assistance, childcare, and transportation). Moreover, patients receiving needed services remain in substance abuse treatment longer and improve more than people who do not receive such services.

As the individual passes through acute intoxication and withdrawal, it is important to ensure that the basic needs of the patient are met after discharge. These needs include access to a safe, stable, and drug-free living environment if possible; physical safety; food and clothing; ongoing health and prenatal care; financial assistance; and childcare.

Providers should be familiar with available resources for legal assistance, dental care, support groups, interpreters, housing assistance, trauma treatment, recovery-sensitive parenting groups, spiritual and cultural support, employment assistance, and other assistance programs

for basic needs. Family and other support systems also can be helpful to the patient in accessing services and should take part in the services planning as often as possible, always with the patient's consent.

To address the needs of homeless and indigent patients, providers should be familiar with emergency shelters, cash assistance, and food programs in their communities and should have established referral relationships. Assessing women, teenagers, older adults, and other vulnerable individuals for victimization by another member of the household also is important. Patients should be linked with prenatal and primary healthcare for domestic violence. Ideally, linkage to these programs includes more than a phone number; and should assist patients in scheduling initial appointments and arranging for transportation.”

J. Management of Medical and Psychiatric Co-occurring Conditions

BACKGROUND

In addition to the standard addiction-focused services, providers should address psychiatric and general medical conditions that exist in association with the SUD. Treatment services directed toward these additional problems, when they exist, are associated with improvement. Problems typically show little spontaneous improvement if services are not provided.

RECOMMENDATIONS

1. Prioritize and address co-occurring medical and psychiatric conditions.
2. Recommend and offer cessation treatment to patients with nicotine dependence. Use the Clinical Practice Guideline: Treating Tobacco Use & Dependence: 2008 Update from the U.S. Department of Health and Human Services at: http://www.surgeongeneral.gov/tobacco/treating_tobacco_use08.pdf and the VA/DoD Clinical Practice Guideline for Management of Tobacco Use.
3. Treat concurrent psychiatric disorders consistent with VA/DoD clinical practice guidelines (e.g., Major Depressive Disorder, Post Traumatic Stress, Bipolar Disorder, Psychoses) including concurrent pharmacotherapy.
4. Provide multiple services in the most accessible setting to promote engagement and coordination of care.
5. Monitor and address deferred problems and emerging needs through ongoing treatment plan updates.
6. Coordinate care with other providers.

DISCUSSION

A comprehensive medical approach to medical care that addresses all of the patient's co-occurring disorders (CODs) is important. Patients benefit from a focused summary of their current SUD and the effect that it has on their overall health as well as the effect it has on those around them. Collaboration, service and system integration, when available, can assist in managing a patient with SUD and CODs.

Disease-specific treatment has been shown to be efficacious for patients diagnosed with SUD or other psychiatric disorders alone. While there have been a number of theories about how to treat COD among patients with SUD, there has been little data to support the best approach. In the simplest sense, existing efficacious treatment that successfully reduces psychiatric symptoms in patients with such symptoms alone should also reduce psychiatric symptoms in patients with both psychiatric CODs and SUD. A review of 59 studies (36 RCTs evaluating treatment of dual diagnosis) concluded that although no treatment was identified as efficacious for both psychiatric disorders and substance-related disorder, the author found: (1) existing efficacious treatments for reducing psychiatric symptoms also

tend to work in dual-diagnosis patients, (2) existing efficacious treatments for reducing substance use also decrease substance use in dually diagnosed patients, and (3) the efficacy of integrated treatment is still unclear (Tiet & Mausbach, 2007).

This is likely also true for medical CODs among SUD patients. There is scant literature on COD treatment among patients with SUD. One meta-analysis on the use of medications to reduce depressive symptoms in individuals with SUD concluded that antidepressants are effective for reducing depressive symptoms among these patients, although the effect of these medications on the substance use was limited. The existing literature regarding treatments for patients with SUDs with a COD of major depression or bipolar disorders seems to support that medication, psychosocial, and self-help treatments are available and show some evidence of effectiveness, but suggest that more evidence is needed to demonstrate efficacious treatment effects for patients with CODs.

A growing body of research demonstrates that integrated services produce better outcomes for individuals with CODs, particularly those with more serious or complex conditions. Integrated service is any process by which mental, medical health, and SUD services are integrated or combined at either the level of direct contact with the patients with COD or between providers or programs serving COD patients. Providers in non-specialty care settings should communicate regularly and integrate their care with specialty addiction care services when possible. For patients who are managed entirely within non-specialty care settings, comprehensive COD and SUD care should be attempted. Often for a primary care provider who is managing SUD, discussions with and/or referrals to behavioral healthcare can be an important intervention for a patient with SUD. Likewise a behavioral health specialist may find that collaborating with the primary care provider on the management of the medical conditions of the patient may optimize the behavioral health provider's attention to SUD care. Motivation for SUD treatment can be increased when attention is paid to CODs.

Coordinated, collaborative overview of treatment options and processes to arrive at a plan of treatment should occur with every patient with SUD and a COD. Unmanaged co-morbidities have a demonstrated adverse effect on recovery from SUD. The non-specialty care setting is well suited for coordinating and delegating the management of SUD, a COD, or both.

Substance use disorders often follow a chronic, relapsing course, making individualized treatment more complicated (McLellan et al., 1996; O'Brien & McLellan, 1996). Treatment has not yet been well-conceptualized for many patients who either have responded with minimal improvement to repeated rehabilitative treatments or are unable or unwilling to engage in rehabilitation efforts, but who desire other services. Even when patients are unable and/or unwilling to participate in rehabilitation or show minimal benefit, there are opportunities to address SUD in other care settings.

Care management approaches for SUD are similar to management of other severe and persistent disorders for which no cure has been identified, such as bipolar disorder or diabetes mellitus (McLellan et al., 2000). Recent evidence suggests that approaches emphasizing engagement with the patient over long periods of time, case management, and integration of substance abuse treatment interventions with treatment for the coexisting conditions result in reduced substance use and associated complications (Drake & Mueser, 2000; Osher & Drake, 1996; U.S. DHHS, 1994; Willenbring et al., 1995; Willenbring et al., 1999). In the absence of serious co-morbidity or with appropriate specialist consultation, care management can be provided within some addiction treatment clinics.

Even when patients refuse referral or are unable to participate in specialized addiction treatment, many are accepting of general medical or psychiatric care. Clinicians in multiple settings can deliver care management for patients with SUDs. The chronic illness approach is consistent with management approaches for many other disorders treated in medical and psychiatric settings (Drake & Mueser, 2000; McLellan et al., 2000; Willenbring et al., 1999).

EVIDENCE TABLE

	Evidence	Source	QE	Overall Quality	SR
1	Consider care management for patients with SUD who are medically ill	Willenbring et al., 1995 Willenbring et al., 1999	I	Good	A
2	Consider care management for combined serious psychiatric disorders and SUD, where participation in rehabilitation programs is precluded	Drake & Mueser, 2000 Osher & Drake, 1996 U.S. DHHS, 1994	II-1	Fair	B
3	Match patient's motivational level and needs with available programming	American Society of Addiction Medicine (ASAM), 2001	III	Fair	C

QE = Quality of Evidence; SR = Strength of Recommendation (See Appendix A)

K. Assess Response to Treatment / Monitor Biological Indicators

BACKGROUND

Periodic monitoring of progress toward treatment goals helps to coordinate care and to motivate the patient and members of the treatment team to accomplish interim steps. Periodic reassessments also provide opportunities to address emerging problems and change treatment strategies when the initial plan is not fully successful.

There is no uniformly successful treatment plan. Some patients may respond to psychosocial interventions, others to pharmacotherapy. Some patients may respond to one medication and not to another. The provider should be flexible in modifying the medical regimen based on the patient's needs or preferences.

RECOMMENDATIONS

1. Reassess response to treatment periodically and systematically, using standardized and valid instrument(s) whenever possible. Indicators of treatment response include ongoing substance use, craving, side effects of medication, emerging symptoms, etc.
2. Consider obtaining biological markers of recent substance use.
3. Assess co-occurring medical problems associated with substance use through history, physical exam and appropriate laboratory evaluation.

DISCUSSION

Reassessments must occur at predictable intervals to enable both the decision about conservation of resources and the acknowledgment that the SUD require assiduous attention. Periodic intervals may include: after specialty care, after special studies, at agreed-upon milestones, and whenever the patient or a collaborator report a deteriorating course.

The assessment in a medical setting involves at least two components: biomarkers and patient reports. Biomarkers are objective evidence that an individual may be using drugs. These markers can be as simple as a urine drug screen or physical indications of potential harm associated with use (e.g., liver function abnormalities). Patient reports are based on questionnaires designed to get a "big picture" of the patient's substance use and to identify potential "red flags" that require particular physician attention. In the DoD setting, the Substance Use Report (SUR) measures the subject's report of days

of recent drug use and routes of administration. The use of methamphetamines, cocaine, alcohol, marijuana, opioids, benzodiazepines, barbiturates, and nicotine (cigarette smoking) are recorded on this form at each clinic visit.

L. Follow-Up

ACTION STATEMENT

For many patients, substance use disorders are chronic conditions that warrant extended efforts at relapse prevention and encouragement by multiple providers for progress.

RECOMMENDATIONS

1. Ask the patient about any use, craving, or perceived relapse risk.
2. Provide feedback to patient regarding improvement or deterioration in laboratory assessments affiliated with substance use.
3. Encourage abstinence or reduced use, consistent with the patient's motivation and agreement.
4. Convey openness to discuss any future concerns that may arise and encourage the patient to discuss them with you.

M. Educate About Substance Use, Associated Problems, and Prevention of Relapse

BACKGROUND

Expert opinion supports optimistic, empathetic interventions that note the importance of the changes patients have made to their health, provide positive feedback and encourage continued drinking below recommended limits.

RECOMMENDATIONS

1. Discuss the patient's current use of alcohol and other drugs and address any potential problem areas, such as recent initiation of use, increase in use, and use to cope with stress.
2. Inform patient about potential age- and gender-related problems, such as:
 - a. Abusive drinking or other drug use in the young adult
 - b. Alcohol and other drug use during pregnancy
 - c. Medication misuse or heavy drinking in the older adult.
3. Convey openness to discuss any future concerns that may arise and encourage the patient to discuss them with you.
4. Periodically inquire about alcohol and drug use at future visits.

N. Reevaluate Treatment Plan Regarding Setting and Strategies

BACKGROUND

Patients' goals may change over time, and providers should adapt to new objectives that the patient may express. Partial remission may be common and requires an ongoing reevaluation of the treatment plan rather than evidence that the patient cannot succeed or that the patient was not sufficiently

motivated. Even after examining the reasons for partial remission and intensifying or modifying psychosocial treatment or pharmacotherapy, some patients may not reduce alcohol consumption.

Treatment of chronic relapsing patients is difficult. For those willing to accept referral, treatment should be undertaken by addiction professionals in specialty treatment settings that employ a multi-faceted approach incorporating social, environmental, medical, behavioral, and motivational interventions.

RECOMMENDATIONS

1. For patients who are not improving a consideration should be given to either:
 - a. Changing to another medication or intervention; or
 - b. Changing treatment intensity by:
 - Increasing the intensity of care, or
 - Increasing the dose of the medication, or
 - Adding a medication.
2. For patients who do not stabilize and refuse to engage in any type of ongoing care with any provider (e.g., medical, psychiatric, or addiction specialty) episodic attention to substance use may be accomplished by the following:
 - a. Provide crisis intervention, as needed
 - b. At any contact initiated by the patient:
 - Assess current substance use
 - Recommend that the patient accept ongoing care in the most appropriate setting
 - Designate a single provider to coordinate care for patients who repeatedly present in crisis
 - Consider involving supportive family members or significant others, if the patient agrees. For DoD active duty members this may include first line supervisor when appropriate, and will necessarily include the unit commander
 - Initiate involuntary treatment procedures, if imminent threat to safety occurs (e.g., suicidal, violent, or unable to care for self).
 - c. Continue to reinforce and endorse increased appropriate engagement and adherence.
3. Consider consultation with mental health or SUD specialty.

DISCUSSION

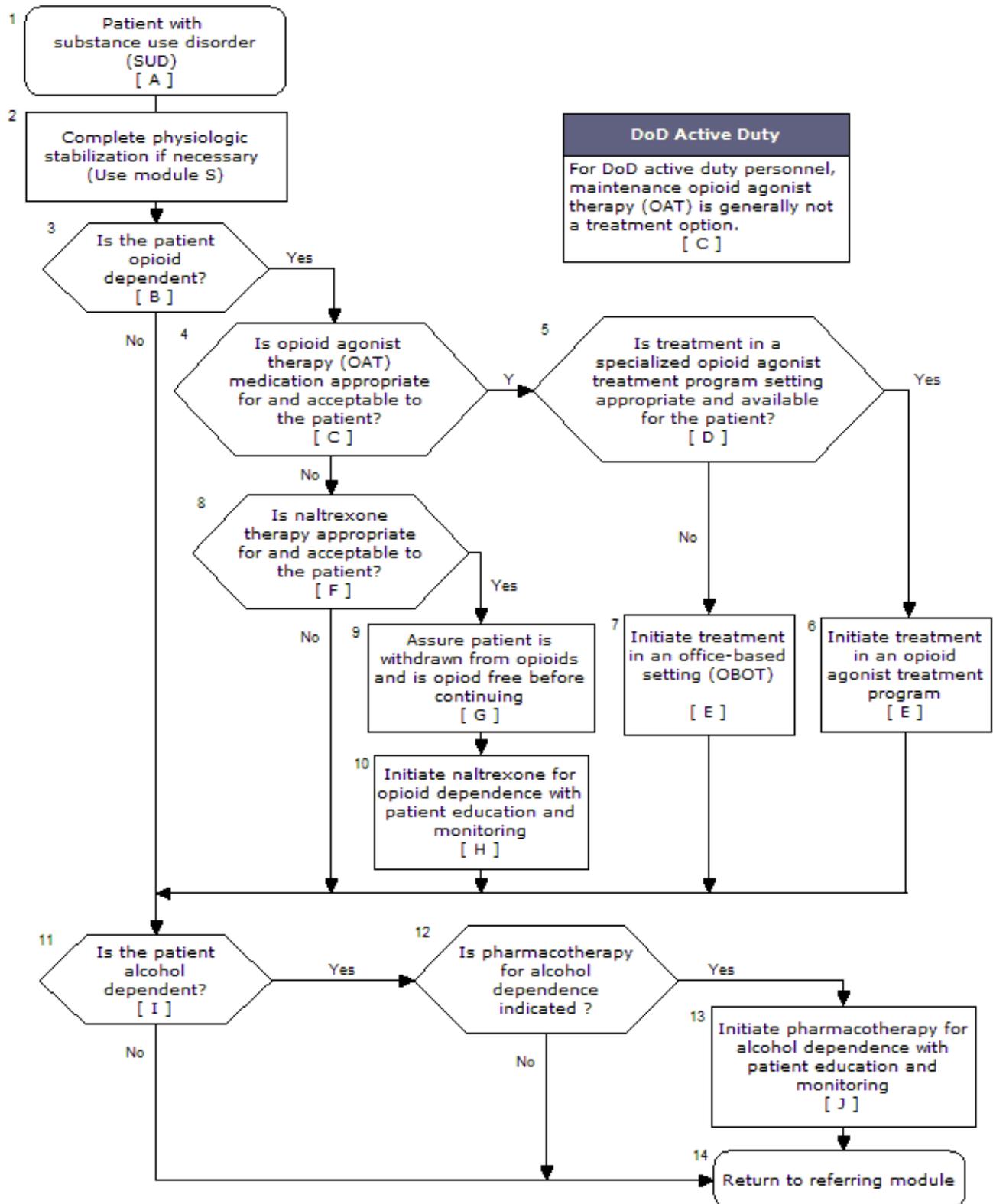
Indications to change treatment intensity or provide adjunctive treatments may include:

- Relapse based on self-report or urine toxicology
- Increased risk of relapse (e.g., craving or personal loss)
- Emergence or exacerbation of co-occurring medical and psychiatric conditions
- Suboptimal response to current treatment
- Emergence of medication side effects
- Subsequent substance-related misconduct.

Discuss relapse as a signal to reevaluate the treatment plan rather than evidence that the patient cannot succeed or was not sufficiently motivated (Miller & Rollnick, 1991).

MANAGEMENT OF SUBSTANCE USE DISORDERS
Module P: Addiction-Focused Pharmacotherapy

P



8/1/2009

MODULE P: ADDICTION-FOCUSED PHARMACOTHERAPY

A. Patient with Substance Use Disorder (SUD)

BACKGROUND

Patients managed within this module meet the criteria for DSM-IV-TR substance abuse or dependence and are considered for addiction-focused pharmacotherapy.

B. Does the Patient Meet DSM-IV Criteria for Opioid Dependence?

BACKGROUND

Addiction focused pharmacotherapy is often indicated for patients who meet DSM-IV-TR opioid dependence criteria. The American Academy of Pain Medicine, the American Pain Society, and the American Society of Addiction Medicine issued a consensus statement that distinguished addiction from physical dependence. References to opioid dependence elsewhere in this module are based on the diagnostic condition reflecting addiction rather than physical dependence alone.

See Introduction: Definitions ([page 6](#))

RECOMMENDATIONS

1. Assess opioid dependence using DSM-IV-TR criteria.

PHARMACOTHERAPY FOR OPIOID DEPENDENCE

C. Is Opioid Agonist Treatment (OAT) Medication Appropriate for, and Acceptable to, the Patient?

BACKGROUND

Opioid agonist treatment (OAT) is the first line treatment for chronic opioid dependence that meets DSM-IV-TR criteria. For DoD active duty members, OAT is generally not a treatment option.

RECOMMENDATIONS

1. Provide access to opioid agonist treatment (OAT) for all opioid dependent patients, under appropriate medical supervision and with concurrent addiction-focused psychosocial treatment as indicated. [A]
2. Strongly recommend methadone or sublingual buprenorphine/naloxone maintenance as first line treatments due to their documented efficacy in improving retention and reducing illicit opioid use and craving. [A]
3. Note: In pregnancy, buprenorphine monotherapy is preferred.

See [Table P-1](#) for indications, contraindications, side effects, and drug interactions of methadone and sublingual buprenorphine/naloxone.

Refer to [Appendix C: Addiction-Focused Psychosocial Treatment](#)

DISCUSSION

Opioid dependence is a cluster of cognitive, behavioral, and physiological symptoms characterized by repeated self-administration and usually results in opioid tolerance, withdrawal symptoms, and compulsive drug taking, despite negative consequences. While federal regulatory language uses the term “opiate addiction,” the diagnostic term *opioid dependence* will be used here for consistency with the rest of the guideline. Dependence may occur with or without the physiological symptoms of tolerance and withdrawal. OAT for opioid dependence consists of administering an opioid agonist medication, such as methadone or sublingual buprenorphine, in combination with a comprehensive range of medical, counseling, and rehabilitative services. By administering an opioid to prevent withdrawal, reduce craving, and reduce the effects of illicit opioids, the opioid dependent patient is able to focus more readily on recovery activities. In addition, OAT has been associated with a reduction in human immunodeficiency virus (HIV) risk behavior, and drug-related criminal behavior. When compared to medically supervised withdrawal attempts, OAT is more successful in achieving the long-term goal of reducing opioid use and the associated negative medical, legal, and social consequences.

Two systematic reviews examined the efficacy of buprenorphine versus methadone for opioid maintenance therapy. Mattick et al. (2003) concluded that buprenorphine can reduce heroin use but is not as effective as methadone. Buprenorphine given in flexible doses was less effective than methadone in retaining patients in treatment (6 RCTs, N=837, RR=0.82; 95%CI: 0.69-0.96). There was no advantage for high dose buprenorphine over high dose methadone in retention (5 RCTs, N=449, RR=0.79; 95%CI: 0.62-1.01). Farre et al. (2002) found that low doses of buprenorphine were not as effective as high doses of methadone for risk of illicit drug use (OR 3.39, 95%CI, 1.87-6.16).

Since the publication of the above systematic reviews, RCTs of buprenorphine versus methadone have suggested that methadone was more effective at reducing opioid consumption (Fischer et al., 2006; Neri et al., 2005). One trial suggested that methadone may also be superior to buprenorphine for maintenance of patients with co-occurring cocaine dependence (Schottenfeld et al., 2005). When reported, retention rates in these trials ranged from 59 to 93 percent, and relapse rates from 16 to 28 percent.

Table P- 1. Agonist Therapy for Opioid Dependence

	Methadone	Buprenorphine / Naloxone or Buprenorphine
Indications	Opioid dependence (DSM diagnosis) and patient meets Federal Opioid Treatment Standards (42 CFR 8.12)	Opioid dependence (DSM diagnosis) plus one or more of the following: 1 New patients not currently receiving OAT AND who meet at least one of the following 3 criteria: a. Do not have timely access to a VA-supported OAT center. b. Do not meet regulatory criteria for treatment in an OAT program. (http://www.dpt.samhsa.gov/) c. Will have difficulty adhering to scheduled visits at a VA supported OAT program (e.g., because of restrictive clinic hours). 2 Appropriately selected patients on stable methadone maintenance who have difficulty adhering to scheduled visits at a VA-supported OAT center or may not need close supervision. 3 Patients who have a documented severe, uncontrollable adverse effect or true hypersensitivity to methadone.
Contraindications	Hypersensitivity	Hypersensitivity

Warnings / Precautions	<p>Concurrent enrollment in another OTP</p> <p>Significant liver failure</p> <p>Use of opioid antagonists (e.g., naloxone, nalmefene, or naltrexone)</p> <p>Concurrent benzodiazepines or other CNS depressants (potential respiratory depression)</p> <p>Cardiac arrhythmias with prolonged QTc interval</p>	<p>Buprenorphine/naloxone may precipitate withdrawal in patients on full agonist opioids</p> <p>Concurrent benzodiazepines or other CNS depressants, including active alcohol abuse /dependence (potential respiratory depression)</p> <p>Use caution in patients with respiratory, liver, or renal impairment</p> <p>Use of opioid antagonists (e.g., naloxone, nalmefene, or naltrexone)</p>
Baseline evaluation	<p>Consider baseline ECG and physical examination for patients at risk for QT prolongation or arrhythmias</p>	<p>Liver transaminases</p>
Dosage and Administration	<p>Initial dose: 15–20 mg single dose, max. 30 mg.</p> <p>Daily dose: Max. 40 mg/d on first day. Usual dosage range for optimal effects: 60–120 mg/d.</p> <p>Titrate carefully, consider methadone’s delayed cumulative effects</p> <p>Give orally in single dose</p> <p>Individualize dosing regimens (AVOID same fixed dose for all patients)</p>	<p>Induction dose: 2–8 mg sublingually once daily</p> <p>Day 2 and onward: Increase dose by 2–4 mg/d; target dose in first week, 12–16 mg/d.</p> <p>Stabilization / Maintenance: Titrate by 2–4 mg per week; usual dose 12–16 mg/d (up to 32 mg/d)</p> <p>Individualize dosing regimens</p>
Alternative Dosing Regimens	<p>Give in divided daily doses based on peak and low levels that document a metabolic rate that justifies divided doses</p>	<p>Give equivalent weekly maintenance dose divided over extended dosing intervals (2 or 3 times a week or every 2, 3, or 4 days)</p>
Dosing in Special Populations	<p>Renal or Hepatic Impairment: Reduce dose</p> <p>Elderly or Debilitated: Reduce dose</p>	<p>Hepatic Impairment: Reduce dose</p>
Adverse Effects	<p>Major: respiratory depression, shock, cardiac arrest, possible prolongation of QTc interval on ECG and torsades de pointes ventricular tachycardia</p> <p>Common: lightheadedness, dizziness, sedation, nausea, vomiting, sweating, constipation, edema</p> <p>Less common: sexual dysfunction</p>	<p>Major: hepatitis, hepatic failure, respiratory depression (usually when misused intravenously with other CNS depressants)</p> <p>Common: headache, pain, abdominal pain, insomnia, nausea, vomiting, sweating, constipation</p>
Drug Interactions	<p>Drugs that reduce serum methadone levels: ascorbic acid, barbiturates, carbamazepine, ethanol (chronic use), interferon, phenytoin, rifampin, efavirenz, nevirapine, other antiretrovirals with CYP3A4 activity</p> <p>Drugs that increase serum methadone level: amitriptyline, atazanavir, atazanavir / ritonavir, cimetidine, delavirdine, diazepam, fluconazole, fluvoxamine, ketoconazole, voriconazole</p> <p>Opioid antagonists may precipitate</p>	<p>Drugs that reduce serum buprenorphine level: ascorbic acid, barbiturates, carbamazepine, ethanol (chronic use), interferon, phenytoin, rifampin, efavirenz, nevirapine, other antiretrovirals with CYP3A4 activity</p> <p>Drugs that increase serum buprenorphine level: amitriptyline, atazanavir, atazanavir / ritonavir, cimetidine, delavirdine, diazepam, fluconazole, fluvoxamine, ketoconazole, voriconazole</p> <p>Opioid agonist: buprenorphine/naloxone or buprenorphine may precipitate withdrawal</p> <p>Opioid antagonists may precipitate withdrawal</p>

	withdrawal	
Patient Education	<p>Strongly advise patient against self-medicating with CNS depressants during methadone therapy</p> <p>Serious overdose and death may occur if benzodiazepines, sedatives, tranquilizers, antidepressants, or alcohol are taken with methadone</p> <p>Store in a secure place out of the reach of children</p>	<p>Strongly advise patient against self-medicating with CNS depressants during buprenorphine therapy</p> <p>Serious overdose and death may occur if benzodiazepines, sedatives, tranquilizers, antidepressants, or alcohol are taken with buprenorphine</p> <p>Store in a secure place out of the reach of children</p>

EVIDENCE TABLE

	Evidence	Source	QE	Overall Quality	Net Effect	SR
1	Methadone and buprenorphine are efficacious in decreasing opioid use.	Farre et al., 2002 Fischer et al., 2006 Johnson et al., 2000 Lintzeris et al., 2004 Marsch, 1998 Mattick et al., 2003 Neri et al., 2005 Schottenfeld et al., 2005 Strain et al., 1993a, 1993b	I	Good	Subst	A
2	Methadone may be slightly more efficacious than buprenorphine in decreasing opioid use, particularly in patients with co-occurring cocaine dependence.	Farre et al., 2002 Fischer et al., 2006 Mattick et al., 2003 Neri et al., 2005 Schottenfeld et al., 2005	I	Good	Subst	A
3	Methadone may be slightly more efficacious than buprenorphine in retaining patients in treatment.	Mattick et al., 2003	I	Good	Subst	A

QE = Quality of Evidence; Net effect = Significance of the intervention benefit; SR = Strength of Recommendation
(See Appendix A)

D. Is Treatment in a Specialized Opioid Agonist Treatment Program (OATP) Setting Appropriate for the Patient?

BACKGROUND

In general, patients requiring greater structure and intensity of comprehensive treatment services including mental health, medical, and social services, may be better served in an Opioid Agonist Treatment Program (OATP). Provision of care at OATPs is highly regulated, with provider and patient-level requirements including limited take home medications provided, mandated laboratory studies and clinical assessments, appropriate psychosocial intervention, and formal agreements for the provision of OAT. In office-based opioid treatment (OBOT) for medical maintenance by credentialed physicians, patients usually receive less intensive services (e.g., less psychosocial services needed to prevent relapse) either within an addiction specialty care program or in a setting similar to treatment of other medical conditions.

Deciding on whether a patient requires opioid agonist treatment in a specialized OATP depends on matching treatment resources to each individual patient's needs.

RECOMMENDATIONS

1. Individualize the choice of setting based on patient characteristics and availability of facilities to treat patients with opioid agonist therapy (OAT). See [Table P-2](#).
2. Appropriate psychosocial interventions should be provided as part of the opioid agonist therapy (OAT). [A]

DISCUSSION

Opioid agonist therapy (OAT) can be delivered through opioid agonist treatment program (OATP) or through office-based treatment (OBOT). OATPs are structured, licensed facilities that are not available to each VHA facility. However, OATPs, or “methadone facilities,” may be located in proximity to a VHA or near the veterans domicile. Most OATPs provide both medically supervised withdrawal and rehabilitation services. Most OATPs provide comprehensive services including individual therapy, group therapy, and family counseling. OATPs can provide OAT in the form of methadone and buprenorphine. Most OATPs are providing predominantly methadone. Provision of care at OATPs is highly regulated, with provider and patient-level requirements including limited take home medications provided, mandated laboratories and assessments, appropriate psychosocial intervention, and formal agreements for the provision of OAT.

OBOT for opioid dependence can only be provided by credentialed physicians. Buprenorphine is the only medication approved for OBOT. Minimum resources necessary to provide OBOT using buprenorphine include history and physical exam, availability to obtain laboratories including urine drug testing, and access to additional counseling and treatment services. OBOT using buprenorphine can be provided in residential and outpatient arrangements and any environment not directly associated with OATP. If providing buprenorphine within the confines of an OATP, all OATP requirements/regulations must be met.

Fiellin et al. (2006) randomized subjects to one of 3 conditions: 1) one 45 minute counseling session per week plus thrice weekly buprenorphine dispensing; 2) one 20 minute counseling session per week plus thrice weekly buprenorphine dispensing; 3) one 20 minute counseling session per week plus once weekly buprenorphine dispensing. Outcomes (illicit opioid use and treatment retention) did not differ by condition. Thus, a more intensive amount of psychosocial treatment was not better than a modest amount of psychosocial treatment.

Peer reviewed evidence evaluating system-, provider-, or patient-level factors that would assist the provider in determining whether a patient is most appropriate for OATP or OBOT care is currently not available, but several principles apply. If the facility has access to an OATP, and the patient is willing to accept OAT care through the OATP, patients should be directed to explore OATP care. If the facility does not have access to an OATP, OBOT care should be available. Patient level factors that would steer a provider to recommend an OATP over OBOT are the following: pregnancy (high level evidence), severe opioid dependence (high-mod evidence), co-existing pain syndromes requiring opioids (high level of evidence), and social/environmental instability (low level of evidence).

Currently, the “gold standard” treatment of a pregnant opioid dependent patient is OATP care using methadone. This care has significant history, is well known to most providers, and has much evidence for efficacy for the mother, fetus and newborn. Patients who use significant amounts of opioids and who have a high level of physical dependence and tolerance may be better treated with methadone through an OATP (moderate level of evidence). Patients who have co-occurring pain syndromes, requiring OAT and opioids for pain control should be treated within an OATP as concurrent use of opioid medications for pain and buprenorphine presents management challenges and may be ineffective. Social and environmental factors (e.g., homelessness, marital discord, dangerous living environments) may prompt a provider to suggest OATP over OBOT care as OATP care generally has more access to wrap around services that may assist in the patient recovery (e.g., vocational training, housing assistance, family counseling). Recent evidence suggests that OBOT can be provided with success to the homeless and patients with social/environmental stressors, but OATP care is likely the preferred choice.

A systematic review (Amato et al., 2004) concluded that adding any psychosocial support to standard methadone maintenance therapy reduced the use of heroin during treatment. Based on eight studies (N=510) the relative risk for retention in treatment was 0.94 (95%CI 0.85 to 1.02), and based on three studies (N=250) the relative risk for abstinence at the end of follow-up was 0.90 (95%CI 0.76 to 1.07). While these findings showed a trend towards improved outcomes by adding any psychosocial support, they did not reach statistical significance.

Scherbaum et al. (2005) compared methadone plus psychosocial intervention (cognitive behavioral training [CBT]) versus methadone alone. This RCT found a significant difference in drug use between methadone plus CBT versus methadone alone. Retention rates were 63 percent and 59 percent, and abstinence rates or percentage of negative urine were 29 percent and 52 percent respectively.

Patients who have difficulty accessing an OATP (e.g., large geographical distances, lack of transportation) may be better treated in OBOT using buprenorphine. Recent evidence suggests that use of buprenorphine may be preferable to methadone due to drug-drug interactions of medications taken for co-occurring conditions (e.g., anti-retroviral medications for HIV). OBOT care using buprenorphine may also be preferred over OATP care for patients with opioid dependence, but with intermittent use of opioids and who do not have a significant amount of physical dependence and tolerance of opioids.

Table P- 2. Patient Suitability for Office-Based Opioid Treatment versus Opioid Treatment Program*

Criteria	Office-Based Opioid Treatment (OBOT)	Opioid Agonist Treatment Program (OATP)
Can an office-based setting provide needed resources for the patient	Yes	No
Patint's psychosocial supports	Good	Poor
Level of opioid dependence	Mild to Moderate	High
Co-occurring psychiatric disorders	Stable	Unstable (e.g., chronically suicidal)
Co-occurring medical disorders	Stable	Unstable
Dependence on CNS depressants (e.g. alcohol, benzodiazepines)	No	Yes
Pregnancy	No	Yes
Previous failed treatment attempts, especially with opioid agonists	None/Few	Many
Response to sublingual buprenorphine in the past	Good	Poor
Expected to be reasonably compliant in treatment	Yes	No

* A considerable amount of medical decision-making is required to determine the best setting for each individual patient. If the setting chosen initially is not appropriate, the patient can be switched to the alternative setting with appropriate monitoring.

EVIDENCE TABLE

	Evidence	Source	QE	Overall Quality	Net Effect	SR
1	Insufficient data to determine if one setting of care is better (OBOT vs. OATP).	Working Group Consensus	III	Poor	NR	I
2	Methadone with counseling is better than methadone alone.	Amato et al., 2004 McLellan et al., 1993 Scherbaum et al., 2005	I	Good	Subst	A

QE = Quality of Evidence; NR= Not Relevant; SR = Strength of Recommendation (See Appendix A)

E. Initiate Opioid Agonist Treatment in an Opioid Agonist Treatment Program (OATP) or Office-Based Opioid Treatment (OBOT)

RECOMMENDATIONS

Opioid Agonist Treatment Program (OATP) and office-based opioid treatment (OBOT) must be provided in the context of a complete treatment program that includes:

- a. Appropriate adjustment of opioid agonist doses to maintain a therapeutic range between signs/symptoms of overmedication (e.g., somnolence, miosis, itching, hypotension, and flushing) and opioid withdrawal (e.g., drug craving, anxiety, dysphoria, and irritability)
 - Usual dosage range for optimal effects: 60–120 mg/day [A]
 - Buprenorphine target dose is generally up to 16mg daily; doses above 32mg are rarely indicated. **In all cases, except pregnancy, the combination product of buprenorphine/naloxone should be used.**
- b. Relapse monitoring to promote effective outcomes
- c. Adequate frequency of toxicology for alcohol and other drugs of abuse. Drug testing for both methadone and buprenorphine should also be considered to ensure compliance with the prescription and for detection of possible diversion
- d. Appropriate psychosocial interventions. [A]

DISCUSSION

Methadone Therapy

- Methadone for the treatment of opioid dependence may only be prescribed out of an accredited OATP as it is a schedule II agent. It is illegal to prescribe methadone for the treatment of opioid dependence out of an office-based practice.
- For newly admitted patients, the initial dose of methadone should not exceed 30 mg and the total dose for the first day should not exceed 40 mg, without provider documentation that 40 mg did not suppress opioid withdrawal symptoms.
- Under usual practices, a stable, target dose is greater than 60 mg/day and most patients will require considerably higher doses in order to achieve a pharmacological blockade of reinforcing effects of exogenously administered opioids.

Buprenorphine Therapy

- Office-based treatment with sublingual buprenorphine for opioid dependence can only be provided by physicians who have received a waiver from the SAMHSA and have a special DEA number. “To qualify for a waiver under DATA 2000, a licensed physician (MD or DO) must meet any one or more of the following criteria:
 - The physician holds a subspecialty board certification in addiction psychiatry from the American Board of Medical Specialties.
 - The physician holds an addiction certification from the American Society of Addiction Medicine.
 - The physician holds a subspecialty board certification in addiction medicine from the American Osteopathic Association.
 - The physician has, with respect to the treatment and management of opioid-addicted patients, completed not less than eight hours of training (through classroom situations, seminars at professional society meetings, electronic communications, or otherwise) that is provided by the American Society of Addiction Medicine, the American Academy of Addiction Psychiatry, the American Medical Association, the American Osteopathic Association, the American Psychiatric Association, or any other organization that the Secretary (of Health and Human Services) determines is appropriate for purposes of this subclause.
 - The physician has participated as an investigator in one or more clinical trials leading to the approval of a narcotic drug in schedule III, IV, or V for maintenance or medically supervised withdrawal treatment, as demonstrated by a statement submitted to the Secretary by the sponsor of such approved drug.
 - The physician has such other training or experience as the State medical licensing board (of the State in which the physician will provide maintenance or medically supervised withdrawal treatment) considers to demonstrate the ability of the physician to treat and manage opioid-addicted patients.
 - The physician has such other training or experience as the Secretary considers to demonstrate the ability of the physician to treat and manage opioid-addicted patients. Any criteria of the Secretary under this subclause shall be established by regulation. Any such criteria are effective only for 3 years after the date on which the criteria are promulgated, but may be extended for such additional discrete 3-year periods as the Secretary considers appropriate for purposes of this subclause. Such an extension of criteria may only be put into effect through a statement published in the Federal Register by the Secretary during the 30-day period preceding the end of the 3-year period involved.”

Source: www.buprenorphine.samhsa.gov/waiver_qualifications.html

- For the first year a physician has her or his waiver, the physician may dispense or prescribe buprenorphine for up to 30 patients at a time under the provisions of the Drug Addiction Treatment Act of 2000 (DATA). After the first year the qualified physician can apply to SAMHSA to raise her or his treatment limit to 100.

Buprenorphine Treatment Protocol

- Buprenorphine induction (usual duration approximately 1 week), the first phase of treatment, involves helping a patient in the process of switching from the opioids of abuse to buprenorphine. The goal of the induction phase is to find the minimum dose of buprenorphine at which the patient discontinues or markedly diminishes use of other opioids and experiences no withdrawal symptoms, minimal or no side effects, and no uncontrollable cravings for other opioids.

- Before the initial buprenorphine induction dose is administered to a patient dependent on short-acting opioids, a minimum of 12 to 24 hours should have elapsed since the last use of opioids. The patient should be exhibiting mild to moderate opioid withdrawal (e.g., sweating, yawning, rhinorrhea, and lacrimation).
- In all cases, except pregnancy, the combination product of buprenorphine/naloxone should be used. The initial dose of buprenorphine/naloxone combination is between 2/0.5 mg and 4/1 mg. If opioid withdrawal symptoms subside but then return (or are still present) after 2 hours, a second dose of 4/1 mg can be administered. The total amount of buprenorphine administered in the first day generally should not exceed 8 mg.
- Patients entering induction onto buprenorphine from long-acting opioids (e.g., methadone) should be instructed to hold opioid use for 24 to 48 hours and should present in mild to moderate opioid withdrawal. The first dose of buprenorphine/naloxone should be 2/0.5 mg. If a patient develops signs or symptoms of withdrawal after the first dose, a second dose of 2/0.5 mg should be administered and repeated, if necessary, to a maximum of 8 mg buprenorphine on Day 1.
- Patients who are not physically dependent on opioids should receive the lowest possible dose (2/0.5 mg) of buprenorphine/naloxone for induction treatment.
- For patients who do not experience any difficulties with the first day of buprenorphine dosing, and who are not experiencing withdrawal symptoms on Day 2, the daily buprenorphine/naloxone dose is established as equivalent to the total amount of buprenorphine/naloxone (or buprenorphine) that was administered on Day 1. Doses may be subsequently increased in 2/0.5 to 4/1 mg increments each day, if needed for symptomatic relief, with a target dose of 12/3 to 16/4 mg per day to be achieved within the first week.

EVIDENCE TABLE

	Evidence	Source	QE	Overall Quality	Net Effect	SR
1	Methadone target dose is typically > 60 mg/day.	Preston et al., 2000 Strain et al., 1999	I	Good	Subst	A
2	Buprenorphine target dose is generally up to 16 mg daily. Doses above 32 mg are rarely indicated.	Ling et al., 1998 Working Group Consensus	III	Poor	-	I

QE = *Quality of Evidence*; SR = *Strength of Recommendation* (See Appendix A)

F. Is Naltrexone Appropriate for and Acceptable to the Patient?

BACKGROUND

Naltrexone is an FDA approved alternative to opioid agonist treatment for patients with opioid dependence who are highly motivated and have psychosocial support for treatment and medication adherence. However, the number of individuals maintained on naltrexone continues to be low and its usefulness in the treatment of opioid dependency has been limited. It has no opioid agonist effects. Patients may continue to experience cravings and may thereby not be motivated to maintain adherence to the medication regimen. Patients addicted to opioids must be fully withdrawn for up to 7-10 days from all opioids before beginning naltrexone treatment. Unfortunately, during this period, many patients relapse to use of opioids and are unable to start on naltrexone.

RECOMMENDATIONS

1. Consider monitored administration of naltrexone maintenance in highly motivated opioid dependent patients. [C] See [Table P-3](#).
2. Consider opioid agonist treatment (OAT) or long-term therapeutic community before naltrexone as first line approaches for chronic opioid dependent patients.

Table P- 3. Pharmacotherapy with Naltrexone for Opioid Dependence

Indications	Opioid dependence with ability to achieve at least 7-10 days of abstinence to prevent precipitated withdrawal with first dose Engagement in comprehensive management program that includes measures to ensure medication adherence Note: Most effective when the patient is engaged in addiction-focused counseling with monitored administration
Contraindications	Acute hepatitis or liver failure Hypersensitivity to naltrexone or product components Current physiological dependence on opioids with use within past 7 days Ongoing acute opioid withdrawal or failed naloxone challenge test Receiving opioid agonists Positive urine opioid screen
Warnings / Precautions	Active liver disease Severe hepatic dysfunction (i.e., transaminase levels > 3 times normal and abnormal bilirubin) Severe renal failure Pregnancy Category C
Baseline Evaluation	Consider naloxone challenge test Transaminase levels Urine toxicology

DISCUSSION

Naltrexone has no positive psychoactive effects and is unpopular with many opioid dependent patients since naltrexone maintenance therapy requires complete abstinence from opioids. Treatment dropouts are common. Naltrexone has been shown to be ineffective in preventing relapse when treatment retention rates are low and moderately effective when retention and medication adherence are adequate (Johansson et al., 2006).

Although the utility of naltrexone maintenance therapy is limited, some highly motivated patients—those with strong incentives to complete treatment—can successfully prevent relapse using naltrexone therapy. Subpopulations with better prognosis for response may include patients highly motivated for abstinence without obvious external pressure; patients receiving contingency management to enhance motivation (Adi et al., 2007); patients in the criminal justice system with monitored administration (Cornish et al., 1997); business executives (Washton, 1984); and healthcare workers with employment-related monitoring (Ling & Wesson, 1984).

There is inconsistent evidence for additional benefit of adding psychosocial treatment to naltrexone therapy (relative to naltrexone therapy alone) and vice versa (adding naltrexone to psychosocial treatment relative to psychosocial treatment alone) (Minozzi et al., 2006; Adi et al., 2007).

EVIDENCE TABLE

	Evidence	Source	QE	Overall Quality	Net Effect	SR
1	In opioid-dependent patients post opioid withdrawal, naltrexone is effective in reducing heroin/drug abuse; however, its effectiveness in preventing relapse depends on patient retention / adherence.	Adi et al., 2007 Minozzi et al., 2006 Johansson, 2006	I	Poor to Fair	Small to Mod	C
2	Consider monitored administration of naltrexone maintenance in highly motivated opioid dependent patients.	Adi et al., 2007	I	Poor	Small	I

QE = Quality of Evidence; SR = Strength of Recommendation (See Appendix A)

G. Assure Patient is Withdrawn from Opioids and Opioid Free Before Continuing

BACKGROUND

Avoid an adverse opioid withdrawal reaction precipitated by naltrexone during lingering physiological dependence. Such reactions can result in extreme reluctance to trust treatment of any modality.

RECOMMENDATIONS

1. Prior to starting naltrexone, ensure that the patient is opioid-free as naltrexone is an opioid antagonist and may precipitate withdrawal.
2. Consider pharmacologically assisted withdrawal (See [Module S: Stabilization and Withdrawal Management, Annotation F](#)), unless the patient successfully completed a naloxone challenge and/or has had at least 7-10 days of verified abstinence.

DISCUSSION

There are several methods to resolve uncertainty about physiological dependence on opioids:

- Self-report
- Urine toxicology screening
- Medical record review
- Physical examination (e.g., stigmata of IV use or symptoms of opioid withdrawal)
- Intoxication
- Confirming physiological dependence can also be accomplished with a challenge using naloxone, a short acting narcotic antagonist, to elicit signs and symptoms of precipitated withdrawal (O'Brien, 1994). A naloxone challenge should be done selectively and with great care (e.g., by or in close consultation with a physician experienced in management of opioid withdrawal) since patients can rapidly experience serious opioid withdrawal.
 - a. Give 0.2 to 0.4 mg of naloxone, subcutaneously or intravenously; if patient is physiologically dependent on opioids, precipitated withdrawal usually begins within minutes.

- b. Patients with low levels of opioid use may require up to a total dose of 0.8 mg of naloxone to precipitate withdrawal, given in increments of 0.2 mg every 30 minutes.
- c. Symptoms usually peak within 30 minutes and subside in 3 to 4 hours.
- d. An oral dose of 5 or 10 mg of methadone may attenuate the withdrawal.

H. Initiate Naltrexone for Opioid Dependence with Patient Education and Monitoring

BACKGROUND

Patients who have successfully completed a naloxone challenge and/or have had at least 7 to 10 days of verified abstinence and who lack contraindications can be safely started on naltrexone maintenance therapy.

RECOMMENDATIONS

1. Provide appropriate dosing, treatment retention- and adherence-enhancing techniques, and relapse monitoring to promote effective outcomes.
2. Carefully start oral naltrexone at a dose of 25 mg once daily. If no signs of withdrawal occur, the dose may be increased to 50 mg daily on the following day. Extended dosing intervals, using equivalent weekly doses, may be used for supervised administration (see Table P-4).

Table P- 4. Pharmacotherapy Management with Naltrexone for Opioid Dependence

Dosage and Administration	25 mg orally once daily initially; if no withdrawal reaction, increase to 50 mg once daily Observed administration improves adherence
Alternative Dosing Schedules	- 25 mg orally twice daily with meals to reduce nausea, especially during the first week - 100 mg on Monday and Wednesday, 150 mg on Friday
Adverse Effects	Common: nausea Other: headache, dizziness, nervousness, fatigue, insomnia, vomiting, anxiety, somnolence
Drug Interactions	Opioid-containing medications, including over-the-counter (OTC) preparations Thioridazine Oral hypoglycemics Antiretrovirals
Monitoring	Monitor for opioid use with urine toxicology at least weekly during early recovery Repeat transaminase levels monthly for the first 3 months and every 3 months thereafter Discontinue or reduce naltrexone if transaminase levels rise significantly
Patient Education	Discuss compliance-enhancing procedures Negotiate commitment from the patient regarding monitored ingestion, if necessary Side effects, if any, tend to occur early in treatment and can typically resolve within 1-2 weeks after dosage adjustment If signs and symptoms of acute hepatitis occur, discontinue naltrexone and contact provider immediately

DISCUSSION

Only the oral formulation of naltrexone is currently FDA-approved for maintenance therapy of opioid dependence. Treatment programs to prevent relapse, with or without naltrexone, often fail unless the patient is motivated to adhere to treatment.

PHARMACOTHERAPY FOR ALCOHOL DEPENDENCE

I. Is the Patient Alcohol Dependent?

BACKGROUND

For the purposes of this guideline, alcohol dependence is defined via DSM-IV-TR criteria.

RECOMMENDATION

1. Identify patients with alcohol dependence that should be considered for addiction-focused pharmacotherapy.

See Introduction: Definitions ([page 6](#))

J. Initiate Pharmacotherapy for Alcohol Dependence?

BACKGROUND

Established pharmacologic treatments, notably disulfiram and naltrexone, (see Table P-5) combined with addiction-focused counseling may reduce the amount of drinking, the risk of relapse, the number of days of drinking, and craving in some alcohol-dependent individuals. For many patients, however, these treatments are not effective. Research in molecular and behavioral genetics are guiding the development of new drugs seeking to identify pharmacologic pathways relevant to alcohol dependence and to more effectively match treatments to individuals according to their genetic characteristics. Medications such as ondansetron, topiramate, sertraline, aripiprazole, quetiapine and baclofen represent novel lines of research and are currently being tested for use in the treatment of alcoholism.

RECOMMENDATIONS

1. Routinely consider oral naltrexone, an opioid antagonist, and/or acamprosate for patients with alcohol dependence. [A]
Note that in VA, acamprosate is currently a non-formulary medication with criteria for use posted at <http://vaww.national.cmop.va.gov/PBM/Clinical%20Guidance/Forms/AllItems.aspx>
2. Medications should be offered in combined with addiction-focused counseling. [A]
3. Injectable naltrexone should be considered when medication adherence is a significant concern in treating alcohol dependence and should be combined with addiction-focused counseling. [A]
Note that in VA, injectable naltrexone is currently a non-formulary medication with criteria for use posted at <http://vaww.national.cmop.va.gov/PBM/Clinical%20Guidance/Forms/AllItems.aspx>
4. If patient does not respond to one of the approved medications, a trial on one of the other approved medications is warranted.
5. Because of the risk of significant toxicity and limited evidence of effectiveness, risk and benefits of disulfiram should be considered and disulfiram should only be used when abstinence is the goal and when combined with addiction-focused counseling. [B] The informed consent discussion with the patient should be documented.
6. Dosing of these pharmacotherapies should be consistent with medication trials and recommendations in appropriate drug references (see [Table P-5](#)).

Table P- 5. Pharmacotherapy of Alcohol Dependence

	Naltrexone Oral	Naltrexone Injectable	Acamprosate	Disulfiram
Indications	Alcohol dependence (DSM diagnosis) with: - At least 3-5 days of pretreatment abstinence (1) - Engagement in a comprehensive management program that includes psychosocial therapy	Alcohol dependence (DSM diagnosis) with: - Pretreatment abstinence not required but improves response (2) - Willingness to receive monthly injections - Difficulty adhering to an oral regimen - Engagement in a comprehensive management program that includes psychosocial therapy	Alcohol dependence (DSM diagnosis) with: - Abstinence at treatment initiation - Engagement in a comprehensive management program that includes psychosocial therapy.	Alcohol dependence (DSM diagnosis) with: - Abstinence > 24 hours and BAL equal to 0 - Combined cocaine dependence - Failure of or contraindication to naltrexone - Previous response to disulfiram - Capacity to appreciate risks and benefits and to consent to treatment Note: More effective with monitored administration (e.g., in clinic or with spouse or probation officer.)
Contra-indications	-Receiving opioid agonists Physiologic opioid dependence with use within past 7 days Acute opioid withdrawal Failed naloxone challenge test Positive urine opioid screen Acute hepatitis or liver failure Hypersensitivity	Receiving opioid agonists Physiologic opioid dependence with use within past 7 days Acute opioid withdrawal Failed naloxone challenge Positive urine opioid screen Acute hepatitis or liver failure Hypersensitivity Inadequate muscle mass Discontinue intramuscular naltrexone if there is NO detectable benefit within 3 months	Hypersensitivity Severe renal impairment (CrCl ≤ 30 mL/min).	Severe cardiovascular, respiratory, or renal disease Severe hepatic dysfunction (i.e., transaminase levels > 3 times upper limit of normal or abnormal bilirubin) Severe psychiatric disorders, especially psychotic and cognitive disorders and suicidal ideation Poor impulse control Metronidazole or ketoconazole therapy which already induce a similar reaction to alcohol Hypersensitivity
Warnings / Precautions	Active liver disease Severe renal failure Pregnancy Category C	Active liver disease Moderate to severe renal insufficiency (no data) Injection site reactions Use intramuscular injections with caution in patients with thrombocytopenia or coagulation disorders Pregnancy Category C	Monitor for emergence of depression or suicidality Reduce dose in patients with renal impairment, including elderly Pregnancy Category C	Pregnancy Category C

	Naltrexone Oral	Naltrexone Injectable	Acamprosate	Disulfiram
Baseline Evaluation	Liver transaminase levels Bilirubin within normal limits Urine beta-HCG for females	Liver transaminase levels Bilirubin within normal limits Creatinine clearance (estimated or measured) 50 ml/min or greater Ensure patient has adequate muscle mass for injection Urine beta-HCG for females	Creatinine clearance (estimated or measured) Urine beta-HCG for females	Liver transaminase levels Physical assessment Psychiatric assessment Electrocardiogram Verify abstinence with breath or blood alcohol level Urine beta-HCG for females
Dosage and Administration	50 to 100 mg orally once daily	380 mg once monthly by deep intramuscular injection	666 mg orally three times daily, preferably with meals	250 mg orally once daily (range, 125–500 mg daily)
Alternative Dosing Schedules	25 mg once or twice daily with meals to reduce nausea, especially during the first week 100 mg on Monday and Wednesday and 150 mg on Friday	None	None	Reduce dose to 125 mg to reduce side effects For monitored administration, consider giving 500 mg on Monday, Wednesday, and Friday
Dosing in Special Populations	Hepatic or renal impairment: Use caution	Mild renal impairment (CrCl 50–80 ml/min): No dosage adjustment necessary Moderate–Severe renal impairment: No data	Moderate renal impairment (CrCl 30–50 ml/min): 333 mg three times daily Do not administer to patients with severe renal impairment (CrCl ≤ 30 ml/min)	
Adverse Effects	Common: nausea Other: headache, dizziness, nervousness, fatigue, insomnia, vomiting, anxiety, somnolence	Major: Eosinophilic pneumonia, depression, suicidality Common: Injection-site reaction, injection-site tenderness, injection-site induration, nausea, headache, asthenic conditions	Major: suicidality 2.4% (vs. 0.8% on placebo during the first year in clinical trials) Common: diarrhea (16%) Other: anxiety, asthenia, depression, insomnia	Major: Hepatotoxicity, peripheral neuropathy, psychosis, delirium, severe disulfiram-ethanol reaction Common: somnolence, metallic taste, headache
Drug Interactions	Opioid-containing medications, including OTC preparations Thioridazine (increased lethargy and somnolence)	Opioid-containing medications, including OTC preparations Thioridazine (increased lethargy and somnolence)	Naltrexone: 33% increase in C _{max} of acamprosate (no dosage adjustment is recommended) Antidepressants: weight gain and weight loss more common than with either medication alone	Alcohol containing medications, including OTC preparations Drug-drug interactions may occur with phenytoin, warfarin, isoniazid, rifampin, diazepam, chlorthalidoxepoxide, imipramine, desipramine, and oral hypoglycemic agents.

	Naltrexone Oral	Naltrexone Injectable	Acamprosate	Disulfiram
Monitoring	Repeat liver transaminase levels at 6 and 12 months and then every 12 months thereafter	Repeat liver transaminase levels at 6 and 12 months and every 12 months thereafter	Monitor serum creatinine / CrCl, particularly in patients with renal impairment and the elderly	Repeat liver transaminase levels in 10 to 14 days and every 12 months thereafter
Patient Education	<p>Discuss compliance-enhancing methods</p> <p>Negotiate commitment from the patient regarding monitored ingestion</p> <p>Side effects, if any, tend to occur early in treatment and can typically resolve within 1-2 weeks after dosage adjustment</p>	<p>Report any concerning injection-site reactions</p> <p>Report any new or worsening depression or suicidal thinking</p> <p>May cause allergic pneumonia; contact provider if patient develops signs and symptoms of pneumonia</p>	Report any new or worsening depression or suicidal thinking	<p>Avoid alcohol in food and beverages, including medications</p> <p>Avoid disulfiram if alcohol intoxicated</p> <p>May cause sedation; caution operating vehicles and hazardous machinery</p> <p>Discuss compliance-enhancing methods</p> <p>Family members should not administer disulfiram without informing patient</p> <p>Provide patients with wallet cards that indicate the use of disulfiram</p>
	<p>If signs and symptoms of acute hepatitis occur, discontinue naltrexone and contact provider immediately</p> <p>Very large doses of opioids may overcome the effects of naltrexone and lead to serious injury, coma, or death</p> <p>Small doses of opioids, such as in analgesic, antidiarrheal, or antitussive drugs, may be blocked by naltrexone and fail to produce a therapeutic effect</p> <p>Patients who have previously used opioids may be more sensitive to toxic effects of opioids after discontinuation of naltrexone</p>			

(1) Most trials for oral NTX required as an inclusion criterion pretreatment abstinence of ≥ 4 or ≥ 7 days. This is the subgroup of patients in which oral NTX was shown to be efficacious. Expert opinion suggests a less restrictive requirement. This description of "appropriate" candidates is consistent with FDA-approved product information

(2) While documented abstinence is not required for therapeutic benefit with injectable naltrexone, even greater benefit may be seen in patients who achieve some duration of alcohol abstinence (e.g. 2–4 days) prior to the initial injection of naltrexone. The evidence supports 7 days of prior abstinence for improved outcomes.

DISCUSSION

Three drugs have been FDA-approved for adjunctive therapy in alcohol dependence: the opioid antagonist naltrexone (oral and extended-release injectable), the putative glutamate antagonist acamprosate, and the acetaldehyde dehydrogenase inhibitor disulfiram.

There is convincing evidence of the efficacy of naltrexone. In short-term trials (up to 12 weeks), naltrexone was shown to decrease the risk of relapse in recently withdrawn alcohol-dependent patients who concomitantly received addiction counseling (Anton, 2005; Bouza, 2004; Kranzler & Van, 2001; Srisurapanont & Jarusuraisin, 2005; Streeton & Whelan, 2001). The effect size for relapse reduction is small to moderate (RR 0.64; NNT = 7), but clinically meaningful. Naltrexone treatment was also shown to decrease the likelihood of returning to drinking (RR 0.87; NNT = 13) (Srisurapanont & Jarusuraisin, 2005), the likelihood of treatment discontinuation (RR 0.82, NNT = 13) (Srisurapanont & Jarusuraisin, 2005), and the amount of alcohol consumed (Kranzler & Van, 2001; Pettinati et al., 2006; Streeton & Whelan, 2001). The efficacy of naltrexone in improving abstinence has been inconsistent (Pettinati et al., 2006). Poor adherence to orally self-administered medications is one of the major reasons for naltrexone treatment failure in alcohol-dependent patients. Therefore, methods for enhancing medication adherence, such as psychosocial therapy and management of adverse effects, should be used during oral naltrexone therapy.

One approach to enhancing patient adherence is to use the long-acting formulation of naltrexone. Naltrexone extended-release suspension may be administered once monthly via intramuscular injection by a healthcare professional. When given with low-intensity psychosocial therapy, a 6-month course of therapy with this formulation was shown to decrease alcohol consumption (Johnson et al., 2004) and moderately decrease heavy drinking (treatment effect size relative to placebo, 25%) in a population consisting of mostly nondetoxified patients (Garbutt et al., 2005). A subset of patients with pretreatment abstinence (≥ 7 days) had a greater decrease in heavy drinking (effect size, 80%) as compared with nonabstinent patients (effect size, 21%) (O'Malley, 2007). Another depot formulation of naltrexone was also shown to be efficacious in an early clinical trial (Kranzler et al., 2004).

Several systematic reviews support the efficacy of acamprosate. They showed that acamprosate improves the likelihood of abstinence and retention in treatment in recently withdrawn patients (Bouza et al., 2004; Kranzler & Van, 2001; Mann et al., 2004). In one good-quality systematic review, the effect size for abstinence was small to moderate (OR 1.88; 95% CI, 1.57–2.25; NNT = 10; 95% CI, 7–15) (Bouza et al., 2004). In another good-quality systematic review, acamprosate significantly improved continuous abstinence rates at 6 months (relative benefit (RB) 1.47; 95% CI, 1.29–1.69; $p < 0.001$). The overall placebo-corrected difference in success rates at 12 months was 13.3% (95% CI, 7.8–18.7%; NNT = 7.5) (Mann et al., 2004).

There is a paucity of randomized placebo-controlled clinical trials supporting the use of disulfiram. A multi-site partially VA study that compared 250 mg disulfiram to 1 mg disulfiram and to a vitamin pill found no differences in overall abstinence rates but did find significantly less alcohol use among compliant subjects in the 250 mg group (Fuller et al., 1986). One study involving dual diagnosis patients with Axis I psychiatric disorder and co-occurring alcohol dependence showed that open-label disulfiram and blinded naltrexone were modestly effective and equivalent in reducing alcohol use, and there was no additional benefit from using the combination over the individual medications (Pettrakis et al., 2005).

Injectable naltrexone should also be routinely considered as the initial therapy, as each extended-release dose ensures medication adherence for a full month and, in contrast to oral naltrexone, there is evidence of efficacy beyond three months and in non-withdrawn patients. Pretreatment with oral naltrexone is not necessary to establish benefit or tolerability prior to starting intramuscular naltrexone. Injectable naltrexone should also be considered in patients with poor adherence to oral medications. No published trials have directly compared the injectable and oral forms of naltrexone in terms of efficacy and safety.

Disulfiram should be considered more selectively because of its potential to cause serious hepatotoxicity. Monitored administration significantly improves compliance. Disulfiram should be

considered whenever a patient requests it or when some form of monitoring is available. In clinical practice, it is sometimes used to provide additional support during periods of high risk of relapse. Evidence for its efficacy in treatment of combined cocaine and alcohol dependence is relatively strong (Carroll et al., 1998; McCance-Katz et al., 1998; George et al., 2000; Petrakis et al., 2000)

As summarized below, studies comparing naltrexone and acamprosate have shown inconsistent results. Two studies have shown no significant differences between naltrexone and disulfiram. There is insufficient evidence to support the routine use of one drug over another.

Naltrexone vs. Acamprosate

- No significant difference between naltrexone and acamprosate in rate of relapse to heavy drinking (Kiefer et al., 2003)
- No treatment effects were seen for either naltrexone or acamprosate in any measure of alcohol consumption (Morley, 2006)
- Naltrexone plus medical management significantly improved percent days abstinent compared to medical management plus placebo, whereas acamprosate showed no beneficial effects (Anton et al., 2006).

Naltrexone vs. Disulfiram

- No significant difference between naltrexone and disulfiram in decreasing alcohol intake and remaining abstinent (Nava et al., 2006)
- No significant difference between naltrexone and disulfiram for measures of abstinence and percent heavy drinking days in patients with Axis I psychiatric disorder and co-occurring alcohol dependence (Petrakis et al., 2005).

Acamprosate vs. Disulfiram

- An open-label, randomized trial in India showed superiority of disulfiram over acamprosate (de Sousa, 2005).

Acamprosate vs. Disulfiram vs. Naltrexone

- An open-label, randomized trial in Europe comparing disulfiram, acamprosate, and naltrexone showed superiority of disulfiram over the other agents (Laaksonen et al., 2008).

Combination

Few trials have assessed whether combination therapy is better than single-drug therapy. In one trial, the combination of oral naltrexone and acamprosate was significantly better than acamprosate alone but not naltrexone alone (Kiefer et al., 2003). In the COMBINE trial, the combination of naltrexone and acamprosate, given with medical management, was not better than either agent alone or cognitive behavioral intervention (and no evidence of efficacy was shown for acamprosate) (Anton et al., 2006). One trial, involving dually diagnosed patients with Axis I psychiatric disorder and alcohol dependence, showed no incremental benefit with the combination of naltrexone and disulfiram over either agent alone (Petrakis et al., 2005). Therefore, just one of three trials showed additional benefit from using a combination of antialcoholic agents over single agents.

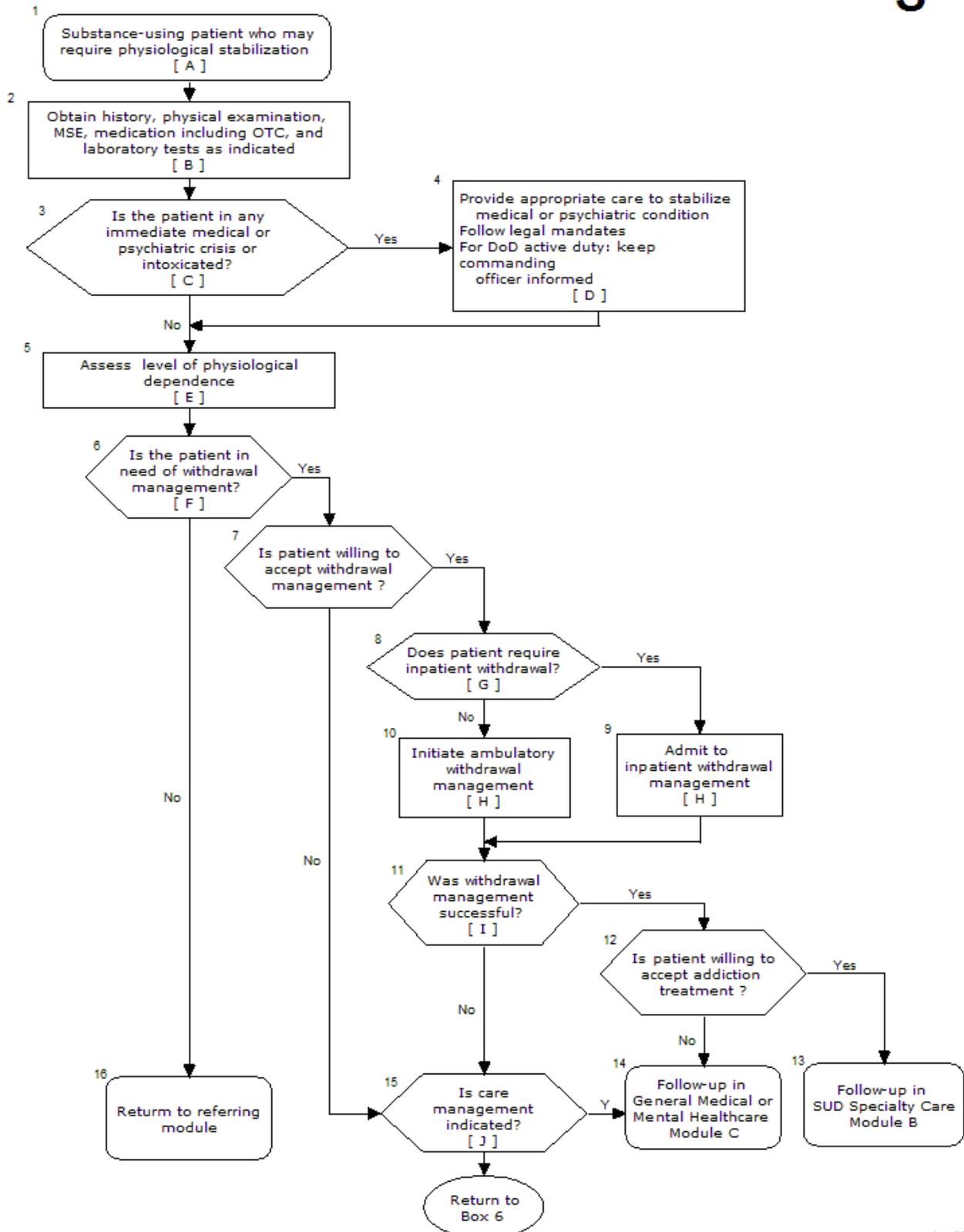
EVIDENCE TABLE

	Evidence	Source	QE	Overall Quality	Net Effect	SR
1	Oral naltrexone should be routinely considered when treating alcohol dependence with addiction counseling.	Anton et al., 2005 Bouzza et al., 2004 Feinn & Kranzler, 2005 Kranzler & Van, 2001 Pettinati et al., 2006 Sriurapanont & Jarusuraisin, 2005 Streeton & Whelan, 2001	I	Good	Subst	A
2	Injectable naltrexone should be routinely considered when treating alcohol dependence with addiction counseling.	Anton et al., 2006 Garbutt et al., 2005 Johnson et al., 2004 Kranzler et al., 2004	I	Good	Subst	A
3	Acamprosate should be routinely considered when treating alcohol dependence with addiction counseling.	Anton et al., 2006 Bouzza et al., 2004 Kranzler & Van, 2001 Mann et al., 2004	I	Good	Subst	A
4	Disulfiram should only be used when abstinence is the goal. Compliance improves when disulfiram administration is directly observed.	Garbutt et al., 1999	I	Fair	Mod	B
5	Injectable naltrexone is effective in treating alcohol-dependent patients who are willing to receive monthly injections; a better response is seen in patients with (vs. without) 7 days of pretreatment alcohol abstinence.	Ciraulo et al., 2008 Garbutt et al., 2005	I	Good	Mod	A

QE = Quality of Evidence; Net Effect = Significance of efficacy; SR = Strength of Recommendation (See Appendix A)

MANAGEMENT OF SUBSTANCE USE DISORDERS
Module S: Stabilization and Withdrawal Management

S



3/1/2009

MODULE S: STABILIZATION and WITHDRAWAL MANAGEMENT

A. Substance-Using Patient Who May Require Physiological Stabilization

This module addresses the management of patients who are physiologically dependent on alcohol and/or other substances and who are at risk of withdrawal symptoms, or for whom the provider is uncertain about the level of withdrawal risk and seeks further evaluation.

B. Obtain History, Physical Examination, Mental Status Examination (MSE), Medication Including Over-The-Counter (OTC), and Lab Tests as Indicated

BACKGROUND

The provider should review or obtain clinical background information on the patient, including any prior assessment.

RECOMMENDATIONS

1. Interview the patient and other collateral informants, where appropriate, about medical and mental health history and use of prescription and non-prescription medications before initiating extensive diagnostic testing.
2. Note any history of recent head trauma.
3. Order laboratory tests selectively, aiming to detect potential medical causes for the presenting symptoms, where indicated by:
 - a. Specific symptoms found on the medical review of systems
 - b. Evidence of unusual symptom profiles
 - c. History of atypical illness course
 - d. Abnormal screen for cognitive status, particularly in the elderly patient.

DISCUSSION

Consider a standardized instrument, such as Folstein's Mini-Mental State Examination (MMSE) (Folstein et al., 1975) using age and education-adjusted cut-off scores (Crum et al., 1993), to assess for cognitive status realizing that alcohol and other substances may impair the operating characteristics of this test.

Screen for mental health disorders in patients who are under evaluation for use of alcohol and other substances.

C. Is the Patient in Any Immediate Medical or Psychiatric Crisis or Intoxicated?

BACKGROUND

Emergency or urgent actions include unstable medical problems (e.g., acute trauma, myocardial infarction, and stroke) or unstable psychiatric problems (e.g., imminent risk of harm to self and/or others and delirium, including alcohol-related delirium [withdrawal/intoxication]).

RECOMMENDATIONS

1. Refer patients with problems that require emergency care or urgent action to emergency care for further action as needed.

DISCUSSION

Delirium can be identified through the following:

1. Disturbance of consciousness (e.g., reduced clarity of awareness of the environment with reduced ability to focus, sustain, or shift attention).
2. A change in cognition (such as memory deficit, disorientation, or language disturbance) or the development of a perceptual disturbance that is not accounted for by a preexisting, established, or evolving dementia.
3. The disturbance develops over a short period of time (usually hours to days) and tends to fluctuate during the course of the day.
4. There is evidence from the history, physical examination, or laboratory findings that:
 - a. Illness is characterized by an atypical course
 - b. Disturbances are caused by the direct physiological consequences of a general medical condition
 - c. Symptoms developed during substance intoxication or medication use are etiologically related to the disturbance
 - d. Symptoms are developed during or following a withdrawal syndrome
 - e. Delirium has more than one etiology (e.g., a general medical condition plus intoxication or a medication side effect).

Risk of Harm to Self or Others

1. Risk Assessment Guide indicates: All patients who present with positive depression screens, history of mental health diagnosis or with any of the following warning signs should be further assessed for suicide risk:
 - a. Threatening to hurt or kill self
 - b. Looking for ways to kill self
 - c. Seeking access to pills, weapons, or other means
 - d. Talking or writing about death, dying, or suicide
2. Presence of any of the above requires immediate attention and referral. Consider hospitalization for safety until complete assessment may be made
3. Additional Warning Signs
 - Hopelessness
 - Rage, anger, seeking revenge
 - Acting reckless or engaging in risky activities, seemingly without thinking
 - Feeling trapped – like there’s no way out
 - Increasing alcohol or drug abuse
 - Withdrawing from friends, family, and society
 - Anxiety, agitation, unable to sleep, or sleeping all the time
 - Dramatic changes in mood

- No reason for living, no sense of purpose in life

Acute intoxication

1. The most common signs and symptoms involve disturbances of perception, wakefulness, attention, thinking, judgment, psychomotor behavior, and interpersonal behavior.
2. Patients should be medically observed at least until blood levels are decreasing and the clinical presentation is improving.
3. Highly tolerant individuals may not show signs of intoxication. Patients may appear “sober” even at blood alcohol levels (BAL) well above the legal limit.
4. Recent intake of a substance can be assessed from the history, physical examination (e.g., alcohol on the breath), or toxicological analysis of urine or blood. The specific clinical picture in substance intoxication depends on the substance(s) used, the duration of use at that dose, tolerance, time since last dose, expectations of effects, and the environment or setting of use.

DSM-IV-TR Criteria for Substance Intoxication

The development of a reversible substance-specific syndrome due to recent ingestion of (or exposure to) a substance. *Note: Different substances may produce similar or identical syndromes.*

Clinically significant maladaptive behavioral or psychological changes that are due to the effect of the substance on the central nervous system (e.g., belligerence, mood lability, cognitive impairment, impaired judgment, and impaired social or occupational functioning) and develop during or shortly after use of the substance.

Note: The symptoms are not due to a general medical condition and are not better accounted for by another mental disorder.

D. Provide Appropriate Care To Stabilize Prior to Management of Withdrawal; Follow Policies For DoD Active Duty Members: Keep Commanding Officer Informed

BACKGROUND

Existing local policies and procedures with regard to threats to self or others reflect local and state laws and the opinion of the VA District Council and the DoD. Primary care, mental health, and administrative staff must be familiar with these policies and procedures.

RECOMMENDATIONS

1. Assure the patient’s immediate safety and determine the most appropriate setting.
2. Refer for mental health treatment or assure that follow-up appointment is made.
3. Inform and involve someone close to the patient.
4. Limit access to means of suicide.
5. Increase contact and make a commitment to help the patient through the crisis.
6. For comatose patients, maintain airway and adequate ventilation in order to preserve respiration and cardiovascular function.
7. Emergency procedures should be considered, including the use of gastric lavage for sedative, hypnotic, and/or opioid intoxication.
8. Emergency pharmacologic interventions should be utilized as appropriate, including the use of intravenous naloxone hydrochloride for opioid overdose and flumazenil for benzodiazepine overdose.

9. Agitation secondary to intoxication from a variety of substances is best initially managed through interpersonal approaches and decreasing sensory stimuli rather than additional medications. If chemotherapeutic agents are necessary, the short acting IM benzodiazepines (e.g., lorazepam) and high potency neuroleptics should be considered

For DoD active duty members: follow DoD and Service-specific policies, as mental health/emergency referral is likely mandated.

DISCUSSION

Serious Psychiatric Instability

Obtain immediate mental health consultation if other psychiatric symptoms (e.g., acute psychosis) significantly interfere with further assessment and require immediate psychiatric treatment before continuing assessment.

EVIDENCE TABLE

	Evidence	Source	QE	Overall Quality	SR
2	Note increased risk for violence.	Hasting & Hamberger, 1997 Thienhaus & Piasecki, 1998	III	Poor	I
3	Offer counseling to a patient at risk.	Hirschfield & Russello, 1997 USPSTF, 1996	III	Poor	I
4	Arrange emergency treatment or possible hospitalization.	APA, 1993 US DHHS, 1993 & 1995 USPSTF, 1996	III	Poor	I

QE = Quality of Evidence; SR = Strength of Recommendation (See Appendix A)

E. Assess Level of Physiological Dependence and Indications for Stabilization Including Risk of Withdrawal

BACKGROUND

Untreated severe alcohol and other sedative-hypnotic withdrawal, in particular, can lead to autonomic instability, seizures, delirium, or even death.

The opioid withdrawal syndrome can be protracted with intense symptoms, though the syndrome itself poses virtually no risk of mortality. However, there is significant mortality risk from overdose for those who relapse following unsuccessful medically supervised withdrawal attempts as a result of loss of opioid tolerance.

The potential for a withdrawal syndrome can be gauged only imprecisely by asking the patient the pattern, type, and quantity of recent and past substance use. Systematic monitoring of withdrawal symptoms is indicated until patients are stabilized.

RECOMMENDATIONS

1. Obtain and document necessary information to classify level of withdrawal and factors that may influence the severity of the withdrawal (see [Appendix B-6](#) for a list of withdrawal signs and symptoms for the different types of substances):
 - a. Determine type of substance of use
 - b. Determine time since last use
 - c. Determine concurrent use of other substances or prescriptions

- d. Determine co-occurring medical and/or psychiatric disorders
 - e. Consider past withdrawal experiences.
2. Use laboratory results and patient observation to determine the level of tolerance (e.g., high blood level in patient who appears to be not intoxicated).
 3. Use standardized measures to assess the severity of withdrawal symptoms such as CIWA-Ar (see Box S-1) or COWS (see Box S-2). [B]
 4. Evaluate patients using multiple substances (e.g., opioids and sedative-hypnotics) for risk of withdrawal from each substance.

Box S- 1. Assessment of Alcohol Withdrawal (see Appendix B-7)

The Clinical Institute Withdrawal Assessment for Alcohol-Revised (CIWA-Ar) has good reliability and validity for assessing severity of withdrawal symptoms from alcohol.

CIWA-Ar has 10 provider ratings. Interpret total scores as follows:

- Minimal or absent withdrawal: ≤ 9
- Mild to moderate withdrawal: 10-19
- Severe withdrawal: > 20 .

Box S- 2. Assessment of Opioid Withdrawal (see Appendix B-8)

The Objective, Subjective and Clinical Opiate Withdrawal Scales (OOWS, SOWS, and COWS) can be used for assessing severity of withdrawal symptoms from opioids

COWS has 10 provider ratings. Interpret total scores as follows:

- Mild withdrawal: 5-12
- Moderate withdrawal: 13-24
- Moderately severe withdrawal: 25-36
- Severe withdrawal: > 36 .

EVIDENCE TABLE

	Evidence	Source	QE	Overall Quality	SR
1	Consider using standardized assessment of withdrawal symptoms.	Gossop, 1990 Handelsman et al., 1987 Pittman et al., 2007 Reoux et al., 2000 Sullivan et al., 1989 Wesson & Ling, 2003	II	Fair	B

QE = Quality of Evidence; SR = Strength of Recommendation (See Appendix A)

F. Is the Patient in Need of Withdrawal Management?

BACKGROUND

Withdrawal management from a substance is defined as non-pharmacologic and/or pharmacologic medical care with a goal of safely transitioning a patient from active use to sustained treatment for the

patient's substance use disorder. Withdrawal management is an essential initial gateway in preparing many patients for additional treatment.

Pharmacologically supervised withdrawal is warranted only for alcohol, sedative-hypnotics, and opioids; however, patients who use other illicit substances may find benefit in initiation of treatment during their withdrawal period. For nicotine dependence, refer to Clinical Practice Guideline: Treating Tobacco Use & Dependence: 2008 Update from the U.S. Department of Health and Human Services at: http://www.surgeongeneral.gov/tobacco/treating_tobacco_use08.pdf and the VA/DoD Clinical Practice Guideline for the Management of Tobacco Use. Other substances do not require pharmacological management for withdrawal.

It is important to distinguish patients with legitimate pain and/or anxiety disorders who develop only physiological tolerance during long-term use of prescribed medications from those with markers of prescription misuse.

RECOMMENDATIONS

1. Indications for withdrawal management from alcohol or sedative-hypnotics
 - Patient with alcohol dependence with observed withdrawal symptoms
 - CIWA-Ar score for at least mild withdrawal (>10)
 - Patients with dependence on central nervous system depressants, due to the risks of untreated withdrawal in severely dependent persons.
2. Relative contraindication for medically supervised withdrawal management from alcohol
 - Patients with minimal withdrawal symptoms that are not accompanied by complicating co-occurring disorders. Such patients may respond sufficiently to generalized support, reassurance, and frequent monitoring.
3. Potential indications for medically supervised opioid withdrawal:
 - Patient with physical dependence in the absence of clinical indications for ongoing treatment (e.g., severe pain disorder)
 - Patient with physical dependence accompanied by aberrant or non-adherent behavior (e.g., obtaining prescriptions from multiple providers, escalating doses without provider consultation, or buying medications on the street)
 - Agreement to provide naltrexone for treatment of opioid dependence
 - Patient who does not request or want opioid agonist medical therapy but wants non-pharmacologic treatment for opioid dependence.
4. Contraindication for opioid withdrawal management:
 - Chronic severe opioid dependence. For such patients, first line therapy is methadone or sublingual buprenorphine/naloxone maintenance treatment (See [Module P - Addiction Focused Pharmacotherapy](#))
 - Two or more unsuccessful medically supervised withdrawal episodes within a 12-month period. Such patients should be assessed for opioid agonist therapy.
5. Consider using a structured assessment tool to evaluate and track behaviors suggestive of addiction, such as inappropriate medication use, and to increase the provider's confidence in determinations of appropriate vs. inappropriate opioid use.
6. Evaluate opioid dependent patients for severe acute or chronic physical pain that may require appropriate short-acting opioid agonist medication in addition to the medication needed to prevent opioid withdrawal symptoms (see also [VA/DoD Clinical Practice Guideline for Management of Chronic Opioid Therapy](#) at: <http://www.healthquality.va.gov>).

EVIDENCE TABLE

	Evidence	Source	QE	Overall Quality	SR
1	Medically supervised withdrawal for dependence on central nervous system depressants.	Mee-Lee et al., 2001	III	Poor	I
2	General support and frequent monitoring for mild withdrawal symptoms.	APA, 1995	III	Poor	I
3	Consider structured assessment tool to evaluate and track behaviors suggestive of addiction.	Wu et al., 2006	II	Fair	C

QE = Quality of Evidence; SR = Strength of Recommendation (See Appendix A)

G. Does Patient Require Inpatient Medically Supervised Withdrawal?

BACKGROUND

Patients are more likely to complete an inpatient medically supervised withdrawal protocol; however, long-term outcomes do not differ between inpatient and outpatient medically supervised withdrawal programs. Relative advantages to consider include:

Ambulatory withdrawal management has the potential advantages of:

- Facilitating continuity of care in the outpatient setting
- Reducing disruption to the patient's life
- Lowering costs in the outpatient setting.

Inpatient withdrawal management has the advantages of:

- Having fewer logistic medical and legal concerns (e.g., arranging for patient transportation, driving during the course of medically supervised withdrawal, and the ability to give informed consent)
- Allowing closer monitoring of withdrawal symptoms
- Having higher likelihood of completing the withdrawal management protocol

RECOMMENDATIONS

1. Consider the following indications for inpatient medically supervised withdrawal: [C]
 - a. Current symptoms of at least mild alcohol withdrawal (e.g., CIWA-Ar score ≥ 10)
 - b. History of delirium tremens or withdrawal seizures
 - c. Inability to tolerate oral medication
 - d. Imminent risk of harm to self or others
 - e. Recurrent unsuccessful attempts at ambulatory medically supervised withdrawal
 - f. Reasonable likelihood that the patient will not complete ambulatory medically supervised withdrawal (e.g., due to homelessness)
 - g. Active psychosis or severe cognitive impairment
 - h. Chronic liver disease or cardiovascular disease, pregnancy, or lack of medical support system.

DISCUSSION

Compared to ambulatory settings, inpatient withdrawal management can often be done more rapidly since access to alcohol and drugs is restricted. Withdrawal management performed while a patient is in a clinically managed residential setting (e.g., some VA Substance Abuse Residential Rehabilitation Treatment Programs [SARRTP]), is considered ambulatory.

This guideline endorses ASAM placement criteria for determining the appropriate level of care. To ensure the patient's safety during the withdrawal process in the least restrictive environment and promote the long-term success for recovery, the following factors should be considered:

- Severity of current and past withdrawal symptoms based on standardized measures (e.g., CIWA-Ar, COWS)
- Severity of co-occurring conditions
- The acceptance and potential to complete medically supervised withdrawal
- Recovery environment
- ASAM criteria (see Web site: <http://www.asam.org>).

ASAM (PPC-2R [2001]) recommends considering the following primary patient dimensions in making a decision about appropriate level of care:

1. Acute intoxication and/or withdrawal potential, especially history of withdrawal seizures
2. Biomedical conditions and complications
3. Emotional/behavioral conditions and complications including:
 - Psychiatric conditions
 - Psychological or emotional/behavioral complications of known or unknown origin
 - Poor impulse control
 - Change in mental status
 - Transient neuropsychiatric complications
4. Treatment acceptance/resistance
5. Relapse/continued use potential
6. Recovery/living environment.

EVIDENCE TABLE

	Evidence	Source	QE	Overall Quality	SR
1	Indications for inpatient medically supervised withdrawal.	ASAM, 2001	III	Poor	C

QE = Quality of Evidence; SR = Strength of Recommendation (See Appendix A)

H. Admit to Inpatient Withdrawal Management or, Initiate Ambulatory Withdrawal Management

BACKGROUND

The objectives of withdrawal management from alcohol, sedative-hypnotics, or opioids in either inpatient or ambulatory settings are to prevent the patient from experiencing adverse events and prepare the patient for ongoing addiction treatment.

RECOMMENDATIONS

Alcohol Withdrawal Management

Follow local alcohol withdrawal management pathways, taking into consideration the following principles.

1. Use either of the following two acceptable pharmacotherapy strategies for managing alcohol withdrawal symptoms:
 - a. Symptom-triggered therapy where patients are given medication only when signs or symptoms of withdrawal appear (e.g., PRN dosing) [A]
 - b. A predetermined fixed medication dose with gradual tapering over several days may be considered for some patients, although it is inferior to symptom-triggered therapy. [B]
2. Repeat standardized assessments, such as the CIWA-Ar scale for alcohol withdrawal, to guide dosing decisions (e.g., if and when to dose) until stabilized.
3. Consider the following procedures for monitoring ambulatory alcohol withdrawal as safe and effective alternatives to inpatient approaches:
 - a. Medical or nursing staff should assess the patient in person, either daily or every other day (patient contact may be made by telephone on other days), to include:
 - Patient report of any alcohol use the previous day
 - Reported medication intake compared to the medication dispensed the previous day
 - Tremor, restlessness, and previous night's sleep
 - Skin (e.g., color and turgor).
 - b. Urine toxicology or a breathalyzer test of blood alcohol content should be completed.
 - c. If the daily screening is positive for any one of the following, the patient should be medically evaluated before initiating or continuing outpatient withdrawal management, or hospital admission should be considered:
 - Blood sugar ≥ 400 or positive anion gap
 - History of recent hematemesis, melena, or other gastrointestinal bleeding disorder
 - Bilirubin ≥ 3.0
 - Creatinine ≥ 2.0
 - Systolic blood pressure ≥ 180 or diastolic blood pressure ≥ 110
 - Unstable angina
 - Temperature ≥ 101 degrees
 - BAC ≥ 0.08 on two outpatient visits.
4. For inpatient treatment of alcohol withdrawal, use benzodiazepines over non-benzodiazepine sedative-hypnotics because of documented efficacy, and a greater margin of safety. Benzodiazepines are the drug of choice in this setting, given adequate monitoring, because they reduce withdrawal severity, incidence of delirium, and seizures. All benzodiazepines appear to be effective, but agents without active metabolites such as lorazepam or oxazepam may be preferred in patients with liver impairment. [A]
5. Dose and withdrawal scales should be individualized for each patient. Geriatric patients should start with lower doses of benzodiazepines than younger adults. [A]

6. For managing mild to moderate alcohol withdrawal, carbamazepine and valproic acid can be used as an effective supplement or alternative to benzodiazepines. They may be considered in patients that cannot use benzodiazepines (e.g., abuse liability or allergy/adverse reactions). [B]
7. Other agents, such as beta-blockers, and clonidine, are generally not considered as appropriate monotherapy for alcohol withdrawal, [D] but may be considered in conjunction with benzodiazepines in certain patients. [C]
8. During and after medically supervised withdrawal, emphasis should be placed on engagement in ongoing addiction treatment. [C]
9. Use of alcohol as an agent for medically supervised withdrawal is contraindicated. [D]

Sedative-Hypnotics Medically Supervised Withdrawal (e.g., Benzodiazepines)

There are three general treatment strategies for patients withdrawing from other sedative-hypnotic medications at doses above the therapeutic range, for a month or more:

1. Substitute phenobarbital for the addicting agent and taper gradually. [A]
 - a. The average daily sedative-hypnotic dose is converted to a phenobarbital equivalent and divided into 3 doses per day for 2 days (see Appendix E for phenobarbital equivalencies for sedative hypnotics).
 - b. Phenobarbital dose should be reduced by 30 mg per day, beginning on day 3.
2. Substitution then tapering: For patients on a shorter acting benzodiazepine, substitute a longer acting benzodiazepine at an equivalent dose (e.g., chlordiazepoxide) and taper 10 percent per day, over 1 to 2 weeks.
3. Simple tapering: Gradually decrease the dosage of the long-acting substance the patient is currently taking.

DISCUSSION

Considerable clinical experience and the largest accumulated body of data indicate that benzodiazepines are the treatment of choice for pharmacotherapy for alcohol withdrawal on the basis of such outcomes as the severity of the alcohol-withdrawal syndrome, occurrence of delirium, and occurrence of seizures. One meta-analysis comparing benzodiazepines with placebo or with an active control drug included 11 trials, representing a total of 1286 patients (Mayo-Smith, 1997). There was more often a clinically significant reduction of symptoms within two days with benzodiazepines than with placebo (common odds ratio, 3.28; 95 percent confidence interval, 1.30 to 8.28) (Mayo-Smith, 1997). In addition, benzodiazepines were more effective than placebo in reducing the incidence of seizures (risk reduction, 7.7 seizures per 100 patients treated; $P=0.003$) and delirium (risk reduction, 4.9 cases of delirium per 100 patients treated= 0.04) (Mayo-Smith, 1997). Individualizing therapy with withdrawal scales results in administration of significantly less medication and shorter treatment (Mayo-Smith, 1997).

A more recent meta-analysis included 57 trials with a total of 4051 subjects (Ntais et al., 2005). This analysis was comprised of studies that compared benzodiazepines to placebo, to other benzodiazepines, or to other medications. As in the other meta-analysis, benzodiazepines were clearly superior to placebo in preventing withdrawal seizures (Ntais et al., 2005). This meta-analysis found similar symptom reductions with benzodiazepines compared to other medications and similar capacity of benzodiazepines to reduce seizures compared to anticonvulsants (Ntais et al., 2005).

Another recent meta-analysis focused on anticonvulsants, including carbamazepine and valproic acid, for alcohol withdrawal and evaluated 48 studies, involving 3610 subjects (Polycarpou et al., 2005). Given the heterogeneity across studies in methodology, differences between anticonvulsants and placebo in achieving therapeutic success and preventing seizures favored anticonvulsants but did not attain statistical significance (Polycarpou et al., 2005). Benzodiazepines remain the treatment of choice for management of alcohol withdrawal.

Beta-blockers and clonidine do reduce some signs and symptoms of alcohol withdrawal, but they do not reduce seizures or delirium so they are not recommended as monotherapy (Mayo-Smith, 1997).

EVIDENCE TABLE

	Evidence	Source	QE	Overall Quality	Net Effect	SR
1	Use symptom-triggered therapy or gradual dose tapering over several days for alcohol withdrawal management.	APA, 1995 CSAT, 1995 Hayashida et al., 1989 Mayo-Smith, 1997 Saitz et al., 1994	I	Good	Subst	A
2	Consider ambulatory medically supervised alcohol withdrawal, when indicated.	Hayashida et al., 1989 Mayo-Smith, 1997	I	Good	Subst	A
3	Use benzodiazepines over non-benzodiazepine sedative-hypnotics for alcohol withdrawal management.	Mayo-Smith, 1997	I	Good	Subst	A
4	For managing alcohol withdrawal, carbamazepine can be used as an effective alternative to benzodiazepines for mild to moderate withdrawal.	Mayo-Smith, 1997 Polycarpou et al., 2005 Reoux, 2001	I	Fair	Subst	B

QE = Quality of Evidence; SR = Strength of Recommendation (See Appendix A)

Opioid Withdrawal Management

RECOMMENDATIONS

1. Medically supervised opioid withdrawal is rarely effective as a long-term strategy for treatment of opioid dependence because of high relapse rates. Opioid maintenance with buprenorphine/naloxone or methadone is the definitive treatment of choice in most cases. [B]
2. If pursuing medically supervised opioid withdrawal, the preferred approaches are initial stabilization and subsequent short or extended taper with opioid agonist therapy.
3. Set the length of the taper period based on the treatment setting and severity of the dependence.
4. Medically supervised withdrawal can usually be accomplished in 4 to 7 days in an inpatient setting, to quickly achieve opioid abstinence prior to treatment in a drug-free setting, preferably with initiation of naltrexone.
5. Withdrawal using buprenorphine/naloxone:
 - a. Only physicians with a waiver from the US Department of Health and Human Services can prescribe buprenorphine/naloxone
 - b. Initial stabilization is accomplished via induction with buprenorphine/naloxone just as it would be for maintenance with this agent (See Table S-1). To reduce the risk of precipitated withdrawal, the patient must be in sufficient opioid withdrawal to be manifesting objective signs of withdrawal prior to starting buprenorphine/naloxone usually at least 8 hours since the patient's last use of heroin or other short-acting opioid or at least 24 and preferably at least 48 hours have elapsed since the last use of methadone or other long-acting opioid
 - c. Within 1-3 days, a daily dose of buprenorphine/naloxone should be achieved that eliminates signs and symptoms of opioid withdrawal, suppresses opioid craving, and

- eliminates illicit opioid use. This dose could range from 2/0.5 mg per day to 16/4mg per day and would rarely exceed that amount
- d. Once stabilization has been achieved the dose can be rapidly tapered over 5-7 days. There is little evidence that prolonging the taper leads to better results. (If the patient and physician prefer a longer taper, there is also no evidence that a longer taper is harmful).
6. Withdrawal using methadone:
- a. Withdrawal using methadone can only be performed in the context of a federally licensed opioid treatment program where daily medication dispensing can occur. For patients not engaged in methadone maintenance through an opioid treatment program, withdrawal should be managed with buprenorphine
 - b. Initial stabilization is accomplished via induction with methadone just as it would be for maintenance with this agent. Withdrawal signs do not have to be observed prior to starting methadone, but with methadone there is risk of medication accumulation, toxicity, and overdose. Initial dosing should be very conservative with careful daily observation of the patient. Initial daily doses can range from 5 mg to a maximum of 30 mg
 - c. Within days to weeks, a daily dose of methadone should be achieved that eliminates signs and symptoms of opioid withdrawal, suppresses opioid craving, and eliminates illicit opioid use. This dose could range from 30 mg per day to doses as high as 120 mg per day
 - d. Once stabilization has been achieved, the dose can be gradually tapered over a period of weeks to months. Dose decreases of more than 5 -10 mg/day of methadone are generally poorly tolerated. [C] In contrast to the evidence with buprenorphine/naloxone, with methadone, longer taper periods should be used in the outpatient setting to minimize patient discomfort and maximize chances of success
 - e. A period of two to three weeks is generally sufficient for short-term outpatient medically supervised withdrawal in the most stable and motivated individual. The higher the stabilization dose, the longer the taper is likely to take. The taper should proceed more gradually as the dose becomes lower.
7. The 180-day stabilization/medically supervised withdrawal regimen should be considered to facilitate work on patients' early recovery problems, while stabilized on sublingual buprenorphine or a relatively low dose (50-60 mg/day) of methadone. Stabilization is followed by short-term medically supervised withdrawal from buprenorphine or methadone and transition to a drug-free rehabilitation program.
8. Clonidine, an alpha-adrenergic agonist, can be considered as an adjunctive agent for symptom relief during inpatient medically supervised opioid withdrawal; however, outpatient success is much lower. If using clonidine, adjunctive medications for anxiety, restlessness, insomnia, muscle aches, nausea, and diarrhea can also be prescribed.

DISCUSSION

Use of Buprenorphine or Methadone

A systematic review of RCTs suggest greater efficacy in managing withdrawal symptoms and in completion of medically supervised withdrawal in inpatient and outpatient settings compared to alpha₂ adrenergic agonists (e.g., clonidine) (Gowing et al., 2006). Systematic reviews also show that there appears to be no significant difference between buprenorphine and methadone in terms of complication of medically supervised withdrawal, but withdrawal symptoms may resolve more quickly with buprenorphine (Amato et al., 2005; Gowing et al., 2006). Examples of dosing schedules for withdrawal from opioids with buprenorphine and methadone are displayed in [Table S-1](#) and [S-2](#).

Alternative medically supervised withdrawal methods have been sought, due to concern that tapering regimens using opioid agonists prolong the problem by prescribing an addictive medication. Many of the symptoms of opioid withdrawal (e.g., diaphoresis, hyperactivity and irritability) appear to be mediated by over-activity in the sympathetic nervous system. This resulted in trials that attempted to depress the over-activity and ameliorate the withdrawal syndrome, using adrenergic agents, such as clonidine and lofexidine, which are without abuse potential (Gold et al., 1978; Gold et al., 1980).

Clonidine, an alpha-adrenergic agonist with inhibitory action primarily at the locus ceruleus, is effective in decreasing the signs and symptoms of opioid withdrawal in inpatient populations. Inpatient studies reported an 80 to 90 percent success rate in detoxifying patients from methadone or heroin, while outpatient studies have reported success rates as low as 30 to 35 percent (Cornish et al., 1998).

The problems identified in outpatient clonidine medically supervised withdrawal include easier access to heroin and other opioids, lethargy, insomnia, dizziness, and over-sedation. All of these problems are more easily managed in the inpatient setting.

EVIDENCE TABLE

	Evidence	Source	QE	Overall Quality	Net Effect	SR
1	Gradually decrease the dosage of the sedative-hypnotic or substitute phenobarbital for the addicting agent and taper gradually.	CSAT, 1995 Smith & Wesson, 1994	III	Poor	-	C
2	During opioid medically supervised withdrawal, facilitate engagement in comprehensive long-term treatment.	Magura et al., 2001 Simpson & Sells, 1990	II-2	Poor	Mod	B
3	Buprenorphine has demonstrated greater efficacy in managing withdrawal symptoms and in completion of medically supervised withdrawal treatment in inpatient and outpatient settings compared to alpha2 adrenergic agonists (e.g., clonidine).	Gowing et al., 2006	I	Good	Subst	A
4	Buprenorphine and methadone appear to have equal efficacy in terms of completion of medically supervised withdrawal treatment, but withdrawal symptoms may resolve more quickly with buprenorphine.	Amato et al.; 2005 Gowing et al.; 2006	I	Good	Subst	A

QE = Quality of Evidence; SR = Strength of Recommendation (See Appendix A)

Table S- 1. Example Suboxone Dosing Schedules for Withdrawal from Illicit Opioids

Day(s) in Treatment	Dose of Suboxone (expressed as amount of buprenorphine)		
	Starting dose of buprenorphine		
	8 mg	16 mg	24 mg
1	8	16	24
2	6	12	20
3	6	10	16
4	4	8	12
5	4	4	8
6	2	2	4
7	2	2	2

13 Day CTN Buprenorphine Withdrawal Protocol	
Study Day	Buprenorphine-Naloxone Dose (mg)
1	4 + additional 4 as needed
2	8
3	16
4	14
5	12
6	10
7	8
8	6
9	6
10	4
11	4
12	2
13	2

Table S- 2. Example Methadone Dosing Schedules for Withdrawal from Illicit Opioids

Day(s) in Treatment	21-Day Schedule Dose (mg)	90-Day Schedule Dose (mg)	180-Day Schedule Dose (mg)
1	30	30	30
2	20	40	40
3	30	50	50
4 – 6	25	60	60
7 – 10	20	60	60
11 – 13	15	60	60
14 – 17	10	60	60
18 – 21	5	55	60
22 – 28		50	60
29 – 35		45	55
36 – 42		40	50
43 – 49		35	45
50 – 56		30	40
57 – 63		25	40
64 – 70		20	35
71 – 77		15	35
78 – 84		10	30
85 – 90		5	30
91 – 100			25
101 – 110			25
111 – 120			20
121 – 130			20
131 – 140			15
141 – 150			15
151 – 160			10
161 – 170			10
171 – 180			5

(Adapted from Strain & Stitzer, 1999)

I. Was Withdrawal Management Successful?

BACKGROUND

Treatment of opioid withdrawal should focus on facilitating entrance into comprehensive long-term treatment, as well as alleviating acute symptoms. Withdrawal management can be attempted with patients who wish to detoxify from all opioids. There is a high relapse rate to heroin or other opioid use unless stabilization is combined with psychosocial interventions. As such, withdrawal management is not a stand-alone treatment modality.

RECOMMENDATIONS

1. Identify patients in need of additional withdrawal management or stabilization before proceeding with further evaluation or treatment.
2. Medically supervised withdrawal is successful to the degree that the patient:
 - a. Is physiologically stable
 - b. Avoids hazardous medical consequences of withdrawal
 - c. Experiences minimal discomfort
 - d. Reports being treated with respect
 - e. Completes the medically supervised withdrawal protocol (e.g., no longer requires medication for withdrawal symptom management).

J. Is Care Management Indicated?

BACKGROUND

Among patients for whom withdrawal management is unsuccessful or who decline engagement in specialty care for rehabilitation, some patients may benefit from implementation of an ongoing care management plan outside of specialty SUD care.

RECOMMENDATIONS

1. If medically supervised withdrawal is unsuccessful, or treatment engagement is not achieved, consider one of the following:
 - a. A more intensive level of care for withdrawal management (e.g., inpatient)
 - b. Identify patients who can benefit from implementation of a care management plan, if acceptable to the patient (see Module C, Annotation K).

APPENDICES

Table of Contents

	<i>Page</i>
Appendix A: Guideline Development Process	91
Appendix B: Screening and Assessment Tools	98
B-1: Brief Alcohol Screening Questionnaires for Unhealthy Alcohol Use	98
B-2: Alcohol Use Disorders Identification Test (AUDIT)	100
B-3: CAGE Questionnaire	102
B-4: Single Item Drug Use/Abuse Screen	103
B-5: WHO Alcohol, Smoking and Substance Involvement Screening Test (ASSIST)	104
B-6: Signs and Symptoms of Intoxication and Withdrawal (DSM-IV-TR)	111
B-7: Addiction Research Foundation Clinical Institute Withdrawal Assessment of Alcohol (CIWA-Ar)	116
B-8: Clinical Opiate Withdrawal Scale (COWS)	118
B-9: Brief Addiction Monitor (BAM).	120
B-10. Housing Options	121
Appendix C: Addiction-Focused Psychosocial Interventions	122
C-1 Behavioral Couples Therapy (BCT)	123
C-2 Cognitive Behavioral Coping Skills Therapy	125
C-3 Community Reinforcement Approach (CRA)	126
C-4 Contingency Management for SUD Treatment	127
C-5 Motivational Enhancement Therapy (MET)	128
C-6 Twelve Step Facilitation (TSF)	130
Appendix D: Department of Defense Instruction (DoDI 1010.6)	133
Appendix E: Sedative-Hypnotic Equivalent Oral Doses	135
Appendix F: Acronym List	136
Appendix G: Participant List	137
Appendix H: Bibliography	142

Appendix A: Guideline Development Process

The development of the 2009 update of the VA/DoD Clinical Practice Guideline for Management of SUD followed the steps described in “Guideline for Guidelines,” an internal working document of the VA/DoD Evidence Based Practice Working Group, that requires an ongoing review of the work in progress. The Working Group of the VA/DoD was charged to update the evidence-based action recommendations whenever possible.

The Offices of Quality and Performance and Patient Care Services, in collaboration with the network Clinical Managers, the Deputy Assistant Under Secretary for Health, and the Medical Center Command of the DoD identified clinical leaders to champion the guideline development process. During a preplanning conference call, the clinical leaders defined the scope of the guideline and identified a group of clinical experts from the VA and DoD that formed the Management of SUD Working Group. Working Group members included representatives of the following specialties: primary care, internal medicine, psychiatry, psychology, psychotherapy research, social science research, pharmacy, and nursing.

The Working Group defined a set of clinical questions within the area of the guideline. This ensured that the guideline development work outside the meeting focused on issues that practitioners considered important and produced criteria for the search and the protocol for systematic review and, where appropriate, meta-analysis.

The Working Group participated in an initial face-to-face meeting to reach consensus about the guideline algorithm and recommendations and to prepare a draft update document. The draft continued to be revised by the Working Group at-large through numerous conference calls and individual contributions to the document. Following the initial effort, an editorial panel of the Working Group further edited the draft document. Recommendations for the performance or inclusion of specific procedures or services were derived through a rigorous methodological approach that included the following:

- Determining appropriate criteria, such as effectiveness, efficacy, population benefit, or patient satisfaction
- Reviewing literature to determine the strength of the evidence in relation to these criteria
- Formulating the recommendations and grading the level of evidence supporting the recommendation
- Independent experts reviewed the draft and their feedback was integrated into the final draft document.

This update of the SUD Guideline is the product of many months of diligent effort and consensus building among knowledgeable individuals from the VA, DoD, academia, as well as guideline facilitators from the private sector. An experienced moderator facilitated the multidisciplinary Working Group. The list of participants is included in [Appendix G](#).

FORMULATION OF QUESTIONS

The Working Group developed researchable questions and associated key terms after orientation to the scope of the guideline and to goals that had been identified by the Working Group. The questions specified (adapted from the Evidence-Based Medicine toolbox, Center for Evidence-Based Medicine, [<http://www.cebm.net>]):

- **Population** – Characteristics of the target patient population
- **Intervention** – Exposure, diagnostic, or prognosis
- **Comparison** – Intervention, exposure, or control used for comparison
- **Outcome** – Outcomes of interest.

These specifications served as the preliminary criteria for selecting studies. Literature searches were conducted on all topics identified in the algorithm or recommendations of the original guidelines. After reviewing the initial search for systematic reviews and meta-analyses, the Working Group decided to focus the search for individual randomized controlled trials (RCT) on the following questions:

Questions Related to Pharmacotherapy for Alcohol Dependence

- In outpatients or inpatients with a DSM diagnosis of alcohol dependence who receive care outside specialty addictions settings (e.g., primary care), is there a difference in efficacy/effectiveness between naltrexone (either oral or depot extended-release injectable formulation), acamprosate, or disulfiram and placebo in terms of alcohol consumption, relapse, retention/engagement in the treatment program, and adverse events?
- In outpatients or inpatients with a DSM diagnosis of alcohol dependence who receive care outside specialty addictions settings (e.g., primary care), is there a difference in efficacy/effectiveness between combination pharmacotherapy with two or more agents (naltrexone, acamprosate, disulfiram, depot naltrexone) compared to single agent pharmacotherapy?
- In outpatients or inpatients with a DSM diagnosis of alcohol dependence who receive care outside specialty addictions settings is there a difference in efficacy/effectiveness between initiating pharmacotherapy as the initial intervention after diagnosis compared to waiting a short period to achieve abstinence before initiating drug therapy?
- In patients with a DSM diagnosis of alcohol dependence or abuse is there a difference between initiating pharmacotherapy in the inpatient setting (Specialty setting) compared to initiating pharmacotherapy in an outside specialty setting in terms of alcohol consumption, relapse, retention/engagement in the treatment program, adverse events, and withdrawals due to adverse events?
- In outpatients or inpatients with a DSM diagnosis of alcohol dependence who receive care outside specialty addictions settings is there a difference between initiating non-pharmacologic psychosocial intervention in conjunction with pharmacotherapy compared to pharmacotherapy alone?

Pharmacotherapy for Opioid Dependence

- In patients with a DSM diagnosis of Opioid Dependence who have completed withdrawal, does use of naltrexone maintenance compared to placebo or treatment as usual lead to better outcomes in terms of consumption, relapse, retention/engagement in the treatment program, and adverse events?

- In patients with a DSM diagnosis of Opioid Dependence who have failed prior outpatient abstinence treatment, is there a difference in efficacy/effectiveness between maintenance treatment with opioid agonist buprenorphine (buprenorphine or buprenorphine/naloxone) compared to opioid agonist methadone in terms of consumption, relapse, retention/engagement in the treatment program, and adverse events?
- In patients with a DSM diagnosis of Opioid dependence, is there a difference in efficacy/effectiveness between initiating non-pharmacologic psychosocial interventions in conjunction with pharmacotherapy compared to pharmacotherapy alone?
- In patients with a DSM diagnosis of Opioid dependence is there a difference in efficacy/effectiveness between initiating buprenorphine within office-based outpatient treatment compared to initiating methadone within an opioid agonist treatment program in terms of consumption, relapse, retention/engagement in the treatment program, and adverse events?
- In patients with a DSM diagnosis of Opioid dependence appropriate for withdrawal management, is there a difference in efficacy/effectiveness between methadone or buprenorphine or clonidine in terms of completion of the withdrawal process, safety, engagement in subsequent treatment, and relapse?

Selection of Evidence

The evidence selection was designed to identify the best available evidence to address each key question and ensure maximum coverage of studies at the top of the hierarchy of study types. Published, peer-reviewed RCTs, as well as meta-analyses and systematic reviews that included randomized controlled studies were considered to constitute the strongest level of evidence in support of guideline recommendations. This decision was based on the judgment that RCTs provide the clearest, scientifically sound basis for judging comparative efficacy. The Working Group made this decision recognizing the limitations of RCTs, particularly considerations of generalizability with respect to patient selection and treatment quality. When available, the search sought out critical appraisals already performed by others that described explicit criteria for deciding what evidence was selected and how it was determined to be valid. The sources that have already undergone rigorous critical appraisal include Cochrane Reviews, Best Evidence, Technology Assessment, and AHRQ systematic evidence reports.

In addition to Medline/PubMed, the following databases were searched: Database of Abstracts of Reviews of Effectiveness (DARE) and Cochrane Central Register of Controlled Trials. For Medline/PubMed searches, limits were set for language (English), and type of research (RCT, systematic reviews and meta-analysis).

As a result of the literature reviews, articles were identified for possible inclusion. These articles formed the basis for formulating the guideline recommendations. The following inclusion criteria were used for studies:

- English language only of studies performed in United States, United Kingdom, Europe, Australia, Japan, New Zealand
- Full articles only
- Study populations age limited to adults greater than 18 years; all races, ethnicities, cultural groups
- Randomized controlled trials or prospective studies
- Published from 2002 to October 2007.

Admissible evidence (study design and other criteria):

- Original research studies that provide sufficient detail regarding methods and results to enable use and adjustment of the data and results.
- Randomized controlled trials (RCT); systematic reviews (including EPC and HTA reviews); and meta-analyses.
- Relevant outcomes must be able to be abstracted from data presented in the articles.
- Sample sizes must be appropriate for the study question addressed in the paper. RCTs will be included if they are initiated with 30 or more participants.

PREPARATION OF EVIDENCE TABLES (REPORTS) AND EVIDENCE RATING

The results of the search were organized and evidence reports as well as copies of the original studies were provided to the Working Group for further analysis. Each study was appraised by a group of research analysts for scientific merit, clinical relevance, and applicability to the populations served by the Federal healthcare system. The body of evidence was rated for quality and level of evidence. The reports of the evidence can be found in separate documents titled “Evidence Summary Alcohol Dependence” and “Evidence Summary Opioid Dependence.”

Recommendation and Overall Quality Rating

Evidence-based practice involves integrating clinical expertise with the best available clinical evidence derived from systematic research. The Working Group received an orientation and tutorial on the evidence USPSTF 2001 rating process, reviewed the evidence and independently formulated Quality of Evidence ratings (see [Table A-1](#)), a rating of Overall Quality (see [Table A-2](#)), and a Strength of Recommendation (see [Table A-3](#)).

Table A-1: Quality of Evidence (QE)	
I	At least one properly done RCT
II-1	Well-designed controlled trial without randomization
II-2	Well-designed cohort or case-control analytic study, preferably from more than one source
II-3	Multiple time series evidence with/without intervention, dramatic results of uncontrolled experiment
III	Opinion of respected authorities, descriptive studies, case reports, and expert committees

Table A-2: Overall Quality	
Good	High grade evidence (I or II-1) directly linked to health outcome
Fair	High grade evidence (I or II-1) linked to intermediate outcome; <i>or</i> Moderate grade evidence (II-2 or II-3) directly linked to health outcome
Poor	Level III evidence or no linkage of evidence to health outcome

Table A-3: Net Effect of the Intervention	
Substantial	More than a small relative impact on a frequent condition with a substantial burden of suffering; <i>or</i> A large impact on an infrequent condition with a significant impact on the individual patient level.
Moderate	A small relative impact on a frequent condition with a substantial burden of suffering; <i>or</i> A moderate impact on an infrequent condition with a significant impact on the individual patient level.
Small	A negligible relative impact on a frequent condition with a substantial burden of suffering; <i>or</i> A small impact on an infrequent condition with a significant impact on the individual patient level.
Zero or Negative	Negative impact on patients; <i>or</i> No relative impact on either a frequent condition with a substantial burden of suffering; or an infrequent condition with a significant impact on the individual patient level.

Table A-4: Final Grade of Recommendation				
	<i>The net benefit of the intervention</i>			
<i>Quality of Evidence</i>	Substantial	Moderate	Small	Zero or Negative
Good	A	B	C	D
Fair	B	B	C	D
Poor	I	I	I	I

Evidence Rating System

A	<p>A strong recommendation that the clinicians provide the intervention to eligible patients.</p> <p><i>Good evidence was found that the intervention improves important health outcomes and concludes that benefits substantially outweigh harm.</i></p>
B	<p>A recommendation that clinicians provide (the service) to eligible patients.</p> <p><i>At least fair evidence was found that the intervention improves health outcomes and concludes that benefits outweigh harm.</i></p>
C	<p>No recommendation for or against the routine provision of the intervention is made.</p> <p><i>At least fair evidence was found that the intervention can improve health outcomes, but concludes that the balance of benefits and harms is too close to justify a general recommendation.</i></p>
D	<p>Recommendation is made against routinely providing the intervention to asymptomatic patients.</p> <p><i>At least fair evidence was found that the intervention is ineffective or that harms outweigh benefits.</i></p>
I	<p>The conclusion is that the evidence is insufficient to recommend for or against routinely providing the intervention.</p> <p><i>Evidence that the intervention is effective is lacking, or poor quality, or conflicting, and the balance of benefits and harms cannot be determined.</i></p>

LACK OF EVIDENCE – CONSENSUS OF EXPERTS

Where existing literature was ambiguous or conflicting, or where scientific data was lacking on an issue, recommendations were based on the clinical experience of the Working Group.

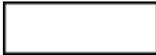
ALGORITHM FORMAT

The goal in developing the guideline for management of SUD was to incorporate the information into a format which would maximally facilitate clinical decision-making. The use of the algorithm format was chosen because of the evidence that such a format improves data collection, diagnostic and therapeutic decision-making and changes patterns of resource use. However, few guidelines are published in such a format.

The algorithmic format allows the provider to follow a linear approach to critical information needed at the major decision points in the clinical process, and includes:

- An ordered sequence of steps of care
- Recommended observations
- Decisions to be considered
- Actions to be taken

A clinical algorithm diagrams a guideline into a step-by-step decision tree. Standardized symbols are used to display each step in the algorithm (Society for Medical Decision-Making Committee, 1992). Arrows connect the numbered boxes indicating the order in which the steps should be followed.

	<p>Rounded rectangles represent a clinical state or condition.</p>
	<p>Hexagons represent a decision point in the guideline, formulated as a question that can be answered Yes or No. A horizontal arrow points to the next step if the answer is YES. A vertical arrow continues to the next step for a negative answer.</p>
	<p>Rectangles represent an action in the process of care.</p>
	<p>Ovals represent a link to another section within the guideline.</p>

A letter within a box of an algorithm refers the reader to the corresponding annotation. The annotations elaborate on the recommendations and statements that are found within each box of the algorithm. Included in the annotations are brief discussions that provide the underlying rationale and specific evidence tables. Annotations indicate whether each recommendation is based on scientific data or expert opinion. A complete bibliography is included in the guideline.

REFERENCES

- Agency for Health Care Policy and Research (AHCPR). Manual for conducting systematic review. Draft. August 1996. Prepared by Steven H. Woolf.
- Harris RP, Helfand M, Woolf SH, Lohr KN, Mulrow CD, Teutsch SM, Atkins D; Methods Work Group, Third US Preventive Services Task Force Current methods of the U.S. Preventive Services Task Force: a review of the process. *Am J Prev Med* 2001 Apr;20(3 Suppl):21-35.
- Society for Medical Decision-Making Committee (SMDMC). Proposal for clinical algorithm standards, SMDMC on Standardization of Clinical Algorithms. *Med Decis Making* 1992 Apr-Jun;12(2):149-54.
- United States Preventive Service Task Force (USPSTF). Guide to clinical preventive services. 2nd edition. Washington, DC: US Department of Health and Human Services, Office of Disease Prevention and Health Promotion, 1996.
- Woolf SH. Practice guidelines, a new reality in medicine II. Methods of developing guidelines. *Arch Intern Med* 1992 May;152(5):946-52.

Appendix B: Screening and Assessment Tools

Appendix B-1: Brief Alcohol Screening Questionnaires for Unhealthy Alcohol Use

AUDIT Consumption Questions (AUDIT-C)

1. How often did you have a drink containing alcohol in the past year?				
<i>Never</i>	<i>Monthly or less</i>	<i>Two to four times per month</i>	<i>Two to three times per week</i>	<i>Four or more times per week</i>
2. On days in the past year when you drank alcohol how many drinks did you typically drink?				
<i>1 or 2</i>	<i>3 or 4</i>	<i>5 to 6</i>	<i>7 to 9</i>	<i>10 or more</i>
3. How often do you have 6 or more drinks on an occasion in the past year?				
<i>Never</i>	<i>Less than Monthly</i>	<i>Monthly</i>	<i>Weekly</i>	<i>Daily or almost daily</i>

Note: The AUDIT-C can be administered by interview or self-report.

Scoring AUDIT-C

Question	0 points	1 point	2 points	3 points	4 points
1	<i>Never</i>	<i>Monthly or less</i>	<i>Two to four times per month</i>	<i>Two to three times per week</i>	<i>Four or more times per week</i>
2	<i>0 drinks and 1 or 2</i>	<i>3 or 4</i>	<i>5 to 6</i>	<i>7 to 9</i>	<i>10 or more</i>
3	<i>Never</i>	<i>Less than Monthly</i>	<i>Monthly</i>	<i>Weekly</i>	<i>Daily or almost daily</i>

When the AUDIT-C is administered by self-report add a "0 drinks" response option to question #2 (0 points based on validation studies). In addition, it is valid to impute responses of 0 points to questions #2-3 for patients who indicate "never" in response to question #1 (past year non-drinkers).

The minimum score (for non-drinkers) is 0 and the maximum possible score is 12.

Consider a screen positive for Unhealthy Alcohol Use if AUDIT-C score is ≥ 4 points for men or ≥ 3 points for women

Single-Item Alcohol Screening Questionnaire (SASQ) recommended by NIAAA

1. Do you sometimes drink beer, wine, or other alcoholic beverages?

(Followed by the screening question)

2. How many times in the past year have you had...

5 or more drinks in a day (men)

4 or more drinks in a day (women)

One standard drink = 12 ounces of beer, or 5 ounces of wine, or 1.5 ounces of 80-proof spirits.

A positive screen is any report of drinking 5 or more (men) or 4 or more (women) drinks on an occasion in the past year.

REFERENCES

Overview:

Bradley KA, Kivlahan DR, Williams EC. Brief approaches to alcohol screening: practical alternatives for primary care. *J Gen Intern Med.* Jul 2009;24(7):881-883.

AUDIT-C

Bush, K., D. R. Kivlahan, M. B. McDonell, S. D. Fihn & K. A. Bradley (1998) The AUDIT alcohol consumption questions (AUDIT-C): an effective brief screening test for problem drinking. Ambulatory Care Quality Improvement Project (ACQUIP). Alcohol Use Disorders Identification Test. *Arch Intern Med,* 158, 1789-95.

Bradley KA, DeBenedetti AF, Volk RJ, Williams EC, Frank D, Kivlahan DR. AUDIT-C as a brief screen for alcohol misuse in primary care. *Alcohol Clin Exp Res.* Jul 2007;31(7):1208-1217.

Bradley KA, Bush KR, Epler AJ, et al. Two brief alcohol-screening tests From the Alcohol Use Disorders Identification Test (AUDIT): validation in a female Veterans Affairs patient population. *Arch Intern Med.* Apr 14 2003;163(7):821-829.

SASQ

National Institute on Alcohol Abuse and Alcoholism, US Department of Health and Human Services & National Institute of Health (2007) *Helping Patients Who Drink Too Much: A Clinician's Guide* (updated 2005 guide).

Smith, P. C., S. M. Schmidt, D. Allensworth-Davies & R. Saitz (2009) Primary Care Validation of a Single-Question Alcohol Screening Test. *J Gen Intern Med,* 24, 783-788.

Appendix B-2: Alcohol Use Disorders Identification Test (AUDIT)

Because alcohol use can affect your health and can interfere with certain medications and treatments, it is important that we ask some questions about your use of alcohol **in the last year**. Your answers will remain confidential so please be honest. Place an X in one box that best describes your answer to each question.

Questions	0	1	2	3	4	
1. How often do you have a drink containing alcohol?	Never	Monthly or less	Two to four times a month	Two to three times a week	Four or more times a week	
2. How many drinks containing alcohol do you have on a typical day when you are drinking?	1 or 2	3 or 4	5 or 6	7 to 9	10 or more	
3. How often do you have six or more drinks on one occasion?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily	
4. How often during the last year have you found that you were not able to stop drinking once you had started?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily	
5. How often during the last year have you failed to do what was normally expected from you because of drinking?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily	
6. How often during the last year have you needed a first drink in the morning to get yourself going after a heavy drinking session?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily	
7. How often during the last year have you had a feeling of guilt or remorse after drinking?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily	
8. How often during the last year have you been unable to remember what happened the night before because of your drinking?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily	
9. Have you or someone else been injured as a result of your drinking?	No		Yes, but not in the last year		Yes, during the last year	
10. Has a relative or friend, doctor or other healthcare worker been concerned about your drinking or suggested you cut down?	No		Yes, but not in the last year		Yes, during the last year	
					Total	

SCORING

NOTE: The AUDIT can be administered by interview or self-report.

Questions 1-8 are scored 0, 1, 2, 3 or 4.

Questions 9 and 10 are scored 0, 2 or 4 only.

The response is as follows:

Question	0 points	1 point	2 points	3 points	4 points
1	<i>Never</i>	<i>Monthly or less</i>	<i>Two to four times per month</i>	<i>Two to three times per week</i>	<i>Four or more times per week</i>
2	<i>1 or 2</i>	<i>3 or 4</i>	<i>5 to 6</i>	<i>7 to 9</i>	<i>10 or more</i>
3-8	<i>Never</i>	<i>Less than Monthly</i>	<i>Monthly</i>	<i>Weekly</i>	<i>Daily or almost daily</i>
9-10	<i>No</i>	-	<i>Yes, but not in the last year</i>	-	<i>Yes, during the last year</i>

The minimum score (for non-drinkers) is 0 and the maximum possible score is 40.

The originally proposed WHO cut-off of 8 or more was based on the derivation sample (Saunders et al. 1993). In U.S. primary care studies and studies in VA outpatients, scores of 4 or more indicate a positive screen for identification of risky drinking or alcohol use disorders; scores of 5 or more indicate a positive screen for past-year DSM-IV alcohol use disorders (Volk et. al., 1997; Steinbauer et. al., 1998; Bradley et. al., 1998; Bradley et. al., 2003).

REFERENCES

- Bradley KA, DeBenedetti AF, Volk RJ, Williams EC, Frank D, Kivlahan DR. AUDIT-C as a brief screen for alcohol misuse in primary care. *Alcohol Clin Exp Res.* Jul 2007;31(7):1208-1217.
- Bradley KA, Bush KR, Epler AJ, et al. Two brief alcohol-screening tests From the Alcohol Use Disorders Identification Test (AUDIT): validation in a female Veterans Affairs patient population. *Arch Intern Med.* Apr 14 2003;163(7):821-829.
- Bradley KA, Bush KR, McDonell MB, Malone T, Fihn SD. Screening for problem drinking: comparison of CAGE and AUDIT. Ambulatory Care Quality Improvement Project (ACQUIP). Alcohol Use Disorders Identification Test. *J Gen Intern Med.* Jun 1998;13(6):379-388.
- Saunders JB, Aasland OG, Babor F, et al. Development of the alcohol use disorders screening test (AUDIT). WHO collaborative project on early detection of persons with harmful alcohol consumption, II. *Addiction* 1993;88:791-804.
- Steinbauer JR, Cantor SB, Holzer CE, Volk JR. Ethnic and sex bias in primary care screening tests for alcohol use disorders. *Ann Intern Med.* 1998;129:353-362.
- Volk RJ, Cantor SB, Steinbauer JR, Cass AR. Item bias in the CAGE screening test for alcohol use disorders. *J Gen Intern Med.* 1997;12:763-769.

Appendix B-3: CAGE Questionnaire

Please check one response to each item that best describes how you have felt and behaved during your whole life.

	YES	NO
1. Have you ever felt you should cut down on your drinking?	<input type="checkbox"/> 1	<input type="checkbox"/> 0
2. Have people annoyed you by criticizing your drinking?	<input type="checkbox"/> 1	<input type="checkbox"/> 0
3. Have you ever felt bad or guilty about your drinking?	<input type="checkbox"/> 1	<input type="checkbox"/> 0
4. Have you ever had a drink first thing in the morning to steady your nerves or to get rid of a hangover (eye opener)?	<input type="checkbox"/> 1	<input type="checkbox"/> 0

SCORING

Item responses on the CAGE are scored 0 to 1, with a higher score an indication of alcohol problems. A total score of 2 or greater is considered clinically significant.

REFERENCE

- Bradley KA, Bush KR, McDonell MB, Malone T, Fihn SD. Screening for problem drinking: comparison of CAGE and AUDIT. Ambulatory Care Quality Improvement Project (ACQUIP). Alcohol Use Disorders Identification Test. J Gen Intern Med. Jun 1998;13(6):379-388.
- Bradley KA, Kivlahan DR, Bush KR, McDonell MB, Fihn SD. Variations on the CAGE alcohol screening questionnaire: strengths and limitations in VA general medical patients. Alcohol Clin Exper Res. 2001;25(10):1472-1478.
- Buchsbaum DG, Buchanan R, Centor R. Interpreting CAGE scores. Ann Intern Med. 1992;116(12):1032-1033.

Appendix B-4: Single Item Drug Use/Abuse Screen

How many times in the past year have you used an illegal drug or used a prescription medication for non-medical reasons?

SCORING

A response of ≥ 1 was considered positive.

REFERENCE

PC Smith, D Allensworth-Davies, R Saitz. Single question screening for drug use in primary care. *Subst Abuse* Volume 30/No. 1, 2009; page 88 (abstract; manuscript is under review).

**Appendix B-5: WHO Alcohol, Smoking and Substance Involvement Screening Test
(ASSIST)
(Modified by NIDA)**

Full screen available at <http://www.nida.nih.gov/nidamed/screening/nmassist.pdf>

Name: Sex () F () M Age.....

Interviewer..... Date/...../.....

Introduction (Please read to patient)

Hi, I'm _____, nice to meet you. If it's okay with you, I'd like to ask you a few questions that will help me give you better medical care. The questions relate to your experience with alcohol, cigarettes, and other drugs. Some of the substances we'll talk about are prescribed by a doctor (like pain medications). But I will only record those if you have taken them for reasons or in doses other than prescribed. I'll also ask you about illicit or illegal drug use—but only to better diagnose and treat you.

Instructions: For each substance, mark in the appropriate column. For example, if the patient has ever used cocaine in their lifetime, put a mark in the "Yes" column in the "cocaine" row.

Prescreen Question: In your lifetime, which of the following substances have you ever used? <i>For prescription medications, please report nonmedical use only.</i>	No	Yes
a. Tobacco products (cigarettes, chewing tobacco, cigars, etc.)		
b. Alcoholic beverages (beer, wine, liquor, etc.)		
c. Cannabis (marijuana, pot, grass, hash, etc.)		
d. Cocaine (coke, crack, etc.)		
e. Prescription stimulants (Ritalin, Concerta, Dexedrine, Adderall, diet pills, etc.)		
f. Methamphetamine (speed, crystal meth, ice, etc.)		
g. Inhalants (nitrous oxide, glue, gas, paint thinner, etc.)		
h. Sedatives or sleeping pills (Valium, Serepax, Ativan, Xanax, Librium, Rohypnol, GHB, etc.)		
i. Hallucinogens (LSD, acid, mushrooms, PCP, Special K, ecstasy, etc.)		
j. Street opioids (heroin, opium, etc.)		
k. Prescription opioids (fentanyl, oxycodone [OxyContin, Percocet], hydrocodone [Vicodin], methadone, buprenorphine, etc.)		
l. Other – specify:		

- If the patient says "NO" for all drugs in Prescreen, reinforce abstinence. **Screening is complete.**
- If the patient says "Yes" to any of the drugs, ask **Question 1** of the NIDA Modified ASSIST tool.

Question 1 of the NIDA-Modified ASSIST V1.0

Instructions: Patients may fill in the following form themselves but screening personnel should offer to read the questions aloud in a private setting and complete the form for the patient (circle number in appropriate row/column). To preserve confidentiality, a protective sheet should be placed on top of the questionnaire so it will not be seen by other patients after it is completed but before it is filed in the medical record.

1. In the past three months, how often have you used the substances you mentioned (first drug, second drug, etc)?	Never	Once or Twice	Monthly	Weekly	Daily or Almost Daily
a. Tobacco products (cigarettes, chewing tobacco, cigars, etc.)	0	2	3	4	6
b. Alcoholic beverages (beer, wine, liquor, etc.)	0	2	3	4	6
c. Cannabis (marijuana, pot, grass, hash, etc.)	0	2	3	4	6
d. Cocaine (coke, crack, etc.)	0	2	3	4	6
e. Prescription stimulants (Ritalin, Concerta, Dexedrine, Adderall, diet pills, etc.)	0	2	3	4	6
f. Methamphetamine (speed, crystal meth, ice, etc.)	0	2	3	4	6
g. Inhalants (nitrous oxide, glue, gas, paint thinner, etc.)	0	2	3	4	6
h. Sedatives or sleeping pills (Valium, Serenax, Ativan, Librium, Xanax, Rohypnol, GHB, etc.)	0	2	3	4	6
i. Hallucinogens (LSD, acid, mushrooms, PCP, Special K, ecstasy, etc.)	0	2	3	4	6
j. Street opioids (heroin, opium, etc.)	0	2	3	4	6
k. Prescription opioids (fentanyl, oxycodone [OxyContin, Percocet], hydrocodone [Vicodin], methadone, buprenorphine, etc.)	0	2	3	4	6
l. Other – Specify:	0	2	3	4	6

- For patients who report “Never” having used any drug in the past 3 months: Go to Questions 5-7.
- For any recent **illicit or nonmedical prescription drug use**, go to Question 2.
- For **tobacco and alcohol**, see next page.

For Tobacco and Alcohol Use

- For patients who report use of **tobacco**: *Any* current tobacco use places a patient at risk.

Advise *all* tobacco users to quit. For more information on smoking cessation, please see *Helping Smokers Quit: A Guide for Clinicians* at <http://www.ahrq.gov/clinic/tobacco/clinhlpsmksqt.htm>.

- For **alcohol**: Question patient in more detail about frequency and quantity of use:



If the answer is:

- None**: Advise patient to stay within these limits

For healthy men under the age of 65: No more than 4 drinks per day AND no more than 14 drinks per week.

For healthy women under the age of 65 and not pregnant (and healthy men over age 65): No more than 3 drinks per day AND no more than 7 drinks per week.

Recommend lower limits or abstinence as medically indicated; for example for patients who:

- Take medications that interact with alcohol
- Have a health condition exacerbated by alcohol
- Are pregnant (advice abstinence).

Encourage talking openly about alcohol and any concerns it may raise, re-screen annually.

- One or more times of heavy drinking** (≥ 5 for men; ≥ 4 for women): Patient is an at-risk drinker.

Please see NIAAA website “How to help patients who drink too much: A clinical approach” at

http://pubs.niaaa.nih.gov/publications/Practitioner/CliniciansGuide2005/clinicians_guide.htm for additional information to **Assess, Advise, Assist, and Arrange** help for at risk drinkers or patients with alcohol use disorders.

Reminder:

Many people don't know what counts as a standard drink (e.g., 12 oz beer, 5 oz wine, 1.5 oz liquor).

For information, please see http://pubs.niaaa.nih.gov/publications/Practitioner/CliniciansGuide2005/clinicians_guide_13_p_mats.htm

Questions 2-7 of the NIDA-Modified ASSIST V1.0

Instructions: Patients may fill in the following form themselves or screening personnel can offer to read the questions aloud in a private setting and complete the form (circle number in appropriate row/column). To preserve confidentiality, a protective sheet should be placed on top of the questionnaire so it will not be seen by other patients after it is completed but before it is filed in the medical record.

2. In the past 3 months, how often have you had a strong desire or urge to use (first drug, second drug, etc)?	Never	Once or Twice	Monthly	Weekly	Daily or Almost Daily
a. Cannabis (marijuana, pot, grass, hash, etc.)	0	3	4	5	6
b. Cocaine (coke, crack, etc.)	0	3	4	5	6
c. Prescribed Amphetamine type stimulants (Ritalin, Concerta, Dexedrine, Adderall, diet pills, etc.)	0	3	4	5	6
d. Methamphetamine (speed, crystal meth, ice, etc.)	0	3	4	5	6
e. Inhalants (nitrous oxide, glue, gas, paint thinner, etc.)	0	3	4	5	6
f. Sedatives or sleeping pills (Valium, Serepax, Ativan, Librium, Xanax, Rohypnol, GHB, etc.)	0	3	4	5	6
g. Hallucinogens (LSD, acid, mushrooms, PCP, Special K, ecstasy, etc.)	0	3	4	5	6
h. Street Opioids (heroin, opium, etc.)	0	3	4	5	6
i. Prescribed opioids (fentanyl, oxycodone [OxyContin, Percocet], hydrocodone [Vicodin], methadone, buprenorphine, etc.)	0	3	4	5	6
j. Other – Specify:	0	3	4	5	6

3. During the past 3 months, how often has your use of (first drug, second drug, etc) led to health, social, legal or financial problems?	Never	Once or Twice	Monthly	Weekly	Daily or Almost Daily
a. Cannabis (marijuana, pot, grass, hash, etc.)	0	4	5	6	7
b. Cocaine (coke, crack, etc.)	0	4	5	6	7
c. Prescribed Amphetamine type stimulants (Ritalin, Concerta, Dexedrine, Adderall, diet pills, etc.)	0	4	5	6	7
d. Methamphetamine (speed, crystal meth, ice, etc.)	0	4	5	6	7
e. Inhalants (nitrous oxide, glue, gas, pain thinner, etc.)	0	4	5	6	7
f. Sedatives or sleeping pills (Valium, Serepax, Ativan, Librium, Xanax, Rohypnol, GHB, etc.)	0	4	5	6	7
g. Hallucinogens (LSD, acid, mushrooms, PCP, Special K, ecstasy, etc.)	0	4	5	6	7
h. Street opioids (heroin, opium, etc.)	0	4	5	6	7
i. Prescribed opioids (fentanyl, oxycodone [OxyContin, Percocet], hydrocodone [Vicodin], methadone, buprenorphine, etc.)	0	4	5	6	7
j. Other – Specify:	0	4	5	6	7

4. During the past 3 months, how often have you failed to do what was normally expected of you because of your use of (first drug, second drug, etc)?	Never	Once or Twice	Monthly	Weekly	Daily or Almost Daily
a. Cannabis (marijuana, pot, grass, hash, etc.)	0	5	6	7	8
b. Cocaine (coke, crack, etc.)	0	5	6	7	8
c. Prescribed Amphetamine type stimulants (Ritalin, Concerta, Dexedrine, Adderall, diet pills, etc.)	0	5	6	7	8
d. Methamphetamine (speed, crystal meth, ice, etc.)	0	5	6	7	8
e. Inhalants (nitrous oxide, glue, gas, paint thinner, etc.)	0	5	6	7	8
f. Sedatives or sleeping pills (Valium, Serepax, Ativan, Librium, Xanax, Rohypnol, GHB, etc.)	0	5	6	7	8
g. Hallucinogens (LSD, acid, mushrooms, PCP, Special K, ecstasy, etc.)	0	5	6	7	8
h. Street Opioids (heroin, opium, etc.)	0	5	6	7	8
i. Prescribed opioids (fentanyl, oxycodone [OxyContin, Percocet], hydrocodone [Vicodin], methadone, buprenorphine, etc.)	0	5	6	7	8
j. Other – Specify:	0	5	6	7	8

Instructions: Ask Questions 5 & 6 for all substances ever used (i.e., those endorsed in the Prescreen).

5. Has a friend or relative or anyone else <u>ever</u> expressed concern about your use of (first drug, second drug, etc)?	No, never	Yes, but not in the past 3 months	Yes, in the past 3 months
a. Cannabis (marijuana, pot, grass, hash, etc.)	0	3	6
b. Cocaine (coke, crack, etc.)	0	3	6
c. Prescribed Amphetamine type stimulants (Ritalin, Concerta, Dexedrine, Adderall, diet pills, etc.)	0	3	6
d. Methamphetamine (speed, crystal meth, ice, etc.)	0	3	6
e. Inhalants (nitrous oxide, glue, gas, paint thinner, etc.)	0	3	6
f. Sedatives or sleeping pills (Valium, Serepax, Xanax, Ativan, Librium, Rohypnol, GHB, etc.)	0	3	6
g. Hallucinogens (LSD, acid, mushrooms, PCP, Special K, ecstasy, etc.)	0	3	6
h. Street opioids (heroin, opium, etc.)	0	3	6
i. Prescribed opioids (fentanyl, oxycodone [OxyContin, Percocet], hydrocodone [Vicodin], methadone, buprenorphine, etc.)	0	3	6
j. Other – Specify:	0	3	6

6. Have you ever tried and failed to control, cut down or stop using (first drug, second drug, etc)?	No, never	Yes, but not in the past 3 months	Yes, in the past 3 months
a. Cannabis (marijuana, pot, grass, hash, etc.)	0	3	6
b. Cocaine (coke, crack, etc.)	0	3	6
c. Prescribed Amphetamine type stimulants (Ritalin, Concerta, Dexedrine, Adderall, diet pills, etc.)	0	3	6
d. Methamphetamine (speed, crystal meth, ice, etc.)	0	3	6
e. Inhalants (nitrous oxide, glue, gas, paint thinner, etc.)	0	3	6
f. Sedatives or sleeping pills (Valium, Serepax, Xanax, Ativan, Librium, Rohypnol, GHB, etc.)	0	3	6
g. Hallucinogens (LSD, acid, mushrooms, PCP, Special K, ecstasy, etc.)	0	3	6
h. Street opioids (heroin, opium, etc.)	0	3	6
i. Prescribed opioids (fentanyl, oxycodone [OxyContin, Percocet], hydrocodone [Vicodin], methadone, buprenorphine, etc.)	0	3	6
j. Other – Specify:	0	3	6

Instructions: Ask Question 7 if the patient endorses any drug that might be injected, including those that might be listed in the other category (e.g., steroids). Circle appropriate response.

7. Have you ever used any drug by injection (NONMEDICAL USE ONLY)?	No, never	Yes, but not in the past 3 months	Yes, in the past 3 months
--	-----------	-----------------------------------	---------------------------

- Recommend to patients reporting any prior or current intravenous drug use that they get tested for HIV and Hepatitis B/C.
- If patient reports using a drug by injection in the past three months, ask about their pattern of injecting during this period to determine their risk levels and the best course of intervention.
 - If patient responds that they inject once weekly or less OR fewer than 3 days in a row, provide a brief intervention including a discussions of the risks associated with injecting.
 - If patient responds that they inject more than once per week OR 3 or more days in a row, refer for further assessment.

Note: Recommend to patients reporting any current use of alcohol or illicit drugs that they get tested for HIV and other sexually transmitted diseases.

Tally Sheet for scoring the full NIDA-Modified ASSIST:

Instructions: For each substance (labeled a–j), add up the scores received for questions 1-6 above. This is the Substance Involvement (SI) score. Do not include the results from either the Prescreen or Q 7 (above) in your SI scores.

Substance Involvement Score	Total (SI SCORE)
a. Cannabis (marijuana, pot, grass, hash, etc.)	
b. Cocaine (coke, crack, etc.)	
c. Prescription stimulants (Ritalin, Concerta, Dexedrine, Adderall, diet pills, etc.)	
d. Methamphetamine (speed, crystal meth, ice, etc.)	
e. Inhalants (nitrous oxide, glue, gas, paint thinner, etc.)	
f. Sedatives or sleeping pills (Valium, Serepax, Xanax, Ativan, Librium, Rohypnol, GHB, etc.)	
g. Hallucinogens (LSD, acid, mushrooms, PCP, Special K, ecstasy, etc.)	
h. Street Opioids (heroin, opium, etc.)	
i. Prescription opioids (fentanyl, oxycodone [OxyContin, Percocet], hydrocodone [Vicodin], methadone, buprenorphine, etc.)	
j. Other – Specify:	

Use the resultant Substance Involvement (SI) Score to identify patient’s risk level.

To determine patient’s risk level based on his or her SI score, see the table below:

Level of risk associated with different Substance Involvement Score ranges for Illicit or nonmedical prescription drug use	
0-3	Lower Risk
4-26	Moderate Risk
27+	High Risk

Appendix B-6: Signs and Symptoms of Intoxication and Withdrawal (DSM-IV-TR)

Substance Classification	Signs and Symptoms of Intoxication	Signs and Symptoms of Withdrawal
Alcohol	<p>DSM-IV-TR 303.00 Alcohol Intoxication</p> <ul style="list-style-type: none"> • Recent ingestion of alcohol • Clinically significant maladaptive behavioral or psychological changes (inappropriate sexual or aggressive behavior, mood lability, impaired judgment, impaired social or occupational functioning) that developed during or shortly after alcohol ingestion) • One or more of the following that develop during or shortly after alcohol ingestion: <ul style="list-style-type: none"> • Slurred speech • Lack of coordination • Unsteady gait • Nystagmus • Impaired attention or memory • Coma or stupor <p>Note: Symptoms not due to general medical condition and not accounted for by another mental disorder</p>	<p>DSM-IV-TR 291.81 Alcohol Withdrawal</p> <p>Note: Cessation of or reduction in alcohol use that has been heavy and prolonged</p> <ul style="list-style-type: none"> • Two or more of the following that develop within several hours to a few days after apparent intoxication • Autonomic hyperactivity (Sweating, Heart Rate > 100) • Increased hand tremor • Insomnia • Nausea or vomiting • Transient visual, tactile, or auditory hallucinations, or delusions • Psychomotor agitation • Anxiety • Grand mal seizures • Symptoms cause clinically significant distress or impairment in social, occupational, or other important areas of functioning <p>Note: Symptoms not due to general medical condition and not accounted for by another mental disorder</p>
Sedative, Hypnotic, Anxiolytic	<p>DSM-IV-TR 292.89 Intoxication</p> <ul style="list-style-type: none"> • Recent use of sedative, hypnotic, or anxiolytic • Clinically significant maladaptive behavioral or psychological changes (inappropriate sexual or aggressive behavior, mood lability, impaired judgment, impaired social or occupational functioning) that developed during or shortly after sedative, hypnotic, or anxiolytic use) • One or more of the following developing during or shortly after sedative, hypnotic, or anxiolytic use <ul style="list-style-type: none"> • Slurred speech • Lack of coordination • Unsteady gait • Nystagmus • Impaired attention or memory • Stupor • Coma 	<p>DSM-IV-TR 292.0 Withdrawal</p> <ul style="list-style-type: none"> • Cessation of or reduction in sedative, hypnotic, or anxiolytic use that has been heavy and prolonged • Two or more of the following developing within several hours to a few days of apparent intoxication • Autonomic hyperactivity (sweating or pulse rate over 100) • Increased hand tremor • Insomnia • Nausea or vomiting • Transient visual, tactile, or auditory hallucinations or illusions • Psychomotor agitation • Anxiety • Grand mal seizures • Symptoms cause clinically significant distress or impairment in social, occupational, or other important areas of functioning <p>Note: Symptoms not due to general medical condition and not accounted for by another mental disorder</p>

Substance Classification	Signs and Symptoms of Intoxication	Signs and Symptoms of Withdrawal
<p>Amphetamines, (including Ecstasy, MDMA,)</p> <p>Or</p> <p>Cocaine</p>	<p>DSM-IV-TR 292.89 Amphetamine Intoxication</p> <ul style="list-style-type: none"> • Recent Use of Amphetamine or Related Substance • Clinically significant maladaptive behavioral or psychological changes (euphoria or affective blunting, changes in sociability, hyper vigilance, interpersonal sensitivity, anxiety, tension, anger, stereotyped behaviors, impaired judgment, impaired social or occupational functioning) that developed during or shortly after amphetamine use) • Two or more of the following that develop during or shortly after amphetamine use: <ul style="list-style-type: none"> • Tachycardia or bradycardia • Pupillary dilation • Elevated or low blood pressure • Perspiration or chills • Nausea or vomiting • Evidence of weight loss • Psychomotor agitation or retardation • Muscular Weakness • Chest Pain • Cardiac Arrhythmia • Respiratory Depression • Confusion • Seizures • Dyskinesia • Dystonia • Coma <p><i>Note: Symptoms not due to general medical condition and not accounted for by another mental disorder</i></p>	<p>DSM-IV-TR 292.0 Amphetamine Withdrawal</p> <p><i>Note: Cessation of or reduction in amphetamine or related substance use that has been heavy and prolonged</i></p> <ul style="list-style-type: none"> • Dysphoric mood and two or more of the following that develop within several hours to a few days after apparent intoxication • Fatigue • Vivid, unpleasant dreams • Insomnia or hypersomnia • Increased appetite • Psychomotor agitation or retardation • Symptoms cause clinically significant distress or impairment in social, occupational, or other important areas of functioning <p><i>Note: Symptoms not due to general medical condition and not accounted for by another mental disorder</i></p>
<p>Opioids</p>	<p>DSM-IV-TR 292.89 Opioid Intoxication</p> <ul style="list-style-type: none"> • Recent Use of Opioid • Clinically significant maladaptive behavioral or psychological changes (initial euphoria followed by apathy, dysphoria, psychomotor agitation or retardation, impaired judgment or impaired social or occupational functioning) that develop during or shortly after use of opioids) • Pupillary constriction (Or dilation due to anoxia from severe overdose) and one or more of the following: <ul style="list-style-type: none"> • Drowsiness or coma • Slurred speech • Impaired attention or memory <p><i>Note: Symptoms not due to general medical condition and not accounted for by another mental disorder</i></p>	<p>DSM-IV-TR 292.0 Opioid Withdrawal</p> <ul style="list-style-type: none"> • Cessation of or reduction in opioid use that has been heavy and prolonged (several weeks or longer) • Administration of opioid antagonist after a period of opioid use • Three or more of the following within minutes to several days of above: <ul style="list-style-type: none"> • Dysphoric mood • Nausea or vomiting • Muscle aches • Lacrimation or rhinorrhea • Pupillary dilation, piloerection, or sweating • Diarrhea • Yawning • Fever • Insomnia • Symptoms cause clinically significant distress or impairment in social, occupational, or other important areas of functioning <p><i>Note: Symptoms not due to general medical condition and not accounted for by another mental disorder</i></p>

Substance Classification	Signs and Symptoms of Intoxication	Signs and Symptoms of Withdrawal
<p>Cannabis</p>	<p>DSM-IV-TR 292.89 Cannabis Intoxication</p> <p>Recent use of Cannabis</p> <ul style="list-style-type: none"> • Clinically significant maladaptive behavioral or psychological changes (impaired motor coordination, euphoria, anxiety, sensation of slowed time, impaired judgment, social withdrawal that develop during or shortly after cannabis use) • Two or more of the following that develop within 2 hours of cannabis use: <ul style="list-style-type: none"> • Conjunctival injection • Increased appetite • Dry mouth • Tachycardia <p>Note: Symptoms not due to general medical condition and not accounted for by another mental disorder</p>	
<p>Hallucinogen including LSD</p>	<p>DSM-IV-TR 292.89 Hallucinogen Intoxication</p> <p>Recent use of hallucinogen</p> <ul style="list-style-type: none"> • Clinically significant maladaptive behavioral or psychological changes (marked anxiety or depression, ideas of reference, fear of losing one's mind, paranoid ideation, impaired judgment, or impaired social or occupational functioning that develop during or shortly after hallucinogen use) • Perceptual changes occurring in a state of full wakefulness and alertness (subjective intensification of perceptions, depersonalization, illusions, hallucinations, synesthesias) that develop during or shortly after hallucinogen use <p>Two or more of the following that develop during or shortly after hallucinogen use</p> <ul style="list-style-type: none"> • Pupillary dilation • Tachycardia • Sweating • Palpitations • Blurring of vision • Tremors • Lack of coordination <p>Note: Symptoms not due to general medical condition and not accounted for by another mental disorder</p>	

Substance Classification	Signs and Symptoms of Intoxication	Signs and Symptoms of Withdrawal
<p>Inhalants (solvents, nitrous oxide, nitrites)</p>	<p>DSM-IV-TR 292.89 Inhalant Intoxication</p> <ul style="list-style-type: none"> • Recent intentional use or short-term high-dose exposure to volatile agents (excluding anesthesia gases and short-acting vasodilators) • Clinically Significant Maladaptive Behavioral or Psychological Changes (belligerence, assaultiveness, apathy, impaired judgment, impaired social or occupational functioning) that develop during or shortly after exposure to volatile agents) <p>Two or more of the following that develop during or shortly after inhalant use or exposure:</p> <ul style="list-style-type: none"> • Dizziness • Nystagmus • Lack of coordination • Slurred Speech • Unsteady Gait • Lethargy • Depressed reflexes • Psychomotor Retardation • Tremor • Generalized Muscle Weakness • Blurred Vision or Diplopia • Stupor Coma • Euphoria <p>Note: Symptoms not due to general medical condition and not accounted for by another mental disorder</p>	

Substance Classification	Signs and Symptoms of Intoxication	Signs and Symptoms of Withdrawal
<p>Phencyclidine (PCP)</p>	<p>DSM-IV-TR 292.89 Phencyclidine Intoxication</p> <p>Recent use of phencyclidine or related substance</p> <ul style="list-style-type: none"> • Clinically Significant Maladaptive Behavioral or Psychological Changes (belligerence, assaultiveness, impulsiveness, unpredictability, psychomotor agitation, impaired judgment, or impaired social or occupational functioning) that develop during or shortly after phencyclidine use <p>Within an hour (less when smoked, “snorted,” or used intravenously) two or more of the following:</p> <ul style="list-style-type: none"> • Vertical or horizontal nystagmus • Hypertension or tachycardia • Numbness or diminished responsiveness to pain • Ataxia • Dysarthria • Muscle rigidity • Seizures or Coma • Hyperacusis <p>Symptoms cause clinically significant distress or impairment in social, occupational, or other important areas of functioning</p> <p>Note: Symptoms not due to general medical condition and not accounted for by another mental disorder</p>	
<p>Dextromethorphan (DXM)</p>	<p>Alcohol-like Intoxication</p> <ul style="list-style-type: none"> • Hallucinations • Impaired Senses, Including Vision • Mind-body Dissociation • Slurred Speech • Memory Loss 	

**Appendix B-7: Addiction Research Foundation Clinical Institute Withdrawal
Assessment of Alcohol (CIWA-Ar)**

Patient: _____ **Date:** _____ **Time:** _____
_____.(24 hour clock, midnight = 00:00)

Pulse or heart rate, taken for one minute: _____ **Blood pressure:** _____

NAUSEA AND VOMITING -- Ask "Do you feel sick to your stomach? Have you vomited?" Observation.

- 0 no nausea and no vomiting
- 1 mild nausea with no vomiting
- 2
- 3
- 4 intermittent nausea with dry heaves
- 5
- 6
- 7 constant nausea, frequent dry heaves and vomiting

TACTILE DISTURBANCES -- Ask "Have you any itching, pins and needles sensations, any burning, any numbness, or do you feel bugs crawling on or under your skin?" Observation.

- 0 none
- 1 very mild itching, pins and needles, burning or numbness
- 2 mild itching, pins and needles, burning or numbness
- 3 moderate itching, pins and needles, burning or numbness
- 4 moderately severe hallucinations
- 5 severe hallucinations
- 6 extremely severe hallucinations
- 7 continuous hallucinations

TREMOR -- Arms extended and fingers spread apart. Observation.

- 0 no tremor
- 1 not visible, but can be felt fingertip to fingertip
- 2
- 3
- 4 moderate, with patient's arms extended
- 5
- 6
- 7 severe, even with arms not extended

AUDITORY DISTURBANCES -- Ask "Are you more aware of sounds around you? Are they harsh? Do they frighten you? Are you hearing anything that is disturbing to you? Are you hearing things you know are not there?" Observation.

- 0 not present
- 1 very mild harshness or ability to frighten
- 2 mild harshness or ability to frighten
- 3 moderate harshness or ability to frighten
- 4 moderately severe hallucinations
- 5 severe hallucinations
- 6 extremely severe hallucinations
- 7 continuous hallucinations

PAROXYSMAL SWEATS -- Observation.

- 0 no sweat visible
- 1 barely perceptible sweating, palms moist
- 2
- 3
- 4 beads of sweat obvious on forehead
- 5
- 6
- 7 drenching sweats

VISUAL DISTURBANCES -- Ask "Does the light appear to be too bright? Is its color different? Does it hurt your eyes? Are you seeing anything that is disturbing to you? Are you seeing things you know are not there?" Observation.

- 0 not present
- 1 very mild sensitivity
- 2 mild sensitivity
- 3 moderate sensitivity
- 4 moderately severe hallucinations
- 5 severe hallucinations
- 6 extremely severe hallucinations

SCORING

CIWA-Ar has 10 provider ratings. Interpret sum of total scores as follows:

- Minimal or absent withdrawal: ≤ 9
- Mild to moderate withdrawal: 10-19
- Severe withdrawal: > 20

REFERENCE

Sullivan JT, Sykora K, Schneiderman J, et al. Assessment of alcohol withdrawal: the revised Clinical Institute Withdrawal Assessment for Alcohol scale (CIWA-AR). *Brit J Addiction* 1989;84:1353-7.

See web based training on use of CIWA-Ar for Prevention of Alcohol Withdrawal Syndrome at www.detoxguideline.org

Appendix B-8: Clinical Opiate Withdrawal Scale (COWS)

For each item, circle the number that best describes the patient's signs or symptoms. Rate just on the apparent relationship to opioid withdrawal. For example, if heart rate is increased because the patient was jogging just prior to assessment, the increased pulse rate would not add to the score.

Patient Name:	Date:	Time:
Reason for this assessment:		
1. Resting pulse rate: _____ beats/minute Measured after the patient is sitting or lying for one minute. 0 Pulse rate 80 or below 1 Pulse rate 81–100 2 Pulse rate 101–120 4 Pulse rate greater than 120	7. GI upset: over last half hour 0 No GI symptoms 1 Stomach cramps 2 Nausea or loose stool 3 Vomiting or diarrhea 5 Multiple episodes of diarrhea or vomiting	
2. Sweating: <i>over past half hour not accounted for by room temperature of patient activity</i> 0 No reports of chills or flushing 1 Subjective reports of chills or flushing 2 Flushed or observable moisture on face 3 Beads of sweat on brow or face 4 Sweat streaming off face	8. Tremor: observation of outstretched hands 0 No tremor 1 Tremor can be felt, but not observed 2 Slight tremor observable 4 Gross tremor or muscle twitching	
3. Restlessness: <i>observation during assessment</i> 0 Able to sit still 1 Reports difficulty sitting still, but is able to do so 3 Frequent shifting or extraneous movements of legs/arms 5 Unable to sit still for more than a few seconds	9. Yawning: <i>observation during assessment</i> 0 No yawning 1 Yawning once or twice during assessment 2 Yawning three or more times during assessment 4 Yawning several times/minute	
4. Pupil size 0 Pupils pinned or normal size for room light 1 Pupils possibly larger than normal for room light 2 Pupils moderately dilated 5 Pupils so dilated that only the rim of the iris is visible	10. Anxiety or irritability 0 None 1 Patient reports increasing irritability or anxiousness 2 Patient obviously irritable, anxious 4 Patient so irritable or anxious that participation in the assessment is difficult	
5. Bone or joint aches: <i>if patient was having pain previously, only the additional component attributed to opiate withdrawal is scored.</i> 0 Not present 1 Mild diffuse discomfort 2 Patient reports severe diffuse aching of joints/muscles 4 Patient is rubbing joints or muscles and is unable to sit still because of discomfort	11. Gooseflesh skin 0 Skin is smooth 3 Piloerection of skin can be felt or hairs standing up on arms 5 Prominent piloerection	
6. Runny nose or tearing: <i>not accounted for by cold symptoms or allergies</i> 0 Not present 1 Nasal stuffiness or unusually moist eyes 2 Nose running or tearing 4 Nose constantly running or tears streaming down cheeks	Total Score: _____ [The total score is the sum of all 11 items.] Initials of person completing assessment: _____	

Score: 5–12=Mild; 13–24=Moderate; 25–36=Moderately severe; >36=Severe withdrawal
 Source: Adapted from Wesson et al. 1999. Reprinted with permission.

SCORING

COWS has 10 provider ratings. Interpret sum of total scores as follows:

- Mild withdrawal: 5-12
- Moderate withdrawal: 13-24
- Moderately severe withdrawal: 25-36
- Severe withdrawal: > 36

REFERENCE

Wesson DR, Ling W. The Clinical Opiate Withdrawal Scale (COWS). *J Psychoactive Drugs*. 2003 Apr-Jun;35(2):253-9.

Appendix B-9: Brief Addiction Monitor (BAM).

Participant ID: _____	Date: _____
Interviewer ID (Clinician Initials): _____	
Method of Administration: <input type="checkbox"/> Clinician Interview <input type="checkbox"/> Self Report <input type="checkbox"/> Phone	
Time Started: ____ : ____	Time Finished: ____ : ____

This is a standard set of questions about several areas of your life such as your health, alcohol and drug use. The questions generally ask about the past 30 days. Please consider each question and answer as accurately as possible.

- In the past 30 days, would you say your physical health has been?
0- Excellent 1 - Very Good 2 - Good 3 - Fair 4 - Poor
- In the past 30 days, how many nights did you have trouble falling asleep or staying asleep? ____
- In the past 30 days, how many days have you felt depressed, anxious, angry or very upset throughout most of the day?

- In the past 30 days, how many days did you drink ANY alcohol? (If 00, Skip to #6) ____
- How many days did you have at least (5-men, 4-women) drinks? [One drink is considered one shot of hard liquor (1.5 oz.) or 12 - ounce can/bottle of beer or 5 ounce glass of wine.] ____
- In the past 30 days, how many days did you use any illegal/street drugs or abuse any prescription medications?
(If 00, Skip to #8) ____
- What did you take? (Check all that apply)
 - __ 7a. Marijuana
 - __ 7b. Sedatives/Tranquilizers (e.g., « benzos", Valium, Xanax, Ativan, Ambien, "barbs", Phenobarbital, downers, etc.)
 - __ 7c. Cocaine/Crack
 - __ 7d. Other Stimulants (e.g., amphetamine, methamphetamine, Dexedrine, Ritalin, Adderall, "speed", "crystal meth", "ice", "crank", etc.)
 - __ 7e. Opiates (e.g., Heroin, Morphine, Dilaudid, Demerol, Oxycotin, "oxcy", codeine (Tylenol 2,3,4), Percocet, Vicodin, Fentanyl, etc.)
 - __ 7f. Other drugs (e.g., steroids, non-prescription sleep or diet pills, benadryl, ephedra, other over-the-counter/unknown meds, etc)
- In the past 30 days, how much were you bothered by cravings or urges to drink alcohol or use drugs?
0 - Not at all 1 - Slightly 2 - Moderately 3 - Considerably 4 - Extremely
- How confident are you in your ability to be completely abstinent (clean) from alcohol and drugs in the next 30 days?
0 - Not at all 1 - Slightly 2 - Moderately 3 - Considerably 4 - Extremely
- In the past 30 days, how many days did you attend self-help meetings like AA or NA to support your recovery? ____
- In the past 30 days, how many days were you in any situations or with any people that might put you at an increased risk for using alcohol or drugs (i.e., around risky "people, places or things")? ____
- Does your religion or spirituality help support your recovery?
0 - Not at all 1 - Slightly 2 - Moderately 3 - Considerably 4 - Extremely
- In the past 30 days, how many days did you spend much of the time at work, school, or doing volunteer work? ____
- Do you have enough income (from legal sources) to pay for necessities such as housing, transportation, food and clothing for yourself and your dependents?
0 - No 1 - Yes
- In the past 30 days, how much have you been bothered by arguments or problems getting along with any family members or friends?
0 - Not at all 1 - Slightly 2 - Moderately 3 - Considerably 4 - Extremely
- In the past 30 days, how many days were you in contact or spend time with any family members or friends who are supportive of your recovery? ____
- How satisfied are you with your progress toward achieving your recovery goals?
0 - Not at all 1 - Slightly 2 - Moderately 3 - Considerably 4 - Extremely

Appendix B-10. Housing Options *

Types of Housing	Indications	Examples
Intensive Medical Management or Monitoring	Medical or psychiatric instability requiring hospitalization (includes severe intoxication or withdrawal) ASAM PPC-2R* Levels III.7 and IV	Inpatient medical bed section Inpatient addiction/psychiatry bed section
Clinical Management	Medical or psychiatric instability requiring 24-hour clinical management, but not of sufficient severity to require hospitalization ASAM PPC-2R Levels III.3-III.5	Social detoxification setting VA Substance Abuse Residential Rehabilitation Treatment Programs (SARRTP) and VA Domiciliaries (if professional staff are present 24-hours/day) Therapeutic Rehabilitation Facility Therapeutic Community
24-Hour Supervision	Mild to moderately severe psychiatric or medical conditions requiring some supervision that may be provided by paraprofessionals, volunteers, or patients in advanced stages of treatment Demonstrated inability to remain abstinent in unsupervised setting or homeless Lacking own social support system, such as family members willing and able to assist ASAM PPC-2R Level III.1	Halfway houses Sober houses or safe houses Use of hospital bed space for lodging purposes (e.g., self-care wards in DoD & lodger status in VA) VA SARRTP and VA Domiciliaries (if staffed only by non-professionals at least part of the day or night)
Non-Supervised Housing	Homeless Lives at too far to travel to outpatient program Able to care for self, including use of medications Able to remain abstinent in an unsupervised setting ASAM PPC-2R Levels I, II.1, or II.5	Patient's own home Transitional living facility Temporary housing provided on-site or in the community Intensive Outpatient Treatment Partial Hospitalization Day or evening outpatient treatment programs Drop-in center

*ASAM Patient Placement Criteria, 2nd Edition-Revised (ASAM PPC-2R, 2001)

Appendix C: Addiction-Focused Psychosocial Interventions

Summary of Effectiveness of Psychosocial Interventions during early recovery (first 90 days) on condition specific outcomes of SUD (use or consequences) or general psychosocial functioning

	Interventions (alphabetical)	First line alternatives at least as effective as other bona fide active interventions or treatment as usual (TAU)				Added effectiveness as adjunctive interventions in combination with pharmacotherapy and/or other first line psychosocial interventions				Comments
		Alcohol	Opioids	Stimulants /mixed	Cannabis	Alcohol	Opioids	Stimulants /mixed	Cannabis	
C-1	Behavioral Couples Therapy	+++	N/A	+++	N/A	+/-	+	?	N/A	Effective for male or female patients with SUD and partners; improves marital satisfaction
C-2	Cognitive Behavioral Coping Skills Training	+++	N/A	+++	++	+	+++	N/A	++	
C-4	Contingency Management/ Motivational Incentives	N/A	N/A	N/A	N/A	+	+++	+++	N/A	
C-3	Community Reinforcement Approach	+++	N/A	+	N/A	N/A	N/A	+	N/A	Complex intervention
C-5	Motivational Enhancement Therapy (MET)	+++	N/A	N/A	?	+++	?	+/-	+	May improve treatment engagement as adjunct to TAU for stimulants; Some evidence for those with low readiness or high anger
C-6	Twelve-Step Facilitation	+++	N/A	N/A	N/A	++	N/A	+	N/A	AA participation is correlated with outcome – appears to mediate TSF effects

+++ based on meta analysis of comparison with bona fide alternative interventions
+ or ++ Based on one (+) or more (++) individual trials in comparison with bona fide alternatives
N/A: evidence not available; +/- evidence inconsistent across outcomes; ?: benefit questionable

C-1. Behavioral Couples Therapy (BCT)

DESCRIPTION

Most versions of behavioral couples therapy (BCT) are focused both on reducing alcohol or drug use in the identified patient and on improving overall marital satisfaction for both partners. In BCT sessions, the therapist arranges a daily Sobriety Contract in which the patient states his or her intent not to drink or use drugs that day, and the partner expresses support for the patient's efforts to stay abstinent. The Sobriety Contract can also include urine drug screens for the patient, attendance at other agreed-to counseling sessions, or 12-step meetings by the patient and partner. To improve relationship functioning, BCT uses a series of behavioral assignments to increase positive feelings, shared activities, and constructive communication because these relationship factors are conducive to sobriety.

DISCUSSION

BCT has been evaluated in a number of randomized studies with alcohol or drug dependent individuals and their partners. As a standalone treatment, it has consistently been found to improve drinking or drug use outcomes and marital satisfaction to a greater degree than control conditions, which have usually been individual or group standard addictions treatment (Epstein & McCrady, 1998; Fals-Stewart et al., 1996, 2003; O'Farrell & Fals-Stewart, 2001; Shadish & Baldwin, 2005; Stanton & Shadish, 1997). Studies have also shown that BCT is cost-effective, reduces violence, and improves the psychosocial functioning of children in the family (Fals-Stewart et al., 1997, 2002; Kelley & Fals-Stewart, 2002; O'Farrell et al., 1996a, 1996b, 1999). Although most studies have focused exclusively on males with SUD and their female partners, several recent studies have also found that the intervention is effective for female substance abusers and their male partners (Fals-Stewart et al., 2006). However, it should be noted that BCT has been compared to other forms of couples therapy in only a few studies which raises the question of whether it is in fact more effective than other conjoint interventions (Walitzer & Dermen, 2004). In addition, the intervention has only been tested with significant others who are not themselves substance abusers.

REFERENCES

- Epstein E.E., & McCrady, B.S. (1998). Behavioral couples treatment of alcohol and drug use disorders: Current status and innovations. *Clinical Psychology Review*, 1998;18:689-711.
- Fals-Stewart, W., Birchler, G.R., et al. (2006). Learning sobriety together: A randomized trial examining behavioral couples therapy with alcoholic female patients. *Journal of Consulting and Clinical Psychology*, 74, 579-591.
- Fals-Stewart, W. and T. J. O'Farrell (2003). Behavioral family counseling and naltrexone for male opioid-dependent patients. *J Consult Clin Psychol* 71(3): 432-42.
- Fals-Stewart, W., Birchler, G.R. & O'Farrell, T.J. (1996). Behavioral couples therapy for male substance-abusing patients: Effects on relationship adjustment and drug-using behavior. *Journal of Consulting and Clinical Psychology*, 64, 959-972.
- Fals-Stewart, W., O'Farrell, T.J., & Birchler, G.R. (1997). Behavioral couples therapy for male substance abusing patients: A cost outcomes analysis. *Journal of Consulting and Clinical Psychology*, 65, 789-802.
- Fals-Stewart, W., K. Klostermann, et al. (2005). Brief relationship therapy for alcoholism: a randomized clinical trial examining clinical efficacy and cost-effectiveness. *Psychol Addict Behav* 19(4): 363-71.
- Fals-Stewart, W., T. B. Kashdan, et al. (2002). Behavioral couples therapy for drug-abusing patients: effects on partner violence. *J Subst Abuse Treat* 22(2): 87-96

- Hulse, G. K. (2003). Behavioural family randomizes reduces drug use in opioid-dependent men. *Evid Based Ment Health* 6(4): 123.
- Kelley, M. L., & Fals-Stewart, W. (2002). Couples- versus individual-based therapy for alcohol and drug abuse: effects on children's psychosocial functioning. *J Consult Clin Psychol* 70(2): 417-27
- O'Farrell T., & Fals-Stewart, W. (2001). Family-involved alcoholism treatment: An update. In: Galanter M, editor. *Recent Developments in Alcoholism, Volume 15: Services Research in the Era of Managed Care*. New York: Kluwer Academic/Plenum.
- O'Farrell, T. J., Choquette, K. A., Cutter, H. S. G., Floyd, F. J., Bayog, R. D., Brown, E. D., Lowe, J., Chan, A., & Deneault, P. (1996a). Cost-benefit and cost-effectiveness analyses of behavioral marital therapy as an addition to outpatient alcoholism treatment. *Journal of Substance Abuse*, 8, 145-166.
- O'Farrell, T. J., Choquette, K. A., Cutter, H. S. G., Brown, E. D., Bayog, R., McCourt, W., Lowe, J., Chan, A., & Deneault, P. (1996b). Cost-benefit and cost-effectiveness analyses of behavioral marital therapy with and without relapse prevention sessions for alcoholics and their spouses. *Behavior Therapy*, 27, 7-24.
- O'Farrell, T. J., Van Hutton, V., & Murphy, C. M. (1999). Domestic violence after alcoholism treatment: A two-year longitudinal study. *Journal of Studies on Alcohol*, 60, 317-321.
- Shadish WR, & Baldwin, S.A. (2005). Effects of behavioral marital therapy: A meta-analysis of randomized controlled trials. *Journal of Consulting and Clinical Psychology*, 73:6-14.
- Stanton MD, & Shadish, W.R. (1997). Outcome, attrition, and family-couples treatment for drug abuse: A meta-analysis and review of the controlled, comparative studies. *Psychological Bulletin*, 122:170-91.
- Walitzer, K. S., & Dermen, K.H. (2004). Alcohol-focused spouse involvement and behavioral couples therapy: evaluation of enhancements to drinking reduction treatment for male problem drinkers. *J Consult Clin Psychol* 72(6): 944-55.

C-2. Cognitive-Behavioral Coping Skills Therapy

DESCRIPTION

Cognitive-behavioral coping skills therapy consists of related treatment approaches for substance use disorders that focus on teaching patients to modify both thinking and behavior related not only to substance use, but to other areas of life functionally related to substance use. Patients learn to track their thinking and activities and identify the affective and behavioral consequences of those thoughts and activities. Patients then learn techniques to change thinking and behaviors that contribute to substance use, and to strengthen coping skills, improve mood, interpersonal functioning and enhance social support. Primary therapeutic techniques include education of the patient about the treatment model, collaboration between the patient and therapist to choose goals, identifying unhelpful thoughts and developing experiments to test the accuracy of such thoughts, guided discovery (facilitating the patient in identifying alternative beliefs through the use of questions designed to explore current beliefs), interpersonal skill building through communication and assertiveness training, behavioral rehearsal, and role-play. In addition, treatment incorporates structured practice outside of session, including scheduled activities, self-monitoring, thought recording and challenging, and interpersonal skills practice.

DISCUSSION

Cognitive-behavioral coping skills therapy has been evaluated in a number of randomized studies and has been empirically supported (Dutra et al., 2008; Wilbourne, 2005). Cognitive-behavioral coping skills therapy has been shown to be effective with alcohol and drug dependent adults and adolescents but not consistently superior to other interventions (Czuchry et al 2003; Ball et al 2007; Carroll et al; Kaminer et al 2002).

REFERENCES

- Ball, S. A., M. Todd, et al. (2007). Brief motivational enhancement and coping skills interventions for heavy drinking. *Addict Behav* 32(6): 1105-18etc.
- Carroll, K. M., C. J. Easton, et al. (2006). The use of contingency management and motivational/skills-building therapy to treat young adults with marijuana dependence. *J Consult Clin Psychol* 74(5): 955-66.
- Czuchry, M. and D. F. Dansereau (2003). Cognitive skills training: impact on drug abuse counseling and readiness for treatment. *Am J Drug Alcohol Abuse* 29(1): 1-18
- Dutra, L., Stathopoulou, G., Basden, S.L., Leyro, T.M., Powers, M.B., & Otto, M.W. (2008). A meta-analytic review of psychosocial interventions for substance use disorders. *Am J Psychiatry*;165(2):179-87.
- Kaminer, Y., J. A. Burlison, et al. (2002). Cognitive-behavioral coping skills and psychoeducation therapies for adolescent substance abuse. *J Nerv Ment Dis* 190(11): 737-45
- Wilbourne PL An empirical basis for the treatment of alcohol problems. *Dis Abstr Int* 2005;66(5-B):2844.

C-3. Community Reinforcement Approach (CRA)

DESCRIPTION

Community Reinforcement Approach (CRA) is a comprehensive cognitive-behavioral intervention for the treatment of substance abuse problems by focusing on environmental contingencies that impact and influence the patient's behavior. Developed in accordance with the belief that these environmental contingencies play a crucial role in an individual's addictive behavior and recovery, CRA utilizes familial, social, recreational, and occupational events to support the individual in changing his or her drinking/using behaviors and in creating a successful sobriety. The goal is to rearrange multiple aspects of an individual's life so that a sober lifestyle is more rewarding than one that is dominated by alcohol and/or drugs. CRA integrates several treatment components, including building the patient's motivation to quit drinking/using, helping the patient initiate sobriety, analyzing the patient's drinking/using pattern, increasing positive reinforcement, learning new coping behaviors, and involving significant others in the recovery process.

DISCUSSION

Numerous early clinical trials have found CRA to be effective in treating substance abuse and dependence and in helping relatives recruit their loved ones into substance abuse treatment (Miller et al., 1999). The trials were conducted in a variety of geographic regions, treatment settings (e.g., inpatient and outpatient), and individual and family therapy approaches. Furthermore, the patients in those studies suffered from various substance-related problems and included homeless people as well as people of different ethnic or cultural backgrounds. Consistently, CRA was more effective than the traditional approaches with which it was compared or to which it had been added.

More recently, in the ongoing Mesa Grande project reviewing clinical trials of treatments for alcohol use disorders (Miller & Wilbourne, 2002), CRA was rated as one of the psychosocial treatments having the strongest evidence of efficacy. And in a study of 100 cocaine-dependent outpatients by Higgins et al. (2003), patients treated with CRA plus vouchers were retained better in treatment, used cocaine at a lower frequency during treatment (but not follow-up) and reported a lower frequency of drinking to intoxication during treatment and follow-up compared with patients treated with vouchers only. Patients treated with CRA plus vouchers also reported a higher frequency of days of paid employment during treatment and the initial 6 months of follow-up, decreased depressive symptoms during treatment only, and fewer hospitalizations and legal problems during follow-up.

REFERENCES

- Higgins, S.T., Sigmon, S.C., Wong, C.J., Heil, S.H., Badger, G.J., Donham, R., Dantona, R.L., and Anthony, S. (2003). Community reinforcement therapy for cocaine-dependent outpatients. *Archives of General Psychiatry*, 60, 1043-1052.
- Miller, W. R., & Wilbourne, P. L. (2002). Mesa Grande: A methodological analysis of clinical trials of treatments for alcohol use disorders. *Addiction*, 97, 265-277.
- Miller, W.R., Meyers, R.J., & Hiller-Sturmhofel, S. (1999). The Community reinforcement approach, *Alcohol Research & Health*, 23, 116-121.

C-4. Contingency Management for SUD Treatment

DESCRIPTION

Contingency Management (CM) approaches are based on behavioral principles of reinforcement that reward specific behavioral goals related to recovery. Either monetary or nonmonetary rewards are made contingent on objective evidence such as negative toxicology results (e.g., biological tests for recent drug or alcohol use), treatment adherence, or progress toward treatment goals. The most common form of contingencies provided to reinforce desired behaviors are vouchers with monetary value that can be redeemed for goods and services, specific material prizes, or draws from a “fishbowl” that contains cards which vary in their reinforcing value from simple praise to vouchers worth \$1 to \$100. Schedules (fixed or intermittent) and magnitude of reinforcement have varied and have implications for overall cost of clinical implementation.

DISCUSSION

Contingency Management can be effective in combination with pharmacotherapy (e.g., agonist medications for opioid dependence) or in addition to cognitive behavioral therapy. These approaches have shown consistent effectiveness with patients diagnosed with drug use disorders (Dutra et al., 2008; Prendergast et al., 2006; Plebani-Lussier et al., 2006) for establishing a period of continuous abstinence and early recovery. There has been limited evidence on patients with alcohol dependence.

In a meta-analytic review of psychosocial interventions for illicit SUDs, the highest effect size estimates were obtained for CM approaches (Dutra et al., 2008), which also demonstrated the lowest dropout rates. Prendergast et al. (2006) conducted a meta-analysis of treatment-control group studies published since 1970 of CM with respect to drug use outcomes and found CM more effective in treating opiate use ($d^* = 0.65$) and cocaine use ($d = 0.66$), compared with tobacco ($d = 0.31$) or multiple drugs ($d = 0.42$). However, for most interventions, the magnitude of the effect observed at the end of treatment is not maintained in the months following treatment. Prendergast et al. (2006) concludes that CM may be viewed as an adjunct to standard treatment, enhancing its effectiveness. Whether CM can serve as a stand-alone treatment is not known (* d = standardized effect score).

In a meta-analysis of voucher-based reinforcement therapy (VBRT) for SUDs, VBRT significantly improved treatment outcomes compared to control conditions (Plebani-Lussier et al., 2006). With the exception of alcohol, which consisted of a single study, overall effect sizes for all targeted drugs indicated that VBRT resulted in significantly better abstinence outcomes than control conditions. This meta-analysis also offers support for the efficacy of VBRT for facilitating other therapeutic changes (e.g. clinic attendance, medication compliance) in individuals with SUDs. Results suggest that magnitude and immediacy of VBRT exert the strongest influence on effect size during treatment, although the authors recommend future research in these areas.

REFERENCES

- Dutra L, Stathopoulou G, Basden SL, Leyro TM, Powers MB, Otto MW. A meta-analytic review of psychosocial interventions for substance use disorders. *Am J Psychiatry*. 2008 Feb;165(2):179-87.
- Plebani-Lussier J, Heil SH, Mongeon JA, Badger GJ, Higgins ST. A meta-analysis of voucher-based reinforcement therapy for substance use disorders. *Addiction* 2006;101:192-203.
- Prendergast M, Podus D, Finney J, Greenwell L, Roll J. Contingency management for treatment of substance use disorders: a meta-analysis. *Addiction* 2006;101:1546-60.

C-5. Motivational Enhancement Therapy (MET)

DESCRIPTION

Motivational enhancement therapy (MET) is a less intensive form of specialized psychosocial intervention for patients with substance use disorders. MET uses principles of motivational interviewing including an empathic, client-centered, but directive approach intended to heighten awareness of ambivalence about change, promote commitment to change and enhance self-efficacy. MET differs from MI in that it is a more structured intervention that is based to a greater degree on systematic assessment with personalized feedback. The therapeutic style using motivational interviewing elicits client reactions to assessment feedback, commitment to change and collaboration on development of an individualized change plan. Involvement of a significant other is encouraged in at least one of the MET sessions.

DISCUSSION

Motivational enhancement therapy (MET) (Miller et al., 1992), is more appropriate for patients with alcohol dependence seeking specialty care from trained providers with demonstrated competence (Martino et al., 2008; Miller et al., 2004). MI (Miller & Rollnick, 2002) has been effective as a stand-alone intervention for non-treatment seeking patients with less severe disorders (Hettema et al., 2005; Moyers et al., 2005).

MET has been evaluated in two major multi-center trials among patients with alcohol dependence. As a stand-alone treatment, MET typically involves 3 to 4 sessions and yielded comparable benefits to more intensive manualized interventions of 8 to 12 sessions (Project MATCH, 1997; UKATT Research Team, 2001). MET also can improve outcomes for alcohol dependence as an adjunctive intervention to treatment as usual (Ball et al., 2007) or can be integrated with CBT and 12-step facilitation (Anton et al., 2006).

Both Project MATCH and the UKATT Study tested for differential effects of MET based on client characteristics including gender and readiness for change, but found no significant matching effects (UKATT); however Project MATCH found advantages of MET for patients with high levels of anger at treatment entry (Project MATCH).

Among patients with cannabis dependence, two sessions of MET, did not reduce marijuana use over 15-month follow-up as much as a nine-session multicomponent intervention that also included cognitive-behavioral therapy and case management (Babor et al. 2004). There is no incremental effectiveness of MET on substance use outcomes when added to treatment as usual for patients with other drug use disorders (Ball et al., 2007; Miller et al., 2003), including pregnant substance abusers (Winhusen et al., 2007).

REFERENCES

- Anton RF, O'Malley SS, Ciraulo DA, Cisler RA, Couper D, Donovan DM, et al. for the COMBINE Study Research Group. Combined pharmacotherapies and behavioural Interventions for alcohol dependence. The COMBINE study: a randomized controlled trial. *JAMA* 2006;293:2003–2017.
- Ball SA, Martino S, Nich C, Frankforter TL, Van Horn D, Crits-Christoph P, Woody GE, Obert JL, Farentinos C, Carroll KM; National Institute on Drug Abuse Clinical Trials Network. Site matters: multisite randomized trial of motivational enhancement therapy in community drug abuse clinics. *J Consult Clin Psychol*. 2007 Aug;75(4):556-67.
- Babor TF. Brief Treatments for Cannabis Dependence: Findings from a Randomized Multisite Trial. *J Consult Clin Psychol*. 2004;72:455-66.
- Hettema J, Steele J, Miller WR. Motivational interviewing. *Annual Review of Clinical Psychology*. 2005;1:91-111.

- Martino S, Ball SA, Nich C, Frankforter TL, Carroll KM. (2008). Community program therapist adherence and competence in motivational enhancement therapy. *Drug Alcohol Depend.* Mar 5 [Epub ahead of print]
- Miller, W. R., Yahne, C. E., Moyers, T. B., Martinez, J. & Pirritano, M. (2004). A randomized trial of methods to help clinicians learn motivational interviewing. *Journal of Consulting and Clinical Psychology*, 72, 1050–1062.
- Miller WR, Yahne CE, Tonigan JS. Motivational interviewing in drug abuse services: A randomized trial. *J Consult Clin Psychol.* 2003;71:754-63.
- Miller, W. R., Zweben, A., DiClemente, C. & Rychtarik, R. (1992). *Motivational Enhancement Therapy: A Clinical Research Guide for Therapists Treating Individuals with Alcohol Abuse and Dependence*, Project MATCH Monograph series, (Vol. 2), DHHS pub. No. (ADM) 92-1894. Washington DC: Department of Health and Human Services.
- Moyers, T.B., Miller, W.R., & Hendrickson, S.M.L. (2005). How does motivational interviewing work? Therapist interpersonal skill predicts client involvement within motivational interviewing sessions. *Journal of Consulting and Clinical Psychology*, 73, 590-598.
- Project MATCH research group. Matching alcoholism treatments to client heterogeneity: Project MATCH Posttreatment drinking outcomes. *J Stud Alcohol.* 1997;58:7-29.
- Raistrick D, Heather N, Godfrey C. Review of the effectiveness of treatment for alcohol problems. London: National Treatment Agency for Substance Misuse, 2006.
- Rohsenow DJ, Monti PM, Martin RA, Colby SM, Myers MG, Gulliver SB, et al. Motivational enhancement and coping skills training for cocaine abusers: Effects on substance use outcomes. *Addiction.* 2004;99:862-74.
- UKATT Research Team. Effectiveness of treatment for alcohol problems: findings of the randomized UK alcohol treatment trial (UKATT). *BMJ* 2005;311:541-4.
- United Kingdom Alcohol Treatment Trial (UKATT): hypotheses, design and methods. *Alcohol* 2001 Jan-Feb;36(1):11-21.
- Winhusen T, Kropp F, Babcock D, Hague D, Erickson SJ, Renz C, Rau L, Lewis D, Leimberger J, Somoza E. Motivational enhancement therapy to improve treatment utilization and outcome in pregnant substance users. *J Subst Abuse Treat.* 2007 Dec 14.

C-6. Twelve-Step Facilitation (TSF)

DESCRIPTION

Twelve Step Facilitation (TSF) therapy aims to increase the patient's active involvement in Alcoholics Anonymous (AA) or other twelve-step based mutual- (self-) help groups. This approach was systematized in a manual for NIAAA's Project MATCH and delivered as 12-sessions of individual therapy in which the therapist actively encourages engagement in AA, and walks the patient through the first four steps of the AA program. The therapist conveys the concept that addiction is a chronic, progressive and potentially fatal illness for which the only successful strategy is abstinence achieved one day at a time by following a 12-step program of recovery. Each therapy session is divided into three parts. The first part reviews relevant events of the last week (including urges to use, drinking behavior and recovery-oriented activities) and a homework assignment. The middle portion introduces new material related to the 12-steps. The conclusion of the session includes a homework assignment and development of a plan for recovery-oriented activities (meeting attendance, sponsor contact).

DISCUSSION

Twelve step facilitation (TSF) refers to formal psychotherapy administered by a professional that is intended to foster the patient's active participation in Alcoholics Anonymous or other 12 step-based mutual-help programs. It assumes that alcoholism (or addiction) is a progressive illness that affects the body, mind, and spirit for which the only effective strategy for recovery is abstinence from alcohol (or other drugs). The individual can achieve complete abstinence one day at a time by following a 12-step program of recovery as outlined in the "Big Book" of Alcoholics Anonymous (c1935, 1955, 1976, 2001) and through fellowship with others in recovery through the 12 traditions of Alcoholics Anonymous.

Encouragement of participation in Alcoholics Anonymous (AA) and other 12 step-based mutual help groups is widespread in community addiction treatment programs. Participation in twelve step-based mutual help groups has been associated with improved outcome and reduction in healthcare costs in numerous observational studies (Humphreys et al, 2004). In the relatively few randomized, controlled clinical trials, TSF psychotherapy is associated with reduced drug and alcohol use compared to baseline and (with one exception, Higgins et al, 1993) no significant differences in primary outcome measures compared to other standardized addiction treatment psychotherapies. Two studies have found significant advantages of TSF in secondary outcome measures such as treatment retention and abstinence from alcohol.

Project MATCH (1997, 1998) is a multicenter, randomized, controlled clinical trial evaluating the efficacy of individual psychotherapies for treatment of alcohol dependence. In Project MATCH, 1726 subjects were randomly assigned to TSF (12-sessions), Cognitive Behavioral Therapy (CBT, 12 sessions), or Motivation Enhancement Therapy (MET, 4 sessions). Patients in all three groups improved in the primary outcome measures of addiction severity, with no significant differences between the three groups. In addition, patients assigned to TSF were significantly more likely than those assigned to CBT or MET to completely abstain from alcohol.

Project MATCH and 7 other randomized clinical trials of TSF for treatment of alcohol dependence were reviewed by the Cochrane Collaboration (2006). Seven of these trials compared some form of TSF to another active treatment and found no significant differences between them. One trial by Davis and colleagues (2002) compared "standard" outpatient group and individual therapy emphasizing participation in AA with minimal treatment (alcohol education videos) and found that both groups significantly reduced their drinking over baseline, but the standard treatment group reduced average daily alcohol consumption and increased abstinence significantly more than the minimal treatment group.

Dutra and colleagues (2008) performed a meta-analytic review of psychosocial treatments for substance use disorders other than alcohol. Of the 34 studies reviewed, three evaluated TSF. All three

compared TSF to another active treatment- Contingency Management (CM, Higgins et al, 1993), Cognitive Behavioral Therapy (CBT, Carroll et al, 1998) or Dialectical Behavioral Therapy (DBT, Linehan et al, 2002).

Higgins and colleagues (1993) compared a comprehensive behavioral therapy including community reinforcement, relapse prevention training, employment assistance, and recreational therapy to traditional drug counseling with weekly group and individual therapy emphasizing a 12-step approach in 38 outpatient volunteers. Patients who were randomly assigned to comprehensive behavioral therapy achieved better treatment retention (58% versus 11% at week 12) and significantly more achieved 8 consecutive weeks of cocaine abstinence (68% versus 11%) as measured by urine drug screen than the patients in 12-step based drug counseling.

Carroll and colleagues (1998) randomly assigned 122 patients with cocaine and alcohol dependence to one of five treatment arms (TSF, CBT, TSF plus disulfiram, CBT plus disulfiram, or clinical management plus disulfiram). Disulfiram treatment was significantly associated with treatment retention and abstinence from cocaine and alcohol. TSF and CBT with disulfiram were both significantly more effective than CM with disulfiram in increasing abstinence from cocaine with no significant differences between the two.

Linehan and colleagues (2002) compared a 12-month course of dialectical behavioral therapy (DBT) to comprehensive validation therapy with TSF (CVT+TSF) for treatment of heroin dependence in women with borderline personality disorder receiving LAAM. Both treatments produced significant reductions in positive urine drug screens for heroin (from >80% at baseline to 27% for DBT and 33% for CVT +TSF at 16 months) with no significant differences between them. Patients assigned to TSF were more likely to be retained in treatment (100% versus 64%) though those retained in DBT were more likely to maintain reduction in positive urine drug screens during the last 4 months of treatment.

The preponderance of the evidence supports that AA participation is associated with improved addiction outcome compared to baseline. TSF is more effective than minimal intervention and at least as efficacious as CBT, MET and DBT for treatment of addiction. Though in one trial, TSF was significantly less effective in reducing cocaine use than a comprehensive behavioral treatment including contingency management, more research is needed to examine whether TSF may have more enduring effects than other forms of psychosocial treatment. Detailed guidance for administering TSF using the Project MATCH manual is available through the National Institute on Alcohol Abuse and Alcoholism at <http://pubs.niaaa.nih.gov/publications/match.htm>.

REFERENCES

- Carroll KM, Nich C, Ball SA., et al. Treatment of cocaine and alcohol dependence with psychotherapy and disulfiram. *Addiction* 1998;93(5):713-27.
- Dutra L, Stathopoulou G, Basden SL, Leyro TM, Powers MB, Otto MW. A meta-analytic review of psychosocial interventions for substance use disorders. *Am J Psychiatry* 2008.
- Ferri M, Amato L, Davoli M. Alcoholics Anonymous and other 12-step programmes for alcohol dependence. *Cochrane Database Syst Rev*. 2006
- Higgins ST, Budney AJ, Bickel WK, Hughes JR, Foerg F, Badger G. Achieving cocaine abstinence with a behavioral approach. *Am J Psychiatry*. 1993 May;150(5):763-9.
- Humphreys K, Wing S, McCarty D, Chappel J, Gallant L, Haberle B, Horvath AT, Kaskutas LA, Kirk T, Kivlahan D, Laudet A, McCrady BS, McLellan AT, Morgenstern J, Townsend M, Weiss R. Self-help organizations for alcohol and drug problems: toward evidence-based practice and policy. *J Subst Abuse Treat*. 2004 Apr;26(3):151-8; discussion 159-65. Review.
- Linehan MM, Dimeff LA, Reynolds SK, Comtois KA, Welch SS, Heagerty P, Kivlahan DR. Dialectical behavior therapy versus comprehensive validation therapy plus 12-step for the treatment of opioid dependent women meeting criteria for borderline personality disorder. *Drug Alcohol Depend*. 2002 Jun 1;67(1):13-26.

Project MATCH Research Group. Alcohol: Clin Exper Res. Vol. 22. 1998. Matching alcoholism treatments to client heterogeneity: project MATCH three-year drinking outcomes; pp. 1300–1311.

Project MATCH research group. Matching alcoholism treatments to client heterogeneity: Project MATCH Posttreatment drinking outcomes. *J Stud Alcohol*. 1997;58:7-29.

Timko C, Moos RH, Finney JW, Lesar MD: Long-term outcomes of alcohol use disorders: comparing untreated individuals with those in Alcoholics Anonymous and formal treatment. *J Stud Alcohol* 2000; 61:529–540

Appendix D: Department of Defense Instruction (DoDI 1010.6)

Department Of Defense Instruction (DoDI 1010.6) Rehabilitation and Referral Services for Alcohol and Drug Abusers

Executive Summary

Action Plan Item C.3:

Assess service programs for early intervention and/or rehabilitation for all personnel involved in an alcohol incident.

All services have existing policies in place regarding assessment and intervention for any service member who has an alcohol-related incident (as defined by each service).

1. US Army: AR 600-85

The critical functions of the US Army's Substance Abuse and Prevention (ASAP) program are the identification, referral and screening, and rehabilitation of members who abuse substances.

Commanders may use one of five methods to identify potential substance abusers: voluntary (self) identification, command identification, biochemical identification, medical identification, or investigation or apprehension. Any member with an alcohol-related incident is referred to the ASAP Program for an evaluation. Treatment is provided according to severity. Identification of an abuser who cannot be rehabilitated or involvement in serious alcohol related misconduct would be referred to their command for separation.

2. US Navy: OPNAVINST 5350.4D

Navy policy emphasizes responsible alcohol use. Members with an alcohol incident are referred by the command for an evaluation by a provider in the medical facility. Individuals may also self-refer for medical screening or treatment without disciplinary action. ALCOHOL-IMPACT is an educational program (not a treatment) offered to individuals following an alcohol-related incident if it is determined that they do not require more intensive intervention such as treatment. It can also be offered as a result of self referral, or be command directed. Treatment is provided to members by matching the intensity of treatment with the severity of their condition, and after care programs are initiated upon return to the command. Members whose alcohol related misconduct is severe or members who are repeat offenders and those determined to be unresponsive to treatment are processed for administrative separation. Members who incur an alcohol incident subsequent to receiving treatment will be processed for administrative separation. However, waivers to separation provisions may be requested by the command.

Note: Alcohol incident defined as: an offense punishable under the UCMJ or civilian authority committed by a member where, in the judgment of the Commanding Officer, the consumption of alcohol was the primary contributing factor.

3. US Marine Corps: MCO P1700.24B Appendix L Substance Abuse Treatment Services

The USMC is required to identify, counsel, or rehabilitate those identified as alcohol/drug abusers or alcohol/drug dependent. The Substance Abuse Counseling Center (SACC) provides screening, early intervention, comprehensive biopsychosocial assessments, and individualized treatment (except for drug dependence). All Marines referred to SACC will be screened and accordingly provided either the Early Intervention Program (minimum of three hours of education instruction) or a more formal assessment which leads to an Individualized Treatment Plan (may include outpatient services, intensive outpatient services, or inpatient services as well as 12 months of an aftercare program). Marines who are referred to a program for rehabilitation for personal alcohol abuse may be separated from service for failure of or refusal to participate in treatment.

4. US Air Force: AFI 44-121

Members are referred to Alcohol and Drug Abuse Prevention and Treatment (ADAPT) Program for evaluation whenever substance use is suspected to be a contributing factor in any incident, e.g., DUI, public intoxication, drunk and disorderly, family maltreatment/neglect, under-age drinking, medical treatment, positive drug test, inappropriate behavior or substandard performance. Members can also self-refer for an evaluation. If member is not diagnosed with alcohol abuse or dependence, a minimum of 6 hours of awareness education is provided. If a diagnosis is warranted, a treatment plan is established with the member, based on the severity of the condition, and an aftercare program is begun following completion of treatment. Treatment is provided in the least restrictive environment possible, according to severity. Members determined to be unresponsive to treatment will be processed for administrative separation.

REFERENCE

A complete copy of DoDI 1010.6 is available on the following Web site: <http://www.tricare.osd.mil>.

Appendix E: Sedative-Hypnotic Equivalent Oral Doses

For equivalent dose of commonly used *Benzodiazepines* and *Barbiturates* see : Weaver MF. Treatment of sedative-hypnotic drug abuse in adults. In: *UpToDate* Online 16.3, Waltham, MA, 2009.

Appendix F: Acronym List

ASI	Addiction Severity Index
AUD	Alcohol Use Disorders
AUDIT-C	Alcohol Use Disorders Identification Test Consumption Questions
BAL	Blood Alcohol Levels
BCT	Behavioral Couples Therapy
BI	Brief Interventions
CDT	Carbohydrate Deficient Transferrin
CHF	Congestive Heart Failure
CIDI	Composite International Diagnostic Interview
CM	Contingency Management
CMEP	Case Management Enhancement Program
COD	Co-Occurring Disorders
CPG	Clinical Practice Guideline
CRA	Community Reinforcement Approach
DATA	Drug Addiction Treatment Act of 2000
DIS	Diagnostic Interview Schedule
DM	Diabetes Mellitus
EtG	Ethyl Glucuronide
EtS	Ethyl Sulfate
HIV	Human Immunodeficiency Virus
HR-QOL	Health Related-Quality of Life
ICMP	Iowa Case Management Project
IDU	Injection Drug Use
IOM	Institutes of Medicine
LFT	Liver Function Test
MET	Motivational Enhancement Therapy
MI	Motivational Interviewing
MM	Medical Management
MSE	Medical Status Examination
NCU	National Comorbidity Survey
NESARC	National Epidemiologic Study on Alcohol and Related Conditions
NIAAA	National Institute on Alcohol Abuse and Alcoholism
NIDA	National Institute on Drug Abuse
NSDUH	National Survey on Drug Use and Health
OAT	Opioid Agonist Treatment
OATP	Opioid Agonist Treatment Program
OBOT	Office-Based Opioid Treatment
OTC	Over-The-Counter
RCT	Randomized Controlled Trial
RT	Response to Treatment
SARRTP	Substance Abuse Residential Rehabilitation Treatment Programs
SASQ	Single Item Alcohol Screening Questionnaire
SBI	Screening and Brief Intervention
SCID	Structured Clinical Interview for the DSM
SUD	Substance Use Disorders
SUR	Substance Use Report
TRISARC	Tri-Service Addiction Recovery Center
TSF	Twelve-Step Facilitation
UDS	Urine Drug Screen
USPSTF	U.S. Preventive Services Task Force
VBRT	Voucher-Based Reinforcement Therapy

Appendix G: Participant List

John P. Allen, Ph.D, MPA

Associate Chief Consultant for Addictive Disorders (116B)
Office of Mental Health Services
Veterans Health Administration
Rm. 984
810 Vermont Ave.
Washington, DC, 20420
Phone: (202) 461-7352
Email: JohnPaul.allen@va.gov

Katherine Bradley, MD, MPH

Associate Professor of Medicine
Staff Physician, Medicine Service
VA Puget Sound Healthcare System
Campus Box 35820 (HSR&D 152)
Seattle, WA 98108
Phone: (206) 764-5314
Email: Katherine.bradley@va.gov

Carla Cassidy, RN, MSN, NP

Director, Evidence Based Practice Program
Department of Veterans Affairs (10Q)
810 Vermont Avenue
Washington, DC 20420
Phone: (202) 266-4502
Email: Carla.cassidy@va.gov

Martha D'Erasmus MPH

Independent Consultant
4550 North Park Ave, Apt. 505
Chevy Chase, MD 20815
Phone: (301) 654-3152
Email: Marty@hqiinc.com

Ernest Degenhardt, MSN, Adult and Family NP

COL, USA
Chief, Evidence Based Practice
US Army Medical Command
2050 Worth Road, Suite 26
Fort Sam Houston TX 78234
Phone: (210) 221-8297
Email: ernest.degenhardt@amedd.army.mil

Darrel W. Dodson, MD, DPM, MPH
LTC, USA
Chief, Department of Medicine
Carl R. Darnall Army Medical Center
36000 Darnall Loop
Fort Hood, TX 76544
Phone: (254) 288-8090
Email: darrel.w.dodson@us.army.mil

Karen P.G. Drexler, MD
Director, Substance Abuse Treatment
Atlanta VAMC
1670 Clairmont Rd
Decatur, GA 30033
Phone: (404) 321-6111 ext. 6905
Email: Karen.drexler@va.gov

Rosalie Fishman, RN, MSN, CPHQ
President
Healthcare Quality Informatics, Inc.
15200 Shady Grove Rd, Suite 350
Rockville, MD 20850
Phone: (301) 296-4542
Email: Rosalie@hqiinc.com

Nicole L. Frazer, Ph.D
Maj, USAF
Chief, Air Force Substance Abuse Program Development
USAF, Air Force Medical Operations Agency
Office of the Surgeon General
5201 Leesburg Pike, Suite 1501B
Falls Church, VA 22041
Phone: (703) 681-6333
Email: Nicole.frazer@pentagon.mil

Francine Goodman, B.S. Pharm, Pharm.D
Clinical Pharmacy Specialist
Pharmacy Benefits Management Service
1st Ave-1 block North of Cermak Rd
Building 37 Room 139
Hines IL 60141
Phone: (708) 786-7862
Email: Francine.goodman@va.gov

Adam J. Gordon, MD, MPH
Faculty, VA Pittsburgh Healthcare System
VA Pittsburgh Healthcare System
7180 Highland Dr.
Pittsburgh PA 15206
Phone: (412) 365-4463
Email: adam.gordon@va.gov

William F. Haning, III, MD, FASAM, DFAPA

CAPT, USMC

Director Graduate Affairs, John A Burns School of Medicine; Program Director, Addiction
Psychiatry/Medicine; Deputy Force Surgeon, U.S. Marine Forces Pacific

John A. Burns School of Medicine; MEB #223C

651 Ilalo St.

Honolulu, HI 96813

Phone: (808) 692-0877

Email: haning@hawaii.edu

Daniel R. Kivlahan, Ph.D

Director, Center of Excellence in Substance Abuse Treatment and Education (CESATE)

VA Puget Sound Healthcare System

1660 Columbian Way S (116 ATC)

Seattle WA 98108

Phone: (206) 768-5483

Email: Daniel.kivlahan@va.gov

Joseph G. Liberto, MD

Director Mental Health Clinical Center

VA Maryland Healthcare System

10N Greene Street

Baltimore, MD 21201

Phone: (410) 605-7368

Email: joseph.liberto@va.gov

Joanne Marko, MS, SLP

Independent Consultant

17816 Whimsey Court

Olney, MD 20832

Phone: (301) 774-5812

Email: nitojo@comcast.net

James E. McCrary, DO

Lt Col, USAF, MC

Air Force Medical Consultant

DoD Pharmacoeconomic Center

2450 Stanley Road, Suite 208

Fort Sam Houston, TX 78234-2789

Phone: (210) 295-1271

Email: James.mccrary@cen.amedd.army.mil

Edward L. McDaniel, MD

LTC, USA

Chief, Internal Medicine Service

Brooke Army Medical Center

3851 Roger Brooke Dr.

Fort Sam Houston, TX 78234-6200

Phone: (210) 916-0985

Email: Edward.mcdaniel@amedd.army.mil

James R. McKay, Ph.D
Professor of Psychology in Psychiatry
Director, Philadelphia VA CESATE
University of Pennsylvania
3440 Market St., Suite 370
Philadelphia PA 19104
Phone: (215) 746-7704
Email: Mckay-j@mail.trc.upenn.edu

Paul M. Morrissey, MD, MBA
LTC, USA
Chief, Community Mental Health
Clinical Consultant, Army Substance Abuse Program
West Point, NY 10996
Phone: (845) 938-3441
Email: paul.morrissey@us.army.mil

Mary Ramos RN, Ph.D
Clinical Practice Guidelines/Medical Management Coordinator
US Army Medical Command
2050 Worth Road, Suite 26
Fort Sam Houston TX 78234
Phone: (210) 221-7281
Email: mary.ramos4@amedd.army.mil

Patricia A. Rikli, BSN, MSN, Ph.D
Project Manager/Nurse Planner
VA Employee Education System
St. Louis EERC, VA Medical Center Bldg.2
1 Jefferson Barracks Drive
St. Louis MO 63125-4199
Phone: (314) 894-5742
Email: Patricia.rikli@va.gov

Karen Schoelles, MD, SM
Medical Director
Health Technology Assessment Group
Evidence-based Practice Center
ECRI
5200 Butler Pike
Plymouth Meeting, PA 19462
Phone: (610) 825-6000, ext. 5337
Email: kschoelles@ecri.org

David Snyder, Ph.D
Research Analyst
ECRI Institute
5200 Butler Pike
Plymouth Meeting, PA 19462
Phone: (610) 825-6000
Email: dsnyder@ecri.org

Jay Stone M. Stone, Ph.D

Lt Col, USAF

Defense Centers of Excellence for Psychological Health and Traumatic Brain Injury

1401 Wilson Blvd, Suite 400

Arlington, VA 22209

Phone: (703) 696-9478

Email: jay.stone@tma.osd.mil

Oded Susskind, MPH

Medical Education Consultant

Brookline MA 02446

Phone: (617) 232-3558

Email: Oded@tiac.net

Appendix H: Bibliography

- Addolorato G, Leggio L, Ferrulli A, Cardone S, Vonghia L, Mirijello A, Abenavoli L, D'Angelo C, Caputo F, Zambon A, Haber PS, Gasbarrini G. Effectiveness and safety of baclofen for maintenance of alcohol abstinence in alcohol-dependent patients with liver cirrhosis: randomised, double-blind controlled study. *Lancet* 2007 Dec 8;370(9603):1915-22.
- Adi Y, Juarez-Garcia A, Wang D, Jowett S, Frew E, Day E, Bayliss S, Roberts T, Burls A. Oral naltrexone as a treatment for relapse prevention in formerly opioid-dependent drug users: a systematic review and economic evaluation. *Health Technol Assess* 2007 Feb;11(6):iii-iv,1-85.
- Ali R, Humeniuk R, Newcombe D, Dennington V, Vial, R. Preliminary findings of the WHO assist phase III study in an Australian setting: a five-minute brief intervention for illicit drug linked to assist scores. 68th Annual Scientific Meeting of the College on Problems of Drug Dependence; 2006.
- Agency for Healthcare Research and Quality (AHRQ). Screening in primary care settings for illicit drug use: staged systematic review for the United States preventive services task force. Rockville, MD: U. S. Department of Health and Human Services; 2008.
- Amato L, Davoli M, A Perucci C, Ferri M, Faggiano F, P Mattick R. An overview of systematic reviews of the effectiveness of opiate maintenance therapies: available evidence to inform clinical practice and research. *J Subst Abuse Treat* 2005 Jun;28(4):321-9.
- Amato L, Minozzi S, Davoli M, Vecchi S, Ferri M, Mayet S. Psychosocial combined with agonist maintenance treatments versus agonist maintenance treatments alone for treatment of opioid dependence. *Cochrane Database Syst Rev* 2004 Oct 18(4):CD004147.
- American Psychiatric Association. Practice guideline for major depressive disorders in adults. Washington, DC: American Psychiatric Association 1993;4-19.
- American Psychiatric Association. Diagnostic and statistical manual of mental disorders. 4th ed. Washington, DC: American Psychiatric Association 1994.
- American Psychiatric Association. Practice guidelines for the treatment of patients with substance use disorders: alcohol, cocaine, opioids. *Am J Psychiatry* 1995;152:51-9.
- American Society of Addiction Medicine. Patient placement criteria for the treatment of substance-related disorders. 2nd ed. Washington, DC: American Society of Addiction Medicine 1996.
- American Society of Addiction Medicine. Patient placement criteria for the treatment of substance-related disorders – see Mee-Lee et al., 2001.
- Anton RF, O'Malley SS, Ciraulo DA, Cisler RA, Couper D, Donovan DM, Gastfriend DR, Hosking J D, Johnson BA, LoCastro JS, Longabaugh R, Mason BJ, Mattson ME, Miller WR, Pettinati HM, Randall CL, Swift R, Weiss RD, Williams LD, Zweben A, COMBINE Study Research Group. Combined pharmacotherapies and behavioral interventions for alcohol dependence: the COMBINE study: a randomized controlled trial. *JAMA* 2006 May 3;295:2003-17.
- Anton RF, Moak DH, Latham P, et al. Naltrexone combined with either cognitive behavioral or motivational enhancement therapy for alcohol dependence. *J Clin Psychopharmacol* 2005;25:349-57.
- Au DH, Kivlahan DR, Bryson CL, Blough D, Bradley KA. Alcohol screening scores and risk of hospitalizations for GI conditions in men. *Alcohol Clin Exp Res* 2007 Mar;31(3):443-51.
- Babor TF, Kadden RM. Screening and interventions for alcohol and drug problems in medical settings: what works? *J Trauma* 2005 Sep;59(3 Suppl):S80-7.
- Ballesteros J, Duffy JC, Querejeta I, Arino J, Gonzalez-Pinto A. Efficacy of brief interventions for hazardous drinkers in primary care: systematic review and meta-analyses. *Alcohol Clin Exp Res* 2004;28(4):608-18.

- Ballesteros J, Gonzalez-Pinto A, Querejeta I, Arino J. Brief interventions for hazardous drinkers delivered in primary care are equally effective in men and women. *Addiction* 2004 Jan;99(1):103-8.
- Beich A, Gannik D, Malterud K. Screening and brief intervention for excessive alcohol use: qualitative interview study of the experiences of general practitioners. *BMJ* 2002;325:1-5.
- Bennett GA, Withers J, Thomas PW, Higgins DS, Baily J, Parry L, Davies E. A randomised trial of early warning signs relapse prevention training in the treatment of alcohol dependence. *Addict Behav* 2005 Jul;30(6):1111-24.
- Bernstein J, Bernstein E, Tassiopoulos K, Heeren T, Levenson S, Hingson R. Brief motivational intervention at a clinic visit reduces cocaine and heroin use. *Drug Alcohol Depend* 2005 Jan 7;77(1):49-59.
- Bertholet N, Daepfen JB, Wietlisbach V, Fleming M, Burnand B. Reduction of alcohol consumption by brief alcohol intervention in primary care: systematic review and meta-analysis. *Arch Intern Med* 2005 May 9;165(9):986-95.
- Bien TH, Miller WR, Tonigan S. Brief interventions for alcohol problems: a review. *Addiction* 1993;88:315-36.
- Bouza C, Angeles M, Munoz A, Amate JM. Efficacy and safety of naltrexone and acamprosate in the treatment of alcohol dependence: a systematic review. *Addiction* 2004;99:811-28.
- Bradley KA, Badrinath S, Bush K, Boyd-Wickizer J, Anawalt B. Medical risks for women who drink alcohol. *J Gen Intern Med* 1998;13:627-39.
- Bradley KA, Bush K, McDonell MB, Malone T, Fihn SD; the Ambulatory Care Quality Improvement Project (ACQUIP). Screening for problem drinking: comparison of CAGE and AUDIT. *J Gen Intern Med* 1998 Jun;13(6):379-88.
- Bradley KA, Bush KR, Epler AJ, Dobie DJ, Davis TM, Sporleder JL, Maynard C, Burman ML, Kivlahan DR. Two brief alcohol-screening tests From the Alcohol Use Disorders Identification Test (AUDIT): validation in a female Veterans Affairs patient population. *Arch Intern Med* 2003 Apr 13;163(7):821-29.
- Bradley KA, DeBenedetti AF, Volk RJ, Williams EC, Frank D, Kivlahan DR. AUDIT-C as a brief screen for alcohol misuse in primary care. *Alcohol Clin Exper Res* 2007;31(7):1-10.
- Bradley KA, Kivlahan DR, Bush KR, McDonell MB, Fihn SD. Variations on the CAGE alcohol screening questionnaire: strengths and limitations in VA general medical patients. *Alcohol Clin Exper Res* 2001;25(10):1472-78.
- Bradley KA, Kivlahan DR, Zhou XH, Sporleder JL, Epler AJ, McCormick KA, Merrill JO, McDonell MB, Fihn SD. Using alcohol screening results and treatment history to assess the severity of at-risk drinking in Veterans Affairs primary care patients. *Alcohol Clin Exp Res* 2004 Mar;28(3):448-55.
- Bradley KA, McDonell MB, Bush K, Kivlahan DR, Diehr P, Fihn SD. The AUDIT alcohol consumption questions: reliability, validity, and responsiveness-to-change in older male primary care patients. *Alcohol Clin Exper Res* 1998;22(8):1842-9.
- Bradley KA, Williams EC, Achtmeyer CE, Volpp B, Collins BJ, Kivlahan DR. Implementation of evidence-based alcohol screening in the Veterans Health Administration. *Am J Manag Care* Oct 2006;12(10):597-606.
- Brown RL, Saunders LA, Bobula JA, Mundt MP, Koch PE. Randomized-controlled trial of a telephone and mail intervention for alcohol use disorders: three-month drinking outcomes. *Alcohol Clin Exp Res* 2007 Aug;31(8):1372-9.
- Brown BS, O'Grady K, Battjes RJ, Farrell EV. Factors associated with treatment outcomes in an aftercare population. *Am J Addict* 2004 Oct-Dec;13(5):447-60.

- Burke BL, Arkowitz H, Menchola M. The efficacy of motivational interviewing: a meta-analysis of controlled clinical trials. *J Consult Clin Psychol* 2003;71:843-61.
- Bush K, Kivlahan DR, McDonell MB, Fihn SD, Bradley KA. The AUDIT alcohol consumption questions (AUDIT-C): an effective brief screening test for problem drinking. Ambulatory Care Quality Improvement Project (ACQUIP). Alcohol Use Disorders Identification Test. *Arch Intern Med* 1998 Sept 14;158(16):1789-95.
- Canagasaby A, Vinson DC. Screening for hazardous or harmful drinking using one or two quantity-frequency questions. *Alcohol Alcohol* 2005 May-Jun;40(3):208-13.
- Cantor SB, Sun CC, Tortolero-Luna G, Richards-Kortum R, Follen M. A comparison of C/B ratios from studies using receiver operating characteristic curve analysis. *J Clin Epidemiol* 1999;52(9):885-92.
- Carroll KM, Nich C, Ball SA, McCance E, Rounsaville BJ. Treatment of cocaine and alcohol dependence with psychotherapy and disulfiram. *Addiction* 1998 May;93(5):713-27.
- Center for Substance Abuse Treatment Detoxification from Alcohol and Other Drugs. Treatment Improvement Protocol (TIP) Series, Number 19; 1995. DHHS Publication No. (SMA) 95-3046. Washington, DC: U.S. Government Printing Office.
- Chafetz ME. Research in the alcohol clinic and around-the-clock psychiatric service of the Massachusetts General Hospital. *Am J Psychiatry* 1968 Jun;124(12):1674-79
- Chen S, Barnett PG, Sempel JM, Timko C. Outcomes and costs of matching the intensity of dual-diagnosis treatment to patients' symptom severity. *J Subst Abuse Treat* 2006 Jul;31(1):95-105.
- Ciraulo DA, Dong Q, Silverman BL, Gastfriend DR, Pettinati HM. Early treatment response in alcohol dependence with extended-release naltrexone. *J Clin Psychiatry* 2008 Feb;69(2):190-5.
- Cloud RN, Ziegler CH, Blondell RD. What is Alcoholics Anonymous affiliation? *Subst Use Misuse* 2004 Jun;39(7):1117-36.
- COMBINE Research Study Group. Testing combined pharmacotherapies and behavioral interventions in alcohol dependence: rationale and methods. *Alcohol Clin Exp Res* 2003 Jul;27(7):1107-22.
- Cornish JW, Metzger D, Woody CE, Wilson GE, Wilson D, McLellan AT, Vandergrift B, O'Brien CP. Naltrexone pharmacotherapy for opioid dependent federal probationers. *J Subst Abuse Treat* 1997 Nov-Dec;14(6):529-34.
- Cornish JW, McNicholas LF, O'Brien CP. Treatment of substance-related disorders. In: Schatzberg, A, Nemeroff CB, editors. *Textbook of Psychopharmacology* 2nd ed. Washington, D.C.: American Psychiatric Press 1998. P. 851-68.
- Crum RM, Anthony JC, Bassett SS, Folstein MF. Population-based norms for the Mini-Mental State Examination by age and education level. *JAMA* 1993 May 12;269(18):2386-91.
- Dawson DA, Grant BF, Stinson FS, Zhou Y. Effectiveness of the derived Alcohol Use Disorders Identification Test (AUDIT-C) in screening for alcohol use disorders and risk drinking in the US general population. *Alcohol Clin Exp Res* May 2005;29(5):844-54.
- Department of Defense Instruction, DoDI 1010.6. Rehabilitation and referral services for alcohol and drug abuse. Available from: <http://www.tricare.osd.mil>
- Department of Veterans Affairs & Department of Defense. VA/DoD Clinical Practice Guideline for the Management of Tobacco Use. Washington, DC. Veterans Health Administration, Department of Veterans Affairs and Health Affairs, Department of Defense.
- de Sousa A, de Sousa A. An open randomized study comparing disulfiram and acamprosate in the treatment of alcohol dependence. *Alcohol Alcohol* 2005 Nov-Dec;40(6):545-8.
- Drake RE, Mueser KT. Psychosocial approaches to dual diagnosis. *Schizophr Bull* 2000;26(1):105-11.
- Dunn C, Deroo L, Rivara FP. The use of brief interventions adapted from motivational interviewing

- across behavioral domains: a systematic review. *Addiction* 2001 Dec;96:1725-42.
- Elvy GA, Wells JE, Baird KA. Attempted referral as intervention for problem drinking in the general hospital. *Br J Addict* 1988;83:83-9.
- Farré M Mas A, Torrens M, Moreno V, Camí J. Retention rate and illicit opioid use during methadone maintenance interventions: a meta-analysis. *Drug Alcohol Depend* 2002 Feb;65(3):283-90.
- Feinn R, Kranzler HR. Does effect size in naltrexone trials for alcohol dependence differ for single-site vs. multi-center studies? *Alcohol Clin Exp Res* 2005;29:983-8.
- Fiellin DA, Pantalon MV, Chawarski MC, Moore BA, Sullivan LE, O'Connor PG, Schottenfeld RS. Counseling plus buprenorphine-naloxone maintenance therapy for opioid dependence. *N Engl J Med* 2006 Jul 27;355(4):365-74.
- Fiellin DA, Reid MC, O'Connor PG. Screening for alcohol problems in primary care: a systematic review. *Arch Intern Med* 2000;160:1977-89.
- Fischer G, Ortner R, Rohrmeister K, Jagsch R, Baewert A, Langer M, Aschauer H. Methadone versus buprenorphine in pregnant addicts: a double-blind, double-dummy comparison study. *Addiction* 2006 Feb;101(2):275-81.
- Fleming M, Brown R, Brown D. The efficacy of a brief alcohol intervention combined with %CDT feedback in patients being treated for type 2 diabetes and/or hypertension. *J Stud Alcohol* Sep 2004;65(5):631-7.
- Fleming MF, Barry KL, Manwell LB, Johnson K, London R. Brief physician advice for problem alcohol drinkers: a randomized controlled trial in community-based primary care practices. *JAMA* 1997;277(13):1039-45.
- Fleming MF, Barry KL. A three-sample test of a masked alcohol screening questionnaire. *Alcohol Alcohol* 1991;26(1):81-91.
- Fleming MF, Manwell LB, Barry KL, Adams W, Stauffacher EA. Brief physician advice for alcohol problems in older adults. *J Fam Pract* 1999 May;48(5):378-84.
- Fleming MF, Mundt MP, French MT, Manwell LB, Stauffacher EA, Barry KL. Brief physician advice for problem drinkers: long-term efficacy and benefit-cost analysis. *Alcohol Clin Exp Res* 2002 Jan;26(1):36-43
- Folstein M, Folstein SE, McHugh PR. Mini-mental state: a practical method for grading the cognitive state of patients for the clinician. *J Psychiatr Res* 1975 Nov;12(3):189-98.
- Frank D, DeBenedetti AF, Volk RJ, Williams EC, Kivlahan DR, Bradley KA. Effectiveness of the AUDIT-C as a screening test for alcohol misuse in three racial/ethnic groups. *J Gen Intern Med* 2008 Jun;23(6):781-7.
- Friedmann PD, Hendrickson JC, Gerstein DR, Zhang Z. The effect of matching comprehensive services to patient's needs on drug use improvements in addiction treatment. *Addiction* 2004 Aug;99(8):962-72.
- Frosch DL, Shoptaw S, Nahom D, Jarvik ME. Associations between tobacco smoking and illicit drug use among methadone-maintained opiate-dependent individuals. *Exp Clin Psychopharmacol* 2000 Feb; 8 (1):97-103.
- Fuller RK, Branchey L, Brightwell DR, Derman RM, Emrick CD, Iber FL, James KE, Lacoursiere RB, Lee KK, Lowenstam I, et.al. Disulfiram treatment of alcoholism. A Veterans Administration cooperative study. *JAMA* 1986 Sep 19;256(11):1449-55.
- Fureman B, Parikh G, Bragg A, McLellan AT. The fifth edition of the addiction severity index workbook. Philadelphia, PA: University of Pennsylvania and Department of Veterans Affairs, Center for Studies of Addiction, 1990.
- Galanter, M. Network therapy. In: Lowinson JH; Ruiz P; Millman RB; Langrod JG., editors.

- Substance abuse, a comprehensive textbook. 3rd ed. Baltimore: MD: Williams & Wilkins: 1997. p. 478-84.
- Garbutt JC, Kranzler HR, O'Malley SS, Gastfriend DR, Pettinati HM, Silverman BL, Loewy JW, Ehrich EW; Vivitrex Study Group. Efficacy and tolerability of long-acting injectable naltrexone for alcohol dependence: a randomized controlled trial. *JAMA* 2005 Apr 6;293(13):1617-25.
- Gelsi E, Vanbiervliet G, Chérikh F, Mariné-Barjoan E, Truchi R, Arab K, Delmont JM, Tran A. Factors predictive of alcohol abstinence after resident detoxication among alcoholics followed in an hospital outpatient center. *Gastroenterol Clin Biol* 2007 Jun-Jul;31(6-7):595-9.
- Gentilello LM, Ebel BE, Wickizer TM, Salkever DS, Rivara FP. Alcohol interventions for trauma patients treated in emergency departments and hospitals: a cost benefit analysis. *Ann Surg* 2005 Apr;241(4):541-50.
- George TP, Chawarski MC, Pakes J, Carroll KM, Kosten TR, Schottenfeld RS. Disulfiram versus placebo for cocaine dependence in buprenorphine-maintained subjects: a preliminary trial. *Biol Psychiatry* 2000 June 15;47(12):1080-6.
- Gerstein, D; Harwood; H., editors. Treating drug problems. Vol. 1. Washington, DC: National Academy Press;1990.
- Gowing L, Ali R, White J. Buprenorphine for the management of opioid withdrawal. *Cochrane Database Syst Rev* 2006 Apr 19;(2):CD002025.
- Gold MS, Pottach AC, Sweeney DR, Kleber HD. Opiate withdrawal using clonidine. A safe, effective, and rapid nonopiate treatment. *JAMA* 1980 Jan 25;243(4):343-6.
- Gold MS, Redmond DE, Kleber HD. Clonidine blocks acute opiate withdrawal symptoms. *Lancet* 1978 Sep 16;2(8090):599-602.
- Goldberg HI, Mullen M, Ries RK, Psaty BM, Ruch BP. Alcohol counseling in a general medicine clinic: a randomized controlled trial to improve referral and show rates. *Med Care* 1991;29(7 suppl):JS49-56.
- Hardman JG; Limbird LE; editors. Goodman and Gilman's the pharmacological basis of therapeutics. 9th ed. New York: McGraw-Hill; 1996.
- Gordon AJ, Maisto SA, McNeil M, Kraemer KL, Conigliaro RL, Kelley ME, Conigliaro J. Three questions can detect hazardous drinkers. *J Fam Pract* April 2001;50(4):313-20.
- Gordon AJ, Saitz R. Identification and treatment of alcohol use disorders in primary care. *J Clin Outcomes Manage* 2004;11:444-62.
- Gorski TT, Miller M. Staying sober: a guide for relapse prevention. Independence, MO: Independent Press; 1986.
- Gossop M. The development of a Short Opiate Withdrawal Scale (SOWS). *Addict Behav* 1990;15(5):487-90.
- Handelsman L, Cochrane KJ, Aronson MJ, Ness R, Rubinstein KJ, Kanof PD. Two new rating scales for opiate withdrawal. *Am J Alcohol Abuse* 1987;13:293-308.
- Hasting EJ, Hamberger LK. Sociodemographic predictors of violence. *Psychiatr Clin North Am* 1997 Jun; 20(2):323-35.
- Havens JR, Cornelius LJ, Ricketts EP, Latkin CA, Bishai D, Lloyd JJ. The effect of a case management intervention on drug treatment entry among treatment-seeking injection drug users with and without comorbid antisocial personality disorder. *J Urban Health* 2007 Mar;84(2):267-71.
- Hayashida M, Alterman AI, McLellan AT, O'Brien CP, Purtill JJ, Volpicelli JR, Raphaelson AH, Hall CP. Comparative effectiveness and costs of inpatient and outpatient detoxification of patients with mild-to-moderate alcohol withdrawal syndrome. *N Engl J Med* 1989 Feb 9;320(6):358-65.

- Heather N. Waiting for a match: the future of psychosocial treatment for alcohol problems. *Addiction* 1996 Apr;91(4):469-72.
- Hettema J, Steele J, Miller WR. Motivational interviewing. *Annu Rev Clin Psychol* 2005;1:91-111.
- Hesse M, Vanderplasschen W, Rapp RC, Broekaert E, Fridell M. Case management for persons with substance use disorders. *Cochrane Database Syst Rev* 2007 Oct 17;(4):CD006265.
- Hirschfeld RM, Russell JM. Assessment and treatment of suicidal patients. *N Engl J Med* 1997 Sep 25; 337(13):910-5.
- Hornig FF, Chueh KH. Effectiveness of telephone follow-up and counseling in aftercare for alcoholism. *J Nurs Res* 2004;12(1):11-20.
- Huber DL, Sarrazin MV, Vaughn T, Hall JA. Evaluating the impact of case management dosage. *Nurs Res* 2003;52(5):276-88.
- Institute of Medicine. Broadening the base of treatment for alcohol problems. Washington, DC: National Academy Press, 1990. 630p.
- Institute of Medicine. Crossing the quality chasm: a new health system for the 21st century. Washington, DC: The National Academies Press; 2001. 360 p.
- Institute of Medicine. Improving the quality of healthcare for mental and substance-use conditions: the quality chasm series. Washington, DC: The National Academies Press; 2005. 528 p.
- Jacobson IG, Ryan MA, Hooper TI, Smith TC, Amoroso PJ, Boyko EJ, Gackstetter GD, Wells TS, Bell NS. Alcohol use and alcohol-related problems before and after military combat deployment. *JAMA*. 2008 Aug 13;300(6):663-75.
- Jansson LM, Svikis DS, Breon D, Cieslak R. Intensity of case management services: does more equal better for drug-dependent women and their children? *Soc Work Men Health* 2005;3(4):63-78.
- JCAHO, Accreditation manual for hospitals. November 1999; Nursing Section: p.NR10.
- Jerrell JM, Hu T, Ridgely MS. Cost-effectiveness of substance disorder interventions for people with severe mental illness. *J Ment Health Admin* 1994;21(3):283-97.
- Jerrell JM, Ridgely MS. Impact of robustness of program implementation on outcomes of clients in dual diagnosis programs. *Psychiatr Serv* 1999 Jan;50(1):109-12.
- Johansson BA, Berglund M, Lindgren A. Efficacy of maintenance treatment with naltrexone for opioid dependence: a meta-analytical review. *Addiction* 2006 Apr;101(4):491-503.
- Johnson BA, Ait-Daoud N, Aubin HJ, Van Den Brink W, Guzzetta R, Loewy J, Silverman B, Ehrich EA pilot evaluation of the safety and tolerability of repeat dose administration of long-acting injectable naltrexone (Vivitrex) in patients with alcohol dependence. *Alcohol Clin Exp Res* 2004 Sep;28:1356-61.
- Johnson BA, Rosenthal N, Capece JA, Wiegand F, Mao L, Beyers K, McKay A, Ait-Daoud N, Anton RF, Ciraulo DA, Kranzler HR, Mann K, O'Malley SS, Swift RM. Topiramate for treating alcohol dependence: a randomized controlled trial. *JAMA* 2007 Oct 10;298(14):1641-51.
- Johnson RE, Chutuape MA, Strain EC, walsh SL, Stitzer ML, Bigelow GE. A comparison of levomethadyl acetate, buprenorphine, and methadone for opioid dependence. *N Eng J Med* 2000 Nov 2;343(18): 1290-7.
- Kahan M, Wilson L, Becker L. Effectiveness of physician-based interventions with problem drinkers. *Can Med Assoc J* 1995;152(6):851-9.
- Kaner E, Beyer F, Dickinson H, Pienaar E, Campbell F, Schlesinger C, Heather N, Saunders J, Burnand B. Effectiveness of brief alcohol interventions in primary care populations. *Cochrane Database Syst Rev* 2007(2):CD004148.
- Kerr WC, Fillmore KM, Bostrom A. Stability of alcohol consumption over time: evidence from three

- longitudinal surveys from the United States. *J Stud Alcohol* 2002 May;63(3):325-33.
- Kerr WC, Ye Y. Population-level relationships between alcohol consumption measures and Ischemic Heart Disease mortality in U.S. time-series. *Alcohol Clin Exp Res* 2007 Nov;31(11):1913-9.
- Kiefer F, Jahn H, Tarnaske T, Helwig H, Briken P, Holzbach R, Kämpf P, Stracke R, Baehr M, Naber D, Wiedemann K. Comparing and combining naltrexone and acamprosate in relapse prevention of alcoholism: a double-blind, placebo-controlled study. *Arch Gen Psychiatry* 2003Jan;60(1):92-9.
- Kraft KM, Rothbard AB, Hadley TR, McLellan AT, Asch DA. Are supplementary services provided during methadone maintenance really cost-effective? *Am J Psychiatry* 1997 Sep;154(9):1214-9.
- Kranzler HR, Van Kirk J. Efficacy of naltrexone and acamprosate for alcoholism treatment: a meta-analysis. *Alcohol Clin Exp Res* 2001;25:1335-41.
- Kranzler HR, Wesson DR, Billot L. Drug Abuse Sciences Naltrexone Depot Study Group. Naltrexone depot for treatment of alcohol dependence: a multicenter, randomized, placebo-controlled clinical trial. *Alcohol Clin Exp Res* 2004;28:1051-9.
- Kristenson H, Ohlin H, Hulten-Nosslin M, Trell E, Hood B. Identification and intervention of heavy drinking in middle-aged men: results and follow-up of 24-60 months of long-term study with randomized controls. *Alcohol Clin Exp Res* 1983;7(2):203-9.
- Kristenson H, Osterling A, Nilsson JA, Lindgarde F. Prevention of alcohol-related deaths in middle-aged heavy drinkers. *Alcohol Clin Exp Res* Apr 2002;26(4):478-84.
- Kypri K, Langley JD, Saunders JB, Cashell-Smith ML, Herbison P. Randomized controlled trial of web-based alcohol screening and brief intervention in primary care. *Arch Intern Med* 2008 Mar 10;168(5):530-6.
- Laaksonen E, Koski-Jännes A, Salaspuro M, Ahtinen H, Alho H. A randomized, multicentre, open-label, comparative trial of disulfiram, naltrexone and acamprosate in the treatment of alcohol dependence. *Alcohol Alcohol* 2008 Jan-Feb;43(1):53-61.
- Lapham SC, Hall M, Skipper BJ. Homelessness and substance use among alcohol abusers following participation in project H&ART. *J Addict Dis* 1995;14(4):41-55.
- Levy JA, Strenski T, Amick DJ. Community-based case management for active injecting drug users. *Adv I Med Sociology* 1995;6:183-206.
- Lieber CS, Weiss DG, Groszmann R, Paronetto F, Schenker S; Veterans Affairs Cooperative Study 391 Group. I. Veterans Affairs Cooperative Study of polyenylphosphatidylcholine in alcoholic liver disease: effects on drinking behavior by nurse/physician teams. *Alcohol Clin Exp Res* Nov 2003;27(11):1757-64.
- Ling W, Charuvastra C, Collins JF, Batki S, Brown LS Jr, Kintaudi P, Wesson DR, McNicholas L, Tusel DJ, Malkerneker U, Renner JA Jr, Santos E, Casadonte P, Fye C, Stine S, Wang RI, Segal D. Buprenorphine maintenance treatment of opiate dependence: a multicenter, randomized clinical trial. *Addiction* Apr 1998;93(4):475-86.
- Ling W, Wesson DR. Naltrexone treatment for addicted health-care professionals: a collaborative private practice. *J Clin Psychiatry* 1984 Sep;45(9 Pt 2):46-8.
- Lintzeris N, Ritter A, Panjari M, Clark N, Kutin J, Bammer G. Implementing buprenorphine treatment in community settings in Australia: experiences from the Buprenorphine Implementation Trial. *Am J Addict* 2004;13 Suppl 1:S29-41.
- Maciosek MV, Coffield AB, Edwards NM, Flottesmesch TJ, Goodman MJ, Solberg LI. Priorities among effective clinical preventive services results of a systematic review and analysis. *Am J Prev Med* Jul 2006;31(1):52-61.
- Magura S, Rosenblum A. Leaving methadone treatment: lessons learned, lesson forgotten, lessons ignored. *Mt Sinai J Med* 2001 Jan;68(1):62-74.

- Magura S, Staines G. Predictive validity of the ASAM Patient Placement Criteria for naturalistically matched vs. mismatched alcoholism patients. *Am J Addict* 2003 Oct-Dec;12(5):386-97.
- Maheswaran R, Beevers M, Beevers DG. Effectiveness of advice to reduce alcohol consumption in hypertensive patients. *Hypertension* 1992 Jan;19(1):79-84.
- Maisto SA, Conigliaro J, McNeil M, Kraemer K, Conigliaro RL, Kelley ME. Effects of two types of brief intervention and readiness to change on alcohol use in hazardous drinkers. *J Stud Alcohol* 2001;62:605-14.
- Mann K, Leher P, Morgan MY. The efficacy of acamprosate in the maintenance of abstinence in alcohol-dependent individuals: results of a meta-analysis. *Alcohol Clin Exp Res* 2004;28:51-63.
- Marsch LA. The efficacy of methadone maintenance interventions in reducing illicit opiate use, HIV risk behavior and criminality: a meta-analysis. *Addiction* 1998 Apr;93(4):515-32.
- Martin SS, Scarpitti FR. An intensive case management approach for paroled IV drug users. *J Drug Issues* 1993;23:43-59.
- Mattick RP, Breen C, Kimber J, Davoli M. Methadone maintenance therapy versus no opioid replacement therapy for opioid dependence. *Cochrane Database Syst Rev*. 2003;(2):CD002209.
- Mattick RP, Kimber J, Breen C, Davoli M. Buprenorphine maintenance versus placebo or methadone maintenance for opioid dependence. *Cochrane Database Syst Rev* 2008 Apr 16;(2):CD002207.
- Mayo-Smith, MF. Pharmacological management of alcohol withdrawal. A meta-analysis and evidence-based practice guideline. American Society of Addiction Medicine Working Group on Pharmacological Management of Alcohol Withdrawal. *JAMA* 1997 Jul 9;278(2):144-51.
- McCance-Katz EF, Kosten TR, Jatlow P. Chronic disulfiram treatment effects on intranasal cocaine administration: initial results. *Biol Psychiatry* 1998 Apr 1;43(7):540-3.
- McCaul ME, Petry NM. The role of psychosocial treatments in pharmacotherapy for alcoholism. *Am J Addict* 2003;12 Suppl 1:S41-52.
- McKay JR, Donovan DM, McLellan AT, Krupski A, Hansten M, Stark KD, Geary K, Cecere J. Evaluation of full vs. partial continuum of care in the treatment of publicly-funded substance abusers in Washington State. *Am J Drug Alcohol Abuse* 2002;28(2):307-38.
- McKay JR, Lynch KG, Shepard DS, Pettinati HM. The effectiveness of telephone based continuing care for alcohol and cocaine dependence: 24 month outcomes. *Arch Gen Psychiatry* 2005 Feb; 62(2):199-207.
- McLellan AT, Hagan TA, Levine M, Meyers K, Gould F, Bencivengo M, Durell J, Jaffe J. Does clinical case management improve outpatient addiction treatment? *Drug Alcohol Depend* 1999 Jun;55(1-2):91-103.
- McLellan AT, Arndt IO, Metzger DS, Woody GE, O'Brien CP. The effects of psychosocial services in substance abuse treatment. *JAMA* 1993 Apr 21;269(15):1953-9.
- McLellan AT, Kushner H, Metzger D, Peters R, Smith I, Grissom G, Pettinati H, Argeriou M. The fifth edition of the addiction severity index. *J Subst Abuse Treat* 1992; 9:199-213.
- McLellan AT, Lewis DC, O'Brien CP, Kleber HD. Drug dependence, a chronic medical illness: implications for treatment, insurance, and outcomes evaluation. *JAMA* 2000 Oct 4;284(13):1689-95.
- McLellan AT, Woody GE, Metzger D, McKay J, Durrell J, Alterman AI, O'Brien CP. Evaluating the effectiveness of treatments for substance use disorders: reasonable expectations, appropriate comparisons. *Milbank Q* 1996;74(1):51-85.
- McLellan AT, Grissom GR, Zanis D, Randall M, Brill P, O'Brien CP. Problem-service 'Matching' in addiction treatment. *Arch Gen Psychiatry* 1997 Aug;54(8):730-5.
- McLellan AT, Hagan TA, Levine M, Gould F, Meyers K, Bencivengo M, Durell, J. Supplemental

- social services improve outcomes in public addiction treatment. *Addiction* 1998;93(10):1489-99.
- McPherson TL, Hersch RK. Brief substance use screening instruments for primary care settings: a review. *J Subst Abuse Treat* Mar 2000;18(2):193-202.
- Mee-Lee D, Schulman, GD, Fishman M, Gastfriend DR, Griffith JH. ASAM patient placement criteria for the treatment of substance-related disorders. 2nd ed. Second Edition-revised: ASAM-PPC-2R. Chevy Chase, MD: American Society of Addiction Medicine; 2001.
- Mejta CL, Bokos PR, Mickenberg J, Maslar M, Senay E. Improving substance abuse treatment access and retention using a case management approach. *J Drug Issues* 1997;27(2):329-40.
- Miller WR, Benefield RG, Tonigan JS. Enhancing motivation to change in problem drinking: a controlled comparison of two therapist styles. *J Consult Clin Psychol* 1993 Jun;61(3):455-61.
- Miller WR, Rollnick S. Motivational interviewing: preparing people for change. 1st ed. New York: The Guilford Press; 1991.
- Miller WR, Walters ST, Bennett ME. How effective is alcoholism treatment in the United States? *J Stud Alcohol*. Mar 2001;62(2):211-20.
- Miller WR, Yahne CE, Tonigan JS. Motivational interviewing in drug abuse services: a randomized trial. *J Consult Clin Psychol* 2003;71:754-63.
- Minozzi S, Amato L, Vecchi S, Davoli M, Kirchmayer U, Verster A. Oral naltrexone maintenance treatment for opioid dependence. *Cochrane Database Syst Rev* 2006 Jan 25;(1):CD001333.
- Morley KC, Teesson M, Reid SC, Sannibale C, Thomson C, Phung N, Weltman M, Bell JR, Richardson K, Haber PS. Naltrexone versus acamprosate in the treatment of alcohol dependence: A multi-centre, randomized, double-blind, placebo-controlled trial. *Addiction*. 2006 Oct;101(10):1451-62.
- Monti PM, Abrams DB, Kadden RM., et al. Treating alcohol dependence: a coping skills training guide in the treatment of alcoholism. New York: Guilford Press; 1989.
- Morgenstern J, Blanchard KA, McCrady BS, McVeigh KH, Morgan TJ, Pandina RJ. Effectiveness of intensive case management for substance-dependent women receiving temporary assistance for needy families. *Am J Public Health* 2006 Nov;96(11):2016-23.
- Moyer A, Finney JW, Swearingen CE, Vergun P. Brief interventions for alcohol problems: a meta-analytic review of controlled investigations in treatment-seeking and non-treatment-seeking populations. *Addiction* 2002;97:279-92.
- Moyers TB, Miller WR, Hendrickson, SM. How does motivational interviewing work? Therapist interpersonal skill predicts client involvement within motivational interviewing sessions. *J Consult Clin Psychol* 2005 Aug;73(4):590-8.
- Mueller SE, Petitjean S, Boening J, Wiesbeck GA. The impact of self-help group attendance on relapse rates after alcohol detoxification in a controlled study. *Alcohol Alcohol* 2007 Mar-Apr 42(2):108-12.
- National Institute on Alcohol Abuse and Alcoholism. (NIAAA) US Department of Health and Human Services, National Institute of Health. Helping patients who drink too much: a clinician's guide. NIH Publication No. 07-3769. Reprinted May 2007.
- National Quality Forum. National voluntary consensus standards for the treatment of substance use conditions: Evidence-Based Treatment Practices; 2007. Available from: www.qualityforum.org/WorkArea/linkit.aspx?LinkIdentifier=id
- Nava F, Premi S, Manzato E, Lucchini A. Comparing treatments of alcoholism on craving and biochemical measures of alcohol consumption. *J Psychoactive Drugs* 2006 Sep;38(3):211-7.
- Neri S, Bruno CM, Pulvirenti D, Malaguarnera M, Italiano C, Mauceri B, Abate G, Cilio D, Calvagno S, Tsami A, Ignaccolo L, Interlandi D, Prestianni L, Ricchena M, Noto T. Randomized clinical

- trial to compare the effects of methadone and buprenorphine on the immune system in drug abusers. *Psychopharmacol (Berl)* 2005 May;179(3):700-4.
- Ntais C, Pakos E, Kyzas P, Ioannidis JP. Benzodiazepines for alcohol withdrawal. *Cochrane Database Syst Rev* 2005 Jul 20(3):CD005063.
- O'Farrell TJ, Choquette KA, Cutter HS. Couples relapse prevention sessions after behavioral marital therapy for male alcoholics: Outcomes during the three years after starting treatment. *J Stud Alcohol* 1998 Jul;59(4):357-70.
- O'Brien, CP. Opioids: antagonists and partial agonists. In: Galanter M; Kleber H., editors. *Textbook of substance abuse treatment*. Washington, D.C.: American Psychiatric Press, Inc; 1994. p. 223-36.
- O'Brien CP, McLellan AT. Myths about the treatment of addiction. *Lancet* 1996 Jan 27;347(8996):237-40.
- O'Malley SS, Sinha R, Grilo CM, Capone C, Farren CK, McKee SA, Rounsaville BJ, Wu R. Naltrexone and cognitive behavioral coping skills therapy for the treatment of alcohol drinking and eating disorder features in alcohol-dependent women: a randomized controlled trial. *Alcohol Clin Exp Res* 2007 Apr;31(4):625-34.
- Orwin RG, Sonnenfeld LJ, Garrison-Mogren R, Smith NG. Pitfalls in evaluating the effectiveness of case management programs for homeless persons: Lessons from the NIAAA Community Demonstration Program. *Evaluation Rev* 1994;18(2):153-207.
- Osher FC, Drake RE. Reversing a history of unmet needs: approaches to care for persons with co-occurring addictive and mental disorders. *Am J Orthopsychiatry* 1996 Jan;66(1):4-11.
- Oslin DW, Grantham S, Coakley E, Maxwell J, Miles K, Ware J, Blow FC, Krahn DD, Bartels SJ, Zubritsky C, Olsen E, Kirchner JE, Levkoff S. PRISM-E: comparison of integrated care and enhanced specialty referral in managing at-risk alcohol use. *Psychiatr Serv* Jul 2006;57(7):954-8.
- Patterson DG, MacPherson J, Brady NM. Community psychiatric nurse aftercare for alcoholics: a five-year follow-up study. *Addiction* 1997 Apr;92(4):459-68.
- Petrakis IL, Poling J, Levinson C, Nich C, Carroll K, Rounsaville B; VA New England VISN I MIRECC Study Group. Naltrexone and disulfiram in patients with alcohol dependence and comorbid psychiatric disorders. *Biol Psychiatry* 2005 May 15;57(10):1128-37.
- Petrakis IL, Carroll KM, Nich C, Gordon LT, McCance-Katz EF, Frankforter T, Rounsaville BJ. Disulfiram treatment for cocaine dependence in methadone-maintained opioid addicts. *Addiction* 2000 Feb;95(2):219-28.
- Pettinati HM, O'Brien CP, Rabinowitz AR, Wortman SP, Oslin DW, Kampman KM, Dackis CA. The status of naltrexone in the treatment of alcohol dependence: specific effects on heavy drinking. *J Clin Psychopharmacol* 2006;26:610-25.
- Pettinati HM, Volpicelli JR, Pierce JD, Jr., O'Brien CP. Improving naltrexone response: an intervention for medical practitioners to enhance medication compliance in alcohol dependent patients. *J Addict Dis* 2000;19(1):71-83.
- Physicians Desk Reference; 53rd ed. Montvale, N. J.: Medical Economics;1999.
- Pittman B, Gueorguieva R, Krupitsky E, Rudenko A, Flannery B, Krystal J. Multidimensionality of the Alcohol Withdrawal Symptom Checklist: a factor analysis of the Alcohol Withdrawal Symptom Checklist and CIWA-Ar. *Alcohol Clin Exp Res* 2007 Apr;31(4):612-8.
- Poikolainen K. Effectiveness of brief interventions to reduce alcohol intake in primary health care populations: a meta-analysis. *Prev Med* 1999 May;28(5):503-9.
- Polycarpou A, Papanikolaou P, Ioannidis JP, Contopoulos-Ioannidis DG. Anticonvulsants for alcohol withdrawal. *Cochrane Database Syst Rev* 2005 July 20;(3):CD005064.

- Preston KL, Umbricht A, Epstein DH. Methadone dose increase and abstinence reinforcement for treatment of continued heroin use during methadone maintenance. *Arch Gen Psychiatry* 2000 Apr;57(4):395-404.
- PRISM-E – see Oslin et al., 2006
- Project MATCH research group. Matching alcoholism treatments to client heterogeneity: Project MATCH Posttreatment drinking outcomes. *J Stud Alcohol* 1997 Jan;58(1):7-29.
- Putnam DE, Finney JW, Barkey PL, Bonner MJ. Enhancing commitment improves adherence to a medical regimen. *J Consult Clinical Psychol* 1994 Feb;62(1):191-4.
- Rapp RC, Siegal HA, Li L, Saha P. Predicting post-primary treatment services and drug use outcome: A multivariate analysis. *Am J Drug Alcohol Abuse* 1998 Nov;24(4):603-15.
- Reinert DF, Allen JP. The Alcohol Use Disorders Identification Test (AUDIT): a review of recent research. *Alcohol Clin Exp Res* 2002 Feb;26(2):272-9.
- Reoux JP, Miller K. Routine hospital alcohol detoxification practice compared to symptom triggered management with an Objective Withdrawal Scale (CIWA-Ar). *Am J Addict* 2000 Spring;9(2):135-44.
- Ridgely MS, Jerrell JM. Analysis of three interventions for substance abuse treatment of severely mentally ill people. *Community Ment Health J* 1996 Dec;32(6):561-72.
- Rohsenow DJ, Monti PM, Martin RA, Colby SM, Myers MG, Gulliver SB, Brown RA, Mueller TI, Gordon A, Abrams DB. Motivational enhancement and coping skills training for cocaine abusers: Effects on substance use outcomes. *Addiction* 2004 Jul;99(7):862-74.
- Saitz R. Clinical practice. Unhealthy alcohol use. *N Engl J Med* 2005 May 19;352(20):2139-40.
- Saitz R, Mayo-Smith MF, Roberts MS, Redmond HA, Bernard DR, Calkins DR. Individualized treatment for alcohol withdrawal: a randomized double-blind controlled trial. *JAMA* 1994 Aug 17; 272(7):519-23.
- Saleh SS, Vaughn T, Hall JA, Levey S, Fuortes L, Uden-Holmen T. Cost-effectiveness of case management in substance abuse treatment. *Res Soc Work Prac* 2006 Jan;16(21):38-47.
- Saleh SS, Vaughn T, Hall JA, Levey S, Fuortes L, Uden-Holmen T. Effectiveness of case management in substance abuse treatment. *Care Manage J* 2002;3(4):172-7.
- Sanchez-Craig M, Lei H. Disadvantages of imposing the goal of abstinence on problem drinkers: an empirical study. *Br J Addict* 1986 Aug;81(4):505-12.
- Sannibale C, Hurkett P, Van Den Bossche E, O'Connor D, Zador D, Capus C, Gregory K, McKenzie M. Aftercare attendance and post-treatment functioning of severely substance dependent residential treatment clients. *Drug Alcohol Rev* 2003 Jun;22(2):181-90.
- Sarrazin MV, Huber DL, Hall JA. Impact of Iowa case management on family functioning for substance abuse treatment clients. *Adol Fam Health* 2001 2(3):132-40.
- Scherbaum N, Kluwig J, Specka M, Krause D, Merget B, Finkbeiner T, Gastpar M. Group psychotherapy for opiate addicts in methadone maintenance treatment—a controlled trial. *Eur Addict Res* 2005;11(4): 163-71.
- Schiffman S, Balabanis M. Associations between alcohol and tobacco. In: Fertig JB; Allen JP, editors. *Alcohol and tobacco: from basic science to clinical practice*. NIAAA Research Monograph No. 30, NIH Pub. No. 95-3531. Bethesda, MD: 1995. p 17-36.
- Schottenfeld RS, Chawarski MC, Pakes JR, Pantaloni MV, Carroll KM, Kosten TR. Methadone versus buprenorphine with contingency management or performance feedback for cocaine and opioid dependence. *Am J Psychiatry* 2005 Feb;162(2):340-9.
- Scott CK, Sherman RE, Foss MA, Godley M, Hristova L. Impact of centralized intake on case management services. *J Psychoactive Drugs* 2002 Jan-Mar;34(1):51-7.

- Seale JP, Boltri JM, Shellenberger S, Velasquez MM, Cornelius M, Guyinn M, Okosun I, Sumner H. Primary care validation of a single screening question for drinkers. *J Stud Alcohol*. Sep 2006;67(5):778-84.
- Siegal HA, Fisher JH, Rapp RC, Kelliher CW, Wagner JH, O'Brien WF, Cole PA. Enhancing substance abuse treatment with case management: its impact on employment. *J Subst Abuse Treat* 1996 Mar-Apr;13(2):93-8.
- Siegal HA, Rapp RC, Li L, Saha P, Kirk K. The role of case management in retaining clients in substance abuse treatment: an exploratory analysis. *J Drug Issues* 1997;27(4):821-31.
- Siegal HA, Li L, Rapp RC. Case management as a therapeutic enhancement: impact on post-treatment criminality. *J Addict Dis* 2002;1(4):37-46.
- Simpson DD, Sells SB, editors. *Opioid addiction and treatment: a twelve-year follow*. Malabar, FL.: Robert E. Krieger; 1990.
- Smith DE, Wesson DR. Benzodiazepines and other sedative-hypnotics. In: Galanter M; Kleber H, editors. *Textbook of substance abuse treatment*. Washington, D.C.: American Psychiatric Press, Inc 1994. p. 179-90.
- Solberg LI, Maciosek MV, Edwards NM. Primary care intervention to reduce alcohol misuse ranking its health impact and cost effectiveness. *Am J Prev Med* 2008 Feb;34(2):143-52.
- Srisurapanont M, Jarusuraisin N. Naltrexone for the treatment of alcoholism: a meta-analysis of randomized controlled trials. *Int J Neuropsychopharmacol* 2005;8:267-80.
- Stahler GJ, Shipley TF, Bartelt D, DuCette JP, Shandler IW. Evaluating alternative treatments for homeless substance-abusing men: outcomes and predictors of success. *J Addict Dis* 1995;14(4):151-67.
- Steinbauer JR, Cantor SB, Holzer CE, Volk JR. Ethnic and sex bias in primary care screening tests for alcohol use disorders. *Ann Intern Med* 1998;129:353-62.
- Stinson FS, Nephew TM, Dufour MC, Grant BF. *State Trends in Alcohol-Related Mortality, 1979-92*. 1st Edition Bethesda, MD: US Department of Health and Human Services, National Institutes of Health.
- Strain EC, Bigelow GE, Liebson IA, Stitzer ML. Moderate-versus high-dose methadone in the treatment of opioid dependence: a randomized trial. *JAMA* 1999 Mar 17;281(11): 1000-5.
- Strain EC, Stitzer MI, Liebson IA, Bigelow GE, et al. Dose-response effects of methadone in the treatment of opioid dependence. *Ann Intern Med* 1993a Jul 1;119(1):23-7.
- Strain EC, Stitzer, MI, Liebson, IA. Methadone dose and treatment outcome. *Drug Alcohol Depend* 1993b Sep;33:105-17.
- Streton C, Whelan G. Naltrexone, a relapse prevention maintenance treatment of alcohol dependence: a meta-analysis of randomized controlled trials. *Alcohol* 2001;36:544-52.
- Sullivan JT, Skyora K, Schneiderman J, Naranjo CA, Sellers EM. Assessment of alcohol withdrawal: the revised Clinical Institute Withdrawal Assessment for Alcohol scale (CIWA-Ar). *Br J Addict* 1989 Nov;84(11):1353-57.
- Thienhaus DJ, Piasecki M. Assessment of psychiatric patients' risk of violence toward others. *Psychiatr Serv* 1998 Sep;49(9):1129-30.
- Tiet Q, Mausbach B. Treatments for patients with dual diagnosis: a review. *Alcohol Clin Exp Res* 2007 Apr;31(4):513-36.
- Tiet QQ, Ilgen MA, Byrnes HF, Harris AH, Finney JW. Treatment setting and baseline substance use severity interact to predict patients' outcomes. *Addiction* 2007 Mar;102(3):432-40.
- Timko C, Sempel JM. Short-term outcomes of matching dual diagnosis patients' symptom severity to treatment intensity. *J Subst Abuse Treat* 2004 Apr;26(3):209-18.

- Timko C, DeBenedetti A, Billow R. Intensive referral to 12-step self-help groups and 6-month substance use disorder outcomes. *Addiction* 2006 May;101 (5):678-88.
- Tri-Service addiction recovery center. Recovery plan. Andrews Air Force Base, MD: Malcolm Grow Medical Center; 1998.
- U.S. Department of Health and Human Services. Clinical guidelines for the use of buprenorphine in the treatment of opioid addiction. Treatment improvement protocol (TIP) series #40. Center for Substance Abuse Treatment; DHHS Publication No. (SMA) 04-3939. Rockville, MD: Department of Health and Human Services.
- U.S. Department of Health and Human Services. State methadone treatment guidelines. Treatment improvement protocol (TIP) series #1. Parrino MW, consensus panel chair, Center for Substance Abuse Treatment; 1993. DHHS Publication No. (SMA) 93-1991. Rockville, MD: Department of Health and Human Services.
- U.S. Department of Health and Human Services. Detoxification from alcohol and other drugs (TIP) series#19. Center for Substance Abuse Treatment; 1995. DHHS Publication No. (SMA)95-3046. Rockville, MD: Department of Health and Human Services.
- U.S. Department of Health & Human Services. Helping patients with alcohol problems, a health practitioner's guide. National Institute on Alcohol Abuse and Alcoholism; 2003. Rockville, MD: Department of Health and Human Services.
- U.S. Preventive Service Task Force (USPSTF). Guide to clinical preventive services. 2nd edition. Washington, DC: US Department of Health and Human Services, Office of Disease Prevention and Health Promotion, 1996.
- U.S. Preventive Services Task Force. Screening and behavioral counseling interventions in primary care to reduce alcohol misuse: Recommendation statement. *Ann Intern Med*. 2004;140:554-6.
- U.S. Preventive Services Task Force. Screening for illicit drug use. Rockville, MD: Agency for Healthcare Research and Quality; 2003..Rockville, MD. AHRQ Publication No. No. 08-05108-EF-3
- U.S. Preventive Services Task Force. Polen MR, Whitlock EP, Wisdom JP, Nygren P, Bougatsos C. Screening in Primary Care Settings for Illicit Drug Use: Staged Systematic Review for the U.S. Preventive Services Task Force. Evidence Synthesis No. 58, Part 1. AHRQ Publication No. 08-05108-EF-1. Rockville, MD, Agency for Healthcare Research and Quality, January 2008.
- U.S. Preventive Services Task Force Lanier D, Ko S. Screening in Primary Care Settings for Illicit Drug Use: Assessment of Screening Instruments — A Supplemental Evidence Update for the U.S. Preventive Services Task Force. Evidence Synthesis No. 58, Part 2. AHRQ Publication No. 08-05108-EF-2. Rockville, Maryland: Agency for Healthcare Research and Quality, January 2008.
- Umbricht-Schneiter A, Ginn DH, Pabst KM, Bigelow GE. Providing medical care to methadone clinic patients: referral versus on-site care. *Am J Public Health* 1994 Nov;84(11):207-10.
- Van Stelle KR, Mauser E, Moberg DP. Recidivism to the criminal justice system of substance abusing offenders diverted into treatment. *Crime and Delinquency* 1994;40:175-96.
- Vanderplasschen W, Rapp RC, Wolf JR, Broekaert. The development and implementation of case management for substance disorders in North America and Europe. *Psychiatr Serv* 2004 Aug;55(8):913-22.
- VanderPlasschen W, Wolf J, Rapp RC, Broekaert E. Effectiveness of different modles of case management for substance-abusing populations. *J Psychoactive Drugs* 2007 Mar;39(1):81-95.
- Vaughan-Sarrazin MS, Hall JA, Rick GS. Impact of Iowa case management on use of health services by rural clients in substance abuse treatment. *J Drug Issues* 2000;30(2):435-63.
- Vinson DC, Kruse RL, Seale JP. Simplifying alcohol assessment: two questions to identify alcohol use disorders. *Alcohol Clin Exp Res* Jul 2007;31(8):1392-8.

- Volk RJ, Steinbauer JR, Cantor SB, Holzer CE. The Alcohol Use Disorders Identification Test (AUDIT) as a screen for at-risk patients of different racial/ethnic backgrounds. *Addiction* 1997;92(2):197-206.
- Volpicelli JR, Markman I, Monterosso J, Filing J, O'Brien CP. Psychosocially enhanced treatment for cocaine-dependent mothers: evidence of efficacy. *J Subst Abuse Treatment* 2000;18(1):41-9.
- Wallace P, Cutler S, Haines A. Randomised controlled trial of general practitioner intervention in patients with excessive alcohol consumption. *BMJ* 1988;297:663-68.
- Wallace P, Haines A. Use of a questionnaire in general practice to increase the recognition of patients with excessive alcohol consumption. *BMJ* 1985;290:1949-52.
- Walsh DC, Hingson RW, Merrigan DM, Levenson SM, Coffman GA, Heeren T, Cupples LA. The impact of a physician's warning on recovery after alcoholism treatment. *JAMA* 1992 Feb 5;267(5):663-7.
- Washton AM, Pottash AC, Gold MS. Naltrexone in addicted business executives and physicians. *J Clin Psychiatry*. 1984 Sep;45(9 Pt 2):39-41.
- Wesson DR, Ling W. The Clinical Opiate Withdrawal Scale (COWS). *J Psychoactive Drugs* 2003;35(2):253-9.
- Whitlock EP, Polen MR, Green CA, Orleans T, Klein J. Behavioral counseling interventions in primary care to reduce risky/harmful alcohol use by adults: a summary of the evidence for the U.S. Preventive Services Task Force. *Ann Intern Med* 2004;140(7):557-68.
- Wilk AI, Jensen NM, Havighurst TC. Meta-analysis of randomized control trials addressing brief interventions in heavy alcohol drinkers. *J Gen Intern Med* 1997;12:274-83.
- Willenbring ML, Olson DH. A randomized trial of integrated outpatient treatment for medically ill alcoholic men. *Arch Intern Med* 1999 Sep;159(16):1946-52.
- Willenbring ML, Whelan JA, Dahlquist JS, et al: Community treatment of the chronic public inebriate: I. implementation. *Alcoholism Treatment Quarterly* 1990;7(2):79-97, 1990.
- Willenbring ML, Olson DH, Bielinski J B. Integrated outpatient treatment for medically ill alcoholic men: results from a quasi-experimental study. *J Stud Alcohol* 1995 May;56(3):337-43.
- Williams R, Vinson DC. Validation of a single screening question for problem drinking. *J Fam Pract*. 2001;50(4):307-12.
- Witbrodt J, Bond J, Kaskutas LA, Weisner C, Jaeger G, Pating D, Moore C. Day hospital and residential addiction treatment: randomized and nonrandomized managed care clients. *J Consult Clin Psychol* 2007 Dec;75(6):947-59.
- Wu SM, Compton P, Bolus R, Schieffer B, Pham Q, Baria A, Van Vort W, Davis F, Shekelle P, Naliboff BD. The addiction behaviors checklist: validation of a new clinician-based measure of inappropriate opioid use in chronic pain. *J Pain Symptom Manage* 2006 Oct;32:342-51.
- Yudko E, Lozhkina O, Fouts A. A comprehensive review of the psychometric properties of the Drug Abuse Screening Test. *J Subst Abuse Treat* 2007 Mar;32(2):189-98.