Objectives

After reading this issue, the clinician should be able to:

- Identify the scope of the problem to implement screening, brief intervention, and referral for treatment
- Review the history of and integrate the Screening, Brief Intervention, Referral and Treatment Program into their practice
- Develop a protocol to effectively screen patients for alcohol use and to perform a comprehensive risk assessment
- Formulate strategies to effectively communicate concern about alcohol use or abuse without judging patient behavior
- Identify links with appropriate treatment resources
- Examine the rationale and evidence to support pharmacotherapy’s to treat alcohol problems in the primary care setting

Faculty information can be found on page 2. All faculty have stated they have no conflict of interest to disclose.

Activity Development Team

– Barbara A. Layne, RN, has returned her disclosure form stating that she has no relevant financial relationships to disclose.

The Scope of the Problem and the Case for Screening, Brief Intervention, and Referral to Treatment

Lee Kim Erickson, MD

Hazardous alcohol use and alcohol abuse and dependence are more prevalent in the United States than most conditions routinely screened for and treated by physicians, yet doctors usually fail to identify and treat problem alcohol use. The impact of this failure on society is enormous. Alcohol consumption is the third most common actual cause of death in the United States.1 Alcohol is a factor in 60 to 70 percent of homicides, 40 to 50 percent of fatal motor vehicle accidents, 60 percent of fatal burn injuries and drownings, and 40 percent of fatal falls.2 The National Institute on Alcohol Abuse and Alcoholism conservatively estimates economic costs in excess of $184 billion a year.3

Hazardous alcohol use and abuse cuts a wide swath through all age groups. On any average day in the past year, 8,000 children ages 12 to 17 had their first drink.4 Approximately 47 percent of people who begin drinking before the age of 14 become dependent later in life, compared with 9 percent who begin drinking after the legal age of 21.5 Nearly 18 percent of eighth graders and 41.2 percent of tenth graders have been drunk at least once.6 In 2001 alone, 2.8 million 18-24 year old college students reported driving under the influence; 696,000 reported being assaulted by a fellow student under the influence, and 97,000 were victims of alcohol-related sexual assault.7 And while the prevalence of problem alcohol use in the elderly is debated, it is clear that there are serious concerns about alcohol use in older patients who are already at increased risk for falls and hip fractures, automobile accidents, and multiple medication interactions.8 These are all astounding numbers that we need to address.

This is undeniably a massive public health problem, yet doctors rarely screen for it or give advice to their patients about alcohol use. In 1997, 10 states collected data on health interventions for smoking and drinking. Only 23 percent of binge drinkers received advice about alcohol; two million opportunities to intervene were lost.9 Inadequate training and pessimism about the effectiveness of intervention make many physicians reluctant to screen for alcohol problems; physicians also feel constrained by time and reimbursement pressures.10

Most physicians are familiar with the late-stage sequelae of alcoholism. Acute hepatitis, pancreatitis, gastritis and bleeding ulcers, cirrhosis and liver failure, cardiomyopathy and heart failure, acute withdrawal and delirium tremens are sadly common place on inpatient medical wards. Health care providers are used to seeing only these sickest of patients, and therefore understandably do not believe that intervention and treatment work because they have little experience with the patients who get better. Yet data on treatment for alcohol dependence shows success rates well above popular perception: decreases in alcohol use of 60 percent, decreases in criminal activity of 50 percent, and increased employment rates of 40 percent. It is estimated that every dollar spent on treatment saves us $12 in crime and health care costs.11 In comparison, consider our success rates at managing hypertension—less than one third of patients with high blood pressure are adequately treated and controlled.

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The Scope of the Problem and the Case for Screening, Brief Intervention, and Referral to Treatment

Alcohol abuse and dependence is more prevalent than hypertension and responds to treatment at higher rates.

In the last decade, research has been focusing on earlier intervention and prevention of alcohol problems. Many studies on brief interventions for hazardous alcohol use have repeatedly demonstrated immediate decreases in alcohol consumption and alcohol related morbidity and mortality. In one trauma center, brief interventions for hazardous alcohol use decreased alcohol consumption at 12 months by 21.6 drinks per week, compared to an increase of 2.3 drinks per week in the control group receiving no advice. There was also a 47 percent reduction in injuries requiring a visit to an emergency room or trauma center. And it appears that the decreases in morbidity and mortality may hold longer than six to 12 months. In one randomized controlled trial of 774 problem drinkers, those who received brief interventions had significant reductions in seven-day alcohol use and episodes of binge drinking, as well as significantly fewer hospital admissions and emergency room visits. The positive effect of the brief intervention was sustained at 48 months and provided an estimated savings of $43 in future health care costs for every dollar spent.

In response to this overwhelming evidence, the Substance Abuse and Mental Health Services Administration (SAMHSA) launched the Screening, Brief Intervention, and Referral to Treatment (SBIRT) initiative, an implementation grant program to translate the research into practice. SBIRT represents a paradigm shift in health care’s approach to alcohol use and abuse and targets the hazardous and problem drinker in an effort to intervene earlier and prevent further morbidity, mortality, and progression to end-stage alcoholism. Screening quickly assesses the level of alcohol use and identifies the appropriate level of intervention. Brief intervention focuses on increasing awareness regarding alcohol use and motivation toward behavioral change. And for patients identified as having more severe alcohol problems, Referral to treatment is most appropriate.

As of August 2007, the SBIRT program had screened 536,000 individuals and had been implemented in multiple trauma centers/emergency rooms, community clinics, federally qualified health centers, and school clinics and primary care practices. More about the SBIRT program can be found at http://sbirt.samhsa.gov and many useful screening and intervention tools are available through the Pennsylvania SBIRT project site at http://www.ireta.org/sbirt/clinical_tools.htm. The SBIRT approach to problem drinking is a simple, concrete way to incorporate screening for and intervention of one of our biggest public health issues into routine medical care. It is long overdue.

What can you do to help?

Screen patients universally for alcohol, even if they present with other addictive disorders, i.e., opiate dependence, etc.

References are available at www.pamedsoc.org/counterdetails or by calling (800) 228-7823, extension 7806.
Communicating with Patients About Alcohol Use
Bradley J. Miller, DO

The Screening, Brief Intervention, Referral and Treatment Program

In an effort to expand and enhance state substance abuse treatment service systems, the Substance Abuse and Mental Health Services Administration (SAMHSA) awarded seven states, including Pennsylvania, with a Screening, Brief Intervention, Referral and Treatment (SBIRT) cooperative agreement. The overall goals for SBIRT in primary care settings are to:

1) improve the identification of substance misuse with the target population being non-dependent, at-risk users,
2) decrease the overall alcohol and drug use in patients, and
3) create an informed, medically-sound, prevention-based continuum of care between general medical practice and specialized drug and alcohol treatment centers.

The role of the practitioner is to identify and assess (Screen), provide intervention (Brief Intervention), and referral for (Referral) substance use. This article will focus on the SBIR process with regard to alcohol use in adult patients.

Overall in the United States, approximately 70 to 75 percent of adults are low-risk alcohol consumers. Approximately 20 to 25 percent of the population is high-risk alcohol consumers, and approximately five percent of adults are alcohol-dependent (see Figure 1: Drinker’s Pyramid). Therefore, the role of the practitioner is to:

1) support a patient’s low-risk consumption or
2) provide education and guidance regarding a patient’s high-risk consumption or
3) provide referral services for alcohol dependence.

STEP I: Screening and Assessment

In order for substance use screening to be effective and routinely performed by medical providers, there needs to be a simple, concise, systematic approach to screening every patient. The screening process has three components: the initial screen, the secondary screen, and the assessment.

1) Initial screen. Consists of a very simple set of questions that can be performed in a variety of formats and settings. The questions focus on alcohol use patterns and allow the medical provider to easily categorize the patient’s alcohol use as low-risk or high-risk. Those patients that exhibit a high-risk use of alcohol would be subject to secondary screening.

Effective initial screening of alcohol use begins with knowledge of low and high-risk drinking levels in different subsets of the population, as well as an understanding of what constitutes a standard drink (See Table 1: Low-Risk Drinking Limits).

Please note how important it is to clarify what the patient considers to be one drink. For example,

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Table 1: Low-Risk Drinking Limits

<table>
<thead>
<tr>
<th>Low-Risk:</th>
<th>Amount of Alcohol Per Serving (Drink)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Women (excluding pregnancy):</td>
<td>A standard drink is:</td>
</tr>
<tr>
<td>• No more than one drink per day if a daily consumer</td>
<td>• A 12 ounce can/ bottle of beer</td>
</tr>
<tr>
<td>• No more than three drinks per session if irregular consumer</td>
<td>• A 5 ounce glass of wine</td>
</tr>
<tr>
<td>• No more than seven drinks per week</td>
<td>• A 1.5 ounce shot of liquor</td>
</tr>
<tr>
<td>Men:</td>
<td>All persons over 65:</td>
</tr>
<tr>
<td>• No more than two drinks per day if a daily consumer</td>
<td>• No more than one drink per day</td>
</tr>
<tr>
<td>• No more than four drinks per session if irregular consumer</td>
<td>• No more than seven drinks per week</td>
</tr>
<tr>
<td>• No more than 14 drinks per week</td>
<td>All persons younger than 21 and pregnant women:</td>
</tr>
<tr>
<td></td>
<td>• There is NO ACCEPTABLE DAILY OR WEEKLY LIMIT</td>
</tr>
</tbody>
</table>

Figure 1: Drinker’s Pyramid

<table>
<thead>
<tr>
<th>Alcohol Dependent</th>
<th>5%</th>
</tr>
</thead>
<tbody>
<tr>
<td>High-Risk Level</td>
<td>20%</td>
</tr>
<tr>
<td>Low-Risk Level</td>
<td>35%</td>
</tr>
<tr>
<td>Abstainers</td>
<td>40%</td>
</tr>
</tbody>
</table>
the patient may have one martini per night or "one drink," however, martinis may contain up to two to four shots of distilled spirits, and hence the patient is actually consuming two to four standard drinks, an amount well beyond the low-risk drinking limits.

Once the low-risk drinking limits are understood, screening a patient for excessive use would include questions that establish his or her drinking pattern. The initial screening can be done easily and in a variety of ways. For instance, the patient could fill out a self-disclosure form, the nurse could ask the screening questions when taking vitals, or the physician could ask the questions as he or she is examining the patient (See Figure 2: Initial Screening Questions).

Ideally, each patient should be screened whenever possible, especially if he or she is a high-risk alcohol consumer. Otherwise, yearly screening on those patients who are low-risk consumers is sufficient. Patient populations who may not routinely come into the office (adolescent and young adult patients in particular) should be screened whenever possible.

Once the patient's consumption of alcohol is established, the physician can then decide whether more information about their alcohol consumption is warranted, otherwise, the screening process can end at that point.

2) Secondary Screen. If the patient exhibits at-risk alcohol consumption based on the initial screen, a more formalized screening measure is then performed. Typically a structured questionnaire is employed. Choosing an alcohol screening method can be difficult considering the number of structured questionnaires that exist.

Communicating with patients about alcohol use

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<table>
<thead>
<tr>
<th>Question</th>
<th>Men</th>
<th>Women</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. How often do you have a drink containing alcohol?</td>
<td>(0) Never  (3) 1 or 2  (2) 3-5 times a week  (4) 6 or more times a week</td>
<td>(0) Never  (3) 1 or 2  (2) 3-5 times a week  (4) 6 or more times a week</td>
</tr>
<tr>
<td>2. How many standard drinks containing alcohol do you have on a typical day when you are drinking?</td>
<td>(0) 1 or 2  (1) 3 or 4  (2) 5 or 6  (3) 7, 8, or 9  (4) 10 or more</td>
<td>(0) 1 or 2  (1) 3 or 4  (2) 5 or 6  (3) 7, 8, or 9  (4) 10 or more</td>
</tr>
<tr>
<td>3. How often do you have six or more drinks on one occasion?</td>
<td>(0) Never  (3) Weekly  (4) Daily or almost daily Skip to Questions 9 and 10 if Total Score for Questions 2 and 3 = 0</td>
<td>(0) Never  (3) Weekly  (4) Daily or almost daily Skip to Questions 9 and 10 if Total Score for Questions 2 and 3 = 0</td>
</tr>
<tr>
<td>4. How often during the last year have you found that you were not able to stop drinking once you had started?</td>
<td>(0) Never  (3) Weekly  (4) Daily or almost daily</td>
<td>(0) Never  (3) Weekly  (4) Daily or almost daily</td>
</tr>
<tr>
<td>5. How often during the last year have you failed to do what was normally expected from you because of drinking?</td>
<td>(0) Never  (3) Weekly  (4) Daily or almost daily</td>
<td>(0) Never  (3) Weekly  (4) Daily or almost daily</td>
</tr>
<tr>
<td>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?</td>
<td>(0) Never  (3) Weekly  (4) Daily or almost daily</td>
<td>(0) Never  (3) Weekly  (4) Daily or almost daily</td>
</tr>
<tr>
<td>7. How often during the last year have you had a feeling of guilt or remorse after drinking?</td>
<td>(0) Never  (3) Weekly  (4) Daily or almost daily</td>
<td>(0) Never  (3) Weekly  (4) Daily or almost daily</td>
</tr>
<tr>
<td>8. How often during the last year have you been unable to remember what happened the night before you had been drinking?</td>
<td>(0) Never  (3) Weekly  (4) Daily or almost daily</td>
<td>(0) Never  (3) Weekly  (4) Daily or almost daily</td>
</tr>
<tr>
<td>9. Have you or someone else been injured as a result of your drinking?</td>
<td>(0) No  (2) Yes, but not in the last year  (4) Yes, during the last year</td>
<td>(0) No  (2) Yes, but not in the last year  (4) Yes, during the last year</td>
</tr>
<tr>
<td>10. Has a relative, friend, doctor, or a doctor or another health worker been concerned about your drinking or suggested you cut down?</td>
<td>(0) No  (2) Yes, but not in the last year  (4) Yes, during the last year</td>
<td>(0) No  (2) Yes, but not in the last year  (4) Yes, during the last year</td>
</tr>
</tbody>
</table>

Record total of specific items here

If total is greater than recommended cut-off, consult User's Manual
Communicating with patients about alcohol use

(i.e., AUDIT, brief MAST, CAGE, CRAFFT, TWEAK, etc.) Essentially, all of these measures screen patients based on amount and frequency of use. Some measures are more effective screens for abuse or dependence (CAGE), while others target risky behavior (AUDIT). No screening instrument is perfect. However, despite their limitations, research supports the use of formal screening instruments to increase the recognition of alcohol problems.

Since one of the overall goals of SBIRT is to improve the identification of substance misuse with the target population being the non-dependent, at-risk user, the Alcohol Use Disorders Identification Test (AUDIT), a screening questionnaire that focuses on risky behavior, is an effective instrument to use as a secondary screening instrument.

Developed by the World Health Organization, this test is a standardized, systematic, validated instrument that identifies low-risk, high-risk, and dependent alcohol consumption. Although other self-report instruments have been found to be useful, the AUDIT has the advantages of providing more comprehensive information to both physicians and patients.

The AUDIT consists of ten questions (see Figure 3: AUDIT). The first three items measure the quantity and frequency of alcohol use. The next three questions ask about the occurrence of possible dependence symptoms, and the last four questions inquire about recent and lifetime problems associated with alcohol use.

The AUDIT is easy to score. Each of the questions has a set of responses to choose from, and each response has a score ranging from 0 to 4. The interviewer enters the score corresponding to the patient’s response into the box beside each question. All the response scores should then be added and recorded in the box labeled “Total.”

### Assessment

The information obtained during the initial and secondary screening helps to assess the severity of the patient’s alcohol use and to guide the physician’s approach during the brief intervention that will follow. At this point, the physician has quantitative information to present to the patient during the brief intervention (the patient’s drinking pattern and AUDIT score).

An essential component of the assessment is to understand the patient’s level of risk with regard to his/her drinking pattern. The four levels of risk and corresponding AUDIT scores shown below are presented as general guidelines for assigning risk levels and intervention modalities (see Table 2: Risk Levels and Figure 4: Drinker’s Pyramid with Risk Levels).

The medical provider may need to adjust the intervention according to his or her best judgment of the patient’s individual circumstances.

Finally, in addition to the initial screen and AUDIT score, an essential component to the assessment of the patient’s alcohol use is an understanding of the patient’s medical and behavioral status. For instance, elevated liver enzymes, memory lapses, hypertension, gastritis, depression, and so forth can be early indicators of alcohol related systemic illness and/or dependence and can help establish the severity of the patient’s overall health as it is related to his/her alcohol misuse. If the relationship exists, establishing a link to the patient’s medical problems and alcohol consumption can be a powerful component of the brief intervention and can motivate the patient to modify his or her behavior. Therefore, consider additional testing

### Table 2. AUDIT Risk Levels

<table>
<thead>
<tr>
<th>Risk Level</th>
<th>Description</th>
<th>Intervention</th>
<th>AUDIT Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zone I</td>
<td>Low-risk</td>
<td>Alcohol education to support low-risk use</td>
<td>0-7</td>
</tr>
<tr>
<td>Zone II</td>
<td>At-risk</td>
<td>Brief Intervention focused on reduction of at-risk use</td>
<td>8-15</td>
</tr>
<tr>
<td>Zone III</td>
<td>High-risk</td>
<td>Brief Intervention focused on reduction of high-risk, hazardous use; possible referral</td>
<td>16-19</td>
</tr>
<tr>
<td>Zone IV</td>
<td>Probable Dependence</td>
<td>Referral to specialist for diagnostic evaluation and treatment</td>
<td>20-40</td>
</tr>
</tbody>
</table>
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(i.e., blood work, EKG, depression screen) and follow up if warranted.

The following case illustrates how the physician uses the initial screen, secondary screen, and medical history to assess the patient’s level of risk.

Mr. B. is a 47 year old white male who presents to the office for his yearly physical. He has no new concerns today. Past medical history is positive for being overweight. He has a family history of CAD in his father. Vitals are BP 160/98, HR 80, and weight 210. During your review of systems the following occurs:

Physician: So Mr. B, as part of your routine health screening, I would like to ask some questions regarding use of any substances such as smoking, alcohol, etc… would that be okay?

(Establish “normalcy” to the process of screening)

Mr. B.: Sure?

Physician: Do you drink alcohol?

Mr. B.: Yes.

Physician: On average, how many days a week do you consume alcohol?

Mr. B.: I have a drink four or five days a week, you know, after work to help me wind down.

Physician: Do you drink beer, mixed drinks, wine?

Mr. B.: I like gin martinis, I’ve learned to make them just right.

Physician: How many shots of alcohol do you use to make a martini?

Mr. B.: You know, the standard three, sometimes four. (Pt is consuming three to four drinks per night based on the amount of alcohol per drink)

Physician: On a typical day when you drink, how many drinks do you have?

Mr. B.: Usually just one, but sometimes when I am stressed, I might make another. (On occasion, the patient is consuming six to eight drinks per night based on the amount of alcohol per drink.)

Physician: During the past month, what would you say is the maximum number of drinks you had on any given day?

Mr. B.: Oh, never more than two. I have trouble waking up in the morning if I do.

Discussion:

Initial screening: Revealed that on four or five nights per week he consumes one or two martinis, each containing three or four shots of gin.

Assessment: When he drinks alcohol, Mr. B consumes three to eight shots of distilled spirits per drinking session which exceeds the at-risk limits of daily consumption for males (two or less drinks per day if a daily consumer, and no greater than four per session if less regular consumer). In addition, he has four to five drinking sessions per week, placing his weekly consumption between 12 to 40 drinks per week. (Low-risk is up to 14 for males). (Use low-risk and high-risk drinking levels to assess whether further questioning is warranted.)

Given the information discovered in the initial screening, further evaluation of the patient’s alcohol consumption is warranted. The AUDIT is performed.

Secondary Screening: Mr. B’s AUDIT score was 9 (see Figure 5: Mr. B’s Audit, page 7). He scored highest on the first three questions regarding consumption and frequency. He had some positive responses on the last four questions regarding recent and lifetime problems associated with alcohol.

Assessment: The AUDIT score places him in “Zone II” of the AUDIT score risk assessment and intervention analysis and in the “High-Risk Drinkers” zone on the Drinker’s Pyramid (Utilize the AUDIT score to help establish risk level as well as appropriate brief intervention approach)

In addition to the initial and secondary screenings, Mr. B’s ROS and physical exam reveals that he suffers from untreated hypertension and gastritis. He also states that he has been more agitated in recent months. These medical/behavioral issues may be related to his alcohol consumption.

Overall Assessment: Mr. B exhibits a high-risk drinking pattern and has medical/behavioral issues that may be related to his alcohol consumption.

Conclusion: Mr. B is appropriate for brief intervention.

Step II: The Brief Intervention

Brief Interventions (BIs) are short dialogues between the medical provider (non-addiction specialists) and the patient that provide feedback, education, and guidance regarding the drug and/or alcohol use of the patient. Brief interventions are successful at encouraging and motivating behavioral changes in the patient’s drinking pattern that can ultimately lead to reduction of the patient’s consumption to a safer level, or abstinence.

Brief interventions are meant to be just that brief (5 to 10 minutes) and are easy to conduct in any medical setting (inpatient, outpatient, emergency/trauma centers). With practice, BIs, like alcohol screening, can become a routine component to the medical care of the patient. There are three essential components to the BI: provide feedback, engage patient feedback, and negotiate/advising a plan for behavioral change.

1) Providing feedback—This initial component of the BI helps to legitimize and substantiate the physician’s concerns with regard to the patient’s use of alcohol. This is accomplished by providing the patient-specific data gathered during the initial and secondary screens and comparing that data continued on page 7
Communicating with patients about alcohol use

and risk level to that of the general population. At the same time, educating the patient with regard to low-risk drinking limits as well as the risks and harms associated with higher-risk drinking patterns is essential. Establishing a link to the patient’s medical problems and alcohol consumption can be a powerful component to this stage in the BI. When applicable, linking the patient’s presenting complaint and how it relates to substance use may be helpful in establishing a patient’s sense of understanding, ownership, and responsibility for his or her alcohol misuse.

2) Engage patient feedback
Throughout the BI, it is important to engage the patient in a conversational tone that is both non-judgmental and non-confrontational.

This method, known as motivational interviewing, creates a safe haven for the patient to discuss his or her alcohol use and can affect their willingness to talk freely about why and how they might change. A key component of motivational interviewing is to acknowledge how the patient reacts (both verbally and non-verbally) to the physician’s questions or statements by repeating, reaffirming, or redirecting the patient’s response.

Asking open-ended, thought-provoking questions is an important exercise when performing a BI. Doing so reinforces the patient’s “definition” of their alcohol use, establishes credibility to the patient’s response, and enhances the sense of control and responsibility the patient has with regard to their alcohol use. Use this time to allow the patient to digest the information that has been shared and to guide the patient through the planning process. Attempt to illicit the patient’s understanding of their alcohol use and at what level he or she may be willing to change his or her behavior. Pay attention to and acknowledge statements that suggest a change in the way the patient thinks about his or her drinking.

Here are some examples of brief intervention questions that help illicit and propel the discussion:

- Help me to understand what you enjoy about drinking?
- Now tell me what you enjoy less about drinking.
- On a scale from one to ten, how ready are you to change any aspect of your drinking? Why did you choose that number and not a lower one?
- Do you think your medical condition/behavior may be directly related to your drinking?
- Have you ever thought about your drinking and how it might affect your life?
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3) Negotiating and advising a plan—

As the BI unfolds, the physician and patient begin to negotiate a plan of action to help the patient decrease or abstain from alcohol consumption. The patient’s overall risk and level of readiness for change help to guide the conversation and overall negotiated plan for change. It is important to encourage the patient to feel comfortable with the plan and that the plan represents a goal that is actually attainable. At the same time, the physician needs to be able to feel comfortable with the patient’s plan for change. Although it is the ultimate goal of intervention, oftentimes the negotiated plan does not include the patient completely abstaining from alcohol or decreasing to a level that is considered low-risk. As stated earlier, it is important to ask open-ended questions that encourage the patient to formulate a plan of action. Here are some examples of such questions:

- What do you think are the next steps in making some changes?
- What changes do you think you can do to stay within the safe drinking guidelines?
- This is what I heard you say…
- What do you see as your options?

Once a mutually agreed upon plan is formulated, it is important to define what steps are needed in order to accomplish it. Verbally repeat the plan to the patient to confirm that they agree to the terms and timelines for follow up. Recording the plan on a piece of paper or in the patient’s chart and having them sign it can help reinforce their dedication to following the plan as well. It is important to offer quick follow up with regard to the plan and to assure that the patient can call or come back sooner if needed. Finally, acknowledge the patient’s participation in the discussion given the somewhat personal and difficult subject matter. With practice, the physician’s confidence in screening patients and performing brief interventions will improve.

The following case illustrates how the physician uses the results from the initial screen, secondary screen, and medical history to perform a brief intervention, plan for change, and follow up.

Physician: Mr. B, I wanted to review with you the information you provided us with regard to your use of alcohol, would that be okay? (Ask for permission to discuss this topic)

Mr. B: Sure.

Physician: The amount of alcohol that you reported consuming is above the recommended amount for adult males your age and places you in a higher risk level drinking pattern. Are you aware of what is considered a low-risk drinking pattern? (Define low risk drinking pattern for the patient and how his pattern compares)

Mr. B: If that’s what you say my limit is, I understand, but is this really a problem? I mean I have never been in trouble or anything

Physician: Yes, well you may not have been in trouble with the law as a result of your alcohol, but given the amount of alcohol you are consuming and considering the answers to some of the questions that I asked, you are at risk for developing problems with alcohol related illness or behavior in the future. (Reference AUDIT score and educate patient about the medical/behavioral problems with higher consumption)

Mr. B: Wow, I had no idea. But who wants a martini with only one or two shots of gin?

Physician: It may be the case that you feel that a smaller amount of alcohol would not be a large enough drink for you, but I do think it is important to be aware of how much alcohol you actually consume. What this means is that you consume more than what is considered low-risk for adult males that is, on average you consume more than two drinks per day and sometimes more than four drinks in one drinking session. (Review results of screening and educate patient on what is considered a standard drink)

Mr. B: I thought one or two drinks per day would be okay for me. It has never caused any problems; I mean I’m not an alcoholic or anything.

Physician: Yes, well interestingly, a standard drink is one shot or 1.5 ounces of spirits, a 12 ounce can of beer, or a five ounce glass of wine. This means that one of your martinis which has three or four shots of gin, is actually considered three or four drinks given the above definitions of what is a standard drink.

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Mr. B: I feel good...is there something you found out that is concerning?

Physician: In fact, the elevated blood pressure that you have today and the gastritis you have been experiencing may be related to this alcohol consumption. Also, the agitation that you described certainly can be the result of or could be worsened by alcohol intake. (Directly link patient’s medical/behavioral problems or the risk these problems may have as a result of continued use)

What are your thoughts about the information that I just shared with you?

Mr. B: Well, I guess I really never thought that I was drinking too much before now. Now that you say it, my stomach does burn more when I have had more than one martini. I never put the two together. (Pay attention to and acknowledge statements that suggest a change in the way the patient thinks about their drinking.)

Physician: So it seems that you see a connection with how your stomach feels and how much you have had to drink? How might you avoid this from happening in the future?

Mr. B: Well obviously, if I didn’t drink more than one martini I would most likely decrease the times that my stomach hurts.

Physician: Given the information that I shared with you regarding your drinking pattern, do you think it is reasonable to try to cut back on your drinking?

Mr. B: I think I can give that a try. I’m not going to cut it out completely, doc.

Physician: What do you think is a more appropriate amount of alcohol to be drinking?

Mr. B: Well given what you said, I think I can limit to just one martini maybe three nights per week. I’ll even try to use just three shots of gin.

Physician: That certainly will be an improvement from what you are currently drinking. Let’s meet again in say, two to three weeks to see how you are making out with this change. Does that seem reasonable? (Physician negotiates a plan. The amount of alcohol consumed may at times not be ideal. Quick follow up is essential.)

Like other medical skills, the physician’s ability to screen and perform brief interventions improves and becomes automatic with practice.

Creating Links with Treatment Resources

In certain situations, it is important for the patient to receive a higher level of care for their alcohol use. This certainly would be appropriate for alcohol dependent individuals; however, enhanced treatment may also be appropriate for any individual whose use of alcohol interferes with or endangers their or another individual’s well being. In such cases, referral to an alcohol treatment specialist would be an essential component of the patient’s recovery.

In order to refer a patient to an alcohol treatment specialist, it is important to know what treatment resources exist in your community. In Pennsylvania, the Department of Health’s, Bureau of Drug and Alcohol Programs (BDAP) is charged with developing and implementing a comprehensive health, education, and rehabilitation program for the prevention, intervention, treatment, and case management of drug and alcohol abuse and dependence. This program is implemented through grant agreements with the 49 Single County Authorities (SCAs) who, in turn, contract with private drug and alcohol service providers. Familiarity with the local SCA can be very helpful. The SCA will be able to provide a comprehensive list of treatment services including local drug and alcohol treatment facilities (both inpatient and outpatient), Alcoholics and Narcotics Anonymous programs, and other resources. The Pennsylvania Department of Health BDAP website is a reliable source of Drug and Alcohol treatment programs within the Commonwealth. Contact information for the SCA in your county is provided on pages 17 and 18.

Some helpful ways to create a treatment and referral network for patients afflicted with alcohol abuse may include the following:

• Contact the local SCA to understand what treatment services, financial resources, and referral networks may be available in your area.

• Meet with a representative of the local treatment program(s) to understand the specific services that they provide as well as the preferred method for referral.

• Request patient handout or contact information from local treatment programs for your office.

These steps will benefit not only your patients, but also all service providers, as knowing one another will increase and facilitate referrals and continuity of care.
Emerging Medications to Treat Alcohol Use Disorders
Sanjay Paidisetty, BS and Adam J. Gordon, MD, MPH, FACP

Alcohol abuse and alcohol dependence, known collectively as alcohol use disorders (AUDs), are prevalent in the United States affecting an estimated 18 million adults and incurring a huge economic burden exceeding $100 billion. In the primary care setting, as many as an estimated 20 percent of outpatients drink alcohol at hazardous levels. The National Institutes of Health defines hazardous drinking as consuming more than 14 standard drinks per week for men and more than seven drinks per week for women and persons older than 65 years of age. Persons that engage in hazardous drinking or have an AUD experience significant medical, social, and societal consequences.

To address the consequences of hazardous drinking, the National Institute on Alcohol Abuse and Alcoholism (NIAAA) has encouraged all primary care and mental health clinicians to incorporate AUD screening, identification, brief intervention, and treatment referral into their practices. Other authorities such as the Institute of Medicine, U.S. Preventive Services Task Force, and Centers of Disease Control and Prevention have made similar recommendations for a greater physician role in screening and treating problem drinkers. The recently updated a brief monograph, “Helping Patients Who Drink Too Much: A Clinician’s Guide,” which provides screening, assessment, and brief intervention support materials to help assist clinicians to implement these recommendations (downloadable at http://pubs.niaaa.nih.gov/publications/practitioner/cliniciansguide2005/guide.pdf).

Non-pharmacologic treatments are the mainstay of treatment for hazardous drinking. However, pharmacologic treatments have recently been developed and serve as an adjunct to non-pharmacotherapy to help patients reduce alcohol consumption and/or establish abstinence. The US Food and Drug Administration (FDA) has approved four medications to treat problem drinking: disulfiram (Antabuse), acamprosate (Campral), oral naltrexone (ReVia, Depade), and naltrexone injection depot (Vivitrol) (Table I, see page 11). Use of these medications is limited in primary care settings due to lack of awareness among clinicians that effective pharmacotherapy exist. This review will provide an overview of the rationale and evidence of efficacy of the four FDA-approved medications to treat problem drinking in the primary care setting. Each medication may have specific utility in treating certain patient populations and are discussed below in the order of approval by the FDA.

Disulfiram
Disulfiram (Antabuse) is the oldest among FDA-approved medications for alcohol dependence. Available to physicians since the 1940s, disulfiram is an aversive agent indicated for chronic alcohol-consuming patients that have established abstinence and concurrently treated with psychotherapeutic therapy. The medication works by irreversibly inhibiting the enzyme acetaldehyde dehydrogenase. Ethanol is initially metabolized by alcohol dehydrogenase to acetaldehyde, which is then metabolized into acetate by acetaldehyde dehydrogenase. When a patient taking disulfiram consumes ethanol, the patient experiences the effects of the accumulation of acetaldehyde in the blood such as intense nausea, vomiting, and flushing. In order for the drug to be efficacious, the concept of disulfiram as a psychological deterrent must be established; the abstinent patient needs to be well-informed of the toxic effects and associate them with the consumption of alcohol.

Although disulfiram is the oldest of the FDA-approved treatments, it traditionally has not been the “go to” drug for alcohol dependence in the primary care setting through the years. One reason is the significant lack of controlled trials of disulfiram’s efficacy due to the inability to perform blind studies, since both the physician and patient must be aware of disulfiram’s side effects. The largest and most methodologically controlled trial to date is a 52 week, multi-center trial, involving 600 male alcoholic veterans randomized into three treatments: 1 mg disulfiram (inactive dosage-psychological effect), 250 mg disulfiram (active dosage), and placebo. The study found no significant differences in abstinence rates and time to first relapse between the three groups, but the 250 mg cohort that relapsed had significantly fewer drinking days compared with the other two groups. Furthermore, the study found that a greater percentage of patients who remained compliant achieved higher abstinence rates than those who were not compliant. This finding underscores another reason for disulfiram’s lack of use in primary care settings—limited efficacy due to poor compliance in unsupervised conditions. Disulfiram is likely best indicated for those that are having difficulty attaining sobriety, highly motivated to obtain complete abstinence and/or those who can be treated under supervised settings including a spouse or partner involved in the treatment program.

Clinicians must be aware that disulfiram has been associated with cases of hepatitis, neuritis, and skin eruptions. In addition, more severe ethanol-disulfiram reactions have been known to include myocardial infarction, congestive heart failure, respiratory depression, and death. Patients also must be well educated to avoid any foods or medications continued on page 12
<table>
<thead>
<tr>
<th>Medication</th>
<th>Company</th>
<th>Mechanism of Action</th>
<th>Adverse Events</th>
<th>Recommended Dose</th>
<th>Approx. Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acamprosate Campral®</td>
<td>Forest Pharmaceuticals, Inc.</td>
<td>May restore to normal the altered balance of neuronal excitation and inhibition induced by chronic alcohol exposure through possible interaction with GABA and glutamate neurotransmitter systems</td>
<td>Diarrhea, nausea, somnolence</td>
<td>333 mg enteric coated tablet for oral administration. Adults: 666 mg three times daily; moderate renal impairment (creatinine clearance 30-50 mL/min): 333 mg three times daily</td>
<td>$121.3678</td>
</tr>
<tr>
<td>Disulfiram Antabuse®</td>
<td>Odyssey Pharmaceuticals, Inc.</td>
<td>Acetaldehyde Dehydrogenase Inhibitor</td>
<td>Optic neuritis, peripheral neuritis, polyneuritis, peripheral neuropathy, hepatitis, skin eruptions, headache, drowsiness, psychoses; Disulfiram-Alcohol Reaction - flushing, throbbing headache, nausea, sweating, palpitition, tachycardia</td>
<td>250 mg tablets for oral administration. Initial: 500 mg/day in a single dose for 1-2 weeks; average maintenance dose: 250 mg daily (range 125 to 500 mg). 500 mg is maximum daily dose. Continue administration until patient establishes self-control.</td>
<td>$87.9978</td>
</tr>
<tr>
<td>Naltrexone Depade® ReVia®</td>
<td>Barr Pharmaceuticals, Inc.; Mallinckrodt, Inc.; Duramed Pharmaceuticals, Inc.</td>
<td>Opioid receptor antagonist that may block the effects of endogenous opioids</td>
<td>Nausea, headache, and nervousness</td>
<td>50 mg scored naltrexone hydrochloride tablets for oral administration. Initiation: 25 mg, if no withdrawal signs after one hour administer second 25 mg dose; maintenance: 50 mg/day (flexible).</td>
<td>ReVia 50 mg (30 ea): $222.4478 Generic: 50 mg (20 ea): $103.0478</td>
</tr>
<tr>
<td>Naltrexone Depot Vivitrol®</td>
<td>Alkermes, Inc.</td>
<td>Opioid receptor antagonist that may block the effects of endogenous opioids</td>
<td>Eosinophilic pneumonia, interstitial pneumonia, pain at injection site, nausea, abdominal pain, and somnolence</td>
<td>380 mg (in 4 mL diluent vial) by intramuscular injection. Administer every four weeks alternating buttocks</td>
<td>Wholesale acquisition cost: $695.00 per shot79</td>
</tr>
</tbody>
</table>
Emerging medications to treat alcohol use disorder
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that contain ethanol or acetaldehyde, such as vinegar and anti-tussives.

Naltrexone
Naltrexone (Depade, ReVia) is an opioid receptor antagonist approved by the FDA in 1994 for the treatment of alcohol dependence. The mechanism of how naltrexone aids alcohol dependent patients is not well understood. It is suggested that its antagonism of the μ-type and possibly δ-type opioid receptors prevents the release of dopamine in the nucleus accumbens and diminishes reward during alcohol consumption.

Two large meta-analyses analyzed naltrexone’s efficacy compared to placebo and agreed that in short term studies (less than two weeks), naltrexone is significantly superior compared to placebo in decreasing relapse rates. The COMBINE (Combined Pharmacotherapies and Behavioral Interventions) study, a recent 16 week nine-arm study involving 1,383 alcohol dependent patients demonstrated naltrexone with medical management to be significant only in increasing time to first drink compared to placebo. Greater efficacy was demonstrated with the combination of naltrexone, medical management, and cognitive behavioral therapy (CBT) as it increased the mean percent days abstinent, reduced drinks per drinking day, and reduced heavy drinking days per month compared to placebo and naltrexone with medical management groups.

Naltrexone studies demonstrated mixed efficacy. Several studies suggested that naltrexone’s effects would be more favorable if not for the poor patient compliance postulated to be primarily due to adverse effects, such as nausea, headache, fatigue, and nervousness. A published study conducted by Mark et al in 2003 found that the most common reason physicians do not prescribe naltrexone is the lack of patient compliance. Furthermore, non-adherence was found to be linked to a significant increase risk of relapse after comparing compliant to non-compliant outpatients over a 12-week period. Although non-adherence is strongly supported, it could also be argued that those who comply with the treatment are more motivated toward abstinence or more strongly believe in the drug. Of additional note, the drug is metabolized in the liver and excreted in the urine, which raises a red flag when considering its use for chronic alcohol consumers that commonly have liver injury. Patients with a family history of alcoholism, history of abuse of other substances, higher depression scores, or were diagnosed as alcohol dependent earlier in life had a better treatment response with naltrexone.

Acamprosate
Acamprosate (Campral) was approved by the FDA in 2004 and indicated to maintain alcohol abstinence among alcohol dependent patients that are abstinent at treatment initiation. The medication is known chemically as calcium acetylhomotaurinate and is a structural analogue of GABA. The exact mechanism of how acamprosate works is currently unknown, but one theory commonly supported suggests the drug helps normalize the dys-regulated NMDA receptor and glutamergic neurotransmission, which was created by chronic alcohol consumption, and observed during alcohol withdrawal. Thus, it is believed that acamprosate leads to the reduction in the physiologic severity of withdrawal and reduces the desire after achieving abstinence.

Acamprosate’s FDA approval was largely based on several early European trials demonstrating abstinence efficacy over placebo. However, analysis of all the published controlled clinical trials prior to 2006 demonstrated mixed overall clinical efficacy. This uncertainty of efficacy was based on the trials differing in patient characteristics, such as pretreatment abstinence requirements; treatment settings, such as inpatient versus outpatient, adjunct psychosocial therapies; and outcome variables. The lack of methodological standardization among the studies and questionable efficacy was addressed by two recent large US studies. Mason et al randomized 601 alcohol dependent patients into 2 g acamprosate, 3 g acamprosate, and placebo groups, and in a priori analysis of this study, there was no significant difference in the treatment efficacy between acamprosate and placebo. However, post-hoc analysis, controlling for variables believed to be important for treatment efficacy, found acamprosate to be significantly more effective in increasing the number of abstinent days compared to placebo among patients who had a baseline goal of abstinence. The COMBINE study found no significant differences in treatment efficacy between acamprosate and placebo.

It is unknown why the favorable results of the European trials were not replicated by US studies. In addition to the aforementioned differences in patient characteristics and treatment setting, it is proposed by Johnson that the difference may also be due to higher levels of adjunct psychosocial care in US trials compared to European trials and/or the small therapeutic effect of acamprosate that is favored in single-site studies versus large multi-center studies. No particular patient characteristics have been found to correlate with acamprosate success; however, strong evidence suggests acamprosate is effective in adjunct to a variety of psychotherapies, such as brief intervention.

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Emerging medications to treat alcohol use disorder
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Acamprosate will be in the primary care setting where brief intervention is highly utilized is yet to be determined.

One clear benefit of acamprosate is its excretion through the renal system, which makes it safer than other alcohol pharmacotherapies in patients with liver dysfunction. Furthermore, the drug can be used with anxiolytics, antidepressants, hypnotics, disulfiram, and naltrexone without serious complications. Common side effects include nausea, diarrhea, and somnolence.

Naltrexone Depot
The issue of compliance and adverse effects with oral naltrexone helped push the development of depot injection of naltrexone. This formulation offers the advantage of preventing the patient from discontinuing treatment, maintaining constant plasma levels, and avoiding hepatic first pass metabolism which decreases metabolites associated with severity and frequency of adverse events. Although three different naltrexone depot formulations have been investigated to date, only Vivitrol, formerly Vivitrex (Alkermes Inc. and Cephalon, Inc.), has attained FDA approval as of April 2006. Vivitrol is indicated for alcohol dependent patients who are able to abstain from alcohol in an outpatient setting prior to treatment initiation.

Although the number of published Vivitrol trials is lacking, results from recent studies have been promising. In a study conducted by Garbutt et al, alcohol dependent patients randomized to the high dose Vivitrol (380 mg) had a significantly greater reduction in heavy drinking compared with placebo. Furthermore, a subset of patients in the high dose group who had a seven day lead in abstinent period prior to first dose had a greater reduction in heavy drinking and were more likely to maintain abstinence through the study. Of note, a gender effect was observed demonstrating increased efficacy of the drug among men compared to women.

To further determine the length of lead-in abstinence necessary for treatment effect, O’Malley et al conducted a 24-week study that examined treatment efficacy among 82 alcohol dependent patients with a four-day lead-in abstinence. Four days was chosen as it better reflected the length of time of detoxification stays and would help with real world application of the drug. Compared to placebo, patients given the high dose Vivitrol (380 mg) had a significantly higher rate of abstinence at the end of the study and increased time to first heavy drinking event.

In the primary care setting, compliance is a significant issue physicians’ must continually battle against. The depot formulation overcomes the adherence issues found with the oral formulation and is much more conducive to the primary care setting, yet the depot is not immune to the adverse effects of pain at injection site, nausea, abdominal pain, and somnolence, and in more severe cases, eosinophilic and interstitial pneumonia. Both the oral and depot formulation interact with opioids and are contraindicated for patients on opioid analgesics and with physiological opioid dependence. It is recommended that patients have an opioid abstinence period of 7-10 days prior to naltrexone initiation. Furthermore, the clinician must contend with management issues when patients on depot formulation experience acute pain and require opioid analgesics. Another drawback to the depot formulation is the significantly higher cost compared to oral formulation.

Summary and Recommendations
This review provides a brief overview of pharmacotherapy for hazardous drinkers that can be used in the primary care setting. Research has shown that disulfiram, naltrexone (oral and depot injection forms), and acamprosate are effective for treating patients with alcohol problems. Best evidence suggests that non-pharmacotherapies should be used with any pharmacologic treatment of AUDs. Nonpharmacologic therapies such as behavioral therapy, motivational enhancement therapy, and 12-step programs have been shown to be effective in enhancing alcohol consumption reduction. Whitlock et al has reviewed potential nonpharmacologic therapies available in the primary care setting.

Although beyond the scope of this review, studies and reviews have been performed characterizing the effects of combining medications and comparing the medications head to head, in adjunct to different psychotherapies, and in patients with psychiatric comorbidities. Currently, there is no overwhelming evidence to support a medication for a particular type of patient and clinical setting. Thus, there is no definitive treatment for problem drinking. Disulfiram may be more appropriate in a supervised, abstinence-goal oriented environment whereas naltrexone and acamprosate may be more appropriate for patients who seek alcohol consumption reduction. Naltrexone depot may be superior to the other medications in regards to patients known to be non-compliant and motivated towards abstinence. Furthermore, caution should be used in considering these medications in the context of the patient’s other comorbidities, such as those with liver disease (i.e., disulfiram, naltrexone), renal disease (i.e., acamprosate), or those in need of opioid analgesia (i.e., naltrexone).

AUDs are a chronic medical condition, akin to hypertension or depression, and can be difficult to manage. As with any chronic medical disease, waxing and waning of treatment response should be expected. Without a “home run” treatment of AUDs, the clinician should be prepared for non-response to intensify or change treatment accordingly, and to be willing to consider switching to another agent or referral to an addiction specialist or a treatment program. As non-pharmacotherapy and pharmacotherapy is implemented, the clinician should be aware of the medical, social, and environmental consequences of alcohol consumption and attend to them as necessary to increase the potential of therapy success.

References are available at www.pamedsoc.org/counterdetails or by calling (800) 228-7823, extension 7806.
Resources for SBIRT

extensive bibliography on SBI (Publication 2006)

2) http://www.jointogether.org/keyissues/sbi/
screening-and-brief.htm
extensive listing of SBI curriculum including:

- **Boston University—Alcohol Screening and Brief Intervention Curriculum**
  This web-based tool can be used to teach skills for addressing alcohol problems (e.g. screening, assessment, brief intervention, and referral) in primary care settings, with an emphasis on cross-cultural efficacy. It includes a power point slide presentation, trainer notes, and three case-based videos demonstrating skills for addressing alcohol problems in primary care settings.
  http://www.bu.edu/act/mdlcoholtraining/index.html

- **Boston University—Emergency Department Alcohol Education Project: Screening, Brief Intervention, Referral and Treatment**
  This web site has been funded in part by the NIH, National Institute for Alcohol Abuse and Alcoholism and supported by ENA, ACEP and SAEM. The goal of this web site is to promote the adoption of screening, brief intervention and referral to treatment (SBIRT) among emergency department (ED) providers.
  http://www.ed.bmc.org/sbirt/index.htm

- **Clinical Tools, Inc—Alcohol CME Curriculum**
  Includes courses on SBI for adolescents, and adults, motivational interviewing, case study. Some are from live presentations Carolinas Conference on Addiction and Recovery in Chapel Hill, North Carolina. Credits are offered for AACME, NBCC, NYS OASAS, CAADAC, and NASW.
  http://www1.alcoholcme.com/

- **NIAAA—The College Drinking Prevention Curriculum for Health Care Providers**
  This NIAAA web-based curriculum is aimed at campus based health clinics and other health care professionals. The curriculum covers screening, brief interventions, and motivational interviewing along with a workbook, role play scenarios and an attitude exercise. It can be downloaded as a PDF document. http://www.collegedrinkingprevention.gov/NIAAACollegeMaterials/trainingmanual/contents.aspx

- **NIAAA. Social Work Curriculum on Alcohol Use Disorders**
  This curriculum includes chapters on screening and motivational interviewing for social work professionals.

- **Pennsylvania Screening, Brief Intervention, Referral and Treatment (SBIRT)**
  Pennsylvania’s Screening, Brief Intervention, Referral and Treatment (SBIRT) web site provides a variety of clinical tools, including some of the curricula noted on this page, for health care professionals doing SBI.
  http://www.ireta.org/sbirt/clinical_tools.htm

- **Project Mainstream Syllabus**
  Includes modules on Screening and Assessment, Brief Intervention, and Motivational Interviewing; improving substance abuse education for health professionals
  http://www.projectmainstream.net/projectmainstream.asp?cid=23

- **Treatment Research Institute—Multimedia Workshop on Brief Intervention for Substance Abusing Adolescents**
  This program is a computer-delivered adaptation of the Brief Intervention (“BI”) workshop that TRI Senior Scientist Ken C. Winters, PhD, developed based on research with mild drug-abusing adolescents and their parents. (The entire CD, including the workshop, manual, suggested scripts, worksheets, and a brief summary of drugs commonly abused by teenagers, is available for $100 from TRI.)
  http://www.tresearch.org/resources/resources.htm

- **Western CAPT—Brief Alcohol Screening and Intervention of College Students: A Harm Reduction Approach (BASICS)**
  This preventive intervention for college students 18 to 24 years old aims at those who drink alcohol heavily and whose behaviors put them at risk for further problems. (A BASICS Therapist Manual can be ordered for $28 from Guilford Press. Other costs include training, therapist manual, and the staff time to identify and recruit appropriate students and to deliver the intervention.)
  http://casat.unr.edu/bestpractices/view.php?program=132

- **World Health Organization, Department of Mental Health & Substance Dependence. AUDIT—Alcohol Use Disorders Identification Test: Guidelines for Use in Primary Care**
  This manual, written primarily for health care professionals, describes how to use the AUDIT to identify those with harmful alcohol consumption patterns. Those in other professions who encounter alcohol-related problems may find this manual helpful as well. http://whqlibdoc.who.int/hq/2001/WHO_MSD_MSB_01.6a.pdf

- **World Health Organization, Department of Mental Health & Substance Dependence—Brief Intervention: For Hazardous and Harmful Drinking: A Manual for Use in Primary Care**
  This manual describes how to conduct brief interventions for those with alcohol use disorders and those at risk for developing them. While designed primarily for health care professionals, this manual can also be used by others working with people with alcohol related problems. http://whqlibdoc.who.int/hq/2001/WHO_MSC_MSB_01.6b.pdf

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3) PA SBIRT BDAP Sponsored Web site: Contains the monthly PA SBIRT newsletters and brochures that physicians can utilize with their patients.
http://www.dsf.health.state.pa.us/health/cwp/view.asp?A=173&Q=246606

4) Alcohol Medical Scholars Program:
http://www.alcoholmedicalscholars.org/
promotes optimal education in medical schools regarding the identification and care of people with alcohol use disorders and other substance-related problems.

5) Alcoholscreening.org:
http://www.alcoholscreening.org/
self screening test for alcohol use; provides score and recommendations and link for treatment locator

6) American Society of Addiction Medicine:
http://www.asam.org/
increase access to and improve quality of addiction treatment; educate physicians, other health care providers and the public; support research and prevention; promote the appropriate role of physicians in the treatment of addiction; and establish addiction medicine as a primary specialty

7) Association for Medical Education and Research in Substance Abuse:
http://www.ameresa.org/
improving education in the care of individuals with substance abuse problems

8) Center for Alcohol and Addictions Studies (Brown University):
http://www.caas.brown.edu/
promote the identification, prevention, and effective treatment of alcohol and other drug use problems in our society through research, education, training, and policy advocacy

9) Ensuring Solutions to Alcohol Problems:
http://www.ensuringsolutions.org/
teach the difference between safe and risky drinking, screen for alcohol problems, cover treatment through health insurance, and supports treatment and recovery

10) Join Together:
http://www.jointogether.org/
advancing effective alcohol and drug policy, prevention and treatment

11) Leadership to Keep Children Alcohol Free:
http://www.alcoholfreechildren.org/
prevent the use of alcohol by children ages 9 to 15.

12) National Institute on Alcohol Abuse and Alcoholism (NIAAA):
http://www.niaaa.nih.gov/
leadership in the national effort to reduce alcohol-related problems by conducting and supporting research in a wide range of scientific areas including genetics, neuroscience, epidemiology, health risks and benefits of alcohol consumption, prevention, and treatment; coordinating and collaborating with other research institutes and Federal Programs on alcohol-related issues; collaborating with international, national, state, and local institutions, organizations, agencies, and programs engaged in alcohol-related work; translating and disseminating research findings to health care providers, researchers, policymakers, and the public

13) NIAAA’s College Drinking—Changing the Culture:
http://www.collegedrinkingprevention.gov/
resource for comprehensive research-based information on issues related to alcohol abuse and binge drinking among college students.

14) NIAAA’s Health Practitioner’s Guide to Helping Patients with Alcohol Problems:
written for health care and mental health practitioners to help increase knowledge, comfort and skill in dealing with issues around appropriate and inappropriate use of substances and includes screening and intervention guidelines

15) National Institute on Drug Abuse:
http://www.nida.nih.gov/
for researchers & clinicians to exchange information & collaborate on research

16) Office of National Drug Control Policy
http://www.whitehousedrugpolicy.gov/
The principal purpose of ONDCP is to establish policies, priorities, and objectives for the Nation’s drug control program. The goals of the program are to reduce illicit drug use, manufacturing, and trafficking, drug-related crime and violence, and drug-related health consequences. To achieve these goals, the Director of ONDCP is charged with producing the National Drug Control Strategy. The Strategy directs the Nation’s anti-drug efforts and establishes a program, a budget, and guidelines for cooperation among Federal, State, and local entities.

17) Physician Leadership on National Drug Policy
http://www.plndp.org/
Physicians and Lawyers for National Drug Policy (PLNDP) is a non-partisan group of the nation’s leading physicians and attorneys, whose goal is to promote and support public policy and treatment options that are scientifically-based, evidence-driven, and cost-effective.

18) Project Cork:
http://www.projectcork.org/
assemble and disseminate current, authoritative information on substance abuse for clinicians, health care providers, human service personnel, and policy makers. Project Cork produces a bibliographic database, offers current awareness services, produces resource materials, responds to queries, and collaborates in professional education efforts. The CORK database of more than 75,000 holdings is searchable online. (Dartmouth University)

19) Project Mainstream:
http://www.projectmainstream.net/
multidisciplinary modules addressing skills that generalist care professionals could perform in their settings: screening, brief intervention, and referral to treatment; identifying and assisting children of parents with substance use disorders; and helping communities implement effective prevention programs. The material, developed for Project MAINSTREAM, is
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presented in a teacher-friendly format that you are free to adapt, but please cite the source. There are also links to other useful materials.

20) PubMed:
service of the U.S. National Library of Medicine that includes over 17 million citations from MEDLINE and other life science journals for biomedical articles back to the 1950s. PubMed includes links to full text articles and other related resources.

21) Substance Abuse and Mental Health Services Administration (SAMHSA):
http://www.samhsa.gov/
The Substance Abuse and Mental Health Services Administration (SAMHSA) has established a clear vision for its work—a life in the community for everyone. To realize this vision, the Agency has sharply focused its mission on building resilience and facilitating recovery for people with or at risk for mental or substance use disorders. SAMHSA is gearing all of its resources—programs, policies and grants—toward that outcome.

22) SAMHSA's National Clearinghouse for Alcohol and Drug Information/Prevlne:
http://ncadi.samhsa.gov/
clearinghouse for publications related to all aspects of drug and alcohol issues; documents can be ordered and shipped from this web site

or at www.cabhr.uwm.edu

24) http://motivationalinterview.org/clinical/index.html
Curriculum and CME programs

25) http://www.utexas.edu/research/cswr/nida/workshops/D%27Onofrio.ppt#330,1,Screening,
Brief Intervention and Referral to Treatment—powerpoint from a presentation

26) http://www.utexas.edu/research/cswr/gcattc/First%20Friday%20SBIRT.ppt#273,1,Screening,
Brief Intervention, Referral to Treatment in a Medical Setting—powerpoint from a presentation

complete text of one of the SAMSHA TIPS on brief intervention and brief therapy - excellent resource

easy review included on the five essential steps of BI

29) http://www.csam-asam.org/pdf/misc/FlemingArticle.pdf
an SBIRT document on BI

pps#328,10,Trauma%20Center%20Results
has a piece on the efficacy of motivational interviewing—power point presentation

31) http://www.aafp.org/online/etc/mediaIib/aafp_org/
documents/clinical/pub_health/alcoholescreening/step3.
Par.0001.File.tmp/publichealth_alcoholkitstep3.pdf
review of the steps of BI

resources/draftbrief_interven_4substance_use.pdf
manual from WHO—stages of change, MI, FRAMES included in good style

training/session6.htm
excellent overview that includes FRAMES and another called FLAGS

34) http://www.mayatech.com/sbirt/tools-resources/
references.htm
extensive list of references and resources regarding SBIRT compiled by Mayatech

assessments.pdf

36) http://www.ed.bmc.org/sbirt/NASD-d-zin.cfm
site for newsletter

37) http://lib.adai.washington.edu/
screening instruments

38) http://www.ensuringsolutions.org/about/
cpt and hcpcs codes

39) http://www.mayatech.com/sbirt/tools_resources/online.htm
excellent resource

40) http://gunston.gmu.edu/730/SBIRT/default.asp
cost effectiveness analysis

41) http://hsc.unm.edu/telemedicine/Program/Newsletters/
newsletter0505/newsletter_SBIRT.htm
New Mexico telehealth
<table>
<thead>
<tr>
<th>County</th>
<th>MH/MR Drug and Alcohol Program</th>
<th>Address</th>
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</thead>
<tbody>
<tr>
<td>Allegheny</td>
<td>Mr. James Allen, SCA Administrator</td>
<td>Wood Street Commons</td>
<td>(412) 350-6956</td>
</tr>
<tr>
<td>Armstrong-Indiana</td>
<td>Ms. Kami Anderson, Executive Director</td>
<td>10829 US Route 422, PO Box 238</td>
<td>(724) 354-2746</td>
</tr>
<tr>
<td>Beaver</td>
<td>Ms. Kate Lichius, SCA Administrator</td>
<td>1050 8th Avenue</td>
<td>(724) 847-6225</td>
</tr>
<tr>
<td>Berks</td>
<td>Mr. George Vogel Jr., Executive Director</td>
<td>601 Penn Street, Ste. 600</td>
<td>(610) 376-3669</td>
</tr>
<tr>
<td>Blair</td>
<td>Ms. Judith A. Rosser, Drug &amp; Alcohol Program Admin.</td>
<td>Blair County Courthouse</td>
<td>(814) 693-3023</td>
</tr>
<tr>
<td>Bradford/Sullivan</td>
<td>Mr. Phil Cusano, SCA Director</td>
<td>220 Main Street, Unit 1</td>
<td>(717) 263-1256</td>
</tr>
<tr>
<td>Bucks</td>
<td>Ms. Margaret E. Hanna, Executive Director</td>
<td>600 Louis Drive, Ste. 102A</td>
<td>(215) 773-9313</td>
</tr>
<tr>
<td>Butler</td>
<td>Donna Jenereski, Acting Drug &amp; Alcohol Admin.</td>
<td>124 West Diamond Street</td>
<td>(724) 284-5114</td>
</tr>
<tr>
<td>Cambria</td>
<td>Mr. James Bracken, SCA Administrator</td>
<td>Central Park Complex</td>
<td>(814) 536-5388</td>
</tr>
<tr>
<td>Cameron Elk McKean</td>
<td>Mr. Andrew Lehman, SCA Executive Director</td>
<td>120 Chestnut Street</td>
<td>(814) 642-9541</td>
</tr>
<tr>
<td>Centre</td>
<td>Ms. Catherine Arbogast, SCA Administrator</td>
<td>Willowbank Building, 420 Holmes Street</td>
<td>(814) 355-6744</td>
</tr>
<tr>
<td>Chester</td>
<td>Ms. Kim Bowman, Executive Director</td>
<td>Government Services Center, Ste. 325</td>
<td>(610) 344-6620</td>
</tr>
<tr>
<td>Clarion</td>
<td>Mrs. Nicole Salvo, SCA Administrator</td>
<td>Clarion, PA 16214</td>
<td>(814) 226-7060</td>
</tr>
<tr>
<td>Clearfield</td>
<td>Ms. Mary Lash, Executive Director</td>
<td>PO Box 647, 104 Main Street</td>
<td>(814) 371-9002</td>
</tr>
<tr>
<td>Columbia Montour</td>
<td>Ms. Barbara Gorrell, Administrator</td>
<td>Terrace Building State Hospital</td>
<td>(724) 275-5422</td>
</tr>
<tr>
<td>Cumberland</td>
<td>Mr. Jack Carroll, SCA Administrator</td>
<td>Human Services Building</td>
<td>(717) 240-6300</td>
</tr>
<tr>
<td>Dauphin</td>
<td>Ms. Mavis Nimoh, SCA Administrator</td>
<td>1100 South Cameron Street</td>
<td>(717) 635-2254</td>
</tr>
<tr>
<td>Delaware</td>
<td>Mr. Ed Sulek, SCA Administrator</td>
<td>20 South 69th Street, 3rd floor</td>
<td>(610) 713-2365</td>
</tr>
<tr>
<td>Erie</td>
<td>Mr. Richard Seus, Executive Director</td>
<td>155 West 8th Street, Ste. 401</td>
<td>(610) 451-6877</td>
</tr>
<tr>
<td>Fayette</td>
<td>Ms. Deanna Sherbondy, SCA Executive Director</td>
<td>100 New Salem Road, Ste. 106</td>
<td>(724) 438-3577</td>
</tr>
<tr>
<td>Forest</td>
<td>Ms. Betsy Miller, SCA Director</td>
<td>27 Hospital Drive</td>
<td>(814) 726-2100</td>
</tr>
<tr>
<td>Franklin</td>
<td>Ms. Jodi Wadel, SCA Administrator</td>
<td>425 Franklin Farm Lane</td>
<td>(717) 263-1256</td>
</tr>
</tbody>
</table>

Continued on page 18
Resources for SBIRT
continued from page 17

Greene County Human Services Program
Ms. Cheryl Andrews, SCA Administrator
Fort Jackson Building, 3rd Floor
19 South Washington Street
Waynesburg, PA 15370
(724) 852-5276

Juniata Valley Tri-County Drug and Alcohol Abuse Commission
Mr. S. Raymond Dodson
SCA Administrator, 68 Chestnut Street
Lewistown, PA 17044
(717) 242-1446

Lackawanna County Commission on D&A Abuse
Ms. Ann Marie Santarsiero
Executive Director
135 Jefferson Avenue, 2nd Floor
Scranton, PA 18503
(570) 963-6820

Lawrence County Drug and Alcohol Commission Inc
Ms. Judy Thompson, Executive Director
First Merit Plaza, Ste. 303
25 North Mill Street
New Castle, PA 16101
(724) 658-5580

Lebanon County Commission on Drug and Alcohol Abuse
Ms. Susan F. Klarsch, Executive Director
220 East Lehman Street
Lebanon, PA 17046
(724) 274-0823

Lehigh County Drug & Alcohol Services
Ms. Darbe George, D&A Administrator
Government Center
17 South Seventh Street
Allentown, PA 18101
(610) 783-3556

Luzerne Wyoming Counties Drug and Alcohol Program
Mr. Michael D. Donahue, Administrator
Penn Place Building
20 N. Pennsylvania Ave., Ste. 218
Wilkes-Barre, PA 18701-3509
(570) 826-8790

Lycoming Clinton West Branch Drug and Alcohol Abuse Commission
Ms. Shea Madden, Executive Director
213 West Fourth Street
Williamsport, PA 17701
(570) 323-8543

Mercer County Behavioral Health Commission Inc.
Ms. Kim Anglin, SCA Administrator
8406 Sharon Mercer Road
Mercer, PA 16137
(724) 662-1550

Montgomery County MH/MR D&A Programs
Ms. Barbara A. Dery
Drug and Alcohol Administrator
Montgomery County Human Services Center
1430 Dekalb Pike, PO Box 311
Norristown, PA 19404
(610) 278-3642

Northampton County MH/MR D&A Division
Ms. Mary Carr, Executive Director
Martin J. Bechtel Building
520 East Broad Street
Bethlehem, PA 18018
(610) 997-5800

Office of Addiction Services
Mr. Marvin Levine, Deputy Director
Office of Addiction Services
1101 Market Street, 8th Floor
Philadelphia, PA 19107
(215) 685-5404

PA Association of County Drug and Alcohol Administrators (PACDAA)
Ms. Michele Denk, Executive Director
17 North Front Street
Harristown, PA 17101
(717) 232-7554

Personal Solutions Inc (Bedford)
Ms. Dawn Housel, Executive Director
145 Clark Building, Ste. 5
Bedford, PA 15522
(814) 623-5217

Potter County Drug and Alcohol Abuse Commission
Ms. Colleen Wilber, SCA Director
62 North Street
Roulette, PA 16746-0241
(814) 544-7315

Schuylkill County Drug and Alcohol
Ms. Susan Farnsworth, Administrator
108 South Claude A Lord Blvd., 2nd Fl
Pottsville, PA 17901
(570) 621-2890

Somerset County Drug and Alcohol Commission
Mr. Robert King, SCA Director
300 North Center Avenue, Ste. 360
Somerset, PA 15501
(814) 445-1530

Susquehanna County Drug and Alcohol Commission
Ms. Robin Kaminski-Waldowski
SCA Administrator
Seven Lake Avenue, 2nd Floor
PO Box 347
Montrose, PA 18801
(570) 278-1000

Tioga County Department of Human Services
Mr. Samuel Greene III, SCA Director
1873 Shumway Hill Road
Wellsville, PA 16901
(570) 724-5766

Venango County Substance Abuse Program
Ms. Bonnie Summers, SCA Administrator
City Plaza Building
21 Seneca Street, Ste. 201
Oil City, PA 16301
(814) 678-6580

Washington D&A Commission, Inc.
Mrs. Donna Murphy, Executive Director
90 West Chestnut Street, Ste. 310 T
Washington, PA 15301
(724) 223-1181

Wayne County Drug and Alcohol Commission
Ms. Bonnie Tolerico, Executive Director
318 10th Street
Honesdale, PA 18431
(570) 253-6022

Westmoreland Drug and Alcohol Commission, Inc.
Ms. Colleen Hughes, Executive Director
Mon Valley Community Health Center
Eastgate 8
Monessen, PA 15062
(724) 684-9000

York Adams Drug and Alcohol Program
Mr. Steve Warren, County MH-MR/D&A Administrator
3410-B East Market Street
York, PA 17402
(717) 840-4207

Robin Rothermel
Director of Treatment and Acting Director
Bureau of Drug and Alcohol Programs
Pennsylvania Department of Health
(717) 783-8200
rrothermel@state.pa.us
Identification of Alcohol Use Disorders in the Primary Care Setting

The Pennsylvania Medical Society is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians.

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The Pennsylvania Osteopathic Medical Association, an American Osteopathic Association accredited sponsor for continuing medical education has designated this activity for 3 credit hours in Category 2B.

To receive credit for the exam, a grade of 70 percent must be achieved. Upon completion, unless completed online, the exam should be faxed (717)-558-7848 or mailed no later than December 31, 2010, to:

The Pennsylvania Medical Society, 777 East Park Drive, P.O. Box 8820, Harrisburg, PA 17105-8820

Name __________________________ Signature __________________________

Address ____________________________________________________________

Circle the correct answer(s).

1. Alcohol is the third most prevalent cause of death in the United States with an estimated economic cost in excess of $184 billion a year.
   a. True
   b. False

2. Which of the following is/are the role(s) of the physician?
   a. Support a patient’s low-risk consumption
   b. Provide education and guidance regarding patient’s high-risk consumption
   c. Provide referral services for alcohol dependence
   d. All of the above

3. Since one of the overall goals of SBIRT is to improve the identification of substance misuse in the non-dependent, at-risk use, which of the following has the advantage of providing more comprehensive information to both physicians and patients?
   a. AUDIT
   b. CAGE
   c. CRAFFT
   d. MAST
   e. TWEAK

4. What are the three essential components of a Brief Intervention?
   a. Provide feedback
   b. Engage patient feedback
   c. Negotiate/advice a plan for behavioral change
   d. A and C
   e. All of the above

5. Which of the following are not examples of Brief Intervention Questions?
   a. Help me understand what you enjoy about drinking.
   b. Do you think your medical condition/behavior may be directly related to your drinking?
   c. Have you ever thought about your drinking and how it might affect your life?
   d. How ready are you to change any aspect of your drinking on a scale of 1 to 10?
   e. A, C, D
   f. All of the Above

6. It is important for alcohol dependent individuals to receive a higher level of care for their alcohol use, especially if it interferes with or endangers his/her or another individual’s well-being.
   a. True
   b. False

7. Non-pharmacologic treatments are the mainstay of treatment for hazardous drinking, however pharmacologic treatments have been developed to serve as an adjunct to reduce alcohol consumption and/or establish abstinence.
   a. True
   b. False

8. In the primary care setting, what per cent of outpatients drink alcohol at hazardous levels?
   a. 5 percent
   b. 10 percent
   c. 15 percent
   d. 20 percent
   e. 35 percent

9. Use of pharmacologic therapy treatment is limited in primary care settings because there is lack of awareness that effective therapy exists.
   a. True
   b. False

10. What non-pharmacologic therapies work best with the use of pharmacotherapy to enhance alcohol consumption reduction?
    a. 12-Step Program
    b. Motivational Enhancement Therapy
    c. Behavior Therapy
    d. Physical Therapy
    e. A, B, C
    f. All of the Above
This issue has been developed in partnership with the Pennsylvania Department of Health, Bureau of Drug and Alcohol Programs, The Screening, Intervention, Brief Treatment and Referral to Treatment Project and supported by the Federal Center for Substance Abuse and Treatment.

**Evaluation: Identification of Alcohol Use Disorders in the Primary Care Setting**

**Identification of Alcohol Use Disorders in the Primary Care Setting**—The following evaluation will guide the development of future programs for Pennsylvania clinicians. Please take a few moments to reply and fax your response to (717) 558-7848.

1. Using a rating of 1-5, with 5 meaning very satisfied and 1 not satisfied at all, please identify whether the monograph met the following objectives to enhance the primary care clinicians ability to:

<table>
<thead>
<tr>
<th>Objective</th>
<th>Very Satisfied</th>
<th>Not Satisfied at All</th>
</tr>
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<tbody>
<tr>
<td>Use effective communication skills to help patients understand the risks of hazardous drug and alcohol use.</td>
<td>5 4 3 2 1</td>
<td></td>
</tr>
<tr>
<td>Integrate effective motivation building techniques to the patients at risk</td>
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<td></td>
</tr>
<tr>
<td>Identify emerging medications to treat alcohol use disorders</td>
<td>5 4 3 2 1</td>
<td></td>
</tr>
<tr>
<td>Identify key resources available to the patient needing assistance</td>
<td>5 4 3 2 1</td>
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2. Was the information provided in an unbiased, credible manner?  
☐ Yes  ☐ No  
If no, why is it biased? ____________________________

3. What one thing that you learned about treatment of alcohol use disorders do you plan to implement in your practice? ____________________________

4. Do you expect to implement the SBIRT Program into your practice?  
☐ Yes  ☐ No

5. What topics would you like to learn about in the future?  
______________________________________________________

6. Overall, the information in this issue was:  
☐ Very helpful  ☐ Not very helpful  
☐ Helpful  ☐ Not helpful of all  
☐ Somewhat helpful

7. Please indicate your professional license type by checking the appropriate box.  
☐ MD  ☐ DO  ☐ PA  ☐ CRNP  ☐ Other, specify__________