IMPLEMENTATION AND EVALUATION REPORT

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Executive Summary

This report provides a description of the Alcohol Clinical Training (ACT) Project evaluation results. The Alcohol Clinical Training (ACT) Project, established by the Boston Medical Center and Boston University Schools of Medicine and Public Health, aims to disseminate research-based information and pragmatic clinical skills to increase screening and brief intervention for unhealthy alcohol use.

Practice guidelines of leading professional societies recommend alcohol screening and behavioral counseling interventions in primary care settings. Valid, brief, practical screening tools exist for the detection of unhealthy alcohol use in primary care settings, and brief interventions by physicians can reduce drinking and improve health outcomes when delivered to primary care patients with unhealthy alcohol use. However, unhealthy alcohol use in primary care is often unrecognized and untreated, as reported in studies performed well after studies demonstrating efficacy and national guidelines were issued.

To increase dissemination of research-derived information and pragmatic clinical skills to increase screening and brief intervention for unhealthy alcohol use with attention to health disparities, we have developed two distinct resources and disseminated them to target audiences using novel but well-established and accessible technologies.

- **Alcohol Screening and Brief Intervention Curriculum** - A free online curriculum for generalist clinicians, educators, and trainees that teaches skills for addressing unhealthy alcohol use in primary care settings (including screening and brief intervention)

- **Alcohol and Health: Current Evidence** – A free online newsletter that summarizes the latest clinically relevant research on alcohol and health

Evaluation data indicate that an online newsletter can reach many clinicians with the latest relevant alcohol research. An online alcohol curriculum can reach many physician educators, and in-person training increases alcohol-related teaching. These results suggest that the web is an effective dissemination tool but that additional efforts are needed to increase use of alcohol research and evidence-based practices by generalist physicians.
Alcohol Screening and Brief Intervention Curriculum

Background
The prevalence of unhealthy alcohol use is high in medical settings, in which there is an opportunity to identify unhealthy alcohol use and intervene. But physicians receive little effective education regarding unhealthy alcohol use and often fail to identify it in practice. Educational efforts about alcohol and health disparities are often separated from more mainstream medical topics and marginalized. Efforts are needed to translate existing research findings into practice. Education with effective, culturally sensitive, integrated, audience-tailored methods and materials is one necessary component for improving routine and universal medical practice in this area.

Alcohol health disparities include variations in risk for an alcohol use disorder, in recognition or diagnosis, or in treatment delivery or access, for either the alcohol problem, or for other health care because of the alcohol problem (i.e., liver transplantation). Alcohol has variable effects in different racial and ethnic groups, cultures, and affects the sexes differently. Etiologies include genetics, biologic and socio-cultural differences. Patient perception of risk and of problem use can vary. Poor physician-patient communication across cultures can decrease the effectiveness of key clinical skills such as screening and brief intervention.

Description
The Alcohol Screening and Brief Intervention Curriculum is a freely available, web-based curriculum tailored to primary care physicians. The website is designed primarily for use by generalist physician educators (e.g. those who educate other internal medicine, or family medicine, mainly resident, physicians). It addresses both unhealthy alcohol use and health disparities and delivers pragmatic clinical information to increase screening and brief intervention for unhealthy alcohol use with attention to health disparities.

The curricular goals and objectives include learners’ ability to:
  - Understand the importance of alcohol screening and intervention.
• Describe and demonstrate a practical approach to screening and brief intervention for unhealthy alcohol use in medical settings with attention to cross-cultural efficacy and health disparities.

• Using a patient-centered, evidence-based approach…
  o ASK about alcohol use
  o ASSESS severity and readiness to change
  o ADVISE cutting down or abstinence, and ASSIST in goal setting, and further treatment when necessary
  o ARRANGE follow-up to monitor progress
  o ASSURE cross-cultural efficacy by building trust through respect, eliciting patients concerns and explanatory models, mitigating power differences, and expressing empathy

The online package consists of a Core Curriculum and Related Curricula. The Core Curriculum focuses on skills and techniques regarding identification, assessment and intervention for the spectrum of alcohol use in primary health care settings. The curriculum includes slides with speaker notes and audio narration that neatly break into three sections around trigger videos demonstrating three cases: screening a drinker with no consequences, assessing and briefly counseling a drinker with health consequences, and assessing and briefly counseling a drinker with alcohol dependence.

The Related Curricula serve as supplements to the Core Curriculum to provide additional information about selected issues. First, “Health Disparities and Cultural Competence” aims to enhance primary care physicians’ ability to assure cross-cultural efficacy when assessing alcohol use, advising behavior change and arranging follow-up. This curriculum includes slides with speaker notes, a trigger video, and a case for role-play. Second, the purpose of “Pharmacotherapy” is to understand the role of pharmacotherapy in the treatment of alcohol use disorders. This curriculum includes slides with speaker notes and a handout.
Formative Efforts

Curricular Development

General Approach. The curriculum was developed with attention to adult learning principles and current guidelines for medical educators.(13;14) One of the key issues in developing a curriculum for adult learners is that they perceive the materials as particularly relevant to them. Physicians generally want to be in the position to decide whether to incorporate their new knowledge. Teachers and curricula must function more like facilitators of learning, demonstrate respect for the learner’s knowledge and build on previous experience, challenge the learner to think and problem solve, incorporate the opportunity to practice new skills, teach what the learner perceives they need to know (or help change their perception), and emphasize what can be used immediately.(15) The learner must believe that the material to learn is important, relevant and possible to master.

The ACT curriculum was developed for generalist physicians, specifically general internists, for several reasons: Most outpatient visits (57% of 85 million visits in 2004) are made to general medicine/primary care.(16) Almost one-third of all persons in the US made such a visit. Almost half of office-based physician visits are to internists.(17) General internists’ training in residency on unhealthy alcohol use is known to be inadequate.(18) Yet residency is a time when physicians establish their practice patterns. Another reason for targeting faculty to train resident physicians is that teaching hospitals and their outpatient clinics are known to care for a higher proportion of vulnerable populations than other hospitals.(19) The target audiences included both the faculty who would use the curriculum to train others, and the general internists being trained. In addition, as described in detail below, the ACT curriculum was made available to be viewed directly by learners on the web.

The method, medium and content of the curriculum was designed specifically for these targeted learners. This was done by incorporating clinical cases familiar to these physicians, being familiar with learning styles and formats well received by general internists in training, developing a curriculum that is flexible in its application in a jam-packed general curriculum, being easily available at no cost, and by integrating rather than separating health disparity issues
(to avoid further stigmatization and marginalization of the two topics). The intent of developing and making this curriculum available was to provide faculty with materials they could take “off the shelf” and use to incorporate three hours (all at once or one hour at a time, or condensable to one hour only) of alcohol education to residents. The time required for the module varies primarily due to how much role-play, question and answer is done when implemented in each local setting. One-hour time-slots are available in physician training programs, while longer times are at a premium, and less commonly available. It is important to design a curriculum for the setting in which it will be used. Certainly, more time in the curriculum is desirable, but the availability of multi-module, long curricula has not translated into the inclusion of extensive substance abuse training in generalist residency training programs.

The curriculum was designed for use by faculty who are not alcohol experts. The medium for the curriculum is Powerpoint® slide presentations with accompanying text, and video examples of physician-patient interactions. A brief guide is available regarding how to use the role-plays in teaching. In addition, ACT Project faculty are available for consultation and live question-and-answer by faculty implementing the curriculum. Therefore, the curriculum is useable “off the shelf” by physician faculty, or with input desired by them from ACT Project Faculty as needed, ranging from e-mail or telephone questions to attendance at a national training.

Resources required to implement the project included a digital video camera, video editing software, and a networked personal computer with video streaming capability, and actors for video clips.

**ACT Curriculum Faculty.** The developers of the curriculum include Drs. Richard Saitz, Daniel Alford, Sheila Chapman, and Jeffrey Samet, with consultation by Drs. Catherine Dubé and Robert Schadt. This group is comprised of committed and experienced clinical and research educators regarding unhealthy alcohol use and health disparities for physicians using proven and innovative methods. Prior to the launch of the ACT project, they had experience designing alcohol and cross-cultural efficacy curricula. They include active alcohol researchers; they had credibility as experts for the chosen target audience of generalist physicians; and they had been successful in publishing primary research and education articles and clinical review articles in the peer-reviewed scientific literature, including primary care publications. They had
successfully disseminated their work locally and nationally at professional society meetings attended by physicians, and via the Internet.

Curricular Synthesis. The screening and brief intervention materials draw heavily upon materials produced by NIAAA—the curriculum *Training Physicians in Techniques for Alcohol Screening and Brief Intervention*, and an accompanying guide to educating physicians to implement the 2003 *Physicians’ Guide to Helping Patients Who Drink Too Much: A Clinician’s Guide*. We specifically and purposefully chose NOT to create a separate curricular module on health disparities, minority health or cross-cultural issues. Separating that curricular content would have made it more likely to be viewed as a separate and distinct area, likely to be skipped or not used. We chose to integrate this information with the alcohol curriculum so that it forms one complete integrated package. We did this recognizing that these are separate academic areas and scientific bodies of knowledge. We also chose NOT to provide detailed information on the norms and issues of importance to particular ethnic and minority groups to avoid fostering stereotypes and assumptions. We do not want learners to believe that they can memorize information about an ethnic group in order to be effective across cultures. We did however include information on the epidemiology of alcohol use and problems by ethnic, gender and income groups.

The NIAAA training guide available in 2003 included a slide-based lecture and small group case discussion/role plays. The NIAAA training lecture includes the following general areas: why primary care physicians should be involved with helping patients with unhealthy alcohol use, data on alcohol consequences, and the NIAAA Physicians’ Guide approach to screening, low-risk drinking, assessment, and brief intervention. The training guide includes cases that can be a part of the training, time-permitting. The cases are for role-play of screening followed by group discussion of advice to be given.

Alcohol issues. The ACT curriculum modified the 2003 (and subsequently updated 2007 (20)) NIAAA materials to improve the applicability of the training to its intended audience and integrate health disparity issues. First, we added research findings to the beginning of the presentation that show the evidence that brief screening tests are valid, that brief intervention is
effective, and that physicians often miss the diagnosis unless a universal screening strategy is used. Evidence (and guidelines issued by national professional organizations respected by the physician in a particular specialty) helps convince physicians of the utility of adding a task to already busy patient care encounters. Evidence that brief screens exist and are valid supports that end too. Similarly, evidence regarding brief intervention success was added with some detail regarding the content and mechanics of these proven methods.

One challenge in the field of alcohol screening and intervention has been that discussions about alcohol are more complex than those about another substance commonly addressed in primary care settings, tobacco. The act of smoking is dichotomous and because there is no safe level of use, intervention aimed at abstinence is the main approach. As is clear from the research literature and algorithms in the *Physicians’ Guide*, alcohol is more complicated. Some persons can drink safely. Some may benefit from low risk drinking. The amounts associated with safe and even healthy drinking are very close to the amounts at which long-term consequences can be detected. Physician-learners must balance information about negative consequences of alcohol use and possible benefits. And patients and physicians may not recognize alcohol consequences. As a result screening, assessment and intervention for unhealthy alcohol use is much more complex. Presentations that focus exclusively on consequences may be seen as “biased” by physician-learners who are aware of the extensive literature of alcohol’s potential benefits. To address these issues, the ACT curriculum includes research data on the short-term consequences of binge drinking, and a presentation based on the distinction between safe and hazardous (risky) drinking, and the differences between risky drinking amounts, drinking with early or few consequences, and alcohol abuse and dependence.

The ACT curriculum also adds a brief section on the assessment of readiness to change and a stage-of-change-based approach (with specific sample language) to the brief intervention. This section is closely linked to cases for role-play. The section on brief intervention was expanded to include alcohol specialty consultation or referral to specialty treatment when indicated and accepted, and a brief exposure to pharmacotherapy options in the context of psychosocial therapy.
The cases in the NIAAA training guide were replaced. Two major modifications were made. First, rather than use the cases for screening followed by a group discussion of what advice to give, the emphasis was shifted to focus the case role-play on skills building around what to do with the results of screening—i.e. the content of a brief intervention tailored to the patient’s screening responses. The approach to the brief intervention is based on the principles of motivational interviewing and the stages of change. Three cases were developed that address risky drinking, problem drinking/abuse, and alcohol dependence. Faculty physician trainers and physician-learners are able to select from these cases as needed and as time allows. The second modification of the cases addresses health disparities (see below). The cases also form the basis for video clips of patient-physician interactions demonstrating screening and brief intervention, which can be used as “trigger” tapes along with the slides and role-plays. The video interactions serve as departure points for discussion, and demonstrate key skills. These skills include: screening, assessment, brief intervention, communication, empathy, understanding of the patient’s perception of illness, challenging physician assumptions, negotiation of treatment plans, and overcoming barriers to trust, among others.

Health disparities. Health disparities are addressed in the ACT curriculum in an integrated fashion, as previously discussed, based on effective patient-centered interviewing techniques, and anthropologic and cross-cultural research. Health disparities addressed in the curriculum (in addition to disparities because of unhealthy alcohol use per se) include race, gender, ethnicity, culture, and social and economic context (age, income, sexual preference, education). The epidemiology of unhealthy alcohol use by group is addressed with emphasis on breaking stereotypes. It is noted that improving cross-cultural efficacy may lead to better health outcomes, thereby lessening health disparities.

The introductory segment of the presentation includes evidence that physicians identify unhealthy alcohol use preferentially based on stereotypes and therefore often miss diagnosing alcoholism. This evidence supports the notion, and the national recommendation (2) that all adults be screened for unhealthy alcohol use (universal rather than targeted screening based on a risk factor or patient characteristic, assumed or real). Evidence is also presented supporting the efficacy of a patient-centered but directive counseling style that can be used in primary care.
settings—motivational interviewing. This interviewing approach requires assessing and understanding the patient’s view, an essential feature of efficacious cross-cultural primary medical care.

In addressing the definitions of alcohol use disorders, it was important to teach physicians self-awareness: to recognize their own cultural outlook, assumptions about others, and the fact that as humans, these perspectives limit us all. The curriculum includes specific skills training for empathy, respect and partnership with those whose perspectives the learner may not share or even understand.

The brief intervention portion of the materials includes practical suggestions on how to implement screening and brief intervention in a manner that has cross-cultural efficacy. For example, one of the keys to a successful brief intervention is the eliciting and welcoming of the patient’s point of view on, and expectations of drinking (what is a drink? what is normal drinking?).

The cross-cultural efficacy content was derived from a model (21) and curricular approach (22) that has been published in the internal medicine literature, and is therefore more likely to be used by internists. These models provided the basis for a mnemonic that summarizes the knowledge, attitudes and skills relevant to addressing racial, socioeconomic and ethnic barriers in patient care encounters—RESPECT. R=Respect, an attitude towards patients demonstrated by both verbal and non-verbal communication. E=Explanatory model, the physician’s and patient’s points of view about their illness. S=Socio-cultural context, their class, education, race, ethnicity, gender, norms, preferences and many others, that influence how patients view health problems and risks. P=Power, the need to recognize its differences between doctor and patient. E=Empathy, making certain the patient feels understood and cared for. C=Concerns and fears, which must be elicited from patients. T=Therapeutic alliance and trust, necessary conditions for any successful patient-physician encounter and for negotiating explanatory models and treatment plans.
The intent is that the cross-cultural efficacy approach be practiced during the associated role-plays. The main task is to understand a variety of explanatory models for alcohol use. For example, a patient may view alcohol as a beverage, while the physician views it as a drug. In fact, regardless of culture, patients in the precontemplation stage of readiness to change alcohol use generally have a different explanatory model for their use than the physician—the patient thinks they have no problem; the physician disagrees. The essential skills in this cross-cultural efficacy approach include three steps: 1) eliciting and understanding the meaning of the patient’s alcohol use, and how they view problem use (as applicable), 2) a social context “review of systems” to help physicians understand the context of alcohol use, and 3) a negotiation of explanatory models between patient and physician to identify areas of agreement and discrepancy in how the patient and physician understand the drinking behavior, and to identify priorities for action. Attention will also be drawn to the fact that assumptions about the physician-patient relationship may need to be open to question. For example, a patient-centered approach may discover that a patient prefers a prescriptive approach to their health care by the physician, or quite the opposite. Examples of how differences between patient and physician understanding can interfere with alcohol screening and brief intervention are included.

The cases for the role-plays all involve cross-cultural challenges in screening and brief intervention. Race or ethnicity is specifically mentioned so that the learner needs to consider the approach to screening. Cases include differing patient beliefs and explanatory models about safe and harmful drinking amounts, about what constitutes a drink, about the susceptibility to problems, and about alcohol as a voluntary or moral problem versus a more biomedical understanding.

Curricular Outline,

1. Selected health consequences of alcohol use
2. The spectrum of alcohol use: safe/healthy vs. risky, and abuse/dependence
3. Epidemiology of alcohol use and problems; socioeconomic and racial, ethnic and gender variability
4. Unhealthy alcohol use often missed, and missed differentially based on race/ethnicity/gender/socioeconomic status
5. Effects of physician culture on doctor-patient communication screening, assessment and intervention

6. Screening:
   • Evidence regarding screening tools
   • Racial, ethnic, age and gender variability in screening tool validity
   • How to screen for unhealthy alcohol use
   • Assessment of severity after screening
   • Readiness to change assessment

7. Brief Intervention:
   • Evidence of efficacy
   • Description of components
   • Cross-cultural efficacy in the care of unhealthy alcohol use (includes eliciting patient’s explanatory model)
   • Brief intervention for unhealthy alcohol use (including role-play cases)
   • Stage-based approaches (with specific statements that can be made in counseling)
   • Specialty consultation or referral
   • Pharmacotherapy in the context of psychosocial treatment

*Formative Testing and Evaluation Methods*

The curriculum was pilot tested in the following three groups of physicians for the purpose of making revisions to the curriculum based on input from learners in real practice settings caring for diverse (economically and culturally) patient populations.

- **Primary Care Internal Medical Residents.** On February 20, 2004, the curriculum was presented in a 2½-hour seminar as part of an existing series in the Primary Care Internal Medicine Residency Training Program to 11 residents in internal medicine at Boston Medical Center (BMC). Pre- and post-tests were administered and qualitative feedback was solicited.
• **Primary Care Residency Program Faculty.** On March 31, 2004, the curriculum was presented in a 1-hour session for 15 BMC primary care residency program faculty. Qualitative feedback was solicited from attendees.

• **Primary Care Physicians.** On October 19, 2004, the curriculum was tested in one half-day session for 30 practicing primary care physicians in the BMC Health Net Plan (HNP). The Plan facilitated the recruitment of physicians caring for minority patients to participate in the pilot, in part because they care for many minority and underserved patients, and in part because minority patients are known to be disproportionately served by minority physicians. Pre- and post-tests were administered.

**Implementation**

*Making the Curriculum Available on the Internet*

After producing a quality curriculum, we posted the ACT curriculum and materials on the Internet to make it more likely to be used. All curricular materials were posted on the Boston University Medical Center (BUMC) Clinical Addiction Research and Education website at www.actproject.org and are available free of charge. To access the materials, software that is essentially ubiquitous amongst physician faculty (or free on the Internet) is needed: Powerpoint®, a web browser (such as Internet Explorer® or Netscape Navigator®), and RealPlayer® or Windows Media Player® (for video). Contact information for faculty consultation is also posted at this site.

*Training the Trainers Nationwide*

**Overview.** Many curricula are developed and tested but not effectively disseminated. As a result they are not implemented with learners. In addition to the quality and content of the curriculum, it is also essential to address accessibility, ease of use, appropriateness for the targeted learners and availability of role models using the curriculum. The ACT Project has identified and trained key faculty nationwide in the use of the ACT curriculum. The secondary purpose of the training is to provide alcohol and health disparity content in person to interested faculty. However, the primary purpose is to facilitate the dissemination of the ACT curriculum to faculty in residency training programs nationwide. To that end, the ACT Project has introduced key faculty to the
curriculum in an accepted academic forum, where faculty were able to interact with the developers of the curriculum and ask questions.

The ACT Project has conducted faculty development workshops in the use of the ACT curriculum twice each year as a component of or at least linked with three national meetings of the key professional organizations, the Society of General Internal Medicine (SGIM) and the American College of Physicians-American Society of Internal Medicine (ACP), and the Association for Medical Education and Research in Substance Abuse (AMERSA). The budget for this component was developed to support a minimum of 20 trainees at each workshop.

Trainings.

- **AMERSA, November 2004** – Drs. Saitz, Alford, and Chapman conducted a 2-hour workshop for 11 substance abuse experts. Post-workshop tests were administered to participants.

- **SGIM Regional, March 2005** – Dr. Daniel Alford and Ms. Naomi Freedner conducted a 1.5-hour workshop to 3 general internists with an interest in alcohol. Post-workshop tests were administered to participants.

- **ACP, April 2005** – Drs. Saitz and Alford presented a 3-hour Pre-Course to 20 physician educators. To encourage workshop attendance, the Project provided each attendee with $500 in the form of an honorarium or reimbursement for travel expenses. A time-series quasi-experimental evaluation was implemented.

- **SGIM, April 2006** – Drs. Daniel Alford and Peter Smith and Ms. Jessica Richardson conducted a 1.5-hour workshop for 11 general internists. Post-workshop tests were administered to participants.

- **ACP, April 2006** – Drs. Saitz, Alford, and Chapman presented two 1.5-hour workshops to groups of 22 and 15 physician educators. Post-workshop evaluations were administered to participants.
Curriculum Evaluation

Formative Evaluation Results
For the purpose of making revisions to the curriculum based on input from learners in real practice settings caring for diverse (economically and culturally) patient populations, evaluations were conducted for each of the three pilot studies described above. Results include:

Primary Care Internal Medical Residents (N=11).

- Qualitative Comments
  - Case 2 & 3 patient debriefs were less helpful; participants felt they already knew everything that was confessed in the debrief. Case 1 debrief was more interesting because they got information they wouldn’t have been privy to otherwise.
  - Some participants felt the first video was unnecessary; they all know a bad physician/patient interaction. Others felt that even though they know it, it’s still a good reminder.
  - Several people thought the first case was too long
    - Too much information on screening questions and CAGE
    - Case for universal screening was belabored
  - Several of the PowerPoint slides were too wordy; consider revising some slides to mirror the NIAAA pocket-sized pamphlet included with the Clinician’s Guide.

- Pre/Post Changes
  - Beliefs: already fairly high, not much room for change
  - Confidence: increased in a) assuring patients they were understood, and b) eliciting patient health beliefs
  - Intention: no change. Of note is that intention to use the CAGE is high at both timepoints, though current use of the CAGE was low (2.8).

Primary Care Residency Program Faculty (N=15).
Qualitative comments/questions:

- What is the effect of non first-degree relatives on risk for developing unhealthy alcohol use?
• Is there any data on the efficacy of self-assessments (ACASI, etc.) for risky drinking?
• Are there mechanisms for interactivity with web-based curriculum use?
• Possibility of an audio overlay for the web module
• Integrate more information about precontemplation/denial. Perhaps another case? A few comments that most patients are in this stage. Some discussion about emphasizing the point that through physician skill building, physician-patient interactions are more likely to move beyond denial. Include the point that readiness is also a quality of the physician; when they are more skilled, both the perception of denial and an actual response of denial may be less prevalent
• Include elderly patients in health disparities information
• Patient-centered and cross-cultural are trigger words. Additionally, curriculum isn’t truly patient centered
• Emphasize more to the learner how difficult assessment/BI is. Discuss barriers more
• Case 1: too slick, too bogus (person commenting said while watching he thought there was no way this patient didn’t have a drinking problem). Will audience feel they were tricked? Consider inserting commentary about what the physician did wrong/could have done differently.
• Worry that the general public will not be comfortable using an entire presentation/curriculum that is someone else’s work, despite that being its purpose. Present more as a toolbox? Teachers can choose the pieces they want.
• Reduce video time, especially case 2 and 3 (not sure what video clips were specifically being referred to).
• Good content, well-structured
• Include data on % of patients in precontemplation
• Baer: 2x2 table on confidence/readiness. Include as a concept?

Primary Care Physicians (N=30).

• Demographics
  o Male 68%
  o Mean age: 47
  o Ethnicity/Race: Hispanic 0%, White 71%, Asian 21%, Black 7%
- Non-US born: 43%
- Parents non-US born: 46%
- English first language: 68%
- Fluent in language other than English: 50%
- Year residency completed (mean): 1991
- Type of Practice: Small group 39%, Large group 29%, Academic hospital 18%, Solo practice 14%

**Knowledge**
- Risky drinking limits–Average drinks/week - Percent responding correctly
  - For men: Pre=32%; Post=90%
  - For women: Pre=36%; Post=77%
- Risky drinking limits–Maximum drinks/occasion - Percent responding correctly
  - For men: Pre=7%; Post=93%
  - For women: Pre=21%; Post=73%
- CAGE Acronym – Percent responding correctly: Pre=29%; Post=77%
- Scenarios – Percent responding correctly

<table>
<thead>
<tr>
<th>Scenario 1</th>
<th>Pre test</th>
<th>Post test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drinking goal</td>
<td>75</td>
<td>90</td>
</tr>
<tr>
<td>Diagnosis</td>
<td>96</td>
<td>97</td>
</tr>
<tr>
<td>Stage of change</td>
<td>Action: 32; cont: 61</td>
<td>Action: 57; cont: 40</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Scenario 2</th>
<th>Cut/abstain</th>
<th>Cut/abstain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drinking goal</td>
<td>Cut: 29</td>
<td>Cut: 47</td>
</tr>
<tr>
<td></td>
<td>Abstain: 25</td>
<td>Abstain: 10</td>
</tr>
<tr>
<td>Diagnosis</td>
<td>82</td>
<td>73</td>
</tr>
<tr>
<td>Stage of change</td>
<td>96</td>
<td>90</td>
</tr>
</tbody>
</table>

- Current Practice (pre-test only) - As with the residents, physicians rarely or sometimes use the CAGE to screen. This item was markedly lower than other current practice items.
- Beliefs – Little change in beliefs, except decrease in response to the question: “I am not interested in patients’ explanations and excuses for drinking at unhealthy levels”
- Confidence – Confidence increased on 4/7 questions
- Intentions – Little change in intentions, except in response to: “Assuring patients that they are understood.”
Website Evaluation

The ACT curriculum and website are evaluated via surveys of individuals who enter the website. The first time a user enters the curriculum download page of the ACT curriculum website, he/she is required to provide an e-mail address. Two weeks later, the website automatically generates and sends an e-mail to that address, requesting that the user fill out a survey evaluation (web link to the survey is provided in the e-mail). Two weeks after that, the user is sent a reminder e-mail if he/she has not completed an evaluation. Responses to the evaluation are summarized below:

ACT Curriculum Website Evaluation Results

N=316

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>53</td>
</tr>
<tr>
<td>White</td>
<td>78</td>
</tr>
<tr>
<td>English 1st Language</td>
<td>11</td>
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<td>Position</td>
<td></td>
</tr>
<tr>
<td>Addictions Counselor</td>
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<td>Physician</td>
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<td>Social Worker</td>
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<td>Nurse or NP</td>
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<td>Addictions Specialty</td>
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<tr>
<td>Research</td>
<td>10</td>
</tr>
<tr>
<td>Administration</td>
<td>9</td>
</tr>
</tbody>
</table>
### Curriculum Use (or planned use) By Setting

<table>
<thead>
<tr>
<th>Setting</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-Learning</td>
<td>51</td>
</tr>
<tr>
<td>Resident Conference</td>
<td>25</td>
</tr>
<tr>
<td>Medical Student Course</td>
<td>14</td>
</tr>
<tr>
<td>CME Course</td>
<td>13</td>
</tr>
<tr>
<td>Grand Rounds</td>
<td>4</td>
</tr>
<tr>
<td>Morning Report</td>
<td>3</td>
</tr>
<tr>
<td>Inpatient Rounds</td>
<td>2</td>
</tr>
<tr>
<td>Teaching during Patient Care</td>
<td>30</td>
</tr>
<tr>
<td>Other</td>
<td>24</td>
</tr>
<tr>
<td>Don't plan to use it</td>
<td>3</td>
</tr>
</tbody>
</table>

### Curriculum Use (or planned use) by Feature

<table>
<thead>
<tr>
<th></th>
<th>Slides N (%)</th>
<th>Notes N (%)</th>
<th>Video N (%)</th>
<th>None N (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Case 1 (Ask)</td>
<td>174 (55)</td>
<td>144 (46)</td>
<td>122 (39)</td>
<td>43 (14)</td>
</tr>
<tr>
<td>Case 2 (Assess)</td>
<td>167 (53)</td>
<td>141 (45)</td>
<td>124 (39)</td>
<td>42 (13)</td>
</tr>
<tr>
<td>Case 3 (Advise)</td>
<td>165 (52)</td>
<td>138 (44)</td>
<td>121 (38)</td>
<td>45 (14)</td>
</tr>
</tbody>
</table>

### Rating of Curriculum Components

![Bar chart showing the rating of various curriculum components](image_url)

- **Rating*:** 1-5 Likert Scale

*Slide, Video, Website*
Website Feedback. In addition to soliciting evaluation surveys from users of the ACT curriculum website, there is also a page on the website where users can send feedback to the site manager. Examples of such feedback include:

- March 2005 - Videos are terrific. Limited access to a projector makes showing them more difficult. Much of the program is based upon the films. Possibly offer a VHS video? Also, spend a little more time on what addiction is, its phases, denial, co-dependency and other topics related to addiction. I think it helps tremendously to have good background knowledge in addition to a screening tool. Many physicians lack this training.

- March 2005 - It will be extremely helpful if you could also do some local meetings in different geographical locations around the country and doing presentations by nationally known speakers.

- March 2005 – I couldn’t get to see the curriculum because it became complicated with my computer.

- May 2006 - The National Organization Fetal Alcohol Syndrome and the HRSA Bureau of Primary Health Care are working on a project with five community health centers that will test procedures for screening women for alcohol use in order to prevent fetal alcohol spectrum disorders (FASD) and refer children with prenatal alcohol exposure for assessment. I have reviewed your excellent Core Curriculum on alcohol screening and brief intervention in the primary care setting and think it would be very effective resource for our project participants. We are coordinating a training session in Washington DC on June 12th – 14th and wondered if someone from your group would be available to present at our training session. I apologize about this very short notice; this project was literally “created” two weeks ago! I thank you for your consideration.

- May 2006 - I am interested in learning more about how this curriculum might be used in non-medical settings such as in workplaces to train HR, EAP, Work-life/HP, supervisory and other appropriate staff to effectively conduct SBI. Could someone contact me to set up a time that we can discuss my interest in your training program?

- August 2006 - I went through the training website and it is terrific. It's exactly the kind of site we were looking to create. When you say it's freely available and modifiable without permission, does that mean we can pull which videos and slides that would be
useful for the course and then create a new module geared to first year students? (of course it would be referenced). If instead, we refer students to this website, is there a way to track that each students’ use of the site and a way to get the pre and post quiz info? Students have given us very positive feedback on modules we have created and we felt this topic would lend itself well to this. Thanks very much for bringing this to my attention.

**Train the Trainers Workshop Evaluation**

To assess whether the faculty are gaining the teaching and clinical skills addressed by ACT and whether the ACT curriculum is well received and used by physician faculty, evaluations were conducted on the Train the Trainers workshops at professional medical organization national meetings. The evaluations focused on changes in skills, practices and confidence with regard to clinical implementation and teaching of brief interventions for unhealthy alcohol use in primary care settings.

**Time-series Quasi-experimental Evaluation.**

- **ACP, April 2005 – N=33**

  **Objective:** To study whether a free web-based alcohol curriculum would be used by physician educators and whether in-person faculty development would increase its use, confidence in teaching and teaching itself.

  **Methods:** Subjects were physician educators who applied to attend a workshop on the use of a web-based curriculum about alcohol screening and brief intervention and cross-cultural efficacy. All physicians were provided the curriculum web address. Intervention subjects attended a 3-hour workshop including demonstration of the website, modeling of teaching, and development of a plan for using the curriculum. All subjects completed a survey prior to and 3 months after the workshop.

  **Results:** Of 20 intervention and 13 control subjects, 19 (95%) and 10 (77%), respectively, completed follow-up. Compared to controls, intervention subjects had greater increases in confidence in teaching alcohol screening, and in the frequency of two teaching practices—teaching about screening and eliciting patient health beliefs. Teaching confidence and teaching practices improved significantly in 9 of 10 comparisons for intervention, and in 0
comparisons for control subjects. At follow-up 79% of intervention but only 50% of control subjects reported using any part of the curriculum (p=0.20).

**Conclusions:** In-person training for physician educators on the use of a web-based alcohol curriculum can increase teaching confidence and practices. Although the web is frequently used for dissemination, in-person training may be preferable to effect widespread teaching of clinical skills like alcohol screening and brief intervention.

**Characteristics of the 33 Enrolled Physician Educators**

<table>
<thead>
<tr>
<th></th>
<th>Intervention Group (N=20)</th>
<th>Control Group (N=13)</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Male (%)</strong></td>
<td>79</td>
<td>62</td>
<td>0.43</td>
</tr>
<tr>
<td><strong>Race (%)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asian</td>
<td>37</td>
<td>31</td>
<td>0.85</td>
</tr>
<tr>
<td>Black/African American</td>
<td>11</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>37</td>
<td>54</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>16</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td><strong>Hispanic (%)</strong></td>
<td>5</td>
<td>8</td>
<td>1.00</td>
</tr>
<tr>
<td><strong>English First Language (%)</strong></td>
<td>58</td>
<td>54</td>
<td>1.00</td>
</tr>
<tr>
<td><strong>Has Substance Abuse Expertise (%)</strong></td>
<td>50</td>
<td>54</td>
<td>1.00</td>
</tr>
<tr>
<td><strong>Mean Age</strong></td>
<td>41</td>
<td>45</td>
<td>0.14</td>
</tr>
<tr>
<td><strong>Mean # Fluent Languages</strong></td>
<td>2</td>
<td>1</td>
<td>0.37</td>
</tr>
<tr>
<td><strong>Mean # Years Since Residency</strong></td>
<td>10</td>
<td>11</td>
<td>0.56</td>
</tr>
</tbody>
</table>
Baseline to follow-up change in 5 domains of teaching confidence and specific teaching practices

<table>
<thead>
<tr>
<th>Teaching Confidence§</th>
<th>Intervention (N=18)†</th>
<th>Control (N=9)†</th>
<th>Between-group P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohol screening</td>
<td>+ 1.24**</td>
<td>+ 0.11</td>
<td>0.006</td>
</tr>
<tr>
<td>Assessment of readiness to change</td>
<td>+ 1.00**</td>
<td>+ 0.11</td>
<td>0.06</td>
</tr>
<tr>
<td>Counseling about alcohol problems</td>
<td>+ 1.18**</td>
<td>+ 0.44</td>
<td>0.12</td>
</tr>
<tr>
<td>Eliciting patient health beliefs</td>
<td>+ 1.29**</td>
<td>+ 0.67</td>
<td>0.23</td>
</tr>
<tr>
<td>Assuring patients that they are understood</td>
<td>+ 1.47**</td>
<td>+ 0.56</td>
<td>0.07</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Specific Teaching Practice Frequency¶</th>
<th>Intervention (N=18)†</th>
<th>Control (N=9)†</th>
<th>Between-group P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohol screening</td>
<td>+ 0.56*</td>
<td>- 0.56</td>
<td>0.02</td>
</tr>
<tr>
<td>Assessment of readiness to change</td>
<td>+ 0.44</td>
<td>- 0.44</td>
<td>0.09</td>
</tr>
<tr>
<td>Counseling about alcohol problems</td>
<td>+ 0.67*</td>
<td>- 0.22</td>
<td>0.08</td>
</tr>
<tr>
<td>Eliciting patient health beliefs</td>
<td>+ 0.81**</td>
<td>- 0.33</td>
<td>0.03</td>
</tr>
<tr>
<td>Assuring patients that they are understood</td>
<td>+ 0.94*</td>
<td>+ 0.11</td>
<td>0.18</td>
</tr>
</tbody>
</table>

* p<.05; ** p<.01; in within-group comparisons of baseline to follow-up change
† Baseline data were missing for one subject with follow-up data in each group (1 of 19 in the intervention group and 1 of 10 in the control group)
§ 5-point Likert scale, where 1=Not at all Confident and 5=Very Confident
¶ 5-point Likert scale, where 1=Rarely and 5=Always

Proportion with Curriculum Use at follow-up

<table>
<thead>
<tr>
<th></th>
<th>Intervention Group (N=19) N (%)</th>
<th>Control Group (N=10) N (%)</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any curriculum use</td>
<td>15 (79)</td>
<td>5 (50)</td>
<td>0.20</td>
</tr>
<tr>
<td>Slide Use</td>
<td>11 (58)</td>
<td>4 (40)</td>
<td>0.17</td>
</tr>
<tr>
<td>Notes Use</td>
<td>7 (37)</td>
<td>2 (20)</td>
<td>0.26</td>
</tr>
<tr>
<td>Audio Use</td>
<td>0 (0)</td>
<td>1 (10)</td>
<td>0.39</td>
</tr>
<tr>
<td>Video Use</td>
<td>3 (16)</td>
<td>1 (10)</td>
<td>1.00</td>
</tr>
</tbody>
</table>
Post-Test Evaluations

- AMERSA, November 2004 (N=11)

<table>
<thead>
<tr>
<th>Curriculum Ratings (N=11)</th>
<th>Mean^</th>
</tr>
</thead>
<tbody>
<tr>
<td>SLIDES</td>
<td></td>
</tr>
<tr>
<td>Content</td>
<td>4.7</td>
</tr>
<tr>
<td>Design</td>
<td>4.9</td>
</tr>
<tr>
<td>VIDEOS</td>
<td></td>
</tr>
<tr>
<td>Content</td>
<td>4.6</td>
</tr>
<tr>
<td>Patient/Physician Discussions</td>
<td>4.6</td>
</tr>
<tr>
<td>Patient Debriefs</td>
<td>4.7</td>
</tr>
</tbody>
</table>

^ Based on 5-pt Likert Scale where 1=Poor, 5=Excellent

<table>
<thead>
<tr>
<th>Curriculum Planned Use By Feature (N=8)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Slides</td>
</tr>
<tr>
<td>-------</td>
</tr>
<tr>
<td>Case 1 (Ask) 63</td>
</tr>
<tr>
<td>Case 2 (Assess) 63</td>
</tr>
<tr>
<td>Case 3 (Advise) 63</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Curriculum Planned Use By Setting (N=8)</th>
</tr>
</thead>
<tbody>
<tr>
<td>%</td>
</tr>
<tr>
<td>Self-Learning</td>
</tr>
<tr>
<td>Resident Conference</td>
</tr>
<tr>
<td>Medical Student Course</td>
</tr>
<tr>
<td>CME Course</td>
</tr>
<tr>
<td>Grand Rounds</td>
</tr>
<tr>
<td>Morning Report</td>
</tr>
<tr>
<td>Inpatient Rounds</td>
</tr>
<tr>
<td>Teaching during Patient Care</td>
</tr>
<tr>
<td>Other</td>
</tr>
</tbody>
</table>

Qualitative Results:

- More explicit articulation of cross-cultural component – i.e., whether power differential is truly mitigated (vs. made benevolent, rather than done away with)
- The patient reflections are not as good as the rest
- Excellent examples of good to excellent intervention
• SGIM Regional, March 2005 (N=3)

<table>
<thead>
<tr>
<th>Curriculum Ratings (N=3)</th>
<th>Mean^</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SLIDES</strong></td>
<td></td>
</tr>
<tr>
<td>Content</td>
<td>4.3</td>
</tr>
<tr>
<td>Design</td>
<td>4.3</td>
</tr>
<tr>
<td><strong>VIDEOS</strong></td>
<td></td>
</tr>
<tr>
<td>Content</td>
<td>4.3</td>
</tr>
<tr>
<td>Patient/Physician Discussions</td>
<td>5.0</td>
</tr>
<tr>
<td>Patient Debriefs</td>
<td>5.0</td>
</tr>
</tbody>
</table>

^ Based on 5-pt Likert Scale where 1=Poor, 5=Excellent

<table>
<thead>
<tr>
<th>Curriculum Planned Use By Feature</th>
<th>Slides %</th>
<th>Notes %</th>
<th>Video %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Case 1 (Ask)</td>
<td>33</td>
<td>33</td>
<td>33</td>
</tr>
<tr>
<td>Case 2 (Assess)</td>
<td>33</td>
<td>33</td>
<td>33</td>
</tr>
<tr>
<td>Case 3 (Advise)</td>
<td>33</td>
<td>33</td>
<td>33</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Curriculum Planned Use By Setting</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resident Conference</td>
<td>33</td>
</tr>
<tr>
<td>CME Course</td>
<td>33</td>
</tr>
</tbody>
</table>

• SGIM, April 2006 (N=11)

<table>
<thead>
<tr>
<th>Ratings (N=8)</th>
<th>Mean</th>
<th>Anchors of Rating Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall Session Rating</td>
<td>4.12</td>
<td>1=Poor, 5=Outstanding</td>
</tr>
<tr>
<td>Quality of Content</td>
<td>4.11</td>
<td>1=Poor, 5=Outstanding</td>
</tr>
<tr>
<td>Quality of Handouts</td>
<td>4.37</td>
<td>1=Poor, 5=Outstanding</td>
</tr>
<tr>
<td>Faculty Presenters</td>
<td>4.11</td>
<td>1=Poor, 5=Outstanding</td>
</tr>
<tr>
<td>Audiovisual Materials</td>
<td>4.16</td>
<td>1=Poor, 5=Outstanding</td>
</tr>
<tr>
<td>Audience Interaction</td>
<td>4.11</td>
<td>1=Poor, 5=Outstanding</td>
</tr>
<tr>
<td>Prior Knowledge of Topic</td>
<td>6.55</td>
<td>1=Poor, 10=Expert</td>
</tr>
<tr>
<td>Audience Size</td>
<td>1.37</td>
<td>1=Too Small, 3=Too Big</td>
</tr>
<tr>
<td>Likelihood of Change</td>
<td>3.25</td>
<td>1=Definitely will not change, 5=Extremely likely to change</td>
</tr>
<tr>
<td>Would Recommend</td>
<td>3.82</td>
<td>1=No, 5=Definitely</td>
</tr>
</tbody>
</table>
Session 1

<table>
<thead>
<tr>
<th>Curriculum Ratings (N=22)</th>
<th>Mean^</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall Quality of Session</td>
<td>4.35</td>
</tr>
<tr>
<td>Addressed Stated Clinical Question</td>
<td>4.65</td>
</tr>
<tr>
<td>Learned Something New, Will Apply in Practice</td>
<td>4.82</td>
</tr>
<tr>
<td>Balanced Presentation</td>
<td>4.69</td>
</tr>
<tr>
<td>Faculty</td>
<td>4.61</td>
</tr>
</tbody>
</table>

^ Based on 5-pt Likert Scale where 1=Poor, 5=Excellent

Session 2

<table>
<thead>
<tr>
<th>Curriculum Ratings (N=15)</th>
<th>Mean^</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall Quality of Session</td>
<td>4.67</td>
</tr>
<tr>
<td>Addressed Stated Clinical Question</td>
<td>4.92</td>
</tr>
<tr>
<td>Learned Something New, Will Apply in Practice</td>
<td>4.92</td>
</tr>
<tr>
<td>Balanced Presentation</td>
<td>4.75</td>
</tr>
<tr>
<td>Faculty</td>
<td>4.55</td>
</tr>
</tbody>
</table>

^ Based on 5-pt Likert Scale where 1=Poor, 5=Excellent

Abstract Publications – See Appendix for poster presentations


Discussion

An online alcohol curriculum can reach many physician educators, and in-person training increases alcohol-related teaching. These results suggest that the web is an effective dissemination tool for educational materials but that additional efforts are needed to increase use of alcohol research and evidence-based practices by generalist physicians. The existing website will require continued attention, both for updating as well as for dissemination to educators. Although specific additions or changes are not planned at the moment, there is potential for expansion in several areas. For example, although the curriculum was designed for educators, many learners have used it for self-learning. Adjustments could be made to make the site more appropriate for this use (e.g. CME credits, language aimed at learners rather than teachers). Another expansion that would make logical sense would be to include screening and intervention for other drug problems, and pain management/opioid misuse. Additional modules would include medication management counseling, comorbidity (particularly psychiatric), how to implement screening and intervention in practice, and special populations (e.g. children). But as currently deployed, the curriculum website is a free, usable, useful resource for educators to train generalist physicians in alcohol screening, brief intervention, and cross-cultural efficacy.
Alcohol and Health: Current Evidence

Background

We created the newsletter *Alcohol and Health: Current Evidence (AHCE)* ([www.alcoholandhealth.org](http://www.alcoholandhealth.org)) to fill an important gap in the medical literature. Before AHCE’s inception, no alcohol-related publications directed at primary care physicians (PCPs) focused on the spectrum of alcohol and health issues, including health disparities. Further, available research-summary publications did not necessarily serve all of the needs of practicing generalist clinicians. These publications are often too long for busy clinicians, available by paid subscription only, copyrighted, not tailored to PCPs, and not distributed on the Web. We felt that an evidence-based newsletter that integrated health disparity issues and was distributed by novel—but well-established and accessible—technologies would contribute substantially to the dissemination of research findings into primary care practice.

By creating and distributing this evidence-based newsletter, we hoped to raise the “status” of unhealthy alcohol use in both academic and clinical practice culture. PCPs often miss the diagnosis of unhealthy alcohol use. Also, because of the effects of alcohol on adherence to medical care and physician-patient relationships, patients with unhealthy alcohol use may receive less than adequate treatment for other conditions. Furthermore, physicians sometimes perceive alcoholism as less satisfying to treat and less treatable than other medical conditions and thus delegate responsibilities for screening and intervention to others. We hoped that a research-based newsletter would emphasize the importance of addressing alcohol issues and provide information of the same quality (to which physicians have become accustomed) as that available on other illnesses, such as asthma, heart disease, diabetes, and cancer.
Description

_Alcohol and Health: Current Evidence_ is a free online newsletter that summarizes the latest clinically relevant research on alcohol and health. Through its summaries and other features, the newsletter aims to highlight alcohol issues and provide valuable information that can be applied in clinical teaching, practice, and research.

Published every two months, the newsletter includes the following features:

- Succinct and timely summaries of important alcohol research published in peer-reviewed journals; these summaries, which include commentary relevant to primary care practice, are written by physicians with clinical, research, and educational expertise in alcohol-related issues
- Particular focus on the latest research on alcohol and health disparities (e.g., gender, race, ethnicity, age, socioeconomic status)
- PowerPoint slide presentations that can be downloaded and used as teaching tools:
  - Update on Alcohol and Health, a “grand-rounds-like” presentation of the research summaries in the newsletter
  - Journal Club, which critically appraises a study highlighted in the newsletter using the _User's Guides to the Medical Literature_
- Free Continuing Medical Education (CME) credits
- Other Web-specific features to enhance the users’ experience, including a PDF version of the newsletter’s content, an option to subscribe to receive an “e-mail alert” each time a new issue of the newsletter is published, a search function, feedback form, and links to educational resources

For a “snapshot” of how some of these features appear on the newsletter site, see Appendix C1.

Implementation

_Editorial Board and Other Staff_

The following Editorial Board provides content for each issue of _AHCE_, including research summaries and questions for CME tests:
Richard Saitz, MD, MPH, FASAM, FACP
Editor
Professor of Medicine and Epidemiology
Associate Director, Youth Alcohol Prevention Center
Director, Clinical Addiction Research and Education Unit
Section of General Internal Medicine
Boston Medical Center
Boston University Schools of Medicine and Public Health

R. Curtis Ellison, MD
Co-Editor
Professor of Medicine and Public Health
Chief, Section of Preventive Medicine and Epidemiology,
Evans Department of Medicine
Director, Institute on Lifestyle and Health
Boston University School of Medicine

Joseph Conigliaro, MD, MPH, FACP
Associate Editor
Director, Program for Quality, Safety and Patient Rights
University of Kentucky Medical Center

Peter D. Friedmann, MD, MPH
Associate Editor
Associate Professor of Medicine and Community Health
Division of General Internal Medicine
Rhode Island Hospital
Brown Medical School
Kevin L. Kraemer, MD, MSc
Associate Editor
Associate Professor of Medicine and Health Policy and Management
Director, General Internal Medicine Fellowship Program
Division of General Internal Medicine
University of Pittsburgh Schools of Medicine and Public Health

Jeffrey H. Samet, MD, MA, MPH
Associate Editor
Professor of Medicine and Social and Behavioral Sciences
Chief, Section of General Internal Medicine
Boston Medical Center
Boston University Schools of Medicine and Public Health

Rosanne T. Guerriero, MPH
Managing Editor
Boston Medical Center

In addition to the above Editorial Board, various consultants at Boston University and Boston University School of Medicine have contributed to the newsletter. Rob Schadt, Ph.D., John McCall, the Data Coordinating Center, and Network Information Systems helped to design the site and create its databases (e.g., for subscriber information and feedback).

Editorial Process
Each member of the Editorial Board is assigned journals to review. From those journals (approximately 170 reviewed overall; see Appendix C2), editors generally choose 2 noteworthy alcohol-related articles to summarize. In addition, the Editor and Managing Editor run queries of various databases (e.g., Web of Knowledge) to identify important alcohol research and will notify the other editors if they identify an article “worthy” (relevant to primary care practice) of coverage.
The Editor and Managing Editor edit the “research summaries” (described further below) and send them to the Editorial Board for final review. Once finalized, the summaries are ordered according to “importance” (e.g., clinical soundness of the article, relevancy to primary care) and categorized by topic (e.g., Alcohol and Health Outcomes, Assessments and Interventions). Finalized research summaries are then used to create other website features, including the Update on Alcohol and Health presentation, the Journal Club presentation, and the Continuing Medical Education activity (each described below).

All features are uploaded to the website via Contribute, a content management software, and Dreamweaver, a web design and development software. Content of the research summaries is also entered into a database to allow visitors to search the site by various fields (e.g., keyword, date).

**Newsletter Features**

**Research summaries.** AHCE research summaries are based on high quality articles that are relevant to practicing clinicians. These articles report on primary or synthesis research in human subjects (e.g., systematic reviews, decision and cost-effectiveness analyses, clinical trials, epidemiologic and health services research studies) or promising basic and animal research that has clear implications for patients now or in the future. Articles on health disparities are given special consideration by the editors as they choose content for the newsletter.

Each issue of AHCE (which is published every 2 months) has about 12-14 research summaries. Research summaries are generally 250 words or shorter and contain a title, brief introduction, methods, results, commentary to put the study in practical clinical context, and a reference. Generally, the summaries fall into one of the following categories: Alcohol and Health Outcomes, Assessments and Interventions, Special Populations, and Journal Alerts (which alert readers to a recent journal that has dedicated an issue to an alcohol-related topic). For a sample research summary, see Appendix C3.

**Update on Alcohol and Health slide presentation.** Update on Alcohol and Health is a "grand-rounds-like" PowerPoint presentation that mirrors the content of each newsletter. Each
presentation generally includes 45–65 slides. Visitors can download the presentations and make any changes they deem necessary to fit their teaching needs.

**Journal Club slide presentation.** These presentations are geared towards anyone who leads a Journal Club session. They provide a critical appraisal, based on recommendations from the *Users’ Guides to the Medical Literature*, of a study summarized in the newsletter.

The types of Journal Club presentations include the following: harm, therapy, prognosis, diagnostic tests, using review articles, subgroup analyses, and economic analysis of clinical practice.

**Continuing Medical Education (CME) activities.** Each issue of the newsletter offers a free CME activity. The activity involves reading a specific issue of *AHCE* and then completing a multiple-choice test of 6 questions that assesses comprehension of the information presented in that issue. CME credit (a maximum of 1.5 AMA PRA Category 1 Credits™ and commensurate with the extent of participation in the activity) is awarded to participants achieving a score of 70% or better. Non-physician healthcare professionals can receive a certificate of completion.

After successfully completing a CME activity, participants will be able to
- recognize the importance of addressing unhealthy alcohol use in primary care settings;
- state the latest research findings on alcohol and health;
- when possible, incorporate the latest research findings into their clinical practice;
- articulate and increase their sensitivity to issues of alcohol and health disparities.

For information on CME utilization, see Evaluation.

**Dissemination**

Visitors to the site can subscribe for E-mail Alerts, which will notify them each time a new issue of *AHCE* is published. The Editor has also distributed the PDF version of the newsletter at various national meetings related to alcohol. Further, the content of *AHCE* summaries and/or the link to www.alcoholandhealth.org are also provided on related websites, including
www.jointogether.org (the website for Join Together). For an additional list of websites that link to ours, see Referring Sites under Overall ACT Evaluation.

Evaluation

We collect a wide range of data to help us evaluate the newsletter and website:

Subscriber Demographics

Approximately 1550 people subscribe to the newsletter. The most common groups of subscribers include the following: addictions counselors (20%), physicians (14%), and administrators/managers (11%). Most consider addictions as their specialty, completed clinical training/certification, and focus on clinical care.

*Data on other was collected only after September 2004.
Subscriber Feedback from Survey

In November 2006, we surveyed subscribers to collect their feedback on the newsletter. About 12% (176) of all subscribers completed the survey. As indicated below, feedback was overwhelmingly positive:

- 81% were very or extremely satisfied with the website content
- 92% felt the research summaries were very or extremely useful.
- Almost all reported the newsletter was useful to their clinical practice, research, or teaching.
- Almost one-fourth of respondents have used an Update on Alcohol and Health or Journal Club presentation while teaching or presenting.
- Over 60% read at least half of the summaries in each issue.
- Comments included the following:
  - This is one of the most helpful newsletters I receive.
  - This is one of the few reliable sources for information on alcohol.
This is an amazing resource, and I hope that you can continue it.

It's a great resource that is quick and easy to use.

I love this newsletter! Because it is a succinct summary of timely research, I share it with generalist physicians who have not been formally trained in alcohol screening, intervention, and referral.

Excellent resource with the perfect balance for me of concise information but with enough detail to allow me to determine whether or not I need to examine the original source or not.

Excellent content, very useful. Best online material I receive.

For more detailed survey results, see Appendix C5.

General Feedback
We have received approximately 70 e-mails and comments via an online feedback form about the newsletter. These e-mails can be grouped into the following categories:

- Recommendations for specific articles/topics to include in AHCE (e.g., GHB addiction, alcohol and injuries)
- Requests to add a link to AHCE’s “Links” page (e.g., academic sites, recovery sites)
- General/technical questions about the site (e.g., requests to reproduce materials)
- Requests for additional information about one of the research summaries
- Requests for specific alcohol-related information (e.g., screening tools, experts to interview)
- General feedback, such as…
  - Just looked at Alcohol and Health: Current Evidence and you did an outstanding job.
  - This is a very informative online newsletter. I will be using the newsletter when I teach research to the nursing students…
  - I have just found your excellent alcoholandhealth website and newsletter. Can’t quite believe I had not come across this before as it is very good.
Congratulations on the new “Alcohol and Health” issue. A great selection and nice summaries.

Just want to tell you what a great service the letter is. Please keep up the good work.

This was great—thank you.

This is an excellent resource which I’ve been forwarding to everyone I know.

Thanks for providing this service…it is very helpful!

Congrats on getting this up and running. The site looks great.

This is a great resource…

This is awesome what your group is doing. Please keep this going strong…I especially find the updates and journal club presentation section most helpful.

I work in a parole agency and learn so much from your articles. We have substance abuse problems with the majority of our parolees and I print out your articles for others to read. Keep the good work coming!

Thanks for your useful info on characteristics of those who exceed the risky drinking limits…

Thanks so much for your wonderful work!

Just wanted to let you know that your Current Evidence service is a valuable resource to me in my practice as a doctor…

Web trends
The number of website pages visited has steadily increased since the newsletter’s inception—from 6,625 pages in May 2004 (the date of our first issue) to 44,948 in March 2007 (the month in which the last issue was published). Given that 5,426 individuals viewed www.actproject.org (either the newsletter or the curriculum) in April 2007, the average number of page views per viewer is at least 8.

The chart below indicates the most popular features, other than the research summaries, on average per month (based on data from November 2006, January 2007, and March 2007, months in which a new issue was published):
On average, one research summary receives about 520 hits over 2 months. Below is a listing of the most popular research summaries for the last 3 issues of *AHCE*:

**March-April 2007**
- All Relapses Are Not The Same (422 hits in March)
- Alcohol Intake Triggers Recurrent Gout Attacks (313 hits in March)
- Early-Onset Drinking May Increase Later Stress-Related Drinking (278 hits in March)

**January-February 2007**
- Brief Intervention in Primary Care: Does It Really Work in Practice? (351 hits in January)
- Moderate Drinking Lowers MI Risk in Men With Healthy Lifestyles (339 hits in January)
- Early-Onset Alcohol Dependence Is More Severe (322 hits in January)
November-December 2006

- Study Does Not Confirm Brief Intervention’s Efficacy (488 hits in November)
- Primary Care Clinicians Lack Comfort and Skills in Discussing Alcohol Use (465 hits in November)
- Moderate Drinking Impairs the Ability to See (437 hits in November)

For more information on web trends, please see the Overall ACT Evaluation.

**Continuing Medical Education**

Since we began to offer tests for CME credit in July of 2004, 110 people have taken a total of 468 tests. While most test takers are MDs, Doctors of Osteopathic Medicine, Physician Assistants, or Certified Nurse Midwives (63%), many are from the substance use and mental health counseling fields.

Interestingly, 51% of test takers have taken more than one test. Of tests taken, 96% have been passed on one or two tries. Seventy-five percent of the tests were completed in 1.5 or more hours; 21% were completed in about 1 hour.

Test takers appear to be pleased with the CME offerings, according to feedback on survey questions:

- This box describes the confidence of test takers on a number of variables related to the CME offering (5 indicates the highest level of confidence).

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>I am confident that I can recognize the importance of addressing alcohol problems in primary care settings. (n=340)</td>
<td>1%</td>
<td>4%</td>
<td>12%</td>
<td>48%</td>
<td>36%</td>
</tr>
<tr>
<td>I am confident that I can state the latest research findings on alcohol and health. (n=337)</td>
<td>1%</td>
<td>4%</td>
<td>21%</td>
<td>51%</td>
<td>23%</td>
</tr>
<tr>
<td>I am confident that I can incorporate the latest research findings into my clinical practice, when appropriate. (n=336)</td>
<td>1%</td>
<td>5%</td>
<td>15%</td>
<td>52%</td>
<td>28%</td>
</tr>
<tr>
<td>I am confident that I can articulate issues of alcohol and health disparities. (n=336)</td>
<td>1%</td>
<td>2%</td>
<td>20%</td>
<td>51%</td>
<td>26%</td>
</tr>
</tbody>
</table>
• When asked which types of research summaries covered in a particular CME activity were *most* interesting, test takers offered a range of responses. Some topics listed more than once included alcohol and pregnancy/fetal alcohol syndrome, adolescent issues, elderly issues, alcohol and cancer risks, and interventions.

• When asked which types of summaries were *least* interesting, test takers generally stated most of the summaries were useful.

• In 125 instances, test takers indicated that they would change their practices as a result of a particular CME activity; in 146 instances, they would not change their practices. When asked how they would change their practices, many test takers stated they would increase or improve their screening and counseling efforts. In particular, test takers would increase/improve these efforts in the following groups: adolescents, women, minority women, emergency-department patients, and different ethnic groups.

• Test takers suggested the following when asked which types of research articles they would like to see summarized in the future: summaries similar to current offerings, latest screening methods, co-existing disorders, other substance use, interventions, youth issues, and special populations.

• Lastly, most test takers stated they had no suggestions for improvements. Some added the following comments:
  - Excellent
  - Great publication
  - More of the same
  - Very good
  - The summaries are clear and to the point
  - This is a very nice service. Thanks!
Discussion

*Alcohol and Health: Current Evidence* has been a success with readers who value its concise, expert-reviewed content. It has filled a niche.

While an online newsletter can reach many clinicians with the latest, relevant alcohol research, additional efforts are required to specifically reach generalist clinicians/primary care physicians. Further, although the web can effectively disseminate information, other strategies are needed to increase generalist physicians’ use of alcohol research and evidence-based practices. Efforts to bolster use of the newsletter’s educational tools (e.g., slide presentations) are also important. These tools are valued highly by the few educators who use them but can prove valuable to even a larger audience.

Future strategies to disseminate the newsletter should also target nonphysician readers, who already make up a substantial proportion of our current readers. One concrete step to increase value to other audiences would be to award continuing education units for professions other than medicine. Lastly, a broader content focus, including coverage of tobacco and other drugs, may be of interest to readers.

With support from the National Institute on Drug Abuse and NIAAA, we are able to continue the newsletter in an expanded form. In May 2007, *Alcohol and Health: Current Evidence* became *Alcohol, Other Drugs, and Health: Current Evidence* (www.aodhealth.org). This newsletter summarizes the latest clinically relevant research on *both* alcohol and other drugs (but not tobacco). Additional dissemination efforts are planned for this expanded website.

The editorial board for *Alcohol, Other Drugs, and Health: Current Evidence* includes the following:
Richard Saitz, MD, MPH, FASAM, FACP
Editor
Professor of Medicine and Epidemiology
Associate Director, Youth Alcohol Prevention Center
Director, Clinical Addiction Research and Education (CARE) Unit
Section of General Internal Medicine
Boston Medical Center
Boston University Schools of Medicine and Public Health

David A. Fiellin, MD
Co-Editor
Associate Professor of Medicine
Section of General Internal Medicine
Yale University School of Medicine

Julia H. Arnsten, MD, MPH
Associate Editor
Associate Professor of Medicine, Epidemiology, and Psychiatry
Chief, Division of General Internal Medicine
Albert Einstein College of Medicine
Montefiore Medical Center

R. Curtis Ellison, MD
Associate Editor
Professor of Medicine and Public Health
Chief, Section of Preventive Medicine and Epidemiology
Evans Department of Medicine
Director, Institute on Lifestyle and Health
Boston University School of Medicine
Peter D. Friedmann, MD, MPH
Associate Editor
Associate Professor of Medicine and Community Health
Director, Program to Integrate Psychosocial and Health Services in Chronic Disease and Disability
Providence VA Medical Center
Division of General Internal Medicine
Rhode Island Hospital
Warren Alpert Medical School of Brown University

Marc N. Gourevitch, MD, MPH
Associate Editor
Dr. Adolph and Margaret Berger Professor of Medicine
Director, Division of General Internal Medicine
New York University School of Medicine

Kevin L. Kraemer, MD, MSc
Associate Editor
Associate Professor of Medicine and Health Policy and Management
Director, General Internal Medicine Fellowship Program
Division of General Internal Medicine
University of Pittsburgh Schools of Medicine and Public Health

Jeffrey H. Samet, MD, MA, MPH
Associate Editor
Professor of Medicine and Social and Behavioral Sciences
Chief, Section of General Internal Medicine
Boston Medical Center
Boston University Schools of Medicine and Public Health
Marketing of the ACT Curriculum and Online Newsletter

In addition to making the curriculum and newsletter available online and conducting Train the Trainers workshops on using the curriculum, we have disseminated and marketed these resources through various other modes.

National Meetings – Exhibits and Poster Presentation
The ACT curriculum and newsletter were presented and demonstrated as an exhibit at the April 2004 national meeting of the Society of General Internal Medicine (SGIM) (see Appendix for banner). Exhibits at SGIM are education and practice oriented, generally attended by nonprofit exhibitors. The project was also displayed as an exhibit at the national annual meeting of the Association for Medical Education and Research on Substance Abuse (AMERSA).

Diffusion Among Key Faculty

E-mail Notices
Short e-mails advertising the ACT products have been sent to program directors nationwide. These directors were asked to distribute our message (either by forwarding the e-mail or through another mechanism) to appropriate faculty in their program.

- Boston Medical Center Medicine Faculty – E-mail sent from the ad interim Chairman of Medicine in 7/2005
- Chief Resident Immersion Training (CRIT) Program – E-mails sent to all alumni from CRIT Program Manager in 8/2004 and 10/2005. As of 2007, all CRIT participants receive an automatic subscription, thereby reaching a sample of chief residents (educators) and their trainees nationwide.
- SGIM Substance Abuse task force – E-mails sent to the listserv from the list manager in 6/2004 and 7/2006
- Association for Medical Education and Research in Substance Abuse (AMERSA) – E-mail sent to members from the Executive Director of AMERSA in 7/2004 and 8/2006. E-mail sent to interested subscribers who signed a sign-up sheet at 2004 national meeting in 10/2004
- Research Society on Alcoholism (RSA) – E-mail sent to members in 10/2004 and 8/2006
• American College of Physicians (ACP) –E-mail sent to the ACT Weekly Observer list in 7/2004
• Association of Program Directors in Internal Medicine (APDIM) –E-mail sent to members from the president of the organization in 7/2004 and 8/2006
• National Institute on Alcohol Abuse and Alcoholism (NIAAA) –E-mail sent to members in 10/2004
• Join Together- E-mail sent to listserv in 10/2004
• BU CME listserv/CME events –E-mail sent to members in 10/2005

Advertisements
Advertisements were placed in several online and print journals (see Appendix for example).

• Eye on the Field- Free advertisement in online newsletter in 11/2004
• American Association of Patients and Physicians –Free advertisement in online newsletter in 3/2005
• Association of Teachers in Preventive Medicine (ATPM)– Free advertisement in online newsletter in 8/2005
• SGIM eNews –Free advertisement in online newsletter in 1/2006
• Society for Teachers of Family Medicine (STFM) and American Academy of Family Physicians (AAFP) - Sent ACT Postcards (see Appendix) to 20,500 members via postal mail in 3/2006
• SGIM Forum –Paid advertisement in online/print journal in 5/2006
• Family Medicine –Paid advertisement in print journal in 5/2006

Along with the advertisements that we have placed, the newsletter and curriculum are publicized by various websites who choose to link with us. For more information see Referring Sites.

Promotional Items
We purchased and disseminated: Postcards (see Appendix for examples), post-its, and pens to promote the ACT products.
Overall ACT Evaluation – Curriculum and Newsletter

We collected website statistics/trends for the overall ACT website (i.e., inclusive of both the curriculum and newsletter sites). The Page Requests outcome can be separated for the two projects and is described below for each.

Page Requests

Referring Sites

Many visitors to both the curriculum and newsletter websites were “referred” by search engines. The search engines that generated the most “hits” to our websites, on average in February, March, and April 2007, include the following:
<table>
<thead>
<tr>
<th>Search engine</th>
<th># of hits to our websites based on search activity</th>
</tr>
</thead>
<tbody>
<tr>
<td><a href="http://www.google.com">http://www.google.com</a></td>
<td>843</td>
</tr>
<tr>
<td><a href="http://search.yahoo.com">http://search.yahoo.com</a></td>
<td>183</td>
</tr>
<tr>
<td><a href="http://search.msn.com/">http://search.msn.com/</a></td>
<td>40</td>
</tr>
<tr>
<td><a href="http://www.ask.com">http://www.ask.com</a></td>
<td>34</td>
</tr>
<tr>
<td><a href="http://aolsearch.aol.com">http://aolsearch.aol.com</a></td>
<td>9</td>
</tr>
</tbody>
</table>

A range of other websites link to the curriculum and/or newsletter websites. Visitors who found our websites indirectly were most frequently referred by the below websites (on average for February, March, and April 2007):

<table>
<thead>
<tr>
<th>Website</th>
<th># hits to ACT websites from the referring website</th>
</tr>
</thead>
<tbody>
<tr>
<td><a href="http://www.alkoholpolitik.ch/">http://www.alkoholpolitik.ch/</a> - (highlights world news on alcohol)</td>
<td>92</td>
</tr>
<tr>
<td><a href="http://en.wikipedia.org/">http://en.wikipedia.org/</a> - (the “free encyclopedia that anyone can edit”)</td>
<td>88</td>
</tr>
<tr>
<td><a href="http://sbirt.samhsa.gov/">http://sbirt.samhsa.gov/</a> - (information about SBIRT, a SAMHSA initiative)</td>
<td>69</td>
</tr>
<tr>
<td><a href="http://www.jointogether.org/-">http://www.jointogether.org/-</a> (information on alcohol and other drug prev and treatment)</td>
<td>57</td>
</tr>
<tr>
<td><a href="http://alcoholreports.blogspot.com/-">http://alcoholreports.blogspot.com/-</a> (blog serving as an international clearinghouse for alcohol information)</td>
<td>22</td>
</tr>
<tr>
<td><a href="http://www.ozrecover.net/-">http://www.ozrecover.net/-</a> (a site for people in recovery)</td>
<td>17</td>
</tr>
<tr>
<td><a href="http://healthyhorns.utexas.edu/-">http://healthyhorns.utexas.edu/-</a> (university health services at the University of Texas)</td>
<td>9</td>
</tr>
<tr>
<td><a href="http://www.dailydose.net/-">http://www.dailydose.net/-</a> (“the world’s leading drug and alcohol news services”)</td>
<td>7</td>
</tr>
<tr>
<td><a href="http://www.facesandvoicesofrecovery.org/-">http://www.facesandvoicesofrecovery.org/-</a> (“organizing the recovery community”)</td>
<td>5</td>
</tr>
</tbody>
</table>
References


Appendices

Appendix A. Joint Materials

1. Snapshot of ACT website
2. Publication/Presentation

Appendix B. Curriculum Materials

1. Curricula
   - ACT Core Curriculum
   - Related Curriculum: Health Disparities/Cultural Competence
   - Related Curriculum: Pharmacotherapy Curriculum
2. Educational Tools
3. Publications/Presentations
4. Marketing – Curriculum Postcard

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1. Snapshot Pages on www.alcoholandhealth.org
2. Journals Reviewed
3. Sample Research Summary
4. Sample PDF Issue
5. Summary of Results from Survey of AHCE Subscribers
6. Marketing – Newsletter Postcard
Appendix A. Joint Materials

1. SNAPSHOT OF ACT WEBSITE
2. PUBLICATION/PRESENTATION

Research Society on Alcoholism, Chicago, IL, July 2007

DISSEMINATING ALCOHOL RESEARCH AND CLINICAL TRAINING FOR GENERALIST PHYSICIANS USING THE WEB

Boston Medical Center and Boston University School of Medicine, and the Youth Alcohol Prevention Center, Boston University School of Public Health, Boston, MA 02118; Brown University, Providence, RI.

Aims: The Alcohol Clinical Training (ACT) Project (www.actproject.org) aims to (1) disseminate clinically relevant alcohol research, and (2) teach clinical skills to address unhealthy alcohol use in primary care settings.

Methods: (1) A free online newsletter, published every two months, summarizes the latest clinically relevant research on alcohol and health. Each issue (at www.alcoholandhealth.org) includes expert physician commentary, educator tools (e.g., journal club presentation to teach critical appraisal of alcohol research; a “grand rounds-type” presentation), and opportunities to earn continuing education credit. (2) A free online curriculum for clinician educators (at www.mdalcoholtraining.org) covers alcohol screening and brief intervention skills, emphasizing cross-cultural efficacy. Health disparities and pharmacotherapy curricula supplement the core curriculum. Evaluation is by user surveys; web statistics; formative data from resident, faculty, and practicing physicians; and a controlled study testing the effect of in-person faculty development on teaching the curriculum.

Results: (1) About 1500 people subscribe to the newsletter, including addictions counselors (20%), physicians (14%), and social workers (10%). Most consider addictions as their specialty and focus on clinical care and/or education. In October 2006, the site had 38,447 “hits.” Of 168 respondents to a recent survey, all were satisfied with the newsletter’s content. (2) The curriculum site receives up to 8000 hits/month, and all components are rated highly. Physicians who attended (at a national meeting) a 3-hour workshop on the curriculum were more likely than control physicians who received only the curriculum’s web address to report curriculum use 3 months after the workshop (79% of 19 intervention physicians vs. 44% of 9 control physicians; \(P=0.07\)). The frequency of teaching increased significantly more in intervention physicians across all domains tested (e.g., teaching about alcohol screening, eliciting patient health beliefs). Most (84%) intervention physicians completed an individual teaching project with the curriculum.

Conclusions: An online newsletter can reach many clinicians with the latest relevant alcohol research. An online alcohol curriculum can reach many physician educators, and in-person training increases alcohol-related teaching. These results suggest that the web is an effective dissemination tool but that additional efforts are needed to increase use of alcohol research and evidence-based practices by generalist physicians. (Support from R25 AA13822)
FREE ALCOHOL EDUCATION RESOURCES FROM BOSTON UNIVERSITY

Helping Patients Who Drink Too Much, www.mdalcoholtraining.org

- Online curriculum for clinician educators on screening and brief intervention for unhealthy alcohol use
- Includes free slides, speaker notes, and streaming video, and emphasizes cross-cultural efficacy

Alcohol and Health: Current Evidence, www.alcoholandhealth.org

- Online newsletter summarizing the latest clinically relevant research on alcohol
- Includes free CME opportunities and slide presentations for teaching

Supported by the National Institute on Alcohol Abuse and Alcoholism
Appendix B. Curriculum Materials

1. CURRICULA : Core Curriculum

Slide 1

Helping Patients Who Drink Too Much: A Web-based Curriculum for Primary Care Physicians

Clinical Addiction Research and Education Unit
Section of General Internal Medicine
Boston University Schools of Medicine and Public Health
Supported by the National Institute on Alcohol Abuse and Alcoholism (NIAAA) R25 AA013822

Helping Patients Who Drink Too Much. This web-based curriculum for primary care physicians was developed at the Boston University Schools of Medicine and Public Health with support from the National Institute on Alcohol Abuse and Alcoholism.

Slide 2

ACT Curriculum Objectives

Using a patient-centered, evidence-based approach, learners will be able to:
- ASK about alcohol use
- ASSESS severity and readiness to change
- ADVISE cutting down or abstinence, and assist in goal setting, and further treatment when necessary
- ARRANGE follow-up to monitor progress
- ASSURE cross-cultural efficacy of these practices

NIAAA, 2005.

The objectives of this talk are as follows:
Using a patient-centered, evidence-based approach, learners will be able to:
ASK about alcohol use; ASSESS severity and readiness to change; ADVISE cutting down or abstinence, and assist in goal setting, and further treatment when necessary; ARRANGE follow-up to monitor progress; and ASSURE cross-cultural efficacy of these practices.
We will present a practical approach to identifying and managing unhealthy alcohol use in this approximately 45 minute presentation. Trigger video cases will be used to promote discussion and demonstrate some ways to use these strategies in practice.
Cross cultural efficacy allows clinicians to be effective in interactions involving individuals of different backgrounds or cultures than the physician. This approach values patient-physician communication that is understood and respected by both parties. The goal is for the physician to achieve understanding of the patient’s practices and intentions, and for the patient to fully understand the physician’s messages about prognosis, diagnosis and management.

Cross-cultural efficacy is a term that does not imply that there is a preferred or more accurate cultural view. It simply recognizes that physicians and patients have different life experiences and perspectives and therefore, that all clinical encounters are cross-cultural. Culture in this definition means much more than just race or ethnicity. Specific efforts are required to assure that both parties understand each other and an effective caring relationship can be established. These efforts can save time and be more effective than other approaches.

Case #1, Screening. While you watch this case, think about how you would Ask about alcohol use. Think about the good and bad characteristics of how this physician asks his patient about drinking.

The case begins in the middle of a medical history from this 45 year old carpenter who presents for a routine physical, in part because a friend was recently diagnosed with prostate cancer.
Is Mr. A drinking risky amounts? In epidemiologic studies, these drinking amounts have been associated with adverse consequences. These studies are similar in design to studies that inform us regarding the possible benefits of moderate drinking.

For men, amounts that risk adverse consequences are:
- more than 14 standard drinks per week or 2 per day on average or more than 4 on any one occasion

For women and people 65 years of age and older, the corresponding amounts are:
- 7 per week or 1 per day on average and 3 per occasion

One reason why women risk consequences at lower amounts is that women have less gastric alcohol dehydrogenase and therefore absorb more alcohol per unit ingested.

Of note, the per occasion amounts place patients at risk for acute consequences such as falls and trauma. The weekly amounts, when done over time, place patients at risk for the more chronic, medical consequences, such as cancers and liver disease. Despite the fact that some consequences such as cirrhosis are generally seen at much higher amounts than these cutoffs, epidemiologic studies can detect increased risks for these disorders beginning at these amounts.

Let’s hear from the patient about what he was thinking and how he viewed the physician and his line of questioning.
Consider Mr. A’s alcohol consumption and where it fits on this spectrum of alcohol use. This is one way to think about the levels of use and unhealthy drinking that the physician was trying to identify. This depiction is adapted from a report from the Institute of Medicine. The amount of consumption is represented on the left side of the triangle, and consequences are on the right. Both increase as one moves up to the top of the triangle. In general, clinicians are accustomed to seeing and recognizing the more severe alcohol use disorders, which are Diagnostic and Statistical Manual of Mental Disorders (DSM) diagnoses, alcohol abuse and dependence. In these disorders, consumption is heavy and consequences severe.

Dependence is often referred to more colloquially as alcoholism.

Harmful drinking is a term from the International Classification of Diseases whose definition is similar to alcohol abuse from the DSM, meaning that there have been recurrent consequences of drinking without meeting criteria for dependence.

Problem drinking means a consequences or problem has occurred due to drinking.

Risky drinking refers to amounts that risk adverse consequences, but in the absence of consequences thus far.

Unhealthy alcohol use is a term that encompasses all the categories just described, and included within the red dashed border.

Lower risk drinking refers to more moderate amounts (less than risky amounts), also with no consequences (except perhaps some cardiovascular benefits for some).

In its 1990 report, the IOM recommended identifying drinkers in the red dashed border, particularly those who had not yet progressed to abuse or dependence, in the hopes of decreasing drinking and consequences when it was easier to do so and before significant morbidity or mortality occurred. Risky drinking is much more common than dependence:

- almost one-third of drinkers in the US drink risky amounts and nearly one in four of these individuals have alcohol dependence.
- About 1 in 12, or 17 million adults in the US suffer from alcohol abuse or dependence (more than have hypertension, asthma, or arthritis). Yet only about 10% receive treatment.
- Finally, alcohol is a leading cause of preventable medical conditions, disability, and deaths, (approximately 85,000/year), second only to tobacco and physical inactivity.
Why screen for alcohol-related risks and problems?

First, most patients with alcohol abuse or dependence are not detected by physicians. But the patients are being seen by physicians—79% of adults in the US saw a health professional in the past year, and half of physician visits are with primary care physicians.

In addition, physicians are less likely to detect unhealthy alcohol use when screening tools are not used universally, and in patients whom are not expected to have unhealthy alcohol use such as in women (in whom the prevalence is in fact lower than men), whites, and persons of higher socioeconomic status.

Laboratory testing is not sufficiently sensitive or specific (although, for example, certainly a high gammaglutamyl transferase and MCV and aspartate aminotransferase without other explanation strongly suggest alcohol as the etiology); standardized questions are better.

Finally, brief, valid screening tests are available, and brief intervention by physicians is effective, and recommended in practice guidelines issued by the US Preventive Services Task Force, a group that requires high level evidence before endorsing any recommended practices.

How should one ask about alcohol use and consequences when screening?
There is more than one way to screen for unhealthy alcohol use. The NIAAA recommends a single item screening test for people who drink alcoholic beverages at least sometimes. The question is: “How many times in the past year have you had 5 or more drinks in a day (for men) or 4 or more drinks in a day (for women)?” The screening test is positive if the answer is one or more times. One “standard drink” is equivalent to 12 ounces of beer, 5 ounces of wine, or 1.5 ounces of 80-proof spirits. It is also a good idea to define alcohol as beer, wine or liquor.

Other screening tests can be used. For example, the 10-item Alcohol Use Disorders Identification Test, is useful as a written self-report instrument, provided at http://www.niaaa.nih.gov/publications/Practitioner/guide.pdf “Helping patients who drink too much. A Clinician’s Guide.” Another alternative is to directly ask about risky drinking amounts, with or without the familiar CAGE questionnaire.

These 3 simple questions will allow you to categorize a patient’s alcohol consumption as risky or not. First, consider an opener like: “Do you ever drink any beer, wine, liquor or other drink containing alcohol?” and/or “What do you usually like to drink?” Then Ask: On average, how many days a week do you drink alcohol? On a typical day when you drink, how many drinks do you have? What is the maximum number of drinks you had on any given day in the last month?
The CAGE Questions

- Have you ever felt you should **Cut down** on your drinking?
- Have people **Annoyed** you by criticizing your drinking?
- Have you ever felt bad or **Guilty** about your drinking?
- Have you ever taken a drink first thing in the morning (**Eye-opener**) to steady your nerves or get rid of a hangover?


Some physicians like to ask everyone the CAGE questions listed here. These can be part of a standard approach, or can be asked only when patients report drinking risky amounts. Asking everyone will identify more patients with past problems or patients with current heavy drinking who did not understand the prior questions or accurately report their drinking amounts. When asked, the CAGE questions should be asked verbatim as part of the routine medical history.

The CAGE questions are:
- Have you ever felt you should **Cut down** on your drinking?
- Have people **Annoyed** you by criticizing your drinking?
- Have you ever felt bad or **Guilty** about your drinking?
- Have you ever taken a drink first thing in the morning (**Eye-opener**) to steady your nerves or get rid of a hangover?

The CAGE questionnaire alone, using 1 affirmative response as a positive test, is about 80-90% sensitive and specific for an alcohol use disorder. Using 2 as a cutoff is less sensitive.
So let’s get back to thinking about Mr. A. How much was he really drinking? For him the word “drink” meant liquor. He didn’t consider beer to be alcohol. In addition, his beer was a pint (16 ounces, more than a standard drink). So in fact Mr. A was drinking three 16 ounce beers and three shots at a time, exceeding per occasion risky drinking limits.

The physician asked the right questions but a more efficacious communication approach might have yielded more accurate answers, leading to a correct diagnosis and to appropriate intervention.
The acronym RESPECT summarizes an approach that can help assure cross-cultural efficacy, obtain accurate information, and ensure your patient accurately understands you. Since all physician-patient encounters are essentially cross-cultural, there is a risk of misinterpretation and misunderstanding. Differences in “culture” can range from social class, income, sex, race, and age, to simply different life experiences because of health professional and physician training or other reasons. Patients and physicians almost always differ on some life experience (even if only by exposure to medical training). Attention to this fact can help assure efficacy of screening and avoid gathering inaccurate information leading to inefficiency and misdiagnosis.

Physicians and patients need to arrive at the same understanding (shared meaning) of the problem. Issues include: Demonstration of Respect (e.g. eye contact, listening attentively, and being nonjudgmental). Understanding the patient’s explanatory model. This is the model or rationale that patients use to explain their condition, illness or behaviors. It is derived from the patient’s view of the world and may reflect values, beliefs or “common knowledge” among family and peers. In this case, the patient has a well formulated rationale for his use of alcohol. The physician needs to understand this rationale to fully understand the extent of the patient’s drinking (e.g. clarify meaning of “drink”).

Being aware of the patient’s sociocultural context as viewed and explained by the patient to avoid stereotyping assumptions can help avoid misunderstanding.

Awareness of the ever present Power differential. Why should we remain aware of this explicitly? To have a low threshold to check in with the patient about the information they are reporting, and in order to accomplish the rest of the things listed on this slide. How can the power differential be minimized? Some ways are to use good eye contact, to sit at the patient’s level rather than above or facing away from the patient or sitting behind a barrier, and to avoid the use of medical jargon.

Express empathy by making sure the patient feels heard and understood (repeating what the patient has said while making eye contact can help achieve this goal). Empathy is a powerful and proven intervention that helps physicians address drinking problems with their patients.

Eliciting concerns from the patient can help direct the conversation, share the power, and ensure that the patient feels heard.

And finally, establishing a trusting and therapeutic alliance is essential to having patients report their practices and thoughts, and to having the physician’s advice be heard and followed.

In summary, physicians should screen for unhealthy alcohol use, as recommended by the US Preventive Services Task Force 2004 Guidelines and the National Institute on Alcohol Abuse and Alcoholism, by asking a single validated question about consumption or by using other validated tools such as quantity and frequency and CAGE questions or the AUDIT. While asking, demonstrating respect, mitigating power differences, and understanding the patient’s point of view will lead to more accurate information gathering and facilitate the next steps in the process, Assessment and Advice.

How should one Assess efficiently? Look for Red Flags and then Assess readiness to change. Red flags are drinking risks or consequences of drinking that help determine the best course of action. To look for them, ask follow-up questions to any affirmative response to CAGE or other screening tests (e.g. what happened when you tried to cut down? What did you feel guilty about?), ask about specific red flags, like a family history of alcoholism, and query patients regarding alcohol dependence symptoms.
What are the symptoms of alcohol dependence one should ask about? The key features of alcohol dependence are tolerance, withdrawal, and signs and symptoms in the gray box indicative of loss of control or preoccupation with alcohol. To meet the Diagnostic and Statistical Manual of Mental Disorders 4th edition (DSM IV) criteria for dependence, the patient must have 3 or more of these 7 criteria in a 12 month period:

1. **Tolerance:**
   Defined as increased amounts to achieve effect, or
   Diminished effect from same amount.

2. **Withdrawal:**
   Defined as 2 or more withdrawal symptoms after cessation or reduction in alcohol use, including sweating or rapid pulse, tremor, anxiety, nausea or vomiting, hallucinations, psychomotor agitation, and seizures.
   Or
   More or longer consumption than intended, inability to cut down or control alcohol use, spending a great deal of time getting, using, or recovering from the effects of alcohol, giving up activities or reducing them as a result of drinking, and use despite knowledge of health problem.
To Assess and discuss readiness to change, a simple question is:
"On a scale of 1-10, where 10 is being very ready, how much right now do you want to change your drinking habits?"
If the patient answers 10, there is little need to address motivation, except perhaps to confirm it later and anticipate changes in motivation. If the patient answers 2, ask "why didn’t you answer 0?" to prompt the patient to tell you why they do want to change. Also ask “What would it take to get you to a 5?” to have the patient outline some strategies for change that will be acceptable.
Also, consider exploring components of readiness to change by asking “How important is it for you right now to change your drinking habits?” and “If you decide to change your drinking habits, how confident are you that you would succeed?” and discussing those answers in the same way. These questions help provide areas for focus of further discussions (e.g. One does not need to emphasize the health consequences of heavy drinking if the patient already thinks it is important to quit but they just don’t think they can do it).
Why ASSESS?

- To determine appropriate advice
  - Cut down
  - Abstain
- How to give advice
  - Based on readiness to change

Why do an Assessment? Because it helps determine the appropriate advice, including whether to cut down or abstain, and because it helps determine how to give Advice consistent with how ready the patient is to change their drinking.

Case 2 Ms. B
Assess and Advise

- A 32 year old single mother and assembly line worker presents for routine follow-up with a chief complaint of insomnia and forgetfulness
- She reports drinking:
  - 4-6 drinks, 2-3 times a week
  - CAGE score = 1: Guilty

Case 2 will focus on what follows screening: how you Assess for alcohol related problems and how you then give appropriate Advice. Ms. B is a 32 year old single mother and assembly line worker who presents for routine follow-up with a chief complaint of insomnia and forgetfulness. She reports drinking 4-6 drinks, 2-3 times per week, putting her use of alcohol at least at the “high risk” level. Remember that the risky limits for women are more than 3 drinks on an occasion and more than 7 drinks per week.

In this case, the patient has already given 1 positive response from the 4 CAGE screening questions: she admits to feeling guilty about her drinking.

Lets find out more about her alcohol use.
As we just saw, the physician performed an Assessment of this woman’s alcohol use. What specific things did the physician do (well) to Assess the patient? She followed up on CAGE questionnaire responses. She also focused on complaints of concern to the patient (sleep and memory issues) and alcohol consequences related to them. And she asked about Red Flags, like withdrawal symptoms, and Assessed readiness.

What could the physician have done differently? It might have helped the patient recognize consequences of her drinking if the physician had emphasized and repeated the patient’s own reported consequences like being late and injured due to drinking.

So, an Assessment includes looking for Red Flags for unhealthy alcohol use and assessing readiness to change alcohol use behaviors.

Assessing for Red Flags includes asking about symptoms of alcohol dependence, a family history of alcohol dependence, history of injuries related to alcohol use, medical problems such as hypertension, depression, insomnia, social problems such as problems at work, at school or at home, pregnancy or trying to conceive, medications and medical conditions that may make concurrent alcohol use dangerous, history of blackouts or repeated failed attempt at cutting down.

Assessing readiness to change can be done in a variety of ways including using 0 to 10 point scales to have patients state their readiness in a quantitative way.

In this case, the patient had no symptoms of alcohol dependence but had red flags including a family history of alcohol dependence, insomnia, problems at work and with family responsibilities, and she rated her readiness to change as a 3 on a scale of 0 to 10.

Based on clinical judgment, this patient would benefit from either cutting down or abstinence. For example — if there has been a pattern of repeat alcohol-related consequences such as injuries related to drinking (including motor vehicle crashes, driving while intoxicated), medical history indicators (including hypertension, anxiety, depression, sleep disorders) or behavior indicators (including problems at work, school or home) cutting down may be inadequate. However, if there is a family history but no personal consequences, and a history of safe drinking – cutting down may be adequate.
When your patient has any of the following: alcohol dependence, pregnancy or trying to conceive, medications and/or medical conditions that contraindicate alcohol use, history of black outs or failed attempts at cutting down then your Advice should be abstinence. Remember to be clear with the patient about your clinical Advice. The patient may not agree with your Assessment and Advice but that doesn’t mean that you should compromise your clinical judgment and change your Advice. We will discuss strategies to help motivate your patient to alcohol-related behavior change later in this presentation.

You may Advise cutting down or abstinence if the patient has a family history of unhealthy alcohol use or if there have been injuries related to drinking or medical or behavior indicators suggesting that drinking is harmful.
If your Assessment found no Red Flags but your patient is drinking risky amounts it would be appropriate to advise them to cut down.
Now thinking back to the case (number 2), what is the appropriate advice to give Ms B? Cut down, abstain, or either cut down or abstain?
What parts of her history influence your decision?

Since there were no red flags indicating abstinence was the only option, either cutting down or abstinence should be recommended.
So, does giving brief Advice actually work? Let’s take a look at a representative study from the literature.
This study, called Project Treat (the Trial of Early Alcohol Treatment), was conducted in outpatient medical settings. It was a randomized controlled trial in 17 private practices, with 64 physicians and 774 men drinking more than 14 drinks per week and women drinking more than 11 drinks per week. 93% of subjects completed follow-up at 12 months. The control group got a health booklet. The intervention group got the same health booklet, but also received two 10-15 minute physician discussions about alcohol and a follow-up nurse phone call.

So what was the efficacy of the Advice? Both groups decreased their drinking, but the intervention group that received advice cut their weekly and binge drinking by around 40%, about twice as much as the control group. Hospital utilization stayed the same in the intervention group but increased in the control group.

There have been dozens other studies of brief advice in many settings with similar results. Some of these show decreases in gamma-glutamyl transferase (GGT), alcohol-related medical conditions, and one found a decrease in mortality (D’Onofrio & Degutis, 2002; Emmen et al., 2004; Wilk et al., 1997; Beich et al., 2003; Whitlock et al., 2004; Ballesteros et al., 2004; Poikolainen, 1999; Bien et al., 1993; Fleming & Manwell, 1999; Fleming et al., 2002; Kristenson et al., 2002).
Do changes persist long-term? In Project Treat, after 4 years, Fleming and colleagues found that the number of hospital days, emergency department visits and risky drinking behaviors all remained lower in the intervention group compared to controls. Moreover even though the cost for the brief intervention was only $166 per patient, the net benefit was medical cost savings of $546 and societal cost savings of $7780 per patient. Therefore this brief advice resulted in healthier patients who drank less at lower cost.

Let's now return to case 2 and see what advice was given and how it was done. Pay attention to what the physician did well and what she might have done differently.

Slide 28

After the video ask:
What did the physician do well? What could she have been done differently? What is the best way to give Advice?
The physician gave specific recommendations to cut down and provided the patient with specific drinking limits. She also gave a specific recommendation regarding follow-up emphasizing that the problem was important enough to check up on. The physician could have acknowledged difficulties the patient might have, and done more to negotiate an acceptable plan by asking whether the patient was ready to hear advice, and by asking what she might be ready to do. At one point, the patient says she doesn’t want to keep having problems—the physician could have emphasized this for the patient by repeating her own words.
Your goal is to serve as a catalyst in your patient’s behavior change. When giving your patient Advice - to cut down and/or abstain - you should:

State your concern about their alcohol use. Demonstrate empathy, and avoid confrontation. Be specific by giving feedback based on your assessment of their drinking and alcohol-related consequences.

Give your Advice clearly, and ask how the patient feels about the plan: “As your physician I recommend that you (for example) stop drinking (or stop driving after drinking, etc). How does that sound to you?”

Emphasize the patient’s responsibility for change: “What you ultimately do about your drinking is up to you.”

Convey your confidence in the patient’s ability to change. Enhance the patient’s sense of self-efficacy: for example, “You have had periods of sobriety in the past, there is no reason to think you can’t do it again,” or “Even though you hadn’t decided to stop drinking, you’ve come back to discuss your drinking on several occasions. That tells me you’re determined.”

Involve the patient in making choices from options: “This is what has worked for others. What do you think might work for you?”

We will now discuss how you can tailor your approach depending on whether your patient is less ready or more ready to change his or her drinking.
How to ADVISE: Less Ready to Change

- State the problem non-judgmentally
- Agree to disagree about the existence of a problem
- Elicit good and bad things about their drinking and of changing alcohol use
- Demonstrate discrepancies between what they value, and what happens when they drink
- Suggest a trial of abstinence or cutting down
- Follow-up even if drinking hasn’t changed

If you find that the patient is less ready to change:
You should state the problem with drinking behavior non-judgmentally, for example, “The amount of alcohol you drink is causing you problems with your health (specify, if possible how, e.g. increased liver enzymes, hypertension, insomnia, etc.).” And, be empathic “It must be hard to want to be healthy but to continue to do something (like drink alcohol) that is hurting your health.”

Agree to disagree about the existence of a problem: for example, “I think your alcohol use is causing you medical problems but you don’t agree. Let’s just recognize that we don’t agree about that. But would you consider cutting down anyway to see if your heartburn gets better?”

Elicit good and bad things about their drinking: for example, “What do you like about drinking?” “What don’t you like about drinking?”

Elicit good and bad things about changing alcohol use: for example, “What would be a good thing about cutting down (stopping) your alcohol use?” “What would be a bad thing about cutting down (stopping) your alcohol use?”

Develop and demonstrate discrepancies between what they value and what happens when they drink: for example, “You’ve told me how much you enjoy drinking alcohol and yet you say that you hate waking up feeling sick.” “You’ve told me how much your family means to you and yet you say they are upset with your drinking.”

Suggest a trial of abstinence or cutting down: for example, “You said that you could stop drinking anytime, that it is not a problem for you; so let’s see if you can not drink for the next 4 weeks just as a trial. I’d like you to come back in 4 weeks and tell me how it went.”

Follow-up even if drinking hasn’t changed: for example, “I want you to see me in 4 weeks even if you are still drinking.” “My sense is that this may be more difficult than you think. Don’t get discouraged. There are other ways I can help you.”
How to ADVISE: More Ready to Change

- Assist with deciding goals
- Assist with information and resources
- Acknowledge discomfort (losses, withdrawal)
- Remind patient of strengths--e.g. period of sobriety, the fact they are seeking help

When your patient is more ready to change you should:
Clarify the patient’s own goals and strategies for change or assist them in deciding on their goals.
Offer patients a menu of options and assist them with information and resources.
Explore the patient’s expectations regarding their course of action acknowledging that it may be difficult and that it may be uncomfortable physically and emotionally. Examples are losses of friends they used to drink with; Physical consequences of quitting include symptomatic withdrawal.
Finally, continue to support their self-efficacy reminding them of their strengths, like a period of sobriety, or the fact that they are seeking help, or good compliance with follow up appointments, etc.
Negotiation is an interactive exchange between the physician and patient resulting in a mutually agreeable plan. In this process, it is important to be clear about your recommendations, to elicit the patient’s perspectives, and to be open to compromise. Negotiation may not yield the plan that you believe is best for the patient, but it does allow for a plan that the patient is most likely to follow. Participating in the development of the plan helps shape a plan that is more likely to happen and can lead to health benefits.

Advice should include recommending lower drinking limits. Review lower risk cutoffs for the patient, keeping in mind gender, age, medications, health conditions, etc.
Encourage reflection. For example, Ask patients to weigh what they like about drinking versus their health and life goals and reasons for cutting down. “What do you think you will do?”
Help set a goal with the patient such as a trial of abstinence.
And provide patient education materials.
Arrange Follow-up

- Recommend a specific follow-up interval
- In follow-up...
  - Review drinking goals and progress
  - Reassess readiness
  - Reinforce any positive changes, acknowledge change is difficult
  - Revisit advice
  - Follow-up again

Follow-up is key to adherence to the plan. It provides the patient with the expectation they will be monitored. It will allow you to monitor adherence, and to adjust the plan to better suit the patient and situation over time.

Recommend a specific follow-up interval.
In follow-up, review drinking goals and progress (e.g. drinking, liver enzymes like GGT if elevated at baseline), reassess readiness, reinforce any positive changes, acknowledge change is difficult, revisit advice, and follow-up again.

Let’s now hear what Ms. B thought of the advice that was given to her.

More from Ms. B...

[After the video]
How did the physician communicate in a culturally efficacious way?
The physician:
Showed *respect*, mitigated *power* differences
Treated her nonjudgmentally
Connected nonverbally (by leaning forward, making eye contact, sitting at the same level), made empathic/supportive statements (e.g. “that must be hard”)
Related to the patient on a personal level (*respect*)
Elicited *sociocultural context* (drinks with friends)
Demonstrated *empathy* showing she understood the patient’s situation

So, in summary:
Assess for red flags, following-up on positive responses to the CAGE questionnaire or other screening tests and by asking specifically about red flags, including alcohol dependence symptoms and readiness to change to understand severity and determine advice.
Give specific Advice based on the assessment.
Arrange follow-up regardless of drinking.
Assure cross-cultural efficacy by addressing *trust, respect* and *sociocultural context* to maximize the efficacy of your advice.
Case 3 Mr. C

Advise and Arrange

- A 58 year old African American man, a successful lawyer, is seen in primary care with gastroesophageal reflux symptoms and hypertension
- 3 drinks at midday, 6-7 drinks evening, daily
- CAGE score = 2: Cut down, Annoyed
- Family history of alcoholism and cirrhosis

Case 3 is Mr. C, a 58 year old African American man, a successful lawyer, who is seen in the primary care setting with gastroesophageal reflux symptoms and hypertension. He reports drinking 3 drinks a day at midday during lunch, and 6-7 drinks every evening. He reports affirmative responses to two of the CAGE questions, having tried to cut down and having been annoyed by people criticizing his drinking. He also has a family history of alcoholism and cirrhosis.

When watching the video, consider the following:
Does Mr. C have consequences of alcohol use?
What are the red flags that indicate problems or higher risk of consequences of alcohol use?
Does he have alcohol dependence?
How ready is he to change his drinking?
What were the results of the Assessment?
Did he have symptoms of alcohol dependence? He likely did have alcohol dependence but further assessment is needed to determine if he would meet criteria for the disorder.

What red flags indicate Mr. C is at risk for alcohol use consequences, and what consequences did he already have? His consumption amounts suggest tolerance. He has reflux symptoms and hypertension, both of which can be caused or exacerbated by regular heavy drinking. In addition, he reports past injury while drinking, a consequence of heavy drinking on an occasion. Family history and other family consequences place him at risk for consequences of drinking. Finally, he has tried to cut down, but is still drinking heavy amounts, and he has been annoyed by others criticizing his drinking, 2 affirmative CAGE responses. How ready is he to change his drinking? He appears somewhat ambivalent, perhaps moving from precontemplation to contemplation.

### Results of Assessment

<table>
<thead>
<tr>
<th>Symptoms of Dependence</th>
<th>Likely, but further assessment needed</th>
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</thead>
<tbody>
<tr>
<td>Red Flags</td>
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<tr>
<td>• Tolerance likely</td>
<td></td>
</tr>
<tr>
<td>• GERD</td>
<td></td>
</tr>
<tr>
<td>• Hypertension</td>
<td></td>
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<tr>
<td>• Past injury while drinking</td>
<td></td>
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<td>• Family history</td>
<td></td>
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<tr>
<td>• Family consequences</td>
<td></td>
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<tr>
<td>• Cut down, but still drinking heavily</td>
<td></td>
</tr>
<tr>
<td>+ CAGE Responses</td>
<td>CAGE = 2</td>
</tr>
<tr>
<td></td>
<td>Cut down, Annoyed</td>
</tr>
<tr>
<td>Readiness to Change</td>
<td>Ambivalent. Moving from precontemplation to contemplation</td>
</tr>
</tbody>
</table>

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Advising Mr. C

- Abstinence, because of red flags
  - If high risk for complications of withdrawal manage with medication as an inpatient
  - Otherwise, outpatient detoxification
- If not ready, state your medical opinion that abstinence is indicated and negotiate cutting down

What should be Advised for Mr. C?

The best advice for Mr. C would lead to improved health. In this case, abstinence would be advisable because of the red flags indicating dependence including attempts to cut down that have not eliminated the alcohol consequences.

Because advice is only fully heard by those ready, willing and able to listen, asking permission to give advice is one effective strategy (e.g. “May I give you some advice about your drinking?”). Another effective approach is to clarify that in your medical opinion abstinence works best for most people with alcohol use similar to the patient’s use.

The next issue that arises when advising abstinence is the need to manage the detoxification. Patients with high risk for medical complications of withdrawal require inpatient management and/or medication, benzodiazepines, to prevent seizures and delirium. Patients at high risk are those with seizures, past delirium tremens, acute medical, surgical or psychiatric illness, or other drug use (particularly benzodiazepines or barbiturates or other sedatives). Outpatient detoxification (with or without medication) can be done if the patient has a place to stay, someone to assist with their care, and the patient agrees to close contact with you or your clinical staff.

If the patient is not ready to abstain, simply state your medical opinion that abstinence is indicated but negotiate other options (e.g. what do you feel might work best for you for your drinking).
Patients who are ready to receive additional help, or those who do not succeed with cutting down or abstaining, should be offered referral for additional assistance. Discuss referral as you would for a more traditional medical issue (e.g., I would like to refer you to a specialist, she has helped my patients before; I’d like to get another opinion to confirm the diagnosis, etc.).

In order to refer one must know local resources and involve patients in the referral decisions. **Explain** to patients what might happen when they complete the referral and explore the patient’s thoughts about the referral (e.g. you will meet with a counselor regularly; you will be admitted to a residential facility; they may offer you medications). Involve patients in decision making. **Consider** scheduling a referral appointment while the patient is in your office because this increases the likelihood it will be completed. **In addition** to addressing the alcohol problem, address medical and psychiatric comorbidity as needed, which will also facilitate alcohol treatment. **Communicate** with referral providers with the patient’s permission and signed releases as appropriate, to increase the likelihood that specialty treatment will be optimal (much as a medical specialist will provide optimal treatment when the question and information from the referring physician are clear and communicated). Practically, in most settings in the US, referral options include contact with a substance abuse case manager from a patient’s health plan, direct referral to providers regardless of insurance for patients who choose to pay for their care, public addiction services for the uninsured, Employee assistance programs, 1-800-662-HELP or [http://findtreatment.samhsa.gov](http://findtreatment.samhsa.gov) to locate local programs. Primary care physicians can certainly manage these problems if they have expertise and resources to do detoxification, counseling, and pharmacotherapy for alcohol dependence.

Referral to AA is also appropriate for most patients with alcohol dependence. To do so, demonstrate you know about AA. To learn more, attend a meeting so you can speak from personal experience. Provide lists of locally available meetings and meeting types (e.g. beginner, open, closed, non-smoking, female). Information is available in pamphlets, by phone to the local central service office and at [www.aa.org](http://www.aa.org). Encourage the patient to go to their first meeting with someone, have them try several different meetings, and follow-up on attendance as you would follow-up on other referrals (e.g. did you go to AA? How many meetings a week are you attending? Do you have a sponsor?). Finally, if the patient has these specific concerns, reassure that belief in God is not required (only a desire to quit drinking is), and reassure that AA neither condones nor prohibits medication use.

Finally, **pharmacotherapy** should be considered for all patients because no treatment alone has perfect effectiveness. Disulfiram, particularly when given under the supervision of another person at home, naltrexone, and acamprosate have efficacy in the treatment of alcohol dependence. They should be started after abstinence (though naltrexone could be started sooner), and in the context of psychosocial counseling.
Once the course of action is negotiated, confirm the plan (to abstain or cut down) and then Arrange follow-up with you to check progress. Let the patient know you are available for ongoing assistance regardless of progress.

What should be done in follow-up? Monitor by asking about alcohol use, re-check liver enzymes if abnormal at baseline, reassess readiness to change and reasons for ambivalence, and check for any new or ongoing alcohol consequences. Emphasize and congratulate any positive changes to reinforce them. Acknowledge that change is difficult, and express confidence in the patient’s ability to cut down, abstain, and perhaps most importantly, to maintain any positive changes made. If the patient reports a slip, using alcohol during a period of attempted abstinence, use it as a learning experience— “what led you to have a drink?” “Is there anything you think you could do differently next time you get the urge to drink?” Normalize the slip: “Having a slip is something that you want to avoid, but it is normal. It doesn’t mean that you have failed, you just have to think of new ways to keep trying.” Monitor for symptoms of depression and anxiety and recognize them and treat them as necessary. These can be related to withdrawal and/or to underlying diseases being unmasked. Consider scheduling a separate visit to focus on follow-up for drinking. Negotiate the next plan of action, re-advice, that is give your best advice again, solve problems such as difficulties when in situations where friends are drinking, and revise the drinking goals as needed. NOTE: Forms which can assist with patient follow-up are available (*NIAAA 2005*).
Let’s hear what Mr. C thinks about his drinking and the advice he received.

How did the physician and patient connect in this case? What strategies helped assure cross-cultural efficacy?

When the patient was defensive about his alcohol use, and was ashamed at the suggestion that he had a problem, the physician recognized that it is difficult for patients to accept that they may have a problem. She demonstrated respect for the patient. And, she demonstrated empathy, recognizing that much is at stake for the patient. The patient therefore believed that the physician understood, would not unfairly judge him, and would in fact help him.
In summary, a patient-centered, cross culturally efficacious evidence-based approach can be used to efficiently address unhealthy alcohol use in generalist healthcare settings. In such an approach:

Ask about alcohol use using validated screening approaches that can identify the spectrum of problems from risky drinking to dependence such as the CAGE questionnaire, quantity and frequency questions, or the AUDIT.

Assess the severity of identified problems by following up on positive screening responses, looking for red flags, and asking about coexisting conditions that place people at higher risk for problems or that may suggest a need for abstinence.

Advise cutting down or abstaining, negotiate treatment options, and assist in goal setting, and further treatment when necessary, including referral, pharmacotherapy and AA.

Arrange follow-up to monitor progress.

All of this should be done with attention to cross-cultural efficacy, arguably a feature of any doctor patient encounter. One way to do this is to demonstrate respect, attend to the patient’s explanatory model by understanding how the patient makes sense of the world and their health/health behaviors, be aware of the patient’s sociocultural context (avoiding stereotyping), mitigate power and status differences, express empathy, make sure the patient feels heard and understood, elicit the patient’s concerns about drinking, and by doing all of these, establish a trusting and effective therapeutic alliance.
Helping Patients Who Drink Too Much. This web-based curriculum for primary care physicians was developed at the Boston University Schools of Medicine and Public Health with support from the National Institute on Alcohol Abuse and Alcoholism.
The objectives for this presentation are outlined above. Why is it important to attempt to assure cross-cultural efficacy? Often we, as clinicians don’t give much thought to our cross-cultural efficacy until something seems to have gone wrong ie. a patient’s non-adherence to a regimen we have prescribed, a patient’s complaint that we have treated them somehow differently than others. Assuring cross-cultural efficacy is an important part of the provision of quality health care with the goal of excellent health care outcomes. Why is assuring cross-cultural efficacy important? (As noted in the next slide, the facilitator might want to pose this question to the group being addressed and elicit their responses.) The following definitions are included for clarification of terms that may come up in discussion: Ethnic identity: an individual’s identification with ancestry producing a sense of belonging and historic continuity. Cultural identity: may include but is much more than race, ethnicity, religious orientation. Cultural identity refers to ways in which and individual relates philosophically to values, symbols, and common histories that identify him or her as a member of a discernable group. Cultural identities may form around age, physical ability, political affiliation or [common and shared] circumstances. The concept of “privilege” must be emphasized. For members of a majority/dominant group, this cultural identity is presumed, often “invisible,” and accepted as normative. It is positively reinforced. Members of minority/subdominant group on the other hand are considered “different” and may be subjected to ridicule, minimization, marginalization or other negative portrayals. NIDA research supports that infusing cultural responsiveness into all treatment programs can make these interventions more effective. (adapted from the New England technology transfer center website-reference- www.samsha.gov/PRESS/99/99070nr.htm)
The facilitator might want to pose the question to the group being addressed…. “Is Cross Cultural Efficacy important?” Why or why not?
There could be a range of responses from your audience depending on a number of factors ie. Participant’s cultural identity and experience, experience of cultural congruence or incongruence in their work place (and whether this is a positive or negative experience).
As you teach this material, you might feel a certain level of discomfort yourself. You, yourself might be much more comfortable staying strictly within the boundaries of accepted medical culture ie. Present the data as an expert, with a dazzling power point presentation, followed by a 10 minute question and answer period…very much in a position of power and control! Our format allows for a multimedia and varied format for teaching. Your participant’s responses might be much more unpredictable. We encourage you as a facilitator to model the ability to explore your own biases as you explore the material presented.
Aren’t all people the same? Don’t we all have common problems and issues? Shouldn’t those who come to our country accept our customs and ways? If a patient doesn’t understand you, isn’t it his or her responsibility to adapt? We just don’t have time to cater to the special needs of all of our patients.
These opinions are not uncommon in medical and other settings. It’s helpful to explore where powerful, negative responses come from. Recognizing one’s own cultural construct as but one of many, helps us to see “difference” as “difference” as opposed to “right” vs “wrong”. Addressing the less obvious aspects of cultural difference to better serve our patients will improve patient satisfaction and improve our own effectiveness.
We are also concerned about assuring cross cultural efficacy of care because of the mounting evidence of racial and ethnic disparities in health care.

The NIH defines Health Disparities as differences in the incidence, prevalence, mortality, and burden of diseases and other adverse health conditions that exist among specific population groups in the U.S. (NIH, 2000)

In 1999, Congress requested that the Institute of Medicine assess the extent of racial and ethnic disparities in health care. The characteristics of their rigorous research design are as follows:
- Followed patients prospectively
- Controlled for access factors such as insurance status, patient income, other access-related factors; age, gender, co-morbid diseases, where care received (private vs. public), disease severity
- Looked for potential sources of disparities

Alcohol-Related Health Disparities

Compared with whites:

- Hispanic men have higher rates of alcohol-related problems, intimate partner violence, cirrhosis mortality
- Black men have higher rates of intimate partner violence and cirrhosis mortality

Data quantifying difference due to race are collected from a variety of sources. Epidemiological Findings are currently being reviewed. For example, we note an important trend indicating a reduction in the proportion of drinkers who drink five or more drinks per occasion among whites but not among blacks and Hispanics. Between 1984 and 1995, the prevalence of this drinking pattern decreased from 20 to 12 % among white men but remained stable among black (15 %) and Hispanic men (17-18%) (Caetano and Clark, 1998). There are other national surveys that report levels of drinking where the differences among ethnic groups are not as dramatic. Some variances may be due to the way heavy drinking is defined.

Potential Sources for Disparities in Care

- **System-Level Factors**: funding for mental health and substance abuse treatment, linguistic abilities of care providers
- **Patient-level factors**: patient beliefs and preferences, trust and spirituality, stress and coping behaviors, explanatory model
- **Physician-level factors**: the clinical encounter, default decision making, emphasis on prior expectations based on age, gender, race or ethnicity; bias, prejudice, stereotyping

The medical community is just beginning to quantify disparities in care and attempt to identify the causes for such disparities in care. The facilitator might encourage the participants to generate their own list of potential sources for disparities and then review and categorize their answers as system, patient, or physician/clinician level factors.

You might want to use an illustrative example such as: the non-English speaking patient with alcohol dependence that you would like to refer to a treatment program—Does the program conduct counseling groups in his/her native language?, Does the patient’s insurance cover the length of stay that you would deem necessary?, Would the patient perhaps prefer a spiritually based program?, Do you as the provider have a personal opinion about the type of program the patient attends that might influence your recommendation?, How optimistic or pessimistic are you about the patient’s prospects for recovery, and why?
What subtle factors may affect the selective ordering of medical tests and treatment?

In our module we have chosen the area of focus for attention the patient / clinician encounter.

This slide presents one representation of the complex interface that is present within the patient/clinician encounter. The clinician elicits and is presented with data during the visit which needs accurate interpretation that will lead to an appropriate intervention. We all learn the accepted means of collecting information from patients via the standard history and physical exam…but ambiguities can arise. Here in the United States we view each other through the lens of race. Whether conscious or unconscious the history of race relations is in the background of our encounters. Words used as a patient describes their medical history might not be interpreted equally by the clinician and provider and there may be powerful emotion and meaning behind history that the clinician can miss or the patient might fail to share. Both patient and clinician are subject to the influences of their respective social, economic and cultural influences. The facilitator might want to brainstorm with their audiences some of these factors ie, the 20 minute visit, the need for a patient to miss appointments due to child care responsibilities, incentives for physicians to meet performance standards that don’t necessarily reward clinicians for patient education and prevention, how we respond to the patient who is very demonstrative about their pain vs. the stoic. We tend to like people who are most like us…so how does that effect your interaction with a diverse patient population. Stereotyping and prejudice are factors that influence both the clinician and the patient. Influences that affect clinician behavior are often subconscious. Objective data collected via the medical history, physical exam and lab tests are subject to interpretation by clinicians before interventions are selected. Ultimately, the subtle effects of factors influencing clinician decision-making might result in disparities in care. Adapted From: Assessing potential sources of racial and ethnic disparities in care: Patient-and system-level factors. Smedley BD, Stith AY, Nelson AR (eds). Unequal Treatment: Confronting Racial and Ethnic Disparities in Health Care. Washington: National Academies Press, 2003, p. 127.
Slide 8

Cultural Competence

- **Denial** there is no difference
- **Defense** threatened by perceived differences
- **Minimization** trivializes difference; similarities means “like me”
- **Acceptance** recognizes and values differences
- **Adaptation** skilled in communicating across differences and can take on other’s view
- **Integration** values a variety of cultures, integrates aspects of other cultures in own

Where are you on this spectrum?

Slide 9

Race

- A social construct, varying by location, associated with certain physical attributes
- Some shared ancestry and common gene pools but:
  - Genetic variation depends on geographic dispersal and varies **MORE WITHIN** most common racial groups **THAN BETWEEN** groups

Race...often hard to talk about. Why? Brainstorm with your group to break the ice. Examples: we fear being politically incorrect, we wouldn’t want to hurt anyone’s feelings, we are angry, we’ve been hurt in the past. Why is it important to get past these limitations?...because we have so much we can learn from each other, because if we in the medical community can’t talk about race (where the power differential may be less marked) then how could we possibly touch this area with our patients?

Often clinicians comment that they do not see race when they look at their patients. This response relates well to the concept of “white privilege”. “Culture” and “race” are different constructs. The concept of “race” is socially constructed. Most often the societal application of racial difference is manifested as a difference in power or oppression. There is also a power differential between patient and clinician. A participatory style of interaction helps to share the power.

Particularly in the U.S., race is a social designation based on the shared experience of being seen and treated as black. If the group you are facilitating is ethnically diverse you might elicit meaningful insights from those who have immigrated from other countries and now experience the American society defining them as black.
Although clinicians may report that race does not seem to be a factor in the clinical encounter, have your group take a look at the results from the Commonwealth Fund Survey. This survey explored the beliefs of minorities regarding the Healthcare System.

Some members of your audience might feel that these results are somehow not valid or that the fault lies with the patient. On what might some of these patient impressions be based? Examples: past personal experience, past family experience, experiences of lack of personal or collective power.

Historical Relationship to the Healthcare System

- 63% of AA and 38% of whites believed MDs often prescribe meds to experiment without consent
- 25% of AA and 8% of Whites believe MD had given them experimental treatment without consent
- 45% of AA and 35% of Whites believed MDs would expose them to unnecessary risk
- 2 x as many AA as Whites felt they could not freely question their doctors

Tuskegee as an event and metaphor

Background:
The Tuskegee Syphilis Study was conducted by the United States Public Health Service from the 1930’s until 1972. More than 400 black men with syphilis participated and 200 men without syphilis served as controls. The men were recruited without informed consent and, in fact, were misinformed that some of the procedures done in the interest of research (e.g., spinal taps) were actually “special free treatment”. By 1936 it was clear that more infected men than controls had developed complications and in 1946 a study reported the death rate among those with syphilis was twice as high as in the controls. In the 1940’s penicillin was found to be effective in the treatment of syphilis. The men were neither informed nor treated. The study continued until 1972 when the first accounts of the study appeared in the national press.

The above slide reviews the results of a survey done by Dr. Corbie-Smith, et al in 2002. She provides a compelling link between a group’s collective historical experience and personal belief.

Corbie-Smith, G, Thomas SB, St George DM. Distrust, race and research. Archives of Internal Medicine, 2002; 162: 2458-2463
So how can we, as clinicians, bridge the potential cross-cultural gap?

In 2001, the Diversity Curriculum Task Force of the Boston University Medical Center and Boston University Residency Training Program in Internal Medicine developed the RESPECT model based on the work of Betancourt, Carrillo and Green. Each element of the RESPECT model is outlined on the following slides. The importance of the power differential within the medical encounter is included. One should remain mindful of the experience of race, history and oppression as it affects the cultural identity of both providers and patients.

Respect—May be most important when the power differential is greatest within the patient-provider encounter. Those with drinking problems are often ashamed of their drinking and the consequences of their behaviors. Establishing a non-judgmental environment is particularly important.

Explanatory model-based on the Kleinman model. What is the patient’s point of view? One of the most frustrating components of addiction to alcohol for providers is the element of denial. When a patient is in denial or precontemplative one might engage the patient in a discussion of the pros and cons of drinking from his/her perspective. In response one might take the opportunity to offer patient education regarding the disease of addiction and offer the medical perspective on the risks of heavy drinking. Encourage the patient to think about their drinking and suggest more dialogue at a subsequent visit.

Do you view your drinking as problematic? Why or why not?
If viewed as problematic, What do you think caused your problem?
Why do you think it started when it did?
What does your alcohol use do for you?
How severe is your problem with alcohol?
What kind of treatment do you think you need?
What are the most important results you expect from treatment?
What are the problems your illness has caused for you?
What do you fear most about your sickness?

Sociocultural context—recognize how drinking influences or is influenced by class, race, education, ethnicity, family and gender roles (among others).

Power—A participatory style of interaction shares power within the medical encounter. When discussing a particular intervention, ask the patient if this is something he/she would be willing to try.
Empathy-Play back to the patient what you heard them say with attention to the patient’s concern so the patient feels understood.

Concerns and Fears. Often a patient who is abusing alcohol has hidden fears about his/her drinking but is afraid to acknowledge these because of worry regarding the provider’s ill judgment of them. The provider may want to give examples that express your experience and understanding. ie “I know some mothers drink alone and are worried about this. They might fear mentioning this because they are afraid they will be judged a bad mother”. “Some people have family members who are alcoholic and they are afraid this could happen to them”. “Are any of these concerns you might have?”

Therapeutic Alliance/Trust- Providers will enhance adherence and compliance with treatments and health promotion if they negotiate these with a patient who feels valued and understood.
Related Curriculum: Pharmacotherapy for Alcohol Dependence

Slide 1

Pharmacotherapy for Alcohol Dependence

Clinical Addiction Research and Education Unit
Section of General Internal Medicine
Boston University Schools of Medicine
and Public Health
Supported by the National Institute on Alcohol Abuse
and Alcoholism (NIAAA) R25 AA013822

Helping Patients Who Drink Too Much. This web-based curriculum for primary care physicians was developed at the Boston University Schools of Medicine and Public Health with support from the National Institute on Alcohol Abuse and Alcoholism.

Slide 2

Goal and Objectives

Goal: To understand the role of pharmacotherapy in the treatment of alcohol use disorders

Objectives
- To identify appropriate candidates
- To describe and compare efficacy
- To be able to prescribe pharmacotherapy and monitor for desired and adverse effects
- To be aware of the importance of providing or referring patients for psychosocial therapy when using pharmacotherapy
- To describe pharmacotherapy options for alcohol use disorders in patients with comorbid psychiatric disorders
- To be aware of pharmacotherapies under study but not yet ready for routine clinical use

The goal of this presentation is to understand the role of pharmacotherapy in the treatment of alcohol use disorders. By the end of this presentation, you should be able to identify appropriate candidates for pharmacotherapy for alcohol dependence, describe and compare the efficacy of available medications, be able to prescribe pharmacotherapy and monitor for desired and adverse effects, be aware of the importance of providing or referring patients for psychosocial therapy when using pharmacotherapy, describe pharmacotherapy options for alcohol use disorders in patients with comorbid psychiatric disorders, and to be aware of pharmacotherapies under study but not yet ready for routine clinical use.
Why should we consider pharmacotherapy as a treatment for alcohol dependence? First of all, brain neurotransmitter physiology is not normal in people with alcohol dependence, and these neurotransmitter systems can be affected favorably by pharmacological interventions. Second, although alcohol treatments like counseling and/or medications are effective, leading to 2/3rds reductions in alcohol problems and 50% reductions in consumption and a third abstinent or drinking moderately, treatment is far from completely effective. All known effective treatments should be made available, including medications. Yet even among people identified as having alcohol dependence, only 10% receive any treatment. Finally, pharmacotherapy is known to be beneficial when given in addition to nonpharmacological therapies. Pharmacotherapy can help reduce drinking, reduce relapse to heavy drinking, and maintain abstinence.


What treatments are effective for alcohol dependence? Because alcoholism can affect all aspects of health, all patients should receive access to psychological, medical, employment, legal, and social services as needed. Some patients will benefit from removal from an environment in which drinking is encouraged or facilitated. Mutual or self-help groups such as Alcoholics Anonymous and others are an effective adjunct to health professional delivered treatments and can help patients develop and re-establish sober social networks. Specific types of counseling that have been described in detail in manuals for counselors, and proven effective in clinical trials include motivational enhancement therapy, disease model counseling or 12-step facilitation, cognitive behavioral therapy, and marital and family therapy. Pharmacotherapy with disulfiram, naltrexone or acamprosate also have proven efficacy in clinical trials.

For whom is pharmacotherapy appropriate? For all people with alcohol dependence who are currently drinking, or who are experiencing craving or who are at-risk for return to drinking or heavy drinking. Considerations include, in addition to patient acceptance, any specific medication contraindications, patient willingness to engage in psychosocial support/therapy, your relationship with the patient and their willingness to follow-up, and a setting for clinical care delivery in which it is feasible to prescribe and monitor the medication.
Why is Pharmacotherapy NOT Reaching Patients?

- Of patients treated for alcoholism, only 3 to 13 percent receive a prescription for naltrexone
- Alcohol dependence treatment system is not set up for long-term prescribing
- Lack of awareness
- Evidence of modest efficacy, and lack of evidence of effectiveness in practice
- Side effects
- Lack of time for patient management
- Patient reluctance to take medications
- Medication addiction concerns
- Alcoholics Anonymous (AA) philosophy
- Price/insurance coverage

Of patients treated for alcoholism, only 3 to 13 percent receive a prescription for naltrexone. Why do so few patients receive medications for alcohol dependence? There are many reasons, which include but are not limited to the following. The alcohol dependence treatment system is not set up for long-term prescribing. Treatment is often delivered in short episodes of care, and prescribers may not be available or accessible. Patients and clinicians may lack awareness of pharmacotherapy options. Although there are many efficacy studies of medications for alcoholism, effects are modest, and few studies assess effectiveness in the complex clinical practice setting. The failure to provide any alcohol dependence treatment is sometimes attributed to lack of clinician time, and for medications specifically, patient reluctance to take medications for this disorder, either because of concerns that they may be addictive or other reasons. Although AA materials explicitly state the acceptability of prescribed medications in general, the message to individuals is sometimes that the 12-step philosophy proscribes their use. Finally, medication price and insurance coverage may limit their use.

Lack of awareness
Lack of evidence of efficacy in practice
Side effects
Lack of time for patient management
Patients’ reluctance to take medications
Medication addiction concerns
Alcoholics Anonymous (AA) philosophy
Price/insurance coverage

While pharmacotherapy has been successful for other addictions, that success may have been more predictable for drugs that have one receptor target, such as opiates. Alcohol, unlike many other psychoactive drugs, affects a large number of receptors and molecular targets. Those in red have been targets of alcohol dependence pharmacotherapies. In addition to receptors and neurotransmitters, pharmacotherapies can target enzymatic pathways.

An old standby for alcoholism treatment since the 1940s has been disulfiram, an inhibitor of aldehyde dehydrogenase, ALDH, that results in increased levels of acetaldehyde and an unpleasant reaction after consumption of ethanol. In one of the largest studies of this medication, disulfiram was no better than placebo in achieving abstinence. But it is not clear that a placebo controlled trial is the best way to test a drug whose efficacy depends on the patient knowing that they may experience a very unpleasant reaction. Of note, in post hoc analyses, the drug was more effective in those who were adherent to it.

(Fuller RK et al. JAMA 256:1449, 1986)
In controlled studies, 4 trials have shown significantly improved abstinence rates when disulfiram is taken under direct monitoring by a concerned other.

Pharmacotherapies for alcohol dependence are no more difficult to prescribe than antidepressants. However, a decade since the approval of naltrexone and more than 50-60 years since the availability of disulfiram, pharmacotherapy has not been used extensively for alcoholism. What are the main prescribing issues? See the handout for details on prescribing all three FDA-approved medications for alcohol dependence.
Of all of the approved, efficacious medications, disulfiram may be the most difficult to use since it is an aversive therapy that works best when its administration is monitored.

Disulfiram should be started at 250 mg a day, up to a dose of 500 mg. The drug can be used daily or just prior to risky situations, and it lasts 4-7, and up to 14 days. Tell the monitor and the patient they are to take the medication as prescribed. The monitor should observe the patient as he or she takes the pill and call you if the patient is non-adherent.

The main contraindications are recent alcohol use, pregnancy, rubber, nickel cobalt allergy, cognitive impairment (since awareness of the risk of the reaction is essential), and as a relative contraindication, conditions that would increase the risk of harm from the disulfiram ethanol reaction, for example, coronary artery disease, esophageal varices. Disulfiram also has numerous drug interactions, including warfarin and anticonvulsants. The main side effect is an idiosyncratic sometimes fulminant hepatitis, and neuropathy seen at higher doses. Regular monitoring of liver enzymes is advised, as is a clear recommendation to avoid alcohol even in over-the-counter medications.
Acamprosate is another FDA approved pharmacotherapy for alcohol dependence. The exact relevant mechanism of action is unclear. The drug is a gamma-amino-butyric acid, or GABA analogue, and it has also been suggested that it modulates action in the NMDA (N-methyl-D-aspartate) glutamate system. Alcohol is an agonist at inhibitory GABA receptors, and an inhibitor of excitatory glutamatergic receptors. It may work by reducing symptoms of protracted abstinence such as insomnia, anxiety and restlessness.

This meta-analysis summarizes randomized placebo controlled trials comparing acamprosate with placebo in people with alcohol dependence. Subjects were abstinent for 5-30 days when they started treatment. The meta-analysis summarized results of 7 trials in over 2000 subjects. Acamprosate increased the cumulative duration of abstinence by 27 days. It also was associated with an increase in the proportion of patients with continuously abstinent for a year from 15 to 23%.
Acamprosate is dosed three times a day, 666 mg. The main issue with Acamprosate is that it is contraindicated in renal insufficiency (Cr CL <30 ml/min, half dose for 30-50 ml/min) and its main side effect is diarrhea. Acamprosate and all other alcohol dependence pharmacotherapies are pregnancy category C, meaning that there are no controlled studies in pregnant women, and that they should be prescribed during pregnancy only if clearly needed and the benefits are likely to outweigh the risks.

Despite the myriad actions of alcohol in the central nervous system, all drugs of abuse including alcohol work by affecting the same reward pathway, that connects the ventral tegmental area or VTA to the nucleus accumbens, where dopamine is released, and the prefrontal cortex. Other neurotransmitters are also involved, including endogenous opioids released as a result of dopamine surges.
Efficacy of Naltrexone

- 14 studies
- Relapse to heavy drinking
  - Naltrexone 428/1142 (37%), Control 445/930 (48%)
  - p<0.00001
- Odds Ratio (favoring naltrexone)
  - 0.62 (95% CI 0.52,0.75)


Naltrexone blocks opioid receptors, including receptors for endogenous opioids. Since these receptors are in part responsible for feelings of pleasure during drinking, naltrexone blocking these receptors makes drinking less pleasurable. For this reason, rather than abstinence, the clinical trials of this drug have focused on relapse or return to heavy drinking rather than total abstinence. This meta-analysis included 14 clinical trials, in which relapse was decreased significantly, from 48% to 37%. The odds ratio favored naltrexone, 0.62, suggesting a 38% decrease in heavy drinking. In one study, patients were not abstinent before beginning naltrexone. In another study, the drug was effective in a primary care setting. In a third study, naltrexone was effective for reducing heavy drinking in nondependent heavy drinkers. In a fourth study, the combination of naltrexone and acamprosate was as safe and more effective than either alone.

Prescribing Naltrexone

Naltrexone can be started at 12.5 or 25 mg a day and advanced to 50 mg a day. Its main contraindication is opiate dependence or need for opioids. The main side effects are nausea and dizziness, which can be avoided by starting at a low dose and increasing it to the therapeutic dose of 50 mg per day over time as tolerated, usually after a few days. Liver enzymes should be monitored because of hepatitis seen at much higher than the doses recommended for alcoholism (for example, >300 mg a day). The main difficulty with the use of naltrexone is that it can complicate pain management, leading to a need to give very high dose opioids in the event of acute pain, or stopping and restarting therapy perioperatively.
Drugs Under Study

- Injectable naltrexone
- Topiramate
- Ondansetron
- Combinations
- For people with alcohol problems, but not dependence
  - Targeted use

Other medications have been studied and initial studies have shown efficacy for injectable naltrexone, topiramate, and ondansetron, at least for some patients. Combinations of effective medications are also being studied to see if they will be more effective than a single drug alone. Another related use of medications with efficacy for alcohol dependence is treatment of patients with alcohol problems but not dependence. In that circumstance use has been targeted, taking the medication just before exposure to situations in which people are predictably at risk for heavy drinking.

Pharmacogenomics

Given the modest effects demonstrated in clinical trials, pharmacotherapies are clearly not cures for alcohol dependence. But it may be possible to better target their use to patients for whom they are more effective. This study examined the association between two specific polymorphisms of the gene encoding the mu-opioid receptor and treatment outcomes in alcohol-dependent patients who were prescribed naltrexone or placebo. In these data combined from 3 randomized trials, time to first relapse in the naltrexone-treated subjects was significantly longer in those with the Asp40 allele coding for the mu-opioid receptor. There were no differences between those assigned to placebo and those without the Asp40 allele assigned to naltrexone.
Medications and Psychosocial Therapy

- Usually medications given along with psychosocial therapy
- Naltrexone & primary care management (PCM) vs. naltrexone & cognitive behavioral therapy (CBT)
  - Comparable results for initial 10 weeks, results favored PCM thereafter
- Naltrexone (vs. placebo) without obligatory therapy was effective in treating alcohol dependence

In most studies medications are given along with psychosocial therapy. But questions remain regarding the minimum therapy required. For example, O’Malley and colleagues compared counseling designed to be feasible in primary medical care settings with standard cognitive behavioral therapy in clinical trials of naltrexone. Both types of counseling yielded comparable results during the initial 10 weeks of treatment and results favored primary care management after that. In another clinical trial, naltrexone was efficacious even without psychosocial therapy.


Pharmacotherapy for Mood and Anxiety Disorders

- Insufficient evidence to suggest their use in patients without mood disorders
  - SSRIs citalopram & fluvoxamine
- Treatment of patients with co-existing psychiatric symptoms and disorders can decrease alcohol use
  - Anxiety: buspirone
  - Depression: fluoxetine

About 50% of people with alcohol dependence have psychiatric comorbidity. Although selective serotonin reuptake inhibitors (SSRIs) have been efficacious for treating alcohol dependence even in patients without depression or anxiety, there is insufficient evidence to suggest their use in patients without these disorders. In people with coexisting anxiety, buspirone can decrease heavy drinking, and in depression, fluoxetine can decrease heavy drinking. But the most important issue is to not delay treatment for psychiatric comorbidity while awaiting resolution of drinking.
In summary, pharmacotherapy for alcohol dependence has efficacy and should be considered for all patients with alcohol dependence. Pharmacotherapy has proven efficacy when prescribed along with psychosocial counseling. There is no clear single drug of choice for this indication, and combinations of efficacious drugs and new drugs for this indication hold promise.
2. EDUCATIONAL TOOLS

Instructor’s Guide to the Curricula

Tips for Small & Large Group Teaching
Guide for Using ACT Curriculum in Small and Large Group Sessions

Introduction
This section is focused primarily on small group teaching, but many of the concepts are also applicable to large groups, and some specific ideas about large-group teaching are also included. Although the information provided might be familiar to the seasoned academic physician, some ideas presented might be novel, and all information will prove useful to academic physicians who are new to teaching.

Components of Effective Teaching

1. Preparation
   __ Decide on goals for teaching
   __ Familiarize yourself with ACT learning objectives
   __ Decide on teaching resources
   __ Prepare handouts
   __ Arranged for equipment

2. Setting the Stage
   __ Introductions
   __ Create effective learning climate
   __ Set ground rules
   __ Review plans, goals, objectives

3. Teaching Methods
   __ Provide instruction and opportunities for discussion, problem-solving and practice
   __ PowerPoint Presentations
   __ Video cases
   __ Role play

4. Activity
   __ Manage the session
   __ Engage all learners

5. Debriefing
   __ Ensure learners have understood what has been discussed
   __ Clarify confusing points
   __ Address clinical application

6. Provide and receive feedback
Components of Effective Teaching: Expanded from Outline

1. Preparation

Adequate preparation is key to effective teaching. Begin the process by considering the size and nature of your group and the purpose of the teaching session.

a. Decide on goals for teaching
Consider reasonable outcomes of teaching. What will be your impact? What do you expect learners to walk away with? Which skills are most important and what content is necessary to support those skills?

Goals for teaching should be achievable. The most common mistake that medical teachers make is attempting to teach too much content in a too short period of time. It is better to teach one thing well than many things poorly. With a short time slot, it is most effective to focus on key knowledge and skills – perhaps one to three main messages. Additional or ancillary learning may be assigned using readings or other resources that learners can access on their own time. Mostly, you want your teaching to be meaningful and profound. This won’t happen if you try to cram too much into a limited timeframe.

b. Familiarize yourself with ACT learning objectives
Overall ACT Curricular Goals and Objectives:

- Learners will understand the importance of alcohol screening and intervention.
- To describe and demonstrate a practical approach to screening and brief intervention for alcohol problems in medical settings with attention to cross-cultural efficacy and health disparities.
- Using a patient-centered, evidence-based approach learners will be able to…
  - ASK about alcohol use
  - ASSESS severity and readiness to change
  - ADVISE cutting down or abstinence, and ASSIST in goal setting, and further treatment when necessary
  - ARRANGE follow-up to monitor progress
  - ASSURE cross-cultural efficacy by building trust through respect, eliciting patients concerns and explanatory models, mitigating power differences, and expressing empathy

c. Decide on teaching resources
Depending on the size of your group, time available, teaching environment and resources, different approaches to teaching will be more effective. These approaches may range from straight-forward didactic presentations for a large-group venue, to an interactive small group with role play or standardized patients. In either case, you may use the same resources, but in a different way. For example, PowerPoint slides can be used in either setting and, although role play or standardized patients are more effective in small groups, they may be used for demonstration in large group teaching.
In order to plan your approach, begin by reviewing all of the ACT curriculum materials, and selecting those that are most well suited to your goals, your learners, and the context of your teaching. If you have ample time, consider augmenting your teaching with:
- testimonials from a recovering patient
- demonstration interviews with a recovering, standardized, or role play patient
- interviews with actual patients

d. Prepare handouts
Handouts might include copies of PowerPoint slides, related articles, or summaries of key points in curriculum presentations. Handouts should reiterate your main messages and provide background information for learners.

e. Arrange for equipment
Arrange for computer equipment, Internet access*, LCD projector, and speakers connected to the computer. The curriculum is useable on a PC or Macintosh (OSx10) computer. Be sure to plan for ample time to check the equipment and practice your presentation. Technical glitches can ruin the pace and effectiveness of a teaching session.

The curriculum is available online in several media formats and your technical requirements will vary accordingly. The curriculum needs to be downloaded for group presentation.

The curriculum itself is presented as a series of PowerPoint presentations so you will need Microsoft PowerPoint. Slides are augmented with video cases, so if you are giving the presentation on a computer connected to the Internet you will need Real Player to play the video.

If you want to give the presentation without an Internet connection you must first download the curriculum which is packaged as a .zip file. You then need to extract the files for use. Be sure to keep the files in the folder when copying to another drive or another computer. The video files in this case can be played with Windows Media Player.

If you choose to use any of the accompanying pre-recorded narration with the PowerPoint, download the file identified as “curriculum with narration”. The sound will play automatically as each slide is advanced. A set of speakers with a volume control would best facilitate a live presentation in this format.

2. Setting the Stage
a. Introductions
Introductions are important to small group functioning, and large groups can feel more included if you use introduction techniques. In small groups, every member should introduce him/herself by name. You should record each person’s name and where they are sitting so that you can use names when asking directed questions. This is particularly helpful when the group or an individual learner is not very interactive. You can request other information in the introduction as well if it will enhance small group dynamics or to provide you with additional insight into the learning needs and experiences of the learners. You may choose to ask learners to reveal their greatest challenge with patients who abuse alcohol, or their greatest success. Or, to understand your learners past experience better, you might ask them to tell of any alcohol or cross-cultural training they might
have had in the past. With larger groups introductions are more difficult. If you need to understand the level of training in a large group of learners, you may use polling techniques: “How many of you screen all of your patients regularly for alcohol problems?” or: “Who had training in using the CAGE questions in Medical School?”

b. Create effective learning climate
Learning climate is the tone or atmosphere of the teaching setting including whether it is stimulating and whether learners can comfortably identify and address their limitations. Learning climate can be affected by the instructor and by participants. Issues like creating a safe place to try new skills, setting a coaching rather than an evaluative tone, and encouraging participants to take intellectual risks can be modeled by the instructor and reinforced through positive feedback. Particularly in small group settings, the make-up of the group may also affect learning climate. Every group has its own dynamic depending upon the size and composition of the group. Small groups are heavily influenced by the personality characteristics of their members. In the best groups, members balance each other, assist each other, and participate appropriately and proportionally in the learning activity. If a group is unbalanced, competitive or dominated by certain individuals, the learning process can be negatively influenced, and the instructor must intervene to restore a positive climate.

c. Set ground rules
Ground rules are especially important to small group teaching. Ground rules can be used to enhance learning climate or to intervene if group dynamics interfere with group functioning. Ground rules include things like honesty, confidentiality, focusing on positive feedback before negative, equal opportunity to participate, or allowing the option to pass on participation. Ground rules should grow out of your goals for the session as well as the nature of the group.

d. Review plans, goals, objectives
Or – “Tell them what you are going to tell them.” It is important from the outset that learners be informed of what to expect in the teaching session. This gets everyone on the same page and makes it easier to manage the agenda for the time allowed. Learners should be aware of what they need to do to be successful in the session and how they will be evaluated. They should also understand the purpose of your teaching – why are they learning this material? How is it important to their training?

3. Teaching Methods
a. Provide instruction and opportunities for discussion, problem-solving and practice
Here is where you implement your methods to accomplish your goals. Again, always be careful not to attempt to teach too much in a too short period of time. When planning your methods consider what learners need to know in order to practice and apply a skill, how they might get the opportunity to practice in your teaching session, and how they might translate their learning into clinical behaviors. In the ACT curriculum, materials are provided to you so that background knowledge can be reviewed (PowerPoint presentations) and skills demonstrated (video case discussions).
b. Using PowerPoint presentations
When using PowerPoint presentations with small groups (rather than larger groups), it is best to avoid excessive formality and to retain the more intimate nature of the small group. If possible, arrange seating in a U-shape, and remain seated during your presentation. This will encourage learner attention and participation throughout your presentation. PowerPoint presentations are an excellent way to convey content in an efficient manner. Visuals reinforce your verbal messages, and models or graphs can be especially useful. When appropriate, you can make your presentation more interactive by asking learners to explain concepts or models included in your slide set.

c. Using video cases
ACT video cases provide opportunity for observation of clinical examples, reflection and discussion. Depending on the group, video cases may trigger immediate relevant discussion, or may trigger irrelevant discussion or silence. Before using video cases, be sure to review them and prepare a series of questions should your group be the quiet type. Be sure to steer the group back on track should the discussion wander off topic (e.g., did you notice the beard on that guy??). If discussion is on-topic, be aware of the key points that you want to reinforce and use Socratic method to draw these points from the learners. You can do this informally or collect the points on a board or flip chart as discussion progresses.

d. Using role play (or skills practice sessions)
To allow an opportunity for practice you may use role play techniques using 2 learners or a learner and a standardized patient. Role play is a common method used to teach clinical communication and counseling skills. It is important to first establish a safe setting, by establishing certain ground rules like:
- Anyone playing the clinician in the role play is the first to critique his/her performance.
- Start with positive feedback, “What went well?”
- Model positive feedback yourself
- Provide corrective feedback like a coach, “next time try….” Or “you could improve your performance by…”

When using role play, assign both clinician and patient roles. Be careful with the patient role though. If you are teaching residents or practicing physicians and they devise the patient role themselves, they may portray the most difficult patient. Be sure to provide guidance to the “patient” about where they are willing to listen, respond, and compromise.

4. Activity
a. Manage the session
The greatest benefits of small group approaches to teaching are its potential for active learning, discussion, and the development of meaningful interpersonal relationships. The small group becomes not only the venue for teaching, but also a resource for teaching. Effective facilitation skills allow the instructor to manage and direct the resources of the small group to maximize teaching potential.
Managing the session is the manner in which teaching interaction is focused and paced as influenced by the instructor’s leadership style. A **directive** style is instructor-centered, with the instructor calling the shots, informing and directing the learners. This style requires the greatest effort by the instructor, and may be most effective in larger group settings. The **democratic** style engages students in making decisions by rule of the majority. This requires frequent polling and runs the risk of neglecting minority views. The **non-directive** style relies on the skills and self-efficacy of learners to take responsibility for leadership of group activities. This approach may be most effective in working groups. For most teaching activities, the instructor will adapt leadership style to be consistent with the learning activity. For example, a directive style would be appropriate for didactic presentations, a democratic style for situations where there are different options for learning, and a non-directive style for certain discussions.

b. Engage all learners

Engaging learners is an art form. The basis for engagement includes learner expectations, and interest in the content, but it is also highly influenced by the relationship between instructor and learner. Artful ways to encourage engagement include the use of facilitation skills.

Facilitation skills for teaching are similar to those used in physician-patient interactions. As in the clinical setting, eye contact, non veritals, knowing your learner’s name, open-ended questioning, and vocal cues like “uh-huh” and “tell me more” can help learners contribute to small group discussion. And, always be aware of the quiet learner – the one who may need an overt invitation to participate. Students who are shy about participation without an invitation appreciate instructors who 1) notice that they have not contributed; and 2) specifically invite their contribution.

Nonverbals and silence can be effective management tools not only to curb discussion when needed, but also to foster it:
- To foster discussion, pose an open-ended question and remain silent
- To encourage discussion from a quiet group member, look at him/her, or provide a verbal invitation to speak
- To close discussion look away, check the clock or interrupt if necessary. To stop a rambling learner use touch if possible

Focusing and expanding discussion can be accomplished using standard Socratic methods. To open discussion, pose a clinical case or open question. To expand discussion, add more open questions or different cases. Use “what if” scenarios to change the case or steer it in a more interesting or controversial direction. To focus discussion, use gradually more specific and focused questions.

Finally, be sure to avoid the common pitfalls:

__ When you ask a question don’t answer it yourself or try to reformulate it, count to 10 silently before speaking again

__ When you have something you could say (which is most of the time), count to 10 again

__ Look around the group both when you are speaking and when a learner is speaking. That way learner will quickly recognize that they are addressing the group rather than just you. It will allow you to pick up cues from those who want to speak but are inhibited
5. Debriefing
a. Ensure learners have understood what has been discussed
Near the end of a teaching session, be sure to set aside time to summarize the main teaching points and to connect teaching to clinical practice. You may set goals for the learners, such as, “Try this with one patient tomorrow, and let me know how it turns out.” If there is additional reading or assignments that learners must complete, this is the time to review these items. It is also important to emphasize how the learner will be held accountable for learning. You can also ask learners to state what was the most important lesson they learned from the session.

b. Clarify confusing points
Take the time to ensure that all learners are clear about the content, how the content will be applied to clinical practice, and what learners are expected to do next. To elicit potential confusion, verbally quiz the students at the end of the session to ensure that they are clear.

c. Address clinical application
You can ask learners to state in which settings they could envision themselves using the material learned from the session. You can ask the whole to discuss potential barriers and facilitators to using the new knowledge or skills in their clinical practice.

6. Provide and receive feedback
It is good to get into the habit of requesting feedback at the end of every teaching session. This will provide you with important information about the effectiveness of your teaching, and will also model your ability to hear and accept both positive and negative feedback on performance.

Providing feedback to learners about their performance should be an on-going process throughout the teaching session as well as during clinical supervision. Effective feedback is intended to reinforce the positive aspects of performance, and provide information and coaching on performance in need of improvement. In order to provide effective feedback, performance must be directly observed, and both successes and challenges noted.

Whenever providing feedback to a learner, start with learner self-evaluation. When you give a learner the opportunity to self-evaluate, he or she will often identify many salient problem areas, and will sometimes be even more critical than expected. Allowing learners to self-evaluate serves several purposes:
1. Reduces shame as learners can save face by recognizing performance problems first.
2. Provides you with insight into which problems learners are aware of, and which problems elude the learner’s awareness.
3. Provides you with an opportunity to correct misperceptions.
4. Develops learner’s self-assessment skills and contributes to lifelong learning.
5. Makes your job easier as the most obvious shortcomings in performance are already on the table.

Some principles of effective feedback include:
1. Feedback should be expected. Be sure to set expectations for learners so there are no surprises.
2. Provide feedback immediately after performance if possible. If not, the sooner the better.
3. Be concise, focused, and objective.
4. Make your feedback specific to the performance you have observed. Include specific suggestions for improvement.
5. Highlight the positives to improve the likelihood that these behaviors will be repeated.
6. For problem areas, provide helpful advice, resources and suggestions to improve performance.
7. Remain future-oriented: “The next time you do this try X. You will find that it is a more effective approach.”

To enhance the learners receptivity for feedback, use the “sandwich” technique, starting with praise for something done well, followed by suggestions for improvement, and ending with positive reinforcement.
Teaching with Role Play

1. Prepare learners
   __ State goals and objectives
   __ Set ground rules
   __ Offer to demonstrate role play/skills
   __ Assign patient and provider roles
   __ Assign observer roles
   __ Set time limit (5 minutes or less)

2. Run the role play
   __ Arrange chairs
   __ Review communication goals
   __ Start the role play
   __ STOP if necessary; discuss and restart
   __ **At 5 minutes** STOP the role play for debriefing

3. Debriefing
   __ Ask for physician assessment of the interaction
     - What went well?
     - What would you have liked to have done differently?
   __ Ask for patient assessment of the interaction
     - What went well?
     - What would you have liked to have seen done differently?
     - How did you feel about the interaction?
   __ Ask for observer assessment of the interaction
     - What went well?
     - What might you have done differently?
   __ Lead a general discussion
   __ List learning points, open questions
   __ Agree on how to proceed

Teaching with Role Play (or Skills Practice Sessions): Expanded from Outline
When using role play for teaching, use the following guidelines:

1. **Prepare the learners:**
   a. Explain the goals and objectives of the role play exercise.
   
   b. Set ground rules. The exercise should be a safe and supportive one. Observing learners should consider what helpful feedback they can provide at the end of the role play. Role play participants should have the opportunity to call time out if they want to stop and break role. Frame the exercise as an opportunity to experiment and try new techniques; performance is not expected to be perfect. Role plays should be **brief - less than five minutes each** to allow for processing and feedback.
c. If this is a new skill, offer to demonstrate the interaction yourself prior to learners first attempts. This gives them an opportunity to observe the skills as they are operationalized by faculty. It also models the role play technique, self-reflection, and elicitation and acceptance of feedback by faculty.

d. Assign roles including the physician and patient, and observational roles. It is often easier to get the learners to volunteer for a role if you ask for volunteers for the patient role first. Learners observing the role play can be given specific skills, interactions or responses to look for and provide feedback on. This focuses their observation role and helps address all important aspects of skills for feedback.

e. Set time limits for the role play. Generally speaking, role plays should not exceed 5 minutes. Longer role plays are too much to review and process. If you are teaching a complicated skill that requires more time, break the role play into several component pieces and deal with each piece separately.

2. Run the Role Play:

a. Arrange chairs for role play participants.

b. Review the communication goals of the 5 minute (or less) segment of role play you are covering. Ensure that both physician and patient are clear about their roles.

c. Start the role play. (Note: You can jump in and stop the role play at any time if the physician seems to be floundering, not sure where to go, or is experiencing anxiety. The physician in the role play may also call time out. At that point, ask the physician to talk about what he or she has accomplished so far, and what next steps he or she would like to take. Once this is clarified, continue. If necessary, model some skills yourself, ask the patient to take a different track, or ask for a volunteer from the group to carry on.)

d. Stop the role play at 5 minutes or less for debriefing.

3. Debriefing Guidelines:

a. General principles - 1) Focus on successes; 2) Comments should be confined to behaviors not personality traits or other characteristics of the participants; 3) Feedback should be positive or corrective never negative; 4) Always ask the learner in the physician role to comment first; 5) Hold your comments for last after patient and observers have completed their feedback; 6) Facilitate and manage patient and observer feedback to ensure that feedback is helpful, not punitive.

b. “Physician” self-assessment questions include: 1) What went well? 2) What would you have liked to have done differently? (Note: You can restart the role play to try out options if important alternative approaches come up or if the physician player requests.)
c. “Patient” debriefing questions include: 1) What went well? 2) What would you have like to seen done differently? 3) How did you feel about the interaction? (Note: Be sure to keep the patient centered. Highly critical patients can be harmful to the physician and will not improve skills. In such a situation, ask the patient about specific techniques that would have been helpful. Consider reversing patient and physician roles as a strategy.)

d. Observer debriefing questions include: 1) What went well? (First focus on successes.) 2) What might you have done differently? (You can try some of these suggestions in an additional role play.)

e. Lead a general discussion of all participants.

f. List learning points, open questions and agree on how to proceed with this or other role plays.

4. **Continuation options:**

a. Allow replay; Change physicians; Switch roles and restart; Continue with scenario/next step/next visit; Change conditions/character; Change roles.
Alcohol Clinical Training (ACT) Pre-Session Survey

1. Are you:
   Male ........................................1
   Female ......................................2

2. Are you Hispanic or Latino?
   No .............................................0
   Yes ...........................................1

3. Do you primarily consider yourself:  
   (circle one)
   American Indian or Alaska Native ........................................ 1
   Asian .................................................................................... 2
   Black or African American .................................................. 3
   Native Hawaiian or other Pacific Islander ........................... 4
   White ..................................................................................... 5
   Other (specify)____________________________________________ 6

4. What is your year of birth? __ __ __ __ __

5. Were you born in the U.S?
   No .................................................0
   Yes ................................................1

6. Were BOTH of your parents born in the U.S?
   No ...............................................0
   Yes ...............................................1
7. Is English your first language?
   No.............................................0
   Yes .......................................1

8. How many languages other than English do you speak fluently? ______

9. What year did you complete your residency or clinical training? ______ ______ ______

10. To which type of practice do you belong?
    Academic Hospital..........................................1
    Non-academic Hospital...................................2
    Large Group Practice ......................................3
    Small Group Practice ......................................4
    Solo Practice ...................................................5

For the next 2 questions, a standard drink refers to a 12 oz beer, a 5 oz glass of wine, or one 1.5 oz shot or mixed drink.

How many standard drinks are considered low risk drinking amounts for a healthy 45 year-old man?
   11. NO MORE THAN _____ _____ drinks per week (on average)
   12. NO MORE THAN _____ _____ drinks per drinking occasion

How many standard drinks are considered low risk drinking amounts for a healthy, non-pregnant 35 year-old woman?
   13. NO MORE THAN _____ _____ drinks per week (on average)
   14. NO MORE THAN _____ _____ drinks per drinking occasion
Please identify what the 4-letters in the CAGE acronym stand for (key words only):

15. C =

16. A =

17. G =

18. E =

You have just finished assessing your patient for alcohol use, and have determined that he has had to drink increasingly more over the past year to achieve the same effect. He describes having ‘the shakes’ in the morning, and has blacked out on more than one occasion. He recognizes that his drinking is a problem, and has tried without success to cut down over the past few months.

19. The best drinking goal for patients like this is:
   - Abstinence only
   - Cutting down only
   - Cutting down or abstaining are equally good goals

20. It is likely that this patient has:
   - Risky drinking without alcohol dependence
   - Alcohol dependence
   - Neither

21. This patient would best be described as being in the following stage of readiness to change his drinking:
   - Precontemplation
   - Contemplation
   - Determination/action

You have screened your patient, a 42 year-old woman, for alcohol use. She reports drinking 3-4 beers about 3 times per week, and answered “no” to all of the CAGE questions. She has a family history of alcoholism. She says that she drinks to help her relax, states that she does not have an alcohol problem, and sees no reason to change.

22. The best drinking goal for patients like this is:
   - Abstinence only
   - Cutting down only
   - Cutting down or abstaining are equally good goals
23. It is likely that this patient has:
- Risky drinking without alcohol dependence
- Alcohol dependence
- Neither

24. This patient would best be described as being in the following stage of readiness to change her drinking:
- Precontemplation
- Contemplation
- Determination/action

25. Please rate the following statements according to your current beliefs:

<table>
<thead>
<tr>
<th>Statement</th>
<th>Disagree</th>
<th>Somewhat disagree</th>
<th>Neither agree nor disagree</th>
<th>Somewhat agree</th>
<th>Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. It takes too much time to address patients’ drinking problems</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>b. Understanding a patient’s health beliefs is important when addressing alcohol problems</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>c. It is not my responsibility as a physician to address patients’ alcohol problems</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>d. Advising a patient about their excessive drinking can improve their health</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>e. Patients who have difficulty understanding me are an unnecessary drain on my clinical time</td>
<td>1</td>
<td>2</td>
<td>3</td>
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<td>5</td>
</tr>
<tr>
<td>f. I have little patience for patients who refuse to accept that their excessive drinking is bad for them</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
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<tr>
<td>g. Making specific statements to assure patients they have been understood is important when addressing alcohol problems</td>
<td>1</td>
<td>2</td>
<td>3</td>
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<td>5</td>
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<tr>
<td>h. I am not interested in patients’ explanations and excuses for drinking at unhealthy levels</td>
<td>1</td>
<td>2</td>
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<td>5</td>
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</tbody>
</table>
26. **In the past 3 months, I.....**

<table>
<thead>
<tr>
<th>Question</th>
<th>Never</th>
<th>Rarely</th>
<th>Sometimes</th>
<th>Usually</th>
<th>Always</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Asked patients about quantity and frequency of alcohol use</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>b. Screened patients for alcohol problems using the CAGE</td>
<td>1</td>
<td>2</td>
<td>3</td>
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<tr>
<td>c. Assessed patients for alcohol consequences after a positive screen</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>d. Assessed patients readiness to change their behavior after a positive screen</td>
<td>1</td>
<td>2</td>
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<td>5</td>
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<tr>
<td>e. Made specific statements when addressing alcohol problems to assure patients they had been understood</td>
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<td>5</td>
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<tr>
<td>f. Elicited the patient’s health beliefs when addressing alcohol problems</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
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<tr>
<td>g. Counseled all patients with alcohol problems regarding their alcohol use</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
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<tr>
<td>h. Reflected upon problem drinkers’ rationale for drinking</td>
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27. **I am confident in my ability to:**

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<thead>
<tr>
<th>Question</th>
<th>Not at all Confident</th>
<th>Somewhat Confident</th>
<th>Very Confident</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Ask patients about quantity and frequency of alcohol use</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>b. Screen patients for alcohol problems using the CAGE</td>
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<tr>
<td>c. Assess patients for alcohol consequences after a positive screen</td>
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<tr>
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<td>e. Make specific statements when addressing alcohol problems to assure patients they have been understood</td>
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</table>
f. Elicit the patient’s health beliefs when addressing alcohol problems

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g. Counsel all patients with alcohol problems regarding their alcohol use

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h. Reflect upon problem drinkers’ rationale for drinking

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28. **In the next 3 months, I intend to:**

(a) Ask patients about quantity and frequency of alcohol use

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<th>Never</th>
<th>Rarely</th>
<th>Sometimes</th>
<th>Usually</th>
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(b) Screen patients for alcohol problems using the CAGE

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(c) Assess patients for alcohol consequences after a positive screen

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(d) Assess patients readiness to change their behavior after a positive screen

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(e) Make specific statements when addressing alcohol problems to assure patients they have been understood

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(f) Elicit the patient’s health beliefs when addressing alcohol problems

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(g) Counsel all patients with alcohol problems regarding their alcohol use

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(h) Reflect upon problem drinkers’ rationale for drinking

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</table>
Alcohol Clinical Training (ACT) Post-Session Survey

How many standard drinks are considered low risk drinking amounts for a healthy 45 year-old man?
1. NO MORE THAN ____ ____ drinks per week (on average)
2. NO MORE THAN ____ ____ drinks per drinking occasion

How many standard drinks are considered low risk drinking amounts for a healthy, non-pregnant 35 year-old woman?
3. NO MORE THAN ____ ____ drinks per week (on average)
4. NO MORE THAN ____ ____ drinks per drinking occasion

Please identify what the 4-letters in the CAGE acronym stand for (key words only):

5. C =

6. A =

7. G =

8. E =

You have just finished assessing your patient for alcohol use, and have determined that he has had to drink increasingly more over the past year to achieve the same effect. He describes having ‘the shakes’ in the morning, and has blacked out on more than one occasion. He recognizes that his drinking is a problem, and has tried without success to cut down over the past few months.

9. The best drinking goal for patients like this is:
   - Abstinence only
   - Cutting down only
   - Cutting down or abstaining are equally good goals
10. It is likely that this patient has:
   - Risky drinking without alcohol dependence
   - Alcohol dependence
   - Neither

11. This patient would best be described as being in the following stage of readiness to change his drinking:
   - Precontemplation
   - Contemplation
   - Determination/action

You have screened your patient, a 42 year-old woman, for alcohol use. She reports drinking 3-4 beers about 3 times per week, and answered “no” to all of the CAGE questions. She has a family history of alcoholism. She says that she drinks to help her relax, states that she does not have an alcohol problem, and sees no reason to change.

12. The best drinking goal for patients like this is:
   - Abstinence only
   - Cutting down only
   - Cutting down or abstaining are equally good goals

13. It is likely that this patient has:
   - Risky drinking without alcohol dependence
   - Alcohol dependence
   - Neither

14. This patient would best be described as being in the following stage of readiness to change her drinking:
   - Precontemplation
   - Contemplation
   - Determination/action
15. Please rate the following statements according to your current beliefs:

<table>
<thead>
<tr>
<th>Statement</th>
<th>Disagree</th>
<th>Neither agree nor disagree</th>
<th>Somewhat agree</th>
<th>Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. It takes too much time to address patients’ drinking problems</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>b. Understanding a patient’s health beliefs is important when addressing alcohol problems</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>c. It is not my responsibility as a physician to address patients’ alcohol problems</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>d. Advising a patient about their excessive drinking can improve their health</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>e. Patients who have difficulty understanding me are an unnecessary drain on my clinical time</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>f. I have little patience for patients who refuse to accept that their excessive drinking is bad for them</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>g. Making specific statements to assure patients they have been understood is important when addressing alcohol problems</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>h. I am not interested in patients’ explanations and excuses for drinking at unhealthy levels</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>
16. **I am confident in my ability to:**

<table>
<thead>
<tr>
<th>(circle one for each item)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Not at all</strong></td>
</tr>
<tr>
<td>Confident</td>
</tr>
<tr>
<td>1</td>
</tr>
</tbody>
</table>

a. Ask patients about quantity and frequency of alcohol use

b. Screen patients for alcohol problems using the CAGE

c. Assess patients for alcohol consequences after a positive screen

d. Assess patients readiness to change their behavior after a positive screen

e. Make specific statements when addressing alcohol problems to assure patients they have been understood

f. Elicit the patient’s health beliefs when addressing alcohol problems

g. Counsel all patients with alcohol problems regarding their alcohol use

h. Reflect upon problem drinkers’ rationale for drinking
### 17. In the next 3 months, I intend to:

* (circle one for each item)

<table>
<thead>
<tr>
<th></th>
<th>Never</th>
<th>Rarely</th>
<th>Sometimes</th>
<th>Usually</th>
<th>Always</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Ask patients about quantity and frequency of alcohol use</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>b. Screen patients for alcohol problems using the CAGE</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>c. Assess patients for alcohol consequences after a positive screen</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>d. Assess patients readiness to change their behavior after a positive screen</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>e. Make specific statements when addressing alcohol problems to assure patients they have been understood</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>f. Elicit the patient’s health beliefs when addressing alcohol problems</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>g. Counsel all patients with alcohol problems regarding their alcohol use</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>h. Reflect upon problem drinkers’ rationale for drinking</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

### 18. In the next 3 months, how much will you change your practice regarding alcohol problems as a result of this course?

- [ ] Not at all
- [ ] A little
- [ ] Somewhat
- [ ] Very much
3. PUBLICATIONS/PRESENTATIONS

The Alcohol Clinical Training (ACT) Project: A Free Online Alcohol Curriculum for Use by Generalist Clinician Educators

DP Alford, SE Chapman, CE Dubé, N Freedner, RW Schadt, RS Saitz
Clinical Addiction Research and Education (CARE) Unit, Section of General Internal Medicine, Boston University Schools of Medicine and Public Health; Brown University
Supported by the National Institute on Alcohol Abuse and Alcoholism, Grant # R25 AA13822

BACKGROUND

- Alcohol problems are rarely identified in medical settings
- Brief counseling interventions are not routinely done
- Existing curricula addressing alcohol and health disparities are not being used
- Fewer than half of interns in practice report receiving recent continuing medical education training about substance abuse

AIM & OBJECTIVES

Aim
- To develop, implement, and actively disseminate a model alcohol clinical training (ACT) curriculum for generalist clinicians that integrate health disparity knowledge and skills

Objectives:
- Develop an evidence-based model curriculum that teaches skills for addressing alcohol problems (including screening, assessment, and brief intervention) in primary care settings with an emphasis on cross-cultural efficacy
- Pilot the curriculum with local target audiences
- Train generalist clinician educators nationwide to disseminate the ACT curriculum
- Make the ACT curriculum freely accessible via the Web to facilitate dissemination

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CURRICULUM MATRIX

<table>
<thead>
<tr>
<th>Alcohol problem severity</th>
<th>Case #1</th>
<th>Case #2</th>
<th>Case #3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohol screening</td>
<td>Ask (screen)</td>
<td>Assess</td>
<td>Advise</td>
</tr>
<tr>
<td>Alcohol intervention</td>
<td>Ask</td>
<td>Assess</td>
<td>Advise</td>
</tr>
<tr>
<td>Alcohol education</td>
<td>Ask</td>
<td>Assess</td>
<td>Advise</td>
</tr>
<tr>
<td>Alcohol prevention</td>
<td>Ask</td>
<td>Assess</td>
<td>Advise</td>
</tr>
</tbody>
</table>

PRELIMINARY EVALUATION

Evaluation of Primary Care Physician Training

- Sample from 2 trainings consisting of local medical residents and practicing clinicians in a community-based managed care organization (N=14)
- Following a 3-3 hour ACT course for physician learners:
  - 63% of physicians intended to usually or always use the CAGE to screen, compared with 16% who usually or always used the CAGE in the 3 months prior to the ACT training
  - Knowledge of risky drinking limits increased from 25% correct before the ACT course to 62% correct after the ACT course
- On a scale from 1 to 5, confidence in screening patients for alcohol problems in a culturally efficacious way increased from 3.7 to 4.5 as a result of the ACT training
- 100% indicated that they would use the videos in their teaching; 75% would use the slides as well
- Physicians indicated that they would use the ACT curriculum in resident (78%) and medical student (50%) conferences, CME courses (38%), inpatient attending rounds (43%), and precepting (23%)

CONCLUSIONS

- Teaching of cross-cultural efficacy can be integrated into the teaching of more general clinical skills
- An Alcohol Clinical Training (ACT) curriculum was designed and developed in an online format for generalist clinician educators
- Primary care physicians who were trained reported positive changes in confidence, and intended to increase screening patients for alcohol use
- Physician educators who were trained rated the curriculum positively, and indicated that they would use it in their teaching

IMPLICATIONS

- Alcohol screening and brief intervention can be taught using a multi-media web-based curriculum
- Such materials may support wider dissemination of appropriate care for patients with unhealthy alcohol use

www.mdalcoholtraining.org

A Web-Based Alcohol Clinical Training Curriculum: Is In-Person Faculty Development Necessary?

DP Alford 1, 2, JM Richardson 1, 2, SE Chapman 1, 2, CE Dubé 3, RW Schadt 4, RS Saitz 1, 2, 4
1 Medicine 2; Youth Alcohol Prevention Center 3, Boston University School of Public Health 4; Brown University
Supported by the National Institute on Alcohol Abuse and Alcoholism, Grant # R25 AA13822

Background:
Physicians often address alcohol problems in medical settings. Brief counseling interventions are not routinely done. Existent curricula addressing alcohol screening and brief intervention are not being widely used. Fewer than half of interns in practice report receiving recent continuing medical education training about substance abuse.

Objective:
To test whether a free web-based Alcohol Clinical Training (ACT) curriculum would be used by physician educators. To test whether in-person faculty development would be associated with ACT curriculum use or increased teaching confidence and specific teaching practices.

Study Design and Methods:
Controlled educational study of evaluation data collected from workshop attendees (intervention subjects) at an American College of Physicians (ACP) national meeting. Comparison with workshop attendees who applied after workshop was full (control subjects).

Methods:
Enrolled U.S. physician educators who applied to attend a workshop on the use of the ACT curriculum. Surveyed both intervention and control subjects at the time of application (baseline) and 3 months after workshop (follow-up).

Outcomes:
Change from baseline to follow-up, using 5-point Likert Scale, of teaching confidence and specific teaching practices regarding:
- Alcohol screening
- Assessment of readiness to change
- Counseling about alcohol problems
- Assuring patients that they are understood
- Curriculum Use - Any use, or use of slides, notes, audio for teaching or self-learning

Teaching Practices:
- Alcohol screening
- Assessment of readiness to change
- Counseling about alcohol problems
- Assuring patients that they are understood

Results:
Of 20 intervention and 13 control subjects, 19 (95%) and 10 (77%), respectively, completed follow-up.

<table>
<thead>
<tr>
<th>Attendance</th>
<th>Intervention Group</th>
<th>Control Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any curriculum use</td>
<td>79</td>
<td>50</td>
</tr>
<tr>
<td>Slides Use</td>
<td>58</td>
<td>40</td>
</tr>
<tr>
<td>Notes Use</td>
<td>37</td>
<td>20</td>
</tr>
<tr>
<td>Audio Use</td>
<td>6</td>
<td>10</td>
</tr>
<tr>
<td>Video Use</td>
<td>16</td>
<td>10</td>
</tr>
</tbody>
</table>

*No significant differences between groups

Conclusions:
- In-person training for physician educators on the use of a web-based Alcohol Clinical Training curriculum is associated with increases in teaching confidence and specific teaching practices.
- Although not significant, a greater proportion of educators who had in-person training used the web-based curriculum
- Even without in-person training, a substantial proportion of subjects reported using the web-based curriculum

Implications:
- Though the web serves as an effective dissemination tool, in-person educator training may be required to effect widespread teaching of clinical skills like those involved in alcohol screening and brief intervention.


Manuscript Citation: Alford D, Richardson JR, Chapman SE, Dubé C, Schadt R, Saitz R. A Web-Based Alcohol Clinical Training (ACT) Curriculum: Is In-Person Faculty Development Necessary to Affect Teaching? Manuscript Under Review as of July 2007.
4. MARKETING – CURRICULUM POSTCARD

Side 1

www.mdalcoholtraining.org

For generalist clinician educators...

Helping Patients Who Drink Too Much

A free web-based curriculum for screening and brief intervention for unhealthy alcohol use

Supported by the National Institute on Alcohol Abuse and Alcoholism

Side 2

www.mdalcoholtraining.org

This curriculum, which can be adapted to fit the needs of the educator, includes 3 video cases and a slide presentation with educator notes.

Using a patient-centered, evidence-based approach that emphasizes cross-cultural efficacy, learners will be able to:

• **ASK** about alcohol use
• **ASSESS** severity and readiness to change
• **ADVISE** cutting down or abstinence, and assist in goal setting and further treatment when necessary

*Helping Patients Who Drink Too Much* is a product of the Alcohol Clinical Training (ACT) Education Project

www.actproject.org
Appendix C. Newsletter Materials

1. SNAPSHOT PAGES OF WWW.ALCOHOLANDHEALTH.ORG

[Image of snapshot pages of www.alcoholandhealth.org]
2. JOURNALS REVIEWED

**Major Journals Reviewed Regularly:**

<table>
<thead>
<tr>
<th>Addiction</th>
<th>British Medical Journal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Addictive Behaviors</td>
<td>Drug and Alcohol Dependence</td>
</tr>
<tr>
<td>AIDS</td>
<td>Epidemiology</td>
</tr>
<tr>
<td>Alcohol</td>
<td>Journal of Addictive Diseases</td>
</tr>
<tr>
<td>Alcohol and Alcoholism</td>
<td>Journal of AIDS</td>
</tr>
<tr>
<td>Alcoholism: Clinical and Experimental Research</td>
<td>Journal of Behavioral Health Services and Research</td>
</tr>
<tr>
<td>American Journal of Drug and Alcohol Abuse</td>
<td>Journal of General Internal Medicine</td>
</tr>
<tr>
<td>American Journal of Epidemiology</td>
<td>Journal of Studies on Alcohol</td>
</tr>
<tr>
<td>American Journal of Medicine</td>
<td>Journal of Substance Abuse Treatment</td>
</tr>
<tr>
<td>American Journal of Preventive Medicine</td>
<td>Journal of the American Medical Association</td>
</tr>
<tr>
<td>American Journal of Psychiatry</td>
<td>Lancet</td>
</tr>
<tr>
<td>American Journal on Addictions</td>
<td>Preventive Medicine</td>
</tr>
<tr>
<td>Annals of Internal Medicine</td>
<td>Psychiatric Services</td>
</tr>
<tr>
<td>Archives of General Psychiatry</td>
<td>Substance Abuse</td>
</tr>
<tr>
<td>Archives of Internal Medicine</td>
<td>Substance Use and Misuse</td>
</tr>
</tbody>
</table>

**Journals Reviewed Periodically:**

| Academic Emergency Medicine       | International Journal of Epidemiology        |
| Accident Analysis and Prevention  | International Journal of Fertility and Women's Medicine |
| ACP Journal Club                  | International Journal of Gynecology and Obstetrics |
| Acta Psychiatræ Scandinaæica      | International Journal of Psychiatry in Medicine |
| Addiction Biology                 | Journal of Addictions Nursing                |
| Addiction Research and Theory     | Journal of Adolescent Health                 |
| Adolescent Medicine               | Journal of American College Health           |
| AIDS Care                         | Journal of Applied Psychology                |
| AIDS Research and Human Retroviruses | Journal of Behavioral Medicine              |
| Alcohol Research and Health       | Journal of Chemical Dependency Treatment     |
| Alcoholism Treatment Quarterly    | Journal of Child and Adolescent Substance Abuse |
| Ambulatory Pediatrics             | Journal of Clinical Epidemiology             |
| American Journal of Health Behavior | Journal of Clinical Psychiatry               |
| American Journal of Obstetrics and Gynecology | Journal of Clinical Psychology            |
| American Psychologist             | Journal of Clinical Psychopharmacology       |
| Annals of Behavioral Medicine     | Journal of Community Health                  |
| Annals of Emergency Medicine      | Journal of Consulting and Clinical Psychology|
| Annals of Epidemiology            | Journal of Drug Education                    |
3. SAMPLE RESEARCH SUMMARY

Alcohol Intake Triggers Recurrent Gout Attacks

Alcohol use may trigger recurrent gout attacks. Researchers tested this hypothesis through a web-based study of people who had a gout attack in the past year. Subjects were recruited online over 10 months and completed online surveys that assessed alcohol use and risk factors for gout attacks.

- Over 1 year of follow-up, 321 gout attacks occurred among 197 subjects.
- In analyses adjusted for diuretic use and purine intake, the likelihood of a gout attack increased as alcohol intake increased within the
  - 24 hours preceding the attack ($P < 0.02$) (e.g., odds ratios comparing drinking with not drinking: 1.4 [95% CI, 0.6–2.4] for 1–2 drinks; 3.1 [95% CI, 1.0–11.0] for $\geq$7 drinks);
  - 48 hours preceding the attack ($P < 0.005$) (e.g., odds ratios 1.1 [95% CI, 0.7–2.0] for 1–2 drinks; 2.5 [95% CI, 1.1–5.9] for $\geq$7 drinks).
- In analyses also adjusted for total alcohol consumption, the risk of an attack was not associated with any specific alcoholic beverage.

Comments:
According to this study, the risk of a recurrent gout attack significantly increases as drinking increases, particularly in people drinking $\geq$7 drinks, in the 24 or 48 hours before the attack. Total consumption appears to affect risk more than intake of a specific beverage. Thus, people with gout should be very careful about consuming alcohol, especially larger amounts, as such consumption could trigger a gout attack.

R. Curtis Ellison, MD

Reference:
Alcohol and Health: Current Evidence
N O V - D E C 2 0 0 6

Alcohol and Health Outcomes

Does Inflammation Influence Alcohol’s Cardiovascular Effects?

Light-to-moderate alcohol use can reduce cardiovascular mortality in some populations. To investigate whether this protective effect is influenced by inflammation, researchers assessed alcohol use and inflammatory markers (C-reactive protein and interleukin-6) in 2487 adults, aged 70-79 years, without heart disease at study entry. Over a mean 5.6 years of follow-up, 397 deaths and 368 cardiac events (myocardial infarction, angina, or heart failure) occurred.

- In adjusted analyses, the risks of all-cause mortality and incident cardiac events were lower in light-to-moderate drinkers than in never or occasional drinkers (hazard ratios [HRs] 0.7 for all-cause mortality and 0.7 for cardiac events).
- Risks were also reduced in light-to-moderate drinking men with above-median, but not lower, levels of interleukin-6 (HRs 0.5 for all-cause mortality and 0.5 for cardiac events).
- C-reactive protein levels did not affect the association between drinking and risk among men.
- The effect of inflammatory markers was not assessed in women because too few women had an outcome event.

Comments: This interesting research is consistent with prior studies that show reduced all-cause mortality and cardiac events in adults who drink light-to-moderate amounts. Although the study found no relationship between C-reactive protein levels, alcohol use, and outcomes, it did find a lower risk in light-to-moderate drinking men with high (but not low) interleukin-6 levels. To better understand the interaction of inflammation, alcohol, and cardiovascular health, further research on this topic should include different populations, such as people with chronic inflammatory conditions, women, and racial minorities.

Kevin L. Kraemer, MD, MSc

*Drunk 1-7 standard drinks per week
**Drunk never or <1 drink per week


Long-Term Mortality in People Treated for Alcoholism

Few studies have assessed the long-term mortality of a group of people with alcoholism who received treatment at the same program. Researchers in this study tracked, for over 33 years, state and national death records of 500 people with alcoholism who had been admitted to a comprehensive, community-based alcohol treatment program in San Antonio. Most subjects were white, male, unemployed, and unmarried; they had a mean age of 47 years at enrollment and 61 years at death.

- During follow-up, 449 subjects died. The overall case-fatality rate was 0.057 deaths per person-year.
- Cancer and lung-related death rates were lower than expected in the early years of follow-up and higher than expected in the later years.

(continued on page 2)
Long-Term Mortality (continued from page 1)

- Conversely, death rates of liver disease and "lifestyle-related" causes (accidents, car crashes, homicide, suicide, overdose, and AIDS) were higher than expected in the early years of follow-up and lower than expected in the later years.

- Ethnic and racial differences in morality included (1) longer survival among whites than blacks and Hispanics, and (2) greater than expected frequency of deaths from liver disease and lifestyle causes in Hispanics than in blacks and whites.

Comments: This long-term follow-up of people with alcoholism admitted to the same treatment program indicates a relatively high mortality rate, early occurrence of liver disease and lifestyle-related deaths, and some differences among ethnic/racial groups. The author acknowledges that findings from this group of urban poor will likely differ from findings in other populations with alcoholism. However, the study illustrates that treatment providers should understand the mortality risks for their patients and incorporate appropriate linkages to medical care and other services.

Kevin L. Kraemer, MD, MSc


Moderate Drinking Impairs the Ability to See

Drinking alcohol clearly impairs the ability to drive. To determine whether this impairment is partly due to inattentional blindness—the inability to detect unexpected but visually-salient objects—researchers conducted a randomized study of 46 adults, aged 21–35 years, who were not heavy drinkers.

Subjects received either alcohol or tonic (placebo). Some were accurately told which beverage they received, while others were misinformed. The amounts of alcohol administered were enough to achieve a blood alcohol level of 0.04.

After consuming the beverage, each subject watched a video of teams passing a basketball back and forth. Subjects were asked how many times a particular team passed the ball and whether they noticed the person in a gorilla costume who briefly appeared in the video.

- Only 33% of subjects noticed the "gorilla."
- Subjects who received alcohol were less likely than those who received placebo to notice the gorilla (18% vs. 46%, respectively).

- Telling subjects the content of their beverages did not affect results (30% who were told they received alcohol and 33% who were told they received placebo noticed the gorilla).

Comments: This study suggests that inattentional blindness is more common when people drink than when they abstain. This is particularly concerning given that subjects who received alcohol in this study had a blood alcohol level that was half the legal driving limit in most states. The public should be informed that even low-level drinking before driving is risky.

Rosanne Guerrero, MPH
Richard Saitz MD, MPH

Alcohol and Cancer Worldwide

Alcohol use can increase the risk of various cancers. Investigators in this study estimated the number of cancer cases and deaths attributable to alcohol drinking worldwide in 2002. They used data on drinking prevalence from the World Health Organization and relative risks of various cancers (oral cavity, pharynx, esophagus, liver, colon, rectum, larynx, and female breast) from recent meta- and pooled analyses.

- Worldwide, 389,100 cases of and 232,900 deaths from cancer were attributable to alcohol. These figures represent 3.6% of all cancer cases (5.2% in men, 1.7% in women) and 3.5% of all cancer deaths (5.1% in men, 1.3% in women), respectively.
- The proportion of alcohol-attributable cancers was particularly high (approximately 9%) among men in Central and Eastern Europe.
- The majority of cancer cases attributable to alcohol in men were of the upper digestive tract (oral cavity, pharynx, and esophagus), while the majority in women were of the breast.

Comments: There are always problems trying to aggregate global data from many sources. A key concern is the lack of information on the health habits and drinking patterns of the individuals who developed cancer. Knowing this information can help provide much more precise estimates of alcohol’s effects on cancer than can these global estimates derived from limited data.

R. Curtis Ellison, MD


Alcohol-Attributable Mortality and Morbidity in Canada

Researchers in this study aimed to show the impact of alcohol use on chronic diseases in Canada. They linked information from the literature with national statistics on mortality and morbidity, hospitalization data, and results from a national addiction survey.

In Canada in 2002, the following consequences among adults aged 69 and younger were attributable to alcohol consumption:

- A net6 of 1631 chronic disease deaths (mostly from cancer or digestive diseases), constituting 2.4% of all deaths for this age group
- 42,996 years of life lost prematurely
- A net of 91,970 hospitalizations, mostly for neuropsychiatric conditions and cardiovascular disease

Moderate drinking (<1.5 drinks per day for men, <3

Comments: These data highlight the significant role drinking alcohol, even moderately, plays in chronic disease and death. Far-reaching interventions are needed to reduce the public health burden caused by alcohol in Canada and in other countries.

Richard Saitz, MD, MPH
Rosanne Guerriere, MPH


Prescription Drug Misuse Is More Common in Drinkers

Few studies have examined the relationship between alcohol consumption and nonmedical use of prescription drugs (NMUPD). To characterize this relationship, researchers analyzed data from 43,093 adults who had participated in a national survey on alcohol and related conditions.

- Of the overall sample, 65% drank and 3% took a prescription drug (opioid, sedative, tranquilizer, or stimulant) for a nonmedical reason in the past year.

Comments: Approximately 8% had an alcohol use disorder (AUD).
- NMUPD was most common in subjects with past-year alcohol dependence (22%), followed by subjects with alcohol abuse only (8%), a heavy drinking episode but no AUD (4%), neither a heavy drinking episode nor an AUD (2%), and abstinence (1%).

Alcohol and Health: Current Evidence, Nov-Dec 2006
Prescription Drug Misuse Is More Common in Drinkers (continued from page 3)

- In adjusted analyses, the odds of NMUPD were significantly greater among drinkers than abstainers (e.g., odds ratios 1.7 for subjects with neither a heavy drinking episode nor an AUD and 18.2 for subjects with alcohol dependence).
- The co-occurrence of AUDs and NMUPD was more prevalent among adults aged 18–24 years (42%) than among older subjects (24%).

Comments: This study showed that drinkers, particularly those with an AUD, were more likely than abstainers to use a prescription drug for a nonmedical purpose. As stated by the authors, these findings underscore the importance of thoroughly assessing prescription drug misuse while treating AUDs, especially among young adults.

R. Curtis Ellison, MD


Alcohol Outlets Increase Hospitalization for Assault

Violence is a well-described consequence of unhealthy alcohol use. In this study, researchers from California examined whether violent assaults are related to the density of alcohol outlets in certain communities. They linked hospital discharge data on people with interpersonal violence injuries; industry data on the location of liquor stores, restaurants, bars, and pubs; and census data by zip code.

- Rates of hospitalization for assault were highest in densely populated, poor urban areas with a large proportion of minorities and substantial instability (e.g., high unemployment).
- In analyses adjusted for neighborhood characteristics, a greater density of liquor stores was directly related to higher assault rates.
- A greater density of bars was associated with higher assault rates only in unstable, poor urban areas with many minorities and in middle-income rural areas.

Comments: This study of assaults leading to overnight hospitalization, which are more serious and less common than other assaults, is less subject to community reporting bias than are studies based on police reports. The relationship of liquor outlets to community assaults naturally raises questions about the mechanism of action: Does greater availability of alcohol lead to greater consumption and therefore more belligerence? Or, are people who congregate near liquor stores more prone to hostility? Whatever the reason, clinicians have sufficient evidence to advocate for public health initiatives that limit licensure of liquor outlets in vulnerable neighborhoods.

Peter D. Friedmann, MD, MPH


Assessments and Interventions

Primary Care Clinicians Lack Comfort and Skills in Discussing Alcohol Use

Often, primary care clinicians inadequately address alcohol use with their patients. To describe alcohol-related discussions in primary care, investigators audiotaped and performed qualitative analysis of outpatient visits involving 14 primary care clinicians (physicians and nurse practitioners) and 29 of their patients. All patients were male veterans who screened positive for unhealthy alcohol use. Three themes emerged:

- Patients often disclosed that they consumed large amounts of alcohol and/or experienced negative health consequences from drinking. Clinicians commonly responded by changing the subject, minimizing the significance of their patients’ drinking, or pursuing nonalcohol-related issues.
- Hesitation, stuttering, inappropriate laughter, and ambiguous statements were apparent when clinicians discussed alcohol but not other topics.

(continued on page 5)

Alcohol and Health: Current Evidence, Nov-Dec 2006

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Primary Care Clinicians Lack Comfort and Skills in Discussing Alcohol Use (continued from page 4)

- Advice about drinking was tentative and vague while advice about smoking was more common, decisive, and specific.

Comments: Brief alcohol counseling—an evidence-based practice—has been poorly disseminated into primary care practice. This exploratory study suggests that clinicians' discomfort and limited skills in assessing and advising patients with unhealthy alcohol use are partly to blame. Although training alone is not sufficient to increase alcohol counseling, these findings indicate that educational initiatives to improve primary care clinicians' comfort levels and skills are necessary, nonetheless.

Peter D. Friedmann, MD, MPH


Do Doctors' Drinking Habits Affect Management of Patients' Alcohol Problems?

Two different studies explored whether a physician's approach to his patients' alcohol use is complicated by his own drinking habits. Kaner et al interviewed 29 general practitioners (GPs) in Northern England and found the following:

- Some GPs felt that their own alcohol use provided them insight into their patients' use and helped facilitate discussion with patients.
- Others, however, separated their drinking from their patients' drinking.
- Some GPs recognized and addressed risk only in patients who drank more or differently from them.

Aalto et al surveyed all Finnish primary care physicians (n=3193), 60% of whom completed all survey questions (63% women; mean age 42 years).

- Of these respondents, 15% (7% of women, 27% of men) were heavy drinkers, scoring >3 on the Alcohol Use Disorders Identification Test (AUDIT).

Comments: Physician drinking can influence clinical practices around alcohol issues. It does not appear, however, to explain the infrequent use of brief interventions.

Jeffrey Samet, MD, MA, MPH


B Vitamins Are Efficacious for Alcoholic Polyneuropathy

Both the direct toxic effects of alcohol and alcoholism-associated vitamin deficiencies can cause mild to incapacitating sensorimotor polyneuropathy. In a 10-site randomized, placebo-controlled trial, researchers assessed whether B vitamins could benefit 253 patients with alcohol dependence, sensory symptoms, signs of alcoholic neuropathy (as shown on nerve conduction studies), and diminished vibration perception at the big toe (determined by biothesiometry). People with other possible neuropathy etiologies or neuropathy lasting for more than 2 years were excluded.

Subjects were randomized to receive one of the following to be taken orally 3 times a day for 12 weeks: placebo, B vitamins (B6 250 mg, B1 10 mg, B12 250 mg, and B12 0.02 mg), or B vitamins plus folic acid (1 mg). Eighty-one percent of subjects completed the trial.

- Vibration perception at the big toe, the primary study endpoint, improved significantly more in both vitamin groups than in the placebo group (increase of approximately 1–2 points vs. 0.5 points on a scale from 0 to 8).
- Pain, sensory function, and eye-nose coordination with eyes closed also improved more in the vitamin groups.
- The number of adverse events was similar in all groups.

(continued on page 6)
B Vitamins and Alcoholic Polyneuropathy (continued from page 5)

Comments: These findings—B vitamins have efficacy for alcoholic polyneuropathy—are consistent with those reported in other studies. It is difficult, however, to know whether patients will notice improvements with B vitamins or whether these improvements are detectable only via a sensitive research instrument (e.g., biothesiometry). Nonetheless, with favorable safety profiles and low cost, B vitamins are a welcome treatment for people with this often troubling condition.

Richard Saitz, MD, MPH


Study Does Not Confirm Brief Intervention’s Efficacy

Systematic reviews find that screening and brief intervention, at least in primary care settings, can decrease drinking in people with nondependent unhealthy alcohol use. Brief intervention has also shown promise in emergency departments, trauma centers, and other hospital services, where many patients may be receptive to advice.

To assess brief intervention’s efficacy in trauma centers, researchers studied 187 adults (out of 4618 screened) who were hospitalized at two Level I Trauma Centers for traumatic vehicular injuries and had a blood alcohol concentration (BAC) of >= 0.10 mg/dL. Patients with a BAC <= 0.10 mg/dL, signs of alcohol dependence, or who drank >12 standard drinks a day were excluded.

Subjects, who had an average age of 29 years, were randomized to receive one of the following:

- a 20-minute health interview only (control)
- a health interview and 5 minutes of simple advice
- a health interview, 5 minutes of advice, and two 20-minute brief counseling sessions

Twelve months later (43% loss to follow-up), alcohol consumption and traffic citations significantly decreased. However, there were no significant differences between the 3 groups.

Comments: The improvements seen in these patients after trauma hospitalization were not attributable to brief intervention but may reflect natural history or result from participation in a controlled trial that included alcohol and health assessments. Currently, Level I trauma centers must provide alcohol screening and brief intervention to receive accreditation. Given that resources are limited, how best to deploy this important service will require further study.

Richard Saitz, MD, MPH

5. SUMMARY OF RESULTS FROM SURVEY OF AHCE SUBSCRIBERS

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<th>Overall satisfaction with the newsletter (scale of 1 to 5):</th>
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### Background

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<td>Physician assistant</td>
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*More than 1 response possible*
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