The Basics of Alcohol Screening, Brief Intervention and Referral to Treatment in the Emergency Department

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INTRODUCTION

In the United States (U.S.), someone is injured in an alcohol-related motor vehicle crash every two minutes, and every 31 minutes an alcohol-related crash fatality occurs.1 In 2005, these crash fatalities accounted for 39% of the 43,443 national traffic deaths.1 Between 1992 and 2000, U.S. emergency departments had more than 860 million visits. Emergency Department (ED) visits attributable to alcohol during the same period averaged nearly 8 million annually with a 18% rise over nine years.2 Alcohol intoxication remains a leading risk factor for injury.3-5 Similarly, alcohol is implicated as an independent risk factor in a multitude of medical and psychiatric conditions (e.g. cancer, community-acquired pneumonia, cardiomyopathy, gastrointestinal, liver disease, pancreatitis, anxiety disorder, depression, schizophrenia)6-10. More recent studies have implicated alcohol in other life-threatening events, such as intracerebral hemorrhage in younger adults.11

Alcohol’s impact on the public’s health is detrimental, and there is considerable need to mitigate alcohol-related illness and injury. Applying the public health model to the readily identified burden results in preventive measures such as Alcohol Screening, Brief Intervention and Referral to Treatment (SBIRT).

Although organized pre-hospital care and regionalization of trauma centers have saved tens of thousands of lives over the past 30 years, further progress through injury prevention will save the greatest number of lives in the shortest period of time.12, 13 SBIRT is one important prevention strategy that has great potential to make a significant impact in the health and well-being of ED patients.

What Is SBIRT?

In the last decade, SBIRT in EDs has gained significant momentum and acceptance. SBIRT allows medical and nursing professionals or specially trained personnel to quickly and effectively survey patients regarding their alcohol-use habits (quantity and frequency) and categorize them as a non-drinker, drinker not at risk, drinker at risk or alcohol dependent. Survey tools commonly used in SBIRT have been validated in multiple settings worldwide. These questionnaires gather information about a patient’s drinking frequency, habits and experiences. Today, the two survey tools most commonly used in the ED are the CAGE questionnaire and the Alcohol Use Identification Test (AUDIT) (Table 1 and Figure 1).
The CAGE Questionnaire

Have you ever felt you should Cut down on your drinking?
Have people Annoyed you by criticizing your drinking?
Have you ever felt you should Cut down on your drinking?
Have you ever felt bad or Guilty about your drinking?

JA Ewing “Detecting Alcoholism: The CAGE Questionnaire” JAMA 252: 1905-1907, 1984.

The Alcohol Use Disorders Identification Test: Interview Version

Read questions as written. Record answers carefully. Begin the AUDIT by saying “Now I am going to ask you some questions about your use of alcoholic beverages during this past year.” Explain what is meant by “alcoholic beverages” by using local examples of beer, wine, vodka, etc. Code answers in terms of “standard drinks”. Place the correct answer number in the box at the right.

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centers have reported reduction in alcohol consumption and repeat-injury hospitalizations as well as decreased drinking and driving.12, 14, 23, 26, 30

Models of SBIRT Administration

The most common models used to administer SBIRT to ED patients are emergency physician (EP)/nurse-directed SBIRT or administration through the use of specially trained health promotion/education paraprofessionals. These models are not without their limitations.

In busier EDs, it may be infeasible to have only emergency physicians or nurses administer SBIRT. While time constraints in some ED settings are challenging, this should not completely preclude the integration of SBIRT into the ED. If resources allow, specially trained paraprofessionals can administer SBIRT. The added value of these personnel can positively impact both customer satisfaction as well as health promotion activities.31 Another method for SBIRT administration in a busy ED setting is that of using computer technology and human-computer interaction to accomplish SBIRT tasks and goals. The use of computers in the ED for SBIRT and other health promotion activities has been feasible and holds considerable promise.32-34 While several variations in the method of computer use for SBIRT do exist, they all focus on minimizing the physician time to administer SBIRT; they also facilitate standardization and fidelity of SBIRT delivery. Further, through relatively simple computer programming and the use of software, computers offer greater facilitation of multi-lingual administration with little added additional effort or cost.

In our institution we have been successful in integrating a bilingual (English and Spanish) “roll-to-the-bedside” Computerized Alcohol Screening and Intervention (CASI) kiosk prototype. We have found the average patient screening time with CASI to be less than five minutes. This kiosk is fully interactive through an audio and graphical interface. Through a touch-screen monitor and head phones, CASI engages the patient in conversation, administers the AUDIT questionnaire, undertakes a brief negotiated interview, and prints a personal alcohol-reduction plan with referral to treatment information. While the integration of a human-computer interaction model for SBIRT administration is feasible, more rigorous studies using computerized SBIRT are needed to more completely assess its efficacy. Such efforts continue to be encouraged by federal research funding agencies.35

Challenges to SBIRT Integration

The availability of time to administer SBIRT in the ED is arguably the most significant challenge. However, innovative approaches to SBIRT delivery have helped to overcome this barrier in some EDs. Further, it should be noted that the majority of ED patients who will encounter SBIRT will either be non-drinkers or drinkers found not to be at risk. This essentially removes 70–75% of those screened from the brief negotiated interview. For subjects identified by SBIRT as “at risk drinkers” who undergo both the screening and brief negotiated interview, the aggregate time remains an average of 10 minutes. Further, with computerized SBIRT
the screening and brief intervention delivery is routinely less than 10 minutes for the “at risk” drinker. While for some the time expense to SBIRT may still be considered too much of a “cost,” one only need compare the amount of time and vigor spent to screen patients for tetanus even though the average number of new tetanus cases per year in the U.S. is only 43.\(^{36}\) Contrast that to the number of annual alcohol-related crash fatalities of nearly 17,000, with nearly 8 million alcohol-attributable ED visits every year.

Another challenge to SBIRT in the ED is the comfort level at which EPs and nurses can administer SBIRT to patients. Some training and learning must take place before the person-to-person SBIRT interaction becomes efficient and routine. Even though most acute care providers may be comfortable asking a patient if they drink alcohol, a more in-depth discussion about alcohol-use patterns takes practice, particularly as the healthcare professional conducts the brief negotiated interview and motivates the patient to consider healthier and safer alcohol use. In general, the skills to become effective in delivering SBIRT in the ED are relatively easy to acquire. Some helpful online resources can be found on internet web pages hosted by the American College of Emergency Physicians (http://www.acep.org/webportal/PracticeResources/issues/publith/alescreen), the Substance Abuse and Mental Health Administration (http://sbirt.samhsa.gov/ and http://sbirt.samhsa.gov/documents/SBIRT_guide_Sep07.pdf) and the National Institute for Alcohol Abuse and Alcoholism (http://www.niaaa.nih.gov/Publications/EducationTrainingMaterials/guide.htm). While physicians and nurses can become proficient at administering SBIRT, it should be noted that the available resources and services for in-patient and long-term treatment for dependent drinkers remain under-funded and limited in most communities.

A final challenge to consider comes from a policy perspective in the form of The Uniform Accident and Sickness Policy Provision Law, or UPPL. In 1950, the National Association of Insurance Commissioners developed the provision that allows insurance carriers to exclude coverage to patients for alcohol- and drug-related injuries. As a result, physicians and hospital staff have the false perception that reimbursement for their services will universally be denied. This perception is counterproductive to helping patients who might otherwise benefit from SBIRT. There continues to be growing legislative activity throughout the nation with recent repeals of UPPL in some states. Furthermore, studies show significant legislative support for wider repeal of UPPLs nationwide.\(^{37,38}\)

**Promising Facilitators of SBIRT**

Several recent developments have begun to further facilitate and support ED SBIRT efforts. In addition to the ACS-COT mandate, according to George Washington University Medical Center’s research group, Ensuring Solutions to Alcohol Problems, the 2007 federal legislative year may be the busiest yet in repealing UPPL or Alcohol Exclusion Laws. Moreover, as of January 2007, current procedural terminology codes (CPT) have been approved to allow the U.S. Center for Medicare and Medicaid Services to reimburse for alcohol and drug screening and brief intervention.\(^{38}\) While there are many more details to work out in billing and reimbursement for SBIRT, there is potential for a regular revenue stream to counter the argument that ED personnel are too busy to perform this critical public health intervention.

**CONCLUSION**

Although the initial “cost” of implementing SBIRT in the ED may appear to be an additional burden, the savings are great and include less recidivism and avoidance of alcohol-related medical illness, injury and fatality. Alcohol SBIRT offers advantages to patient care, patient well-being and the public’s health.

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