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Emergency Department Services for Patients with Alcohol Problems: Research Directions*

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Abstract

This report summarizes recommendations on research directions developed from the conference "Alcohol Problems among Emergency Department Patients: Research on Identification and Intervention." The conference was developed in order to evaluate the existing state of the art research on emergency department interventions for alcohol problems, and offer further recommendations for research. **Key words:** emergency service, hospital; alcoholism; mass screening; preventive health services; referral and consultation; alcohol drinking; research. ACADEMIC EMERGENCY MEDICINE 2003; 10:79–84.

As long as "emergency rooms" have existed, medical staff have treated patients with medical conditions and injuries related to excessive alcohol consumption. In the 1950s, Chafetz noted that many alcoholics came to the Massachusetts General Hospital Emergency Ward for medical treatment and surgical care.[1] Of the more than 1,200 patients who presented annually with a diagnosis of alcoholism, however, fewer than 1% sought further aid at the alcohol clinic. Investigation showed that existing procedures were not responsive to patients' needs, not unlike current treatment systems.[2] Patients had to make multiple visits and be evaluated by many different practitioners before treatment for their alcohol problems could begin. Chafetz simplified the process by assigning patients to a psychiatrist who started treatment in the emergency ward and a psychiatric social worker who offered care after patients left the hospital. Patients exposed to the new protocol were much more likely than alcoholic control patients to initiate treatment at the alcohol clinic (65% vs 5%) and to maintain it for at least five sessions (42% vs 1%).[3]

Although Chafetz demonstrated that an appropriately constructed medical encounter could motivate alcoholic patients to accept further treatment for their underlying addiction, tailored on-site interventions have not become a standard treatment method in emergency medicine. However, during the 1970s, research in general medical settings set the stage for re-evaluating standard practices. In 1977, randomized trials from Britain demonstrated that extensive, specialized alcohol treatment helped alcoholic patients no more than brief, opportunistic, on-site counseling sessions delivered during outpatient family clinic visits.[4] In 1979, brief advice from physicians was shown to motivate patients to stop smoking.[5] By the 1990s, additional trials in primary care settings and a trauma center confirmed that relatively brief interventions for patients with alcohol problems reduced injuries requiring emergency department (ED) or trauma visits, length of hospitalization, and alcohol consumption.[6–9] More recent studies have confirmed and broadened these encouraging results.[10–13]

During the same period, alcohol treatment researchers were reconsidering their approach to the extensive assortment of personal and societal problems associated with alcohol. Traditionally, alcohol treatment focused on individuals with diagnoses of alcohol dependence, i.e., a severe condition to which a relatively small proportion of the general

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population is vulnerable. In 1990, an Institute of Medicine (IOM) panel issued the landmark report "Broadening the Base of Treatment for Alcohol Problems,"[14] which identified the principal weakness of this reigning paradigm. While it acknowledged that alcohol dependence is a valid diagnosis for some individuals, it called for many more individuals with alcohol problems to be "included within the scope of planning, policy formulation, and treatment." The bulk of society's alcohol-related problems are experienced by individuals who drink excessively and as a result experience some harm and alcohol dependence symptoms, but who do not fulfill all criteria for a diagnosis of dependence. The IOM panel recommended broadening the focus of treatment from an almost exclusive attention to individuals with incapacitating, chronic problems to also include individuals with acute, intermittent, and mild-to-moderate problems. It introduced the term *alcohol problems* to encompass this whole range of problems associated with the use of beverage alcohol.

To provide treatment for the much larger population included in the new alcohol problems definition, the panel recommended that patients in a variety of settings be screened for alcohol problems. Screening in health care settings, including EDs, was seen as particularly important because patients with alcohol-related problems are more likely to consult with doctors and nurses for help with alcohol-related medical problems and injuries. Patients with less-severe problems would receive brief, on-site counseling; patients with more-severe problems would be referred to more-intensive, specialty care.

The new alcohol problems paradigm and research demonstrated that alcohol interventions were efficacious and quite brief. That they could be provided by non-specialized staff piqued the interest of emergency medicine researchers. The widely held view among emergency physicians that a large proportion of their patients had problems associated with alcohol was substantiated by ED-based studies of screening instruments.[15] Research also demonstrated that brief screening instruments were available and appropriate for ED use.[16] Uncontrolled research among adult populations[17,18] and controlled research among adolescents[19] showed that screening and brief interventions for alcohol problems were feasible in the ED and associated with improved outcomes. Moreover, the ED visit provides a window of opportunity for clinical preventive services.[20]

This new perception of promise and opportunity led to calls from within the specialty to incorporate clinical preventive services for alcohol problems into the practice of emergency medicine.[21–27] However, this interest was balanced by concerns about efficacy in ED patient populations and feasibility given the operational complexity and financial constraints of EDs. A complicating issue has been the difficulty of promoting preventive clinical services to practitioners conditioned to focus on the primary mission of treating acute, presenting conditions rather than underlying risk factors that often lead to the ED visit, and increased use of health care services.

THE CONFERENCE

Encouraged by research in general medical settings, investigators at the Centers for Disease Control and Prevention (CDC) have been evaluating the feasibility of screening and brief interventions in the ED setting since the mid-1990s as part of a broad-based program in injury prevention and control.[18,28] Discussions with staff at other government agencies, policy advocates, ED staff, and emergency medicine and alcohol researchers throughout the country led CDC staff to propose a conference to summarize the current state of knowledge and consider important directions for research on screening and interventions for ED patients with alcohol problems. Five other agencies joined CDC to co-sponsor this conference—the Agency for Healthcare Research and Quality (AHRQ), the Health Care Financing Administration (HCFA), the National Highway Traffic Safety Administration (NHTSA), the National Institute on Alcohol Abuse and Alcoholism (NIAAA) of the National Institutes of Health (NIH), and the Center for Substance Abuse Treatment (CSAT) of the Substance Abuse and Mental Health Services Administration (SAMHSA).

A steering committee composed of agency representatives, alcohol researchers, and research physicians designed a program to facilitate intensive interaction between presenters and participants. From March 19 to 21, 2001, 64 people from diverse backgrounds and perspectives gathered in Arlington, Virginia. Participants included clinicians and researchers from emergency medicine and trauma surgery, psychiatrists, psychologists, alcohol researchers, epidemiologists, representatives from the American Society of Addiction Medicine and the National Commission Against Drunk Driving, and staff from federal and state agencies involved in alcohol-related research and programmatic efforts. The first two days of the conference were devoted to four topics: 1) the spectrum of alcohol problems and the scope of emergency medicine practice; 2) identifying ED patients with alcohol problems; 3) interventions for ED patients with alcohol problems; and 4) strategic considerations relevant to im-

plementing preventive interventions in emergency medicine. In each session, a recognized expert was commissioned to summarize the current state of knowledge and identify gaps in current research. After each presentation, two invited discussants responded and conference participants joined in an extended general discussion of the topic. During the final half-day of the conference, participants discussed draft research recommendations prepared by the steering committee.

RESEARCH RECOMMENDATIONS

After the conference, CDC staff consulted with the steering committee to incorporate participant feedback in final recommendations for research directions for the field. These recommendations are presented here, and follow in no particular order.

- **Research on screening and intervention should address the full spectrum of alcohol-related problems—from risky drinking to alcohol abuse and dependence—among ED patients.**

Alcohol-related problems occur across a continuum of severity—from social censure, injuries, or legal problems associated with episodic, excessive drinking to the more severe psychological, social, and medical conditions associated with alcohol dependence. Screening can identify patients with alcohol-related problems at various points along this spectrum. Intervention programs can also be designed to help patients wherever their problems lie on the spectrum and can vary from brief, on-site counseling provided by non-specialists to referral to intensive, off-site specialist care. The prevailing practice in EDs is to treat the presenting medical conditions of patients with obvious and severe alcohol-related problems, often without directly addressing the underlying cause. This emphasis tends to overlook individuals whose problems may be less severe but more amenable to intervention. Although it is reasonable for individual research studies to address particular segments of the severity spectrum or particular modes of service delivery, the portfolio of research in EDs should cover the full spectrum of care for alcohol-related problems—from preventive services for excessive drinking and associated injury risks to treatment for alcoholism and resulting complications.

- **Research on alcohol-related problems in other clinical settings has produced effective interventions. Future research should capitalize on this work by developing, implementing, and evaluating ED-based intervention studies.**

Interventions for patients with alcohol-related problems have been successful in a variety of clinical settings. Many ED patients should also respond favorably to such interventions. However, few interventions have been studied in ED settings. Research that adapts lessons learned in other clinical settings for use in the ED environment is a top research priority and should include cost–effectiveness studies. In operational terms, this means developing and implementing protocols in the ED that take appropriate elements from other clinical settings and enabling the unique characteristics of the ED and its patient populations to influence the design and development of new methods. In particular, protocols must address issues of large patient volumes, indifference or resistance from ED staff, and financial and time constraints. As feasible ED-based protocols are developed, evaluated, and refined, individual-setting and multicenter trials that evaluate efficacy and effectiveness will become the next research priority.

- **Future research on screening methods should evaluate the operational practicality of screening instruments in the context of protocols that provide interventions and referrals for alcohol treatment.**

To date, ED-based research on screening instruments has focused on performance characteristics. However, screening instruments with high marks for sensitivity and specificity will not be used if they are time-consuming, expensive, unacceptable to patients, or difficult to use. In addition, studies have evaluated screening instruments in isolation from their intended use as the first step in a sequence that provides on-site interventions or referrals to patients with alcohol problems. Although acceptable levels of sensitivity and specificity remain important, future research should address feasibility issues in real-world settings. Which instrument is most acceptable to ED patients? To ED staff? Which instrument will enable the largest number of patients to be screened? Which instrument best helps the practitioner explain screening results and provide counseling? How long does it take to train practitioners to use screening instruments reliably? Which instruments can be easily integrated into protocols that provide on-site counseling? Which ones are best for protocols that only refer patients to off-site intervention services? To the extent possible, future research on screening should not be divorced from efforts to provide interventions for patients with alcohol problems.

- **Programs that screen for and help patients with alcohol problems collect sensitive, pa-**

tient-identifiable data. Research is needed to determine what effects public and private sector policies have on the confidentiality of these data and on program operations.

Programs collect and share sensitive, patient-identifiable data for important clinical, research, and administrative purposes. Practitioners need to share data with other practitioners to ensure treatment during the current visit and in the future. Researchers need data to evaluate possible causal associations and devise effective interventions. Administrators need to share data to process payment for treatment. However, if practitioners and patients suspect that data will be misused, they will resist projects that collect it, placing projects that address alcohol problems in jeopardy. In addition, laws in many states allow insurance companies to withhold payment for medical services provided to patients with alcohol-related trauma. In the private sector, many insurance policies prohibit or severely restrict payment for alcohol treatment. When public and private sector policies and practices do not fund services to identify and help patients with alcohol problems, physicians and administrators resist introducing those services. Research is needed to catalogue and evaluate public and private sector policies and practices that influence sharing of data and affect the viability of programs that screen and help patients with alcohol problems.

- **Research is needed to determine how cultural and demographic factors affect patients' access to services for alcohol-related problems, delivery of those services in EDs, and patient outcomes.**

Studies of access to care for a wide range of health services indicate that patient factors such as age, gender, ethnicity, and language, as well as structural factors such as how care is organized and who provides it, are key determinants of who receives services and of patient outcomes. Some factors have been shown to facilitate access and others to impede it. Similar lines of research are needed to improve our understanding of how best to deliver alcohol interventions in the ED. For example, studies are needed to help target interventions to different groups of at-risk patients and to identify which practitioners (e.g., physicians, nurses, social workers, prevention specialists) and practitioner characteristics (e.g., attitudes, training, workload) foster the best outcomes.

- **Research is needed on practice behavior, clinical guidelines, and policy changes required to implement, institutionalize, and maintain screening and interventions for alcohol problems in EDs inside and outside of academic medical settings.**

Private and public funds have supported individual research groups to demonstrate the efficacy and effectiveness of screening and interventions for alcohol problems in clinical settings other than the ED. Funding should be provided to implement similar research in EDs. However, knowledge that alcohol problems can be treated successfully in EDs is not sufficient to induce individual practitioners and institutions to change standards of practice. Therefore, future research should clarify how changes in clinical practice can be established and maintained at the individual practitioner and institutional levels. In order to assure broad applicability, implementation, acceptance, and institutionalization, this research should be designed and conducted in partnership with stakeholders outside academic medical settings.

- **Research is needed to explore and evaluate the role of information and communication technology in facilitating screening, intervention, and referral for alcohol treatment among ED patients.**

Most ED patients have time during their visit to be screened for alcohol problems and to receive an intervention. However, practitioners and administrators resist providing new services because ED staff have little time for additional duties, and ED budgets are too constrained to hire more staff. Technologies such as televisions, video and compact disc players, personal digital assistants, and computers with touch screens might provide new ways to overcome this mismatch between resources and problems. Because devices based on computer technology can handle complex algorithms easily, they could make it possible to tailor services to patients' age, gender, reading ability, problem severity, and readiness to change their behavior. However, research is needed to develop their potential for screening, counseling, and referring ED patients with alcohol problems and to evaluate whether they are efficient and cost-effective. If ED patients are willing to use these technologies to address a range of problems, they could make preventive clinical services in the ED more acceptable to staff and administrators. If communications and information technologies demonstrate their value for addressing alcohol problems in the ED, they can be adapted and evaluated for use with other preventive clinical services. The potential to provide multiple services that improve patient care and decrease long-term costs could make it easier to find

funding and justify research and start-up costs for new preventive services.

- **Funding agencies should increase support for research in screening and interventions for alcohol problems among ED patients and take steps to involve more ED physicians and nurses in research.**

The preceding seven research recommendations endorse a research agenda that will require substantial funding. Nonetheless, increased funding is justified because alcohol problems are so common in EDs that they consume an inordinate amount of ED resources. By addressing this pervasive risk factor, opportunistic interventions in EDs could simultaneously help untreated patients, prevent future alcohol-related harm, and decrease health system costs. Increased funding for research on alcohol interventions in EDs should also improve the quality of research in the larger fields of alcohol research and clinical preventive services research, particularly in the emergency care setting. At present, however, it is difficult to develop and evaluate protocols under real-world conditions because few emergency medicine researchers are involved. The field is so new that they are not aware of funding opportunities, procedures, and agencies. To address this situation, funding agencies need to actively recruit researchers from the field of emergency medicine and make mechanisms of research support better known to potential emergency medicine applicants. This effort should include communications focused on the funds currently available. In the long run, it should involve increased funding to address the research recommendations described previously.

The authors recognize the work of the Steering Committee in designing the conference and providing valuable insights and assistance during the process of incorporating participants' feedback into the final version of the recommendations presented here.

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Reflections submissions should be presented as original poems, short stories, or black-and-white photographs that portray the humanistic (joys, sorrows, struggles, challenges, and realities) aspect of the practice of emergency medicine. *Reflections* will be published on a space-available basis.

Poems and short stories must have a title and body. Two hard copies and one electronic copy should accompany each submission. A cover letter should identify the submission as *Reflections*. Photographs should have a title and may have a caption of no more than 50 words. All submissions must be accompanied by a signed copyright release and author disclosure form.

Contributors must provide the names, highest academic degrees, addresses, e-mail addresses, and phone/fax numbers of all contributors (including photographer). Acknowledgment of manuscript and photograph acceptance will be made in writing to the contributor.

If a photograph is submitted for consideration, the most original image available (slide, negative, or photograph) and two 5 × 7-inch black-and-white prints should be sent. The original image(s) will be returned if requested. Each print and slide should be labeled with the last names of the contributors and an arrow indicating the top of the image.

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