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Screening for Excessive Alcohol Consumption in Emergency Departments: A Nationwide Assessment of Emergency Physicians

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Abstract

Objective: To assess current screening practices for excessive alcohol consumption, as well as perceived barriers, perceptions, and attitudes toward performing this screening, among Emergency Department (ED) physicians.

Design: A brief online assessment of screening practices for excessive drinking was disseminated electronically to a representative panel of ED Physicians from November 2016 to January 2017. Descriptive statistics were calculated on the frequency of alcohol screening, factors affecting screening, and attitudes towards screening.

Setting: An online assessment was sent to a national panel of ED physicians.

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Participants: A panel of ED physicians who volunteered to be part of the American College of Emergency Physicians Emergency Medicine Practice Research Network survey panel.

Main Outcome Measure: The primary outcome measures were the percent of respondents who reported screening for excessive alcohol consumption, and the percent of respondents using a validated excessive alcohol consumption screening tool.

Results: Of the 347 ED Physicians assessed (38.6% response rate), approximately 16% reported always/usually, 70% sometimes, and 14% never screening adult patients (≥18 years) for excessive alcohol use. Less than 20% of the respondents who screened for excessive drinking used a recommended screening tool. Only 10.5% of all respondents (15.4% always, 9.5% sometimes screened) received an electronic health record (EHR) reminder to screen for excessive alcohol use. Key barriers to screening included limited time (66.2%) and treatment options for patients with drinking problems (43.1%).

Conclusions: Only 1 in 6 ED Physicians consistently screen their patients for excessive drinking. Increased use of EHR reminders and other systems interventions (e.g., electronic screening and brief intervention) could help improve the delivery of screening and follow-up services for excessive drinkers in EDs.

Keywords

screening; excessive alcohol consumption; emergency departments

Introduction

Background

Excessive alcohol use (e.g., binge drinking) is responsible for more than 95 000 deaths in the United States each year,[1] including 1 in 10 total deaths among working-age adults 20 – 64 years old;[2] and cost the U.S. $249 billion, or $2.05 per drink, in 2010.[3] A recent study of the global burden of disease also found that alcohol was the leading risk factor for death among persons aged 15 – 49 years in 2016.[4] Binge drinking is a key risk factor for severe alcohol-related injuries that require treatment in an emergency department (ED), and the likelihood of experiencing severe injuries increases with the frequency and intensity (i.e., the number of drinks consumed) of binge drinking.[5] In addition, more than half of the 4.2 million people in the U.S. who misused prescription opioids during 2012−2014 were binge drinkers, and alcohol involvement in opioid overdose deaths is increasing, with 14.7% of opioid overdose deaths in 2017 involving alcohol.[6,7]

Given the substantial public health impact of excessive drinking, screening every patient to determine if they drink too much [e.g., asking how many times they had 5 or more drinks (men) or 4 or more drinks (women) in a day during the past year] should be an important part of clinical care in an ED. Excessive alcohol consumption can also interfere with medications and treatment for emergency conditions, and screening for excessive alcohol use can identify patients who would benefit from more in-depth alcohol screening and brief intervention (ASBI) as well. The National Commission on Prevention Priorities ranked ASBI as one of the five most effective preventive services, based on cost effectiveness and

the clinically preventable burden of disease. The remaining four top preventive services include screenings for high blood pressure, cholesterol, and breast cancer; and annual influenza vaccination.[8] ASBI consists of screening the patient for excessive drinking, and if the results suggest the patient is drinking too much, providing them with a brief intervention that includes four components: 1) information and feedback about the screening results, 2) discussing the patient's view of how drinking might be affecting them; 3) increasing their motivation to modify their drinking behavior; and 4) providing professional advice about reducing their risk of alcohol-related harms by reducing their alcohol consumption.[9] ASBI has been shown to reduce excessive alcohol consumption, alcohol-related injuries, and subsequent ED visits among adults.[10–12] ASBI can also be effectively delivered using a computer or hand-held device.[13] Routinely screening adult patients treated in EDs may be particularly beneficial because the prevalence of alcohol misuse is known to be higher in this patient population than in other clinical settings (e.g., primary care clinics).[14] The American College of Surgeons requires Level I and Level II trauma centers to provide ASBI to all patients, and the American College of Emergency Physicians (ACEP) and the Emergency Nurses Association recommend the use of ASBI in ED settings as well.[15–17]

Importance

Despite the potential usefulness of collecting alcohol information in ED settings, recent studies have reported wide variation in alcohol screening rates (e.g., from 8% to 68%) in ED settings, even after implementation of screening programs.[10,18] A survey of ED Directors found that only 15% of EDs screened all injured patients; 14% typically used a standard instrument to assess alcohol consumption; and 9% reported that injured patients who screened positive for alcohol misuse received a brief intervention provided by trained personnel.[10] Another survey of ED Directors found that EDs that offered other preventive services (e.g., smoking cessation and follow-up with primary care providers) were more likely to screen their patients for excessive alcohol consumption.[18] However, neither of these studies directly assessed alcohol screening by ED physicians, the specific alcohol information that was collected in ED settings or barriers to screening for excessive alcohol use.

Goals of this Investigation

This online assessment of ED Physicians sought to better describe: 1) whether and how ED Physicians screen for excessive alcohol consumption in ED settings; 2) barriers to and opportunities for improving the collection of information on excessive alcohol consumption in EDs; and 3) the perceptions and attitudes of ED Physicians toward routine screening for excessive alcohol consumption.

Methods

Assessment Design

An 8-item multiple choice and short answer assessment of the alcohol screening behavior of practicing ED Physicians was anonymously administered online to the American College of Emergency Physicians (ACEP) Emergency Medicine Practice Research Network (EMPRN) survey panel. The assessment was developed by the authors, other representatives of the

Council of State and Territorial Epidemiologists Alcohol Subcommittee, and the Centers for Disease Control and Prevention (CDC) Alcohol Program. The assessment included questions on current alcohol screening practices in ED settings, factors affecting screening behavior, and attitudes towards screening for excessive alcohol consumption in ED settings (see Appendix). The questions were reviewed by two ED physicians and an ED nurse for clarity and relevance. A proposal, along with the assessment questions, was reviewed and approved by an ACEP survey research committee prior to being administered to the ACEP EMPRN. This project was also reviewed by the Minnesota Department of Health Institutional Review Board and determined to be public health practice.[19]

Selection of Participants

The 2016–2017 ACEP EMPRN survey panel included a total of 900 emergency physicians, emergency medicine residents, and medical students who were current members of the College. According to ACEP, the EMPRN is a network of Emergency Physicians that is representative of current ACEP members.[20] A link to the on-line assessment was available to panel members from November 2016 to January 2017, and the panel was sent three email reminders encouraging them to complete it. Each panel member could submit only one assessment.

Outcome Measures

The primary outcome measures were 1) the percent of respondents who reported always (whenever possible), sometimes, or never screening for excessive alcohol consumption; and 2) the percent of respondents who screened patients for excessive alcohol consumption using a validated screening tool (e.g., the Alcohol Use Disorders Identification Test (AUDIT); Alcohol Use Disorders Identification Test-Concise (AUDIT-C); or a single question screen for excessive alcohol use). All respondents were asked the frequency of screening for excessive alcohol consumption and were asked to report their demographic characteristics (i.e., gender, age, and year of residency completion). A free-text field was also provided to record any additional comments respondents wanted to make about screening for excessive drinking.

Respondents who reported “always” or “sometimes” screening patients for excessive alcohol use were also asked questions on the method they used to screen patients; the frequency with which they screened injured, medical, and psychiatric patients, respectively; reporting of screening results into electronic health record (EHR) systems; EHR reminders to screen; and whether they used information on excessive alcohol consumption to inform patient management.

Respondents who “sometimes” or “never” screened were asked a separate series of multiple-choice questions to assess their reasons for not screening for excessive alcohol consumption (e.g., lack of time, patient refusal). In addition to the multiple-choice questions, respondents were asked to report other reasons for not screening in a free-text field.

Analysis

Screening frequency was first assessed based on the demographic characteristics of participating ED Physicians (e.g., age, sex, years since residency completion). Next, screening frequency was assessed based on the method of screening (e.g., US Preventive Services Task Force recommended[12] or other screening method); the availability of EHR systems; and whether EHR systems reminded the physicians to screen patients for excessive alcohol consumption. Screening frequency was also assessed by presenting complaint (i.e., whether ED Physicians were more or less likely to screen patients who were being treated for injuries, medical conditions, or psychiatric conditions). To evaluate the impact of EHR reminders on screening behavior, the frequency of alcohol screening was assessed based on the presence or absence of an EHR reminder. Analyses were conducted using SAS 9.4. Chi-square tests were used to assess statistical significance. However, two-sided Fisher's exact tests were used when there were small expected counts (<5). For characteristics that had more than two levels, pairwise chi-square tests with Bonferroni correction determined which levels were significantly different from each other. Free text responses were reviewed and organized by themes.

Results

Characteristics of Subjects

A total of 347 (38.6%) of the 900 ACEP EMPRN panelists completed the online assessment. The respondents were from 47 jurisdictions, including 45 states, Washington D.C., and Puerto Rico. There were no respondents from Arkansas, Nevada, North Dakota, South Dakota, or Wyoming, and one respondent was from New Zealand. In general, the geographic distribution of respondents was similar to that of ACEP. The demographic breakdown of the 347 respondents was similar to that of the full EMPRN panel and to the ACEP membership overall. About 75% of the panel was male, compared to 75% of the full panel and 73% of the ACEP membership. The respondents were slightly older (mean age of 49 years) than the full EMPRN panel (mean = 45.4 years) and the full ACEP membership (mean = 43.8 years) (Table 1).

Assessment Results

Overall, 55 (15.9%) of the 347 respondents reported that they "always" screened for excessive alcohol consumption; 243 (70.2%) responded they "sometimes" screened for excessive alcohol consumption; and 48 (13.9%) reported they "never" screened for excessive alcohol consumption (Table 1). Screening rates did not vary significantly based on the demographic characteristics of respondents.

Among the 298 ED Physicians who reported that they either "always" or "sometimes" screened for excessive alcohol use, 50 (16.9%) indicated that they used a recommended screening method – such as the full AUDIT questionnaire, the AUDIT-C, or the single-question screen for binge-level alcohol use. However, most (83.1%, n=246) used some other screening method (Table 2). The most common response for other methods was a general question about the average amount the patient drinks, with a smaller number of respondents reporting a screening tool such as the CAGE for alcohol dependency. Most

of the physicians who screened (81.2%, n=242) also indicated that they "always/usually" entered their findings in an EHR system. However, only 30 (10.5%) of the respondents who screened at least sometimes reported that their EHR systems remind them to screen for excessive alcohol use. Although ED Physicians who always screened were somewhat more likely to have access to an EHR reminder system (15.4%) than those who only sometimes screened (9.4%), this difference was not statistically significant (p=0.2).

Less than half (45%) of physicians who screened for excessive alcohol consumption reported using the information to provide brief interventions to help patients reduce their drinking (Table 2). ED Physicians who always screened for excessive alcohol use were somewhat more likely to use the information to provide brief interventions for those who screen positive than those who only sometimes screened, but this difference was not statistically significant (54.5% vs. 42.8%). Compared to those who only reported "sometimes" screening for excessive alcohol consumption, physicians who always screened patients for excessive drinking were significantly more likely to report using the information to assess the quality of care provided to ED patients (16.4% vs. 4.9%, respectively). However, physicians who reported "sometimes" screening were significantly more likely to report using this information to facilitate the referral of patients for the treatment of alcohol problems than those who reported "always" screening (56.4% vs. 40.0%, respectively). A small proportion of ED Physicians (5.4%, n=16) also reported that they did not know how to use information on excessive drinking. In addition, ED Physicians who screened patients for excessive alcohol consumption were more likely to report "always/usually" screening patients with psychiatric disorders (80.1%, n=230) than patients being treated for injuries (48.6% [n=140]) or medical conditions (27.5% [n=79]) (data not shown).

Of the 290 ED Physicians who reported barriers to screening for excessive alcohol consumption, about two-thirds (66.2%, n=192) listed "lack of time", while about 43% (n=125) reported a "lack of options for patients who screen positive" (Table 3). Furthermore, about 1 in 4 (24.5%, n=71) reported that they felt it is the responsibility of "other staff" to screen for excessive alcohol use, and 11% (n=32) cited a lack of knowledge of screening measures or tools as reasons for screening less frequently (i.e., "sometimes" or "never"). Physicians who "never" screened were five times more likely to identify a "lack of knowledge of screening measures or tools" as a major barrier to screening than physicians who sometimes screened (33.3% vs. 6.6%, respectively).

Discussion

In a national panel of ED Physicians, only one in six reported consistently screening their patients for excessive alcohol consumption. In addition, among those ED Physicians who at least sometimes screened their patients for excessive alcohol consumption, only about 17% used a recommended screening method (e.g., AUDIT-C or a single-question screen for binge-level alcohol consumption). Furthermore, only about 1 in 10 ED Physicians who screened patients for excessive drinking reported having access to an Electronic Health Record system that reminded them to do so. Physicians were also more likely to screen patients for excessive alcohol use to guide treatment decisions (e.g., the treatment of psychiatric conditions) than to facilitate interventions to reduce excessive drinking (e.g.,

alcohol screening and brief intervention). Specific barriers to screening patients in ED settings included a lack of time and a lack of treatment options for patients who screen positive.

The results of this assessment are similar to those reported in previous studies. For example, a comparison of two cross-sectional surveys of ACEP members found that the median percentage of patients screened for alcohol/substance abuse increased slightly from 15% in 1999 to 20% in 2010, but the overall screening rates were similar to those found in this assessment.[21] Interestingly, in the current study there was a non-significant trend that older physicians were more likely to report always screening for excessive drinking. One possibility for this finding is that the older practicing emergency physicians may be more likely to have done their residency in other specialties such an Internal Medicine or Family Medicine. Those specialties have a longer tradition of including prevention as part of their training, while Emergency Medicine residencies typically devote less time to prevention.

The use of recommended screening methods was also low, mirroring the findings from previous studies. As previously noted, a survey of ED directors at Level I and Level II trauma centers also found that only 23.6% of EDs consistently used standardized screening tools to assess alcohol consumption among their patients.[10] Studies have also consistently found that time constraints are a significant barrier to screening for excessive drinking.[10,18] Similarly, in this assessment, several ED Physicians indicated that they did not have time to screen patients for excessive drinking. Some also expressed concerns about how to manage patients who screened-positive (e.g., “I don’t have time to adequately address positive scores…”).

Several strategies could be used to improve screening for excessive alcohol use in ED settings.[9] These include: 1) training ED Physicians on recommended screening tools for excessive drinking[22]; 2) incorporating these screening tools into EHR systems[23]; 3) improving health insurance reimbursement for alcohol screening in ED settings; and 4) increasing the use of electronic screening and brief intervention, or e-SBI. E-SBI is an evidence-based strategy for reducing excessive drinking that is recommended by the Community Preventive Services Task Force,[13] which could help address two of the key barriers to screening noted above (i.e., lack of time and insufficient resources to provide follow-up care for patients who screen positive).

The Community Guide also includes several evidence-based strategies for reducing excessive alcohol use at the population-level, including regulating the number and concentration of alcohol retailers in states and communities (i.e., alcohol outlet density), and dram shop liability laws.[13] These interventions can help change the social context within which people make decisions about drinking, and thus support clinical interventions to address excessive alcohol use that are delivered in EDs and in other clinical settings (e.g., primary care practices) as well. Deploying a comprehensive strategy that combines clinical and community-based interventions holds great promise for reducing excessive drinking and the many harms that are related to it — including motor vehicle injuries, opioid overdoses, and cardiovascular disease — that are so commonly seen in EDs and in many other clinical treatment settings throughout the U.S. and globally as well.

There are limitations that should be taken into consideration when reviewing the results of this assessment: While previous studies have shown that the ACEP EMPRN panel is representative of all ACEP members, the findings of this assessment may not be generalizable to all ED Physicians in the U.S. The response rate (38.6%) was low and could lead to bias in the results, but it is similar to the response rates reported for other online assessments that do not offer financial incentives to participants.[24] In addition, this assessment only asked about screening for excessive alcohol consumption that was performed by ED Physicians, and thus may not have included screening for excessive alcohol use that was done by other ED staff (e.g., behavioral health specialists).

Despite these limitations, this analysis has several strengths: First, as previously mentioned, the ACEP panel is a broad national sample of ED Physicians that should be generally representative of practicing ED Physicians. Second, by using the ACEP panel, we were able to assess directly the alcohol screening behavior of practicing ED Physicians, rather than relying on the opinions of others about current screening practices. Third, we were able to assess how screening practices might be affected by the availability of tools that are designed to improve screening rates (e.g., EHR reminders to screen for excessive drinking). Fourth and finally, we were able to directly assess perceived barriers to alcohol screening, including a lack of time and concerns about the availability of resources to assist patients who screen-positive for excessive alcohol use.

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Appendix: Assessment of Alcohol Data Collection Practices by U.S. Emergency Department Staff Council of State and Territorial Epidemiologist Alcohol Subcommittee

Introduction: Thank you for participating in our assessment of excessive alcohol data collection practices in emergency departments (EDs). The purpose of this assessment is to determine YOUR current practice on screening for excessive alcohol consumption among adult patients (aged 18+) in ED settings. Please respond based on YOUR usual activity as a health care provider, and not the general practice in the ED or EDs in which you work.

1. How often do you screen your adult patients for excessive alcohol consumption?

____ I never screen my adult patients for excessive alcohol consumption (SKIP to #7)

____ I sometimes screen my adult patients for excessive alcohol consumption

____ I always screen my adult patients for excessive alcohol consumption (whenever possible)

2. How do you screen your adult patients for excessive alcohol consumption? (Check all that apply)

____ Screening tool for excessive drinking, such as: single-question screen for binge drinking (≥5 drinks per occasion for men; ≥ 4 drinks per occasion for women); AUDIT; or Abbreviated AUDIT-C

____ Screening tool for alcohol dependency (e.g., CAGE, T-ACE, or MAST)

____ Average daily or weekly alcohol consumption

____ General question on alcohol consumption (e.g., Do you drink alcohol?)

____ Blood or saliva alcohol concentration

____ Other method, please specify: _____

3. Excluding serum or breath alcohol measurements, how often do you screen the following categories of adult patients for excessive alcohol consumption? (Response options: never, rarely, sometimes, usually, always)

a. Injured patients capable of responding to screening

b. Medical patients capable of responding to screening

c. Psychiatric patients capable of responding to screening

4. Are the results of screening for alcohol consumption entered into an adult patient's electronic health record?

Never, Rarely, Sometimes, Usually, Always

I do not use an electronic record

4a. If information on excessive alcohol consumption is entered into an adult patient's electronic health record, in what part of the record can it be found? Check all that apply:

____ Triage assessment

____ Provider History and Physical

____ Bedside nurses' assessment

____ Other (please describe)

4b. If information on alcohol consumption is entered into an adult patient's electronic health record, how is it entered? Check all that apply:

____ Click on checklist item(s)

____ Free text entry

____ Other, please specify: _____

5. Does your electronic health record system remind you to screen all adult patients, regardless of the reason for the visit, for excessive alcohol consumption or alcohol dependence using the single-question screen for binge drinking, the AUDIT, AUDIT-C, CAGE, MAST, or some other standard methodology?

____ Yes

____ No

____ N/A (none of the EDs that I work in have electronic health records)

6. How do you use an adult patient's alcohol consumption information? (Check all that apply)

____ To provide a brief intervention if they screen positive

____ To help guide the best treatment for the condition for which they presented at the ED

____ To facilitate the referral of patients to a substance use or behavioral health provider

____ To assess the quality of care that's being provided to ED patients

____ I'm not sure how to use the information

7. [Skip if responded "always" to question #1] If you do not screen all adult patients for excessive alcohol consumption, what are the reasons why you do not screen your patients for excessive alcohol consumption? (Check all that apply)

____ Lack of knowledge of screening measures or tools

____ Lack of time for screening

____ Lack of options for patients who screen positive

____ Concern about the acceptability of screening patients for excessive drinking

____ Alcohol screening is not useful/necessary

____ Other staff screen for excessive alcohol use (e.g. after a patient is admitted)

____ Patient does not have health insurance

____ Patient refuses

____ Other, please specify: _____

8. Do you have any additional information that you would like to share with us about screening ED patients for excessive drinking?

_____

_____

_____

_____

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Implications for Policy and Practice

- Excessive drinking, particularly binge drinking, is a key risk factor for severe alcohol-related injuries that require treatment in an emergency department (ED). Alcohol screening and brief intervention (ASBI) has been shown to reduce excessive alcohol consumption, alcohol-related injuries, and subsequent ED visits among adults.
- This study found that only one in six ED physicians consistently screened their patients for excessive drinking, and less than 20% of those who screened their patients used a recommended screening tool.
- Key perceived barriers to screening for excessive drinking included limited time and a lack of services for those who screened positive.
- Potential strategies for improving screening for excessive drinking include educating ED physicians on evidence-based screening tools; integrating these tools into electronic health records; improving health insurance reimbursement for alcohol screening; and greater use of electronic screening and brief intervention in ED settings.

Table 1.

Emergency Physician Demographics by Frequency of Screening for Excessive Alcohol Consumption (N = 347)

Characteristics	Total[1] N = 347	Frequency of Screening[2] n (%)		
		Always n = 55	Sometimes n = 243	Never n = 48
Total	346 (100%)	55 (15.9%)	243 (70.2%)	48 (13.9%)
Gender				
Female	85 (24.5%)	10 (11.8%)	63 (74.1%)	12 (14.1%)
Male	262 (75.5%)	45 (17.2%)	180 (69.0%)	36 (13.8%)
Age (Years)				
28–40	85 (24.5%)	10 (11.8%)	60 (70.6%)	15 (17.6%)
41–59	181 (52.2%)	28 (15.5%)	126 (70.0%)	26 (14.4%)
60–82	81 (23.3%)	17 (21.0%)	57 (70.4%)	7 (8.6%)
Years After Residency [2]				
0–14	147 (58.8%)	19 (12.9%)	106 (72.1%)	22 (15.0%)
15–29	96 (38.4%)	22 (23.2%)	59 (62.1%)	14 (14.7%)
30+	44 (15.3%)	6 (13.6%)	34 (77.3%)	4 (9.1%)

[1]Column percentages reported, all other columns (Always, Sometimes, Never) are reporting row percentages.

[2]One respondent did not specify their frequency of screening, and sixty respondents did not specify when they completed residency training.

Table 2.

Excessive Alcohol Use Screening Characteristics and Use of information Among Emergency Physicians who screened “Always” or “Sometimes” (N = 298)

		Frequency of Screening N (%)[1]	
	Total N = 298	**Always N = 55**	**Sometimes N = 243**
Excessive Alcohol Screening Method [2]			
Recommended Screening Method[3]	50 (16.9%)	11 (20.0%)	39 (16.2%)
Other Screening Method	246 (83.1%)	44 (80.0%)	202 (83.8%)
How often Results entered into Electronic Health Record			
Always/Usually	242 (81.2%)	52 (94.5%)	190 (78.2%)
Sometimes/Rarely[4]	46 (15.4%)	1 (1.8%)	45 (18.5%)
Never	2 (0.4%)	0 (0%)	2 (0.8%)
Do not use EHR	8 (2.7%)	2 (3.6%)	6 (2.5%)
Electronic Health Record System Reminder to Screen [2]			
Yes	30 (10.5%)	8 (15.4%)	22 (9.4%)
No	257 (89.5%)	44 (84.6%)	213 (90.6%)
Use of Alcohol Consumption Information (Multiple Responses Possible)			
To provide a brief intervention for patients who screen positive	134 (45.0%)	30 (54.5%)	104 (42.8%)
To help guide treatment decisions for a patient’s presenting complaint	209 (70.1%)	41 (74.5%)	168 (69.1%)
To facilitate the referral of patients to a substance use or behavioral health provider[4]	159 (53.4%)	22 (40.0%)	137 (56.4%)
To assess the quality of care that’s being provided to ED patients[4]	21 (7.0%)	9 (16.4%)	12 (4.9%)
I’m not sure how to use the information	16 (5.4%)	0 (0%)	16 (6.6%)

[1] Column percentages reported.

[2] Two respondents did not specify their alcohol screening method, and 11 respondents did not specify whether they received an EHR reminder to screen.

[3] As recommended by the U.S. Preventive Services Task Force (e.g., single question for binge-level alcohol consumption, AUDIT, AUDIT-C).

[4] $p < 0.05$, if not noted there was no significant difference.

Table 3.

Reasons for Not Screening for Excessive Alcohol Consumption Among Emergency Physicians

			Frequency of Screening			
	Overall n = 290		Sometimes n = 241		Never n = 48	
Response	**n**	**%**	**n**	**%**	**n**	**%**
Lack of time for screening	192	66.2%	158	65.6%	34	70.8%
Lack of options for patients who screen positive	125	43.1%	102	42.3%	23	47.9%
Other staff screen for excessive alcohol use	71	24.5%	64	26.6%	7	14.6%
Alcohol screening is not useful/necessary	46	15.9%	37	15.4%	9	18.8%
Concern about the acceptability of screening	34	11.7%	26	10.8%	8	16.7%
Lack of knowledge of screening measures or tools[1]	32	11.0%	16	6.6%	16	33.3%
Patient refuses	30	10.3%	30	12.4%	0	0%
Patient does not have health insurance	7	2.4%	6	2.5%	1	2.1%
Other	47	16.2%	37	15.4%	9	18.8%
Total	*584*	*100.0%*	*476*	*81.5%*	*107*	*18.3%*

[1] $p < 0.05$. Never vs. sometimes screening, otherwise NS.