

# EMS Can Safely Transport Intoxicated Patients to a Sobering Center as an Alternate Destination

Shannon M. Smith-Bernardin, PhD, RN\*; Megan Kennel, RN, MSN; Clement Yeh, MD

\*Corresponding Author. E-mail: [shannon.smith-bernardin@ucsf.edu](mailto:shannon.smith-bernardin@ucsf.edu), Twitter: @Rogue\_RN.

**Study objective:** We evaluate a sobering center as an alternate destination for acute intoxication. Our aims are to count patient visits that originated from emergency medical services (EMS) or the emergency department (ED) that then result in a secondary transfer from the sobering center to the ED, and to describe and categorize the clinical reasons for transfer to the ED.

**Methods:** The San Francisco Sobering Center, a continuously nurse-staffed facility operating since 2003, provides short-term (6- to 8-hour) care for adults with acute alcohol intoxication. Paramedics use a county EMS protocol to triage low-risk intoxicated patients to the sobering center. A case review was performed on all visitors during 3 years who were secondarily transferred from the sobering center. Reason for transfer was categorized by clinical indication.

**Results:** From July 2013 to June 2016, 11,596 visits (from 3,268 unduplicated adults) were documented. Of these, 4,045 (35%) were referred by EMS and 1,348 (12%) were referred from the ED. Other referring parties included the mobile van service, police, homeless service provider, self-referral, and others. Of the total visitors, 506 (4.4%; 95% confidence interval 4.0% to 4.8%) were secondarily transferred to an ED; 151 were referred by EMS and 62 by the ED. Clinical indications for ED transfer included pulse greater than 100 beats/min (26%), alcohol withdrawal (19%), pain (excluding chest pain) (19%), altered mental status (13%), and emesis (13%). Most clients had more than one clinical indication for transfer (median 2; range 1 to 5).

**Conclusion:** The San Francisco Sobering Center is an appropriate, safe EMS destination for patients with acute alcohol intoxication. [Ann Emerg Med. 2019;■:1-7.]

Please see page XX for the Editor's Capsule Summary of this article.

0196-0644/\$-see front matter

Copyright © 2019 by the American College of Emergency Physicians.

<https://doi.org/10.1016/j.annemergmed.2019.02.004>

## INTRODUCTION

### Background

Alcohol use is responsible for significant morbidity and mortality worldwide.<sup>1</sup> In the United States, the effect of acute alcohol intoxication on emergency departments (EDs) is of increasing concern.<sup>2-5</sup> Acute intoxication is not without risk itself and may mask other serious disorders such as intracranial hemorrhage, diabetes-related conditions, or cardiac events.<sup>6,7</sup> Most ED patients with suspected uncomplicated acute alcohol intoxication are monitored and released without need for critical care services.<sup>3,8</sup> In an effort to improve ED utilization and centralize treatment and referral resources, many cities and counties have created sobering centers to care for individuals with uncomplicated alcohol intoxication. Sobering centers provide a dedicated space for intoxicated adults to become sober while being monitored by trained staff. However, little is known in regard to the safety of sobering centers as an alternative to the ED for acute intoxication.

### Goals of This Investigation

We evaluated the ability of the San Francisco Sobering Center to operate as a safe alternative destination for patients within emergency medical services (EMS). Our aims were to count patient visits that originated from EMS or the ED that then resulted in a secondary transfer from the sobering center to the ED, and to describe and categorize the clinical reasons for transfer to the ED.

## MATERIALS AND METHODS

This study was a retrospective, secondary data analysis of all visits to and transports from the San Francisco Sobering Center between July 2013 and June 2016. The institutional review board of the University of California–San Francisco approved this study.

### Setting

The San Francisco Sobering Center, a continuously operated Department of Public Health facility staffed by

**Editor's Capsule Summary***What is already known on this topic*

Sobering centers have developed in many cities to care for uncomplicated alcohol intoxication. Little is known about their safety.

*What question this study addressed*

The case volume, referrals to the emergency department (ED), and clinical reasons for referral were recorded and categorized.

*What this study adds to our knowledge*

Of 11,596 sobering center visits, 35% were referred by emergency medical services, 12% by the ED, and smaller numbers from several other sources. One patient was found dead in the sobering center restroom from cocaine intoxication. Of the total sobering center visitors, 506 were secondarily transferred to an ED for various reasons: tachycardia (26%), alcohol withdrawal (19%), pain (excluding chest pain) (19%), altered mental status (13%), and emesis (13%); there were no deaths.

*How this is relevant to clinical practice*

A sobering center offers a safe and effective management site for patients with uncomplicated alcohol intoxication.

registered nurses and peer-level support staff, was opened in 2003 to provide care for adults aged 18 years and older with acute public alcohol intoxication. San Francisco paramedics use a systemwide county destination protocol functioning as an alternative to transporting patients directly to an ED to identify patients who are eligible for evaluation at the sobering center. They follow a triage checklist to evaluate whether patients with suspected alcohol intoxication meet low-risk criteria, allowing transport to the sobering center rather than an ED (Figure 1).

In addition, individuals may be referred by police, EDs, health clinics, or street outreach teams, or may self-refer as walk-in clients. The San Francisco Sobering Center has documented 3,500 to 4,500 visits annually since 2013. With greater than 57,000 client visits since inception, more than 15,000 individuals were referred directly by paramedics.<sup>9</sup>

The 12-bed facility is colocated with a medical respite program and features nonhospital (standard) beds, accessible showers and toilets, laundry facilities, and a

clinical station with full visibility of all beds (Figure 2). Services are provided by registered nurse and medical assistant staff using standardized procedures, including continuous and periodic electronic vital sign monitoring, oral rehydration of water and electrolyte solution, meals, activity of daily living support, basic wound care, and vitamin supplements. Referrals to social and medical detoxification, urgent care, and shelter are offered for all interested clients. A social work team consisting of licensed and associate clinical social workers and peer navigators provides advanced care coordination and intensive case management, including referral to psychiatric evaluation and housing.

Nursing staff follow protocols that include indications to activate emergency services in cases in which the patient condition warrants a higher level of care. These protocols were initially created by physician and nursing leadership and undergo biannual audits and review. In addition to objective measures, including vital sign monitoring, these procedures allow for subjective clinical impression and client request in determining care and discharge options. There is no predetermined minimum or maximum length of stay, although a typical client visit lasts 6 to 8 hours.<sup>10</sup>

**Selection of Participants**

Sobering center visit information was obtained from the Coordinated Case Management System, an integrated electronic record system tracking individual-level use across multiple health and welfare systems. Patient visit data were entered during the provision of care at the sobering center. Adults aged 18 years and older who were admitted to the center from July 2013 to June 2016 were included in the analysis.

**Methods of Measurement**

Two registered nurses, one doctoral prepared and the second masters prepared, and a board-certified emergency physician performed a case review on all patient visits that resulted in a secondary transfer from the sobering center to an ED. In cases in which the initial findings differed between reviewers, consensus was reached through secondary review and discussion.

The 3-person research team conducted 4 meetings before the final case review to discuss common definitions and parameters of the study. The secondary transfer was categorized by reasons for transfer (ie, measures of vital sign instability such as abnormal blood pressure, elevated pulse, temperature, seizure activity, chest pain, and death) according to the clinical notes entered by sobering center staff. The reasons for transfer are not equivalent in measure

## 1. DESTINATION INCLUSION CRITERIA

- a. Sobering Services: Intoxicated patients with no acute medical condition(s) or co-existing medical complaints may be transported to the San Francisco Sobering Center, if the patient meets the following criteria:
  - i. Be at least 18 years or older;
  - ii. Found on street / in a shelter or in Police Department custody;
- b. Voluntarily consent or have presumed consent (when not oriented enough to give verbal consent) to go to the Sobering Center;
- c. Not be on the San Francisco Sobering Center "Exclusion List."\*
- d. Be medically appropriate by meeting ALL of the following criteria:
  - i. Indication of alcohol intoxication (odor of alcoholic beverages on breath, bottle found on person);
  - ii. Glasgow Coma Score of 13 or greater;
  - iii. Pulse rate greater than 60 and less than 120;
  - iv. Systolic blood pressure greater than 90;
  - v. Diastolic blood pressure less than 110;
  - vi. Respiratory rate greater than 12 and less than 24;
  - vii. Oxygen saturation greater than 89%;
  - viii. Blood glucose level greater than 60 and less than 250;
  - ix. No active bleeding;
  - x. No bruising or hematoma above clavicles;
  - xi. No active seizure; and,
  - xii. No laceration that has not been treated.

*\*Exclusion List: Periodically, a client may be deemed inappropriate by sobering center staff for use of the sobering center for a fixed amount of time. The client is then placed temporarily on an exclusion list. The most common reasons for placement on the exclusion list are physical violence against staff or other clients and repeated inability to care for basic needs and activities of daily living once sober. There are typically 3 to 8 persons on this list at any one time.*

**Figure 1.** Criteria for paramedic triage to the San Francisco Sobering Center.

to the EMS triage criteria, which provide for a point-in-time assessment to achieve an immediate determination for admission to the sobering center. Discharges or transfers occur because of nurse evaluation of client condition during a longer period and after interventions including



**Figure 2.** Client dormitory at the San Francisco Sobering Center.

oral rehydration, food, rest, use of hygiene facilities, or review of client medical records.

An initial record review was completed to test the standardized abstraction and comprehensiveness of the clinical criteria evaluated in the study. After initial evaluation, clinical criteria were finalized and the registered nurse reviewers independently reviewed 20 charts to train. A standardized collection form (Excel; version 14.7.3; Microsoft, Redmond, WA) was used for data evaluation.

All clinical indications were categorized (Table 1). Many incidents had more than one clinical indication for ED transfer. Statistical analyses were performed with Stata/IC (version 14.1; StataCorp, College Station, TX).

This study included patient visits to the sobering center during 3 fiscal years, from July 2013 to June 2016.

## RESULTS

A total of 11,596 visits (from 3,268 unduplicated patients) were received at the sobering center during the study period. EMS referrals (n=4,045) were 35% of total visits, and 12% (n=1,348) were referred from the ED. Other referring parties

**Table 1.** Clinical indications for secondary transfer from the San Francisco Sobering Center to an ED.

Clinical Indicator	Range
Pulse, unstable, beats/min	>100 (high); <60 (low)
Blood pressure, unstable, mm Hg	>160 systolic or >100 diastolic (high); <100 systolic (low)
Temperature, °F/°C	>100/37.8 (high); <95/35 (low)
Respiration, breaths/min	>20 (high); <7 (low)
SpO <sub>2</sub> , %	<90 (low)
Blood glucose level, mg/dL (finger stick)	>250 (high); <50 (low)
Alcohol withdrawal, suspected	Clinical note may include tremors, hallucinations/delusions, headache, nausea, Clinical Institute Withdrawal Assessment score. Excludes seizure activity.
Injury	Clinical note includes reference to physical signs of trauma, laceration, abrasion, swelling, or incidence of or client statement of injury. Injuries may have occurred on site or before admission to sobering center.
Fall	Clinical note indicates client fall on site with or without injury, including fall from standing or out of bed
Patient complaint of pain	Complaint of acute pain, excluding chest pain
Chest pain	Indicates specific complaint of chest pain or discomfort
Seizure activity	Includes both witnessed seizures and suspected seizure followed by sudden change in mental status, difficult arousal, incontinence, bleeding
Altered mental status	Includes either a decrease in mental status after admission or a persistent altered state that has not improved with time
Drugs, other	Includes client statement of ingestion of other drugs, or corresponding symptoms with or without the presence of paraphernalia or other drugs
Suicidal ideations or attempt	Includes client statement of intent to harm self, inability to contract for safety, signs of injury, and witnessed attempts at self-harm
Emesis	Indicates active vomiting as opposed to nausea
Client request	Client request not accompanied with signs of need for higher level of care

included the mobile van service (n=2,691; 23%), police (n=1,020; 9%), homeless service provider (n=972; 8%), self-referral (n=836; 7%), and others (n=685; 6%).

The majority of patients were found to have completed care safely at the sobering center without transfer to the ED. Of the 11,596 total visitors, 506 (4.4%; 95% confidence interval [CI] 4.0% to 4.8%) were transferred to the ED. Of the 4,045 EMS referrals, 151 (3.7%; 95% CI 3.1% to 4.3%) visits resulted in a secondary transport to the ED. Of the 1,348 ED referrals, 62 individuals (4.5%; 95% CI 3.4% to 5.6%) returned from the sobering center to the ED. Referred patients from all other parties (n=6,203), such as police referrals and walk-ins, had 293 transfers by ambulance to an ED, for a transfer rate of 4.7% (95% CI 4.2% to 5.2%).

Although most unduplicated patients (n=142) were transferred one time, 26 patients had multiple incidents requiring transfer to the ED by ambulance (range 2 to 8 incidents).

Case review identified the most frequent clinical indications for secondary transfer to the ED for EMS

referrals: elevated pulse, persistent altered mental status not explained by alcohol intoxication, patient complaint of pain (not including chest pain), signs of alcohol withdrawal, and emesis (Table 2). Greater than 60% of clients had more than one clinical indication for transfer (median 2; range 1 to 5).

Length of stay for EMS referrals before secondary transfer to the ED varied: 38 visits (25%) transporting at less than 1 hour, 42 (28%) between 1 and less than 3 hours, 25 (17%) at 3 to less than 6 hours, and 47 (31%) occurring after a 6-hour stay.

Secondary transfer of clients initially referred from the ED to the sobering center who subsequently returned to the ED varied slightly from that of those received from EMS directly: elevated pulse, signs of alcohol withdrawal, patient complaint of pain (not including chest pain), elevated blood pressure greater than 160 mm Hg systolic or greater than 100 mm Hg diastolic, and chest pain (Table 2). Most clients (77%; median 2; range 1 to 5) had more than one clinical indication for transfer.

**Table 2.** Clinical reason for transfer to the ED.

Clinical Reason for Discharge	EMS and ED Combined (n=213, 168 Unduplicated Clients), No., % (95% CI)	EMS Referrals (n=151), No., % (95% CI)	ED Referrals (n=62) No., % (95% CI)
Pulse high, >100 beats/min	56, 26 (21–33)	27, 18 (13–25)	29, 47 (34–59)
Alcohol withdrawal, suspected	41, 19 (13–28)	19, 13 (8–23)	22, 36 (22–58)
Complaint of pain	40, 19 (14–25)	26, 17 (12–24)	14, 23 (14–35)
Emesis	28, 13 (9–18)	18, 12 (8–18)	10, 16 (9–28)
Altered mental status	28, 13 (9–18)	27, 18 (13–25)	1, 2 (0–11)
Blood pressure high, >160 systolic, >100 diastolic, mm Hg	25, 12 (8–17)	12, 8 (5–14)	13, 21 (12–33)
Client request (no obvious need)	25, 12 (8–17)	16, 11 (7–17)	9, 15 (8–26)
Chest pain	18, 8 (5–13)	6, 4 (2–9)	12, 19 (11–31)
Seizure	16, 8 (5–12)	9, 6 (3–11)	7, 11 (5–22)
Fall	15, 7 (4–11)	14, 9 (6–15)	1, 2 (0–11)

Length of stay at the sobering center for ED referrals before transfer back to the ED was longer than for EMS: 8 (13%) at less than 1 hour, 6 (10%) at 1 to less than 3 hours, 18 (29%) at 3 to less than 6 hours, and 30 (48%) transferring after greater than a 6-hour stay.

Indications for secondary transfer varied between EMS and ED referral sources. ED referrals (n=62) compared with EMS referrals (n=151) resulted in higher rates of transfer for alcohol withdrawal (36%, 95% CI 22% to 58% versus 13%, 95% CI 8% to 23%) and elevated blood pressure (21%, 95% CI 12% to 33% versus 8%, 95% CI 5% to 14%).

One death occurred during the study period. A 62-year-old man admitted through EMS at 10:30 PM was found unconscious in the restroom approximately 3 hours after admission. A glass pipe and white powder were present. EMS was unsuccessful in reviving the patient. The death certificate cause of death was cocaine intoxication. Peripheral blood analysis contained cocaethylene, cocaine at 0.05 mg/L, and benzoylecgonine at 0.48 mg/L, with cocaine and metabolites confirmed in the urine sample as well. No acute fatal traumatic injuries were noted.

## LIMITATIONS

As noted previously, the sobering center admission criteria and the clinical indicators for secondary transfer do not coincide exactly, and discharge or transfer decisions are often based on assessments conducted during a certain period. A prominent limitation is the reliance on clinical judgment and staff experience in initiating a secondary transfer of a patient. Despite protocols and guidelines, there are few medical scenarios dictating immediate 911 response (eg, chest pain, fall with head trauma), and thus transfer decisions may be based on presentation, including

subjective information. Additionally, a client determined by sobering center staff to require ED care may refuse transport and thus not be discharged by ambulance. These cases would not have been captured in this study.

We do not have the final hospital outcomes for this study. The standard practice is that any receiving party (such as a medical or psychiatric ED) will contact the sobering center management for any negative outcomes received by an ED in transfer. Additionally, the sobering center is connected to the countywide Unusual Occurrence online reporting system, which is used by all staff for any negative client outcomes at all county health facilities, including the county hospital and clinics. Any severe negative outcomes (hemorrhage, death, etc) and safety concerns would be reported to this system and investigated by health officials. In addition, all deaths occurring within the county are reported to the Department of Public Health. These reports include all services with which the deceased had contact before death. For any deaths within 30 days of discharge from the sobering center (and like facilities), management is contacted and a formal review is conducted.

This study is not an evaluation of the triage criteria or a comparison to clients who were determined not eligible for sobering center care. Admission is based on presumed intoxication on alcohol; however, there are no definitive screening tools used (such as a breathalyzer) to confirm alcohol consumption. Clients may have incidental intoxication with other drugs or medications that would affect their risk for transfer to the ED.

## DISCUSSION

This study evaluated the ability of the sobering center to operate as a safe alternative EMS destination. The majority

of patients did not require acute care in an ED. Patients who did develop a concerning health condition such as abnormal vital signs, complaints of pain, or altered mental status were transferred to the ED. There were no noted cases of low blood glucose level, stroke, intracranial hemorrhage, or injuries related to violence within the sobering environment. However, the incident involving fatal cocaine overdose raises issues surrounding monitoring of clients with the potential for ongoing substance use while in the center.

A goal of sobering centers is to prevent unnecessary visits to the ED by caring for individuals with uncomplicated acute intoxication who do not require ED-level services.<sup>10-14</sup> The majority of sobering center visits did not require ambulance discharge, with less than 5% of individuals transferred to a higher level of care. This supports previous survey data indicating that protocol-based triage can identify patients appropriate for this type of care.<sup>12</sup>

However, alcohol intoxication is not without risk from both unrecognized medical complications and decompensation (eg, hemorrhage, hypoglycemia) or intoxication itself (eg, aspiration, trauma from falls, self-harm).<sup>1</sup> Initial triage and ongoing monitoring are critical to ensuring patient safety.<sup>15,16</sup> A recent study found that only 1% of patients triaged by emergency physicians to an “intoxication unit” in the ED, dedicated to patients with suspected uncomplicated alcohol intoxication, required critical care services before discharge.<sup>8</sup> Triage by physicians cannot be compared with that performed by paramedics and registered nurses; however, this study speaks to the number of ED patients presenting with uncomplicated alcohol intoxication who could be cared for in a less comprehensive environment.

Triage studies have previously found that paramedic evaluation in the out-of-hospital environment can successfully triage individuals with suspected alcohol intoxication to a sobering center environment versus an ED.<sup>17-20</sup> A common discussion is the sensitivity and specificity of triage criteria. In studies by Ross et al<sup>17</sup> and Cornwall et al,<sup>18</sup> the sensitivity was high (99% and 93%, respectively); however, overtriage to the ED was evident by the specificity (42% and 40%, respectively). However, the timing of the discharge from a sobering center to the ED raises the question of whether these were missed diagnoses or emerging medical conditions within a population with complicated disease. Our evaluation lends support to the important role of paramedic evaluation in determining medical need of individuals with acute intoxication, and the ongoing monitoring by registered nurse staff in identifying emerging medical conditions.

We found that patients transferred to the sobering center after being medically cleared in the ED had slightly higher rates of discharge back to the ED. Considering the effects of long-term alcohol use, including unstable vital signs and alcohol withdrawal, this difference may be related to longer lengths of stay in light of the combination of the ED visit, transport, and sobering center visit, as well as the underlying higher-risk population. Additional evaluation is warranted, including length of stay in the ED before sobering center transfer, before further interpretation of this finding.

Our results indicate that the sobering center with registered nurse staffing is an appropriate, safe alternate destination for the EMS system in the triage and care of acute alcohol intoxication. A majority of referrals were appropriate for the level of support provided, and these patients did not require transfer to the ED.

---

*Supervising editor:* Richard C. Dart, MD, PhD. Specific detailed information about possible conflict of interest for individual editors is available at <https://www.annemergmed.com/editors>.

*Author affiliations:* From the School of Nursing (Smith-Bernardin) and Department of Emergency Medicine (Yeh), University of California–San Francisco, CA; the San Francisco Department of Public Health, San Francisco, CA (Smith-Bernardin, Kennel); and the Division of Emergency Medical Services, San Francisco Department of Emergency Management, San Francisco, CA (Yeh).

*Author contributions:* All authors conceived of and designed the study and analyzed the data. CY completed the institutional review board application and obtained institutional approval. SMS-B performed data retrieval and data cleaning. SMS-B drafted the initial article, and all authors contributed significantly to the revisions. SMS-B takes responsibility for the paper as a whole.

All authors attest to meeting the four [ICMJE.org](http://www.icmje.org) authorship criteria: (1) Substantial contributions to the conception or design of the work; or the acquisition, analysis, or interpretation of data for the work; AND (2) Drafting the work or revising it critically for important intellectual content; AND (3) Final approval of the version to be published; AND (4) Agreement to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

*Funding and support:* By *Annals* policy, all authors are required to disclose any and all commercial, financial, and other relationships in any way related to the subject of this article as per ICMJE conflict of interest guidelines (see [www.icmje.org](http://www.icmje.org)). The authors have stated that no such relationships exist.

*Publication dates:* Received for publication May 4, 2018. Revisions received October 15, 2018; December 20, 2018, and January 10, 2019. Accepted for publication February 4, 2019.

Presented at the American College of Emergency Physicians *Scientific Assembly*, October 2017, Washington, DC.

---

## REFERENCES

1. World Health Organization. *Global Status Report on Alcohol and Health*. 2014. Geneva, Switzerland: World Health Organization; 2014.
2. Mullins PM, Mazer-Amirshahi M, Pines JM. Alcohol-related visits to US emergency departments, 2001-2011. *Alcohol Alcohol*. 2016;52:119-125.
3. Pletcher MJ, Maselli J, Gonzales R. Uncomplicated alcohol intoxication in the emergency department: an analysis of the National Hospital Ambulatory Medical Care Survey. *Am J Med*. 2004;117:863-867.
4. Verelst S, Moonen PJ, Desruelles D, et al. Emergency department visits due to alcohol intoxication: characteristics of patients and impact on the emergency room. *Alcohol Alcohol*. 2012;47:433-438.
5. Klein LR, Martel ML, Driver BE, et al. Emergency department frequent users for acute alcohol intoxication. *West J Emerg Med*. 2018;19:398-402.
6. Vonghia L, Leggio L, Ferrulli A, et al. Acute alcohol intoxication. *Eur J Intern Med*. 2008;19:561-567.
7. National Institutes of Health. *Alcohol-related emergency department visits and hospitalizations and their co-occurring drug-related, mental health, and injury conditions in the United States*. Bethesda, MD: National Institute on Alcohol Abuse and Alcoholism; 2013.
8. Klein LR, Cole JB, Driver BE, et al. Unsuspected critical illness among emergency department patients presenting for acute alcohol intoxication. *Ann Emerg Med*. 2018;71:279-288.
9. Smith-Bernardin SM, Kennel M. Sobering centers: nurse leadership in pre-hospital intervention. *Voice of Nursing Leadership*. 2018;16:20-22.
10. Smith-Bernardin SM, Schneidermann M. Safe sobering: San Francisco's approach to chronic public inebriation. *J Health Care Poor Underserved*. 2012;23(3 suppl):265-270.
11. Smith-Bernardin SM, Carrico A, Max W, et al. Utilization of a sobering center for acute alcohol intoxication. *Acad Emerg Med*. 2017;24:1060-1071.
12. Warren O, Smith-Bernardin SM, Jamieson K, et al. Identification and practice patterns of sobering centers in the United States. *J Health Care Poor Underserved*. 2016;27:1843-1857.
13. Castro-Marin F, Maher SA, Navarro T, et al. Impact of a mass gathering alcohol sobering facility on emergency resources. *Prehosp Emerg Care*. 2018;22:326-331.
14. Irving A, Goodacre S, Blake J, et al. Managing alcohol-related attendances in emergency care: can diversion to bespoke services lessen the burden? *Emerg Med J*. 2018;35:79-82.
15. Wolf L. Considerations in triage for the intoxicated patient. *J Emerg Nurs*. 2008;34:272-273.
16. Volz TM, Boyer KS. The development of a behaviorally-based alcohol intoxication scale. *J Emerg Nurs*. 2014;40:330-335.
17. Ross DW, Schullek JR, Homan MB. EMS triage and transport of intoxicated individuals to a detoxification facility instead of an emergency department. *Ann Emerg Med*. 2013;61:175-184.
18. Cornwall AH, Zaller N, Warren O, et al. A pilot study of emergency medical technicians' field assessment of intoxicated patients' need for ED care. *Am J Emerg Med*. 2012;30:1224-1228.
19. Flower K, Post A, Sussman J, et al. Validation of triage criteria for deciding which apparently inebriated persons require emergency department care. *Emerg Med J*. 2011;28:579-584.
20. Swain AH, Weaver A, Gray AJ, et al. Ambulance triage and treatment zones at major rugby events in Wellington, New Zealand: a sobering experience. *N Z Med J*. 2013;126:12-24.