
Subsequent Suicide Mortality among Emergency Department Patients Seen for Suicidal Behavior

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Abstract

Objectives: To determine whether suicide mortality rates for a cohort of patients seen and subsequently discharged from the ED for a suicide-related complaint were higher than for ED comparison groups.

Methods: This was a nonconcurrent cohort study set at a university-affiliated urban ED and Level 1 trauma center. All ED patients 10 years and older, with at least one ED visit between February 1994 and November 2004, were eligible. ED visit characteristics defined the cohort exposure. Patients with visits for suicide attempt or ideation, self-harm, or overdose (exposed) were compared with patients without these visits (unexposed). Exposure classification was determined from billing diagnoses, E-codes (E950–E959), and free-text searching of the ED tracking system data for *suicide*, *overdose*, and spelling variants. Emergency department patient data were probabilistically linked to state mortality records. The principal outcome was suicide death. Suicide mortality rates were calculated by using person-year (py) analyses. Relative rates (RR) and 95% confidence intervals (95% CIs) were calculated from Cox proportional hazards models.

Results: Among the 218,304 patients, the average follow-up was 6.0 years; there were 408 suicide deaths (incidence rate [IR]: 31.2 per 100,000 py). Males (IR: 48.3) had a higher rate than females (IR: 13.5; RR: 3.6; 95% CI = 2.8 to 4.6). A single ED visit for overdose (RR: 5.7; 95% CI = 4.5 to 7.4), suicidal ideation (RR: 6.7; 95% CI = 5.0 to 9.1), or self-harm (RR: 5.8; 95% CI = 5.1 to 10.6) was strongly associated with increased suicide risk, relative to other patients.

Conclusions: The suicide rate among these ED patients is higher than population-based estimates. Rates among patients with suicidal ideation, overdose, or self-harm are especially high, supporting policies that mandate psychiatric interventions in all cases.

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Patients with a history of a suicide attempt (parasuicide) are at an increased risk of subsequent suicide, regardless of their age,^{1–3} and the risk is several-fold higher in the year after the episode than that observed in the general population.^{4–6} Several factors are associated with an increased risk of suicide, including a variety of mental (e.g., depression, schizophrenia, and alcohol or substance use),^{5–8} and physical (e.g., traumatic brain injury, HIV, renal failure, asthma, and cancer)^{9–13}

disorders. Risk estimates are derived from both retrospective and prospective data. Prospective data are obtained nearly exclusively from countries in which nationalized health care systems facilitate prospective data collection and outcome assessment.^{1,3,14,15}

Emergency physicians frequently treat patients who are depressed or suicidal, but considerable challenges exist in deciding how to manage these patients.¹⁶ The risk of suicide completion among emergency department (ED) patients in the United States with a history of parasuicide is unknown. Quantification of suicide risk factors may provide the clinician with important clues regarding suicide risk stratification. The recent application of probabilistic data linkage in the health care setting provides an opportunity to examine this question in health care systems without common identifiers, such as those in the United States.

We sought to determine whether suicide mortality for a cohort of patients seen and subsequently discharged

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for a suicide-related complaint were higher than for comparison groups of other ED patients. We quantified this risk by linking electronic records with centralized mortality files.

METHODS

Study Design

We used a nonconcurrent design to measure the incidence of suicide death among populations of ED patients with varying exposures (Table 1). Nonconcurrent prospective cohort data from a university-affiliated urban ED (February 1994–November 2004) were probabilistically linked to state mortality records from the same time period. Our institutional review board reviewed the study in full committee and approved the study design with a waiver of informed consent.

Study Setting and Population

Bernalillo County contains New Mexico's largest and most urban city, Albuquerque. The population of Bernalillo County was 556,678 persons in the 2000 census, of whom 80.6% lived in Albuquerque.^{17,18} The University of New Mexico Health Sciences Center (UNMHSC) contains New Mexico's only medical school and teaching hospital complex, its only Level 1 trauma center, and is the only public hospital in Albuquerque and Bernalillo County. During each year of the study period, the UNMHSC had, on average, more than 750,000 visits from 125,000 patients, and the ED had 71,594 visits from 48,130 patients. Patients with suicidal ideation, overdose, and self-harm diagnoses constituted the principal exposure groups.

Study Protocol

This project required linking three data sets: 1) the electronic ED patient-tracking system, 2) physician billing data from the UNMHSC, and 3) state medical examiner files. The analysis data set was created in two phases: ED patient data were first linked to billing data; subsequently, the resulting data set was linked to mortality files.

Subjects were probabilistically linked to state medical examiner records to assess mortality. Subjects with an exposure of interest were compared with all other ED patients who did not have the exposure. Probabilistic record linkage uses the distribution of information within the data to assist the researcher with determining whether or not records actually represent the same individual by using probability theory and Bayes' Rule.^{19,20} This method is better suited than exact or deterministic strategies for linking data sets that have missing, incorrect, or variant data (e.g., typographical errors and nicknames) or lack a unique identifier. Probabilistic record linkage strategies overcome some of these limitations by handling missing data more efficiently and by using the frequencies of linking variables (such as last name) to determine the probability that two records refer to the same individual.^{21–23} LinkSolv software (Strategic Matching Inc., version 5.1, 2004; <http://LinkSolv.com>) was used to link the data sets.

The ED patient tracking system contains last name, first name, date of birth, gender, medical record number,

Table 1
Diagnostic Codes Used to Determine Visit Exposure Classification

Diagnostic and Visit Type Classifications by ICD-9-CM Codes within the Billing Database	ICD-9-CM Codes
Heart disease	309–398, 402, 404–429
Asthma	493
COPD	492, 496
Mental health visit	290–319
Mental health visit (excluding substance abuse)	290, 293, 294–302, 306–319
Alcohol-related visit	291, 303, 305.0
Drug use-related visit	292, 304, 305.2, 305.3–305.9
Substance use-related visit	Either alcohol or drug use codes
Injury visit	800–959
Self-harm visit	E950–E959

visit date and time, chief complaint, final diagnosis, and disposition (e.g., discharge home, admit, or transfer to psychiatry). Data are available from February 1994 to present. This data set has a number of limitations, including the lack of connection to other computerized databases, an inability to verify transfer or data integrity (e.g., an incorrect medical record number can be typed into the system when a patient is registered), and free-text data entry for chief complaint and final diagnosis. The final diagnosis represents the first diagnosis listed by the physician on the medical record and is not formally coded.

The UNMHSC hospitals and affiliated clinics use a single university-affiliated billing agency. The billing records are itemized by invoice and represent each separate billable item. Each billing invoice can have up to four diagnostic codes from the International Classification of Diseases, 9th Revision, Clinical Modification (ICD-9-CM). In addition, the data set includes medical record number, last name, first name, gender, date of birth, and social security number.

The ED tracking system and billing data were probabilistically linked using last name, first name, middle initial, medical record number, gender, date of birth, and date of service. The ED tracking database contained 780,838 records representing 305,600 unique persons. The billing database contained 697,025 records representing 261,851 unique persons. The combined database contained 558,702 records representing 260,630 unique persons. Certain records are expected to have a low probability of linking, such as records with "Doe" names and visits that did not generate a physician bill (e.g., patients who leave without being seen).

The resultant combined database was then linked to the state medical examiner database to create an analysis database. The state medical examiner (State of New Mexico's Office of the Medical Investigator [OMI]) is responsible for certifying all deaths in the state occurring on nonfederal lands. In addition to determining both the manner (homicide, suicide, unintentional, natural, and undetermined) and cause of death, the OMI investigates all deaths regarded as suspicious or untimely. In our state, only the medical examiner can certify a death certificate, thus the state's vital statistics records rely

ultimately upon the OMI for all death record data. The medical examiner data provided date, cause, and manner of death. The medical examiner database contained 52,305 deaths from 1994 through November 8, 2004.

The combined ED tracking system–billing record database was probabilistically linked to the medical examiner data by using last name, first name, middle initial, date of birth, date of service, gender, and social security number. Age was calculated at the time of the first relevant visit. After both data linkage steps were completed and age was calculated, all protected health information identifiers (i.e., names, date of birth, medical record number, and social security number) were eliminated to create an analysis data set.

Measurements

Exposure classifications were determined from visit and diagnostic characteristics. Many of the conditions that might be used to capture potential suicide risk for ED patients (e.g., suicidal ideation and overdose) do not correspond to any single or simple grouping of ICD-9-CM diagnoses. Therefore, the chief complaint and diagnosis fields were text-searched for terms that indicated potential suicide risk. These words included spelling variants of *suicidal*, *suicidal ideation*, *depression*, and *overdose*.

Formally coded physician diagnoses from the billing codes were classified into exposure groups. Exposure was dichotomized into exposed and unexposed categories for particular health care encounters and visit types (e.g., an ED visit for substance abuse, a firearm injury–related visit, or transfer to the psychiatric facility). Table 1 lists the diagnostic and visit type classifications by ICD-9-CM codes. Unless otherwise specified, all subsequent decimal ICD-9-CM codes were included within the range (e.g., 290.1 and 290.2 were included with code 290; 305.31 was included with 305.3).

An additional element of exposure assessment required that the patient survive to discharge (either from the ED or from the hospital). In cases in which a patient presented to the ED for an indicator visit (such as self-inflicted injury) for the first time and who subsequently died from this exposure (e.g., patient dies in ED or ICU from a gunshot wound to the head), their exposure classification was not changed for this specific visit but relied upon prior classification.

Mortality was assessed from state medical examiner data. Individuals whose ED records did not link to the medical examiner records were presumed alive. Deaths were further classified by manner and cause of death. All suicide deaths within 30 days of an ED visit were manually reviewed. Because it was not possible to determine the discharge date from the electronic data for patients who were admitted to the hospital, deaths that occurred within 30 days among admitted patients were presumed related to this indicator visit or admission. The vast majority of deaths for these admitted patients occurred within 48 hours of admission.

Data Analysis

We calculated the average annual risk of death using the number of deaths among the cohort that occurred during

the study period divided by the total number of individuals under study.

Person-time was calculated from the date of enrollment into the cohort (date of presentation to the ED) and the date of study withdrawal (either the date of death or administrative withdrawal from study on the date that death records were searched [November 8, 2004]). The number of days between the two dates was calculated (person-days) and divided by 365.25 to calculate person-years (py) of observation. Person-time was allocated into exposed and unexposed groups based on the exposure groups described above. Once an individual had a visit of interest (e.g., suicidal ideation), they began to allocate all future person-time into the exposed group. Person-time before the indicator visit was allocated to the unexposed group.

Suicide mortality rates were calculated using person-year (py) analyses by dividing the number of deaths among the cohort by the number of person years of observation.^{24,25}

All analyses were restricted to subjects who were at least 10 years of age, because the risk of suicide is virtually negligible among individuals less than 10 years old. Gender-adjusted and age-adjusted suicide rates were calculated by means of the direct method of adjustment by using the total U.S. population from the year 2000 U.S. Census.²⁶

Relative rates (RR) and 95% confidence intervals (95% CI) were calculated from time-dependent Cox proportional hazards models, by comparing “exposed” groups with the exposure of interest (e.g., suicide attempt/ideation, self-harm, or overdose) with groups of subjects without these visits (unexposed). A single time-dependent covariate (for exposure) was used to allocate exposure into either exposed or unexposed groups. To account for the potential effects of age and gender, age (as a continuous variable) and gender (as a dichotomous variable) were entered in to the Cox models, resulting in age-adjusted and gender-adjusted hazard ratios.

SAS statistical software (SAS Institute, Cary, NC, version 9.1) was used to conduct all statistical analyses. We used a two-tailed type I error rate of 5% to determine statistical significance. S-Plus (version 6.2; Insightful Corp, Seattle, WA) was used to generate graphs.

RESULTS

Among the 218,304 patients, the average time of follow-up was 6.0 years. Of the 6,470 deaths identified from the cohort, there were 449 (6.9%) suicide deaths; 41 subjects were excluded, because their only visit to our ED was the visit that resulted in their death from suicide (in the ED or as an inpatient). This resulted in a total of 408 deaths (0.19%) among the whole cohort. The overall crude incidence rate (IR) was 31.2 per 100,000 py (95% CI = 28.4 to 34.4). Most of the deaths were among males ($n = 322$, 78.9%). The most common mechanism of injury was from a firearm ($n = 192$, 47.1%), followed by hanging ($n = 94$, 23.0%), drug ingestion or overdose ($n = 26$, 6.4%), and suffocation or asphyxia ($n = 9$, 2.2%). An additional 22 deaths (5.4%) were caused by other mechanisms.

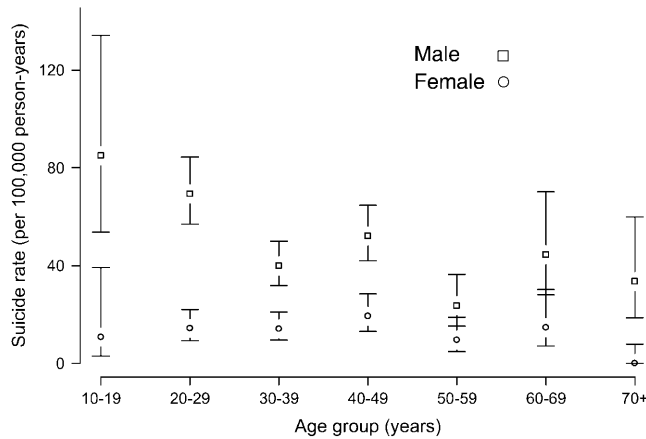


Figure 1. Suicide rate per 100,000 person-years with 95% confidence intervals, by gender and age group.

The crude incidence rate for males (IR: 48.3) was higher than the rate for females (IR: 13.5; rate ratio [RR]: 3.6; 95% CI = 2.8 to 4.6). The crude suicide rates differed by age and gender (Figure 1). The gender and age-adjusted

overall suicide rate was similar to the crude rate (adjusted IR: 31.9 per 100,000 py).

Suicide rates varied by exposure classification (Table 2). A single ED visit for suicidal ideation (RR: 6.7; 95% CI = 5.0 to 9.1), self-harm (RR: 7.3; 95% CI = 5.1 to 10.6), or overdose (RR: 5.7; 95% CI = 4.2 to 7.7) was strongly associated with increased suicide risk relative to ED patients without this history. Patients with any of these three risk factors were 5.8 times more likely to complete suicide compared with patients without these exposures (95% CI = 4.5 to 7.4).

Patients with alcohol, drug use, or a mental-disorder diagnosis, whether alone or in combination, also had increased suicide rates compared with patients without these diagnoses (Table 2). An injury-related ED visit, regardless of intent, also was associated with an increased risk of suicide (RR: 2.0; 95% CI = 1.6 to 2.4). Adjustment of age and gender had limited effects on the observed relative rates.

Patients with chronic conditions commonly seen in the ED had varying risks of suicide (Table 2). Patients with ED visits for heart disease had a slightly greater risk of suicide compared with patients without visits for heart

Table 2
Suicide Rates for Selected Exposure Characteristics

Exposure Characteristic	Exposed			Unexposed			Crude Rate Ratio	Lower 95% CI	Upper 95% CI	Adjusted Hazard Ratio†		
	Suicide Deaths (n)	Person-years Exposed	Rate (per 100,000 Py)	Suicide Deaths (n)	Person-years Unexposed	Rate (per 100,000 Py)				Lower 95% CI	Upper 95% CI	
Heart disease	67	149,267	44.9	382	1,156,720	33.0	1.36	1.05	1.76	1.47	1.14	1.91
Asthma	10	36,769	27.2	439	1,269,218	34.6	0.79	0.42	1.47	0.92	0.49	1.72
COPD	6	6,340	94.6	443	1,299,647	34.1	2.78	1.24	6.21	3.60	1.58	8.20
Suicide or suicidal ideation	51	25,458	200.3	398	1,280,529	31.1	6.45	4.82	8.62	6.16	4.60	8.25
Self-harm E-code	50	14,472	345.5	399	1,291,515	30.9	11.18	8.34	15.00	10.45	7.78	14.04
Overdose	52	29,777	174.6	397	1,276,210	31.1	5.61	4.21	7.49	5.24	3.93	7.00
Suicidal/self-harm/overdose*	100	51,089	195.7	349	1,254,898	27.8	7.04	5.64	8.79	6.48	5.19	8.10
Mental disorder (excluding substance use)	68	61,208	111.1	381	1,244,779	30.6	3.63	2.80	4.70	3.79	2.92	4.91
Alcohol diagnosis	56	51,320	109.1	393	1,254,667	31.3	3.48	2.63	4.61	2.63	1.98	3.48
Drug use diagnosis	14	16,093	87.0	435	1,289,894	33.7	2.58	1.52	4.39	2.06	1.21	3.51
Substance use diagnosis	66	64,507	102.3	383	1,241,480	30.9	3.32	2.55	4.31	2.53	1.94	3.29
Mental disorder (including substance use)	110	117,516	93.6	339	1,188,471	28.5	3.28	2.65	4.07	2.86	2.31	3.55
Injury-related visit	307	608,499	50.5	142	697,488	20.4	2.48	2.03	3.02	1.85	1.51	2.27
Male gender	357	666,200	53.6	93	639,037	14.6	3.68	2.93	4.63	3.59	2.86	4.51

Py = person-years; COPD = chronic obstructive pulmonary disease.

* Any combination of suicide or suicidal ideation, self-harm or overdose.

† Adjusted hazard ratios and confidence intervals calculated by using Cox proportional hazards models, adjusted for age and sex.

Table 3
Suicide Risk for Patients with an Emergency Department Visit and a History of Suicidal Ideation, Self-harm, or Overdose

Gender–Age Group	Total	1 yr			3 yr			5 yr			10 yr		
		Suicide Deaths (n)	Risk (%)	95% CI	Suicide Deaths (n)	Risk (%)	95% CI	Suicide Deaths (n)	Risk (%)	95% CI	Suicide Deaths (n)	Risk (%)	95% CI
Male (yr)													
10–24	1,312	2	0.2	0.0%, 0.6%	7	0.6	0.3%, 1.2%	9	0.8	0.4%, 1.6%	11	1.1	0.6%, 2.0%
25–34	1,468	4	0.3	0.1%, 0.7%	7	0.5	0.2%, 1.0%	8	0.6	0.3%, 1.2%	13	1.3	0.7%, 2.3%
35–54	2,147	8	0.4	0.2%, 0.8%	11	0.5	0.3%, 1.0%	16	0.8	0.5%, 1.4%	25	1.6	1.1%, 2.5%
55+	311	2	0.7	0.2%, 2.7%	3	1.1	0.3%, 3.2%	4	1.5	0.6%, 3.9%	4	1.4	0.6%, 3.9%
All ages	5,263	16	0.3	0.2%, 0.5%	28	0.6	0.4%, 0.8%	37	0.8	0.6%, 1.1%	53	1.4	1.1%, 1.9%
Female (yr)													
10–24	1,321	0	0.0		0	0.0		1	0.1	0.0%, 0.8%	3	0.6	0.2%, 2.0%
25–34	1,181	1	0.1	0.0%, 0.6%	2	0.2	0.0%, 0.7%	3	0.3	0.1%, 0.9%	5	0.6	0.3%, 1.6%
35–54	1,737	1	0.1	0.0%, 0.4%	5	0.3	0.1%, 1.7%	7	0.5	0.2%, 0.9%	15	1.3	0.7%, 2.1%
55+	369	1	0.3	0.0%, 1.9%	1	0.3	0.0%, 1.9%	2	0.6	0.2%, 2.5%	2	0.6	0.2%, 2.5%
All ages	4,608	3	0.1	0.0%, 0.2%	8	0.2	0.1%, 0.4%	13	0.3	0.2%, 0.6%	25	0.9	0.6%, 1.3%
Whole sample (yr)													
10–24	2,633	2	0.1	0.0%, 0.3%	7	0.3	0.1%, 0.6%	10	0.5	0.3%, 0.9%	14	0.9	0.5%, 1.5%
25–34	2,649	5	0.2	0.1%, 0.5%	9	0.4	0.2%, 0.7%	11	0.5	0.2%, 0.8%	18	1.0	0.6%, 1.6%
35–54	3,909	9	0.2	0.1%, 0.4%	16	0.4	0.3%, 0.7%	23	0.7	0.4%, 1.0%	40	1.5	1.1%, 2.0%
55+	680	3	0.5	0.1%, 1.4%	4	0.6	0.2%, 1.7%	6	1.0	0.5%, 2.3%	6	1.0	0.5%, 2.3%
All ages	9,871	19	0.2	0.1%, 0.3%	36	0.4	0.3%, 0.5%	50	0.6	0.4%, 0.8%	78	1.2	0.9%, 1.5%

disease (RR: 1.23; 95% CI = 0.9 to 1.6; adjusted RR: 1.37; 95% CI = 1.0 to 1.8). Patients with asthma had no increased risk; however, patients with COPD experienced

substantially higher risks of suicide compared with patients without COPD (RR: 3.1; 95% CI = 1.4 to 6.8).

The risk of suicide differed over time, patient age, and gender (Table 3). Overall, among patients with a history of suicidal ideation, overdose, or self-harm, the one-year risk of suicide completion was 0.2% (95% CI = 0.1% to 0.3%). Risk over time was consistently higher for men compared with women. For men, the risk increased with increasing age. Males 35 to 54 years old had the greatest cumulative risk, with a ten-year suicide completion risk of 1.6% (95% CI = 1.1% to 2.5%). The Kaplan-Meier survival estimates for patients with and without an ED visit for suicidal ideation, overdose, or self-harm are shown in Figure 2 and demonstrate a near-uniform risk over time.

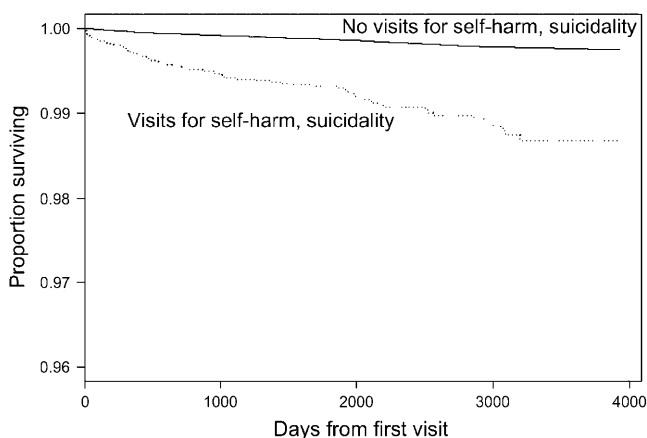


Figure 2. Kaplan-Meier survival estimates for patients with and without visits to the emergency department for self-harm, suicidality, or overdose.

DISCUSSION

Although the immediate risk of completed suicide for ED patients seen for suicide-related complaints is low, the observed completed suicide rates are substantially higher than that of other ED patients. In addition, the suicide completion rate for our overall ED population was nearly twice the New Mexico rate (18.3 per 100,000 py)

and was more than three times the national rate (10.4 per 100,000 py).²⁷

Other studies of suicide death after medical treatment for suicidal behavior indicate age and gender patterns similar to those identified here.^{14,28–30} Our findings are consistent with those of work elsewhere that has shown that assessment of suicide risk on the basis of the presence of known suicide risk factors can prospectively identify a group at increased risk of suicide.^{14,31}

Our findings are similar to other studies of suicide death after medically treated visits for deliberate self-harm; however, the suicide rates we observed are somewhat lower than reported elsewhere.^{1,3,6,29,32} Although it is possible that these rate differences accurately reflect suicide risk, another explanation is that our rate estimates are conservative because of incomplete assessment or losses to follow-up. Studies conducted in countries that have decades of data from national patient registries that include accurate unique identifiers lose patients only if they leave the country after presenting for nonfatal self-harm and before completing suicide. By contrast, patients who visit our ED and later die from suicide will not necessarily be included in OMI records if they leave the state, or if they die on federal lands. Although a national U.S. death registry exists,³³ the cost of accessing these data is prohibitive, and as a result, our fatality rates are conservative.

The pattern in suicide rates by age group for our overall ED population is roughly similar to that of national suicide rates, with peaks in the fifth decade (40 to 49 yr) and among elders. However, the relative increase in the death rate among persons aged 70 years and older is not seen for our sample. One potential reason for this difference is that our study measures suicide death rates only among individuals with a prior ED visit, whereas national mortality data reflect individuals with and without a prior ED visit. Older persons are more likely to die with a first attempt and thus would not visit the ED for self-harm.³⁴ The ratio of nonfatal (treated in EDs) to fatal self-harm among persons age 75 and older is approximately 1:1, considerably lower than the ratio for all age groups (1:10).³⁵ As such, those at greatest risk for suicide death are not included in our study sample.

In this study, we have identified several clinical characteristics of ED patients that correlate with later suicide death. The greatest suicide risk was among patients whose records included an injury code of self-harm; these individuals had a suicide death rate more than 12 times that of other ED patients. Other strong predictors of suicide death were visits for suicidal behavior (attempts, ideation) or overdose. Although, as a matter of policy, all of these patients likely had a psychiatric evaluation, it is unclear which had extended psychiatric observation or were able to maintain contact with mental health professionals over time. Despite this, however, only 78 of the 408 suicide decedents had suicidal behavior, self-harm, or overdose noted in their previous ED records, and the majority of individuals with these characteristics did not die from suicide during our study period. As a result, these characteristics are neither sensitive nor specific in predicting later death from suicide. These findings parallel those of published studies from outside the United States.^{14,36}

ED patients, particularly those who harm themselves, make up a population of health care users, and as such, opportunities exist for suicide prevention interventions.³⁷ Retrospective studies indicate that as many as 25% of all suicides are preceded by a nonfatal suicide attempt.^{14,38,39} These data are consistent with our study in finding that most suicide decedents do not have a history of presenting to the ED for complaints related to suicide or overdose. Those who do, however, should be targeted for best-practices interventions, based on evaluated studies. At the minimum, such patients should receive a psychiatric evaluation before being discharged and, if appropriate, referral for mental health treatment.

LIMITATIONS

This study relies upon administrative data for risk factor assessment, and as such, there is a limited range and depth of exposure classification available. In addition, exposure assessment may be incomplete or subject to misclassification, because exposure status depends on the accuracy of a relatively few diagnostic codes.

The relatively small number of patients with the primary exposure of interest who also had the outcome of suicide ($n = 78$) limited our ability to study subgroups (such as gender and age effects within this group).

Our medical center is the only generally accessible publicly funded hospital in our community. As such, our ED serves a predominantly underprivileged population. The impact of the overrepresentation of this population on our data is unclear.

Our analysis assumed that persons who did not link to the state medical examiner data were still alive. This assumes the complete accuracy of within-state data, no deaths among those who emigrate from the state, and no uninvestigated suicide deaths occurring on federal lands. As noted above, this limitation leads to conservative estimates of the risk and rate of suicide death in our ED population.

CONCLUSIONS

The suicide rate among our ED patients is higher than population-based estimates, and rates of suicide completion among our ED patients with suicidal ideation, overdose, or self-harm are especially high. These findings support our ED policy that mandates psychiatric evaluation of all patients presenting with these conditions. The utility of these clinical characteristics in predicting later death from suicide, however, is limited, because the majority of our ED patients who later died from suicide did not have self-harm, suicide, or overdose noted in their electronic records.

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REFLECTIONS

3:59—Pt Pronounced Dead...Not Yet 4 Hrs into October—Domestic Violence Awareness Month

3:59. Patient pronounced dead, not yet 4 hrs into October—Domestic Violence Awareness Month. Agony and tears, this has got to cease, desist, and end. How? We need to address *homeland security at home*.

I knew it would be critical. The EMS captain said it's bad. How would we know, how could we know...four people involved. A "domestic" a "48" at the scene. A 12-year-old snuffed out without the chance to be a man...in this land...we say is filled with opportunity.

Update on the call: a "traumatic arrest." Vital signs lost in the field of an 82-year-old man with multiple stab wounds to the chest. He arrived at 3:58 and was pronounced at 3:59. 3:59, not yet 4 hrs into October—Domestic Violence Awareness Month. The grandmother arrives next. A 78-year-old stabbed with multiple wounds to the back and chest.... It is hard to breathe...yet, we do our best; but her pressure keeps dropping and she needs a tube in her chest. To the OR..."her condition critical."

She arrives next, a 33-year-old woman. She is unaware...of the murder of her child and her grandfather...She too is stabbed, wounds to her back...trying to prevent a senseless attack. He is a man gone crazed, wanting sex.... He grabs a knife...blood everywhere; in my heart I fear...telling her of the murders.

Her injuries are stable...she is wheeled to another room. There is a chaplain, social worker, and doctors. We must tell her. So we sit and listen as she tells of the violence. "STOP," she begs him. "Please don't hurt anyone!"... but it was too late.

We have to tell her of the murders of her son and grandfather, we have to tell her and so we begin. Slowly, deliberately she awaits good news. We have none to give her, the 12-year-old had too many wounds. Too much blood lost, he dies at the scene.

"What do you mean? Please take me instead. I killed my son," but sadly we're not done. She asks "What of my grandparents? I must see them to apologize; they let him stay in their home, it wasn't wise." It's not good we say; grandfather stabbed multiple times. What we said next I silently prayed. Too much blood lost; of life, no sign. He was dead, murdered, pronounced at 3:59....

Stemming the flow of blood; trying to put a finger in the hole of lives lost from domestic violence. A blip on the map; a reality still avoided. *No homeland security at home*.

It's all of our mission; to protect, to support, to learn, and to believe that we need *homeland security at home*. 3:59, not yet 4 hrs into October—Domestic Violence Awareness Month.

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