Recognizing and Managing Hospitalized Patients Who Are At Risk For Suicide

Abstract

Suicide is a significant problem that is on the rise in some populations in the United States. In 2010, there were approximately 12.4 suicides per 100,000 people. There is little literature available to guide physicians on how to manage patients with suicidal ideation and suicide attempt in a hospital setting. This issue reviews the current evidence-based recommendations available for management of suicidal patients in the hospital setting, including a special focus on protective factors and symptoms associated with completed suicide, chronic medical conditions associated with suicide, and special high-risk populations the hospitalist needs to note. A review of the current single-standard measures to identify both suicidal ideation and behavior is also presented. The Columbia Suicide Severity Rating Scale is explained in detail, along with recommendations for triage and next steps in managing patients, based on their responses, and information on accurate and effective charting and coding for psychiatric conditions.
Managing Patients At Risk For Suicide

Epidemiology (Page 4)

- The rates of suicide have risen since 2000.
- Annually > 38,000 completed suicides and > 487,700 patients are treated in EDs for self-inflicted injuries.

Risk Stratification (Pages 4-8)

Identify at-risk patients through knowledge of suicide risk factors.

- Gender
  - Women have more suicidal ideation.
  - Men have a four-fold higher rate of suicide completion.
  - Most common methods: men, firearms; women, poisoning.

- Age
  - Adolescents and adults aged > 45 years.
  - The elderly attempt suicide far less often, but their methods of suicide are more lethal.

- Ethnicity
  - Highest suicide rates are seen in American Indian or Alaskan natives (17.3/100,000 persons).
  - White (non-Hispanic) rates are also very high (16/100,000 persons).
  - Sexual orientation: bisexuality and homosexuality, particularly in men, increase risk.

- Marital Status
  - Higher risk among divorced and separated persons.
  - Being single or widowed had no significant effect on suicide risk.

- Socioeconomic Factors
  - Unemployment.
  - Veteran status.

- Chronic Medical Conditions
  - Increased risk is seen in the presence of more than 1 chronic disease (OR = 1.56 and 2.38, respectively).
  - Chronic diseases posing greatest risk include: Asthma, chronic bronchitis, hypertension, arthritis, thyroid disease, diabetes, cancer, epilepsy, dementia, multiple sclerosis, head injury, cerebral tumor, cerebrovascular disease, peptic ulcer disease, cancer, and cirrhosis.

- HIV/AIDS shows the strongest evidence of being associated with increased suicide risk, although suicide mortality may not be increased.

- Insomnia has been associated with increased risk.

- Comorbid Psychiatric Conditions
  - Depression, severe personality disorder, schizophrenia.
  - Alcohol and / or drug abuse.
  - Previous suicide attempts.
  - Family history of suicide.

- Protective Factors
  - Effective clinical care for mental, physical, and substance abuse disorders.
  - Family and community support.
  - Cultural and religious beliefs that discourage suicide and support instincts for self-preservation.

Initial Evaluation Of Patients (Page 9)

- Create a safe environment for patients to disclose suicidal ideation.
- Ask directly about suicidal ideation, intent / plan, and prior attempts. Asking does not cause or trigger suicidal ideation.
- Obtain sexual history and marital history / status.
- Review medications, looking for those associated with suicidal ideation (antidepressants) and psychiatric adverse effect (ie, steroids, mefloquine).
- The review of systems should include the most common symptoms: disconsolate mood, insomnia, taking hypnotics, weight loss or gain, appearing anxious, complaining of sadness, difficulty working, reduction in work, less interest, hopelessness about the future, anorexia, less social activity, less energy, slower movements, reproaching self, difficulty in concentration, weeping, restlessness, diurnal mood variation, reduced care regarding appearance, panic attacks, and disheveled appearance.
- Examine the extremities for evidence of prior suicide attempts and needle tracks.

Screening For Suicidal Ideation (Page 10)

Use the Columbia-SuicideSeverity Rating Scale (C-SSRS) to screen for suicidality (www.cssrs.columbia.edu), keeping in mind that the use of a screening tool cannot replace an empathic and compassionate interaction in the context of an established doctor-patient relationship.

Triage Based On C-SSRS Findings

- No further assessment is needed when responses to all questions are negative.
- Obtain immediate psychiatric assessment and implement safety monitoring for positive responses to suicide intent (question 4) and suicide plan (question 5).
- Refer all other positive responses for outpatient mental healthcare.

Special Populations (Page 7)

Patients With Chronic Pain

- Living with a chronic pain condition (eg, back problems, migraine, arthritis, and fibromyalgia) significantly increases suicidal ideation and attempts.

Patients With Cancer

- Four specific malignancies have higher suicide rates: prostate, pancreas, lung, and head and neck.
- Pain and development of a depressive disorder increase suicidal ideation.
- Suicide risk is related to the recency of diagnosis:
  - Recent cancer diagnosis (within the first year) is associated with suicide risk.
  - Risk is highest in men in the first 1 to 3 months after diagnosis
  - Risk is highest in women between 3 to 12 months after diagnosis.

Abbreviations: AIDS, acquired immune deficiency syndrome; ED, emergency department; HIV, human immunodeficiency virus; OR, odds ratio.
Case Presentation

A 45-year-old Hispanic female with a medical history of lupus presents to the emergency department with a complaint of chest pain. During the course of the interview, she states that she recently broke up with a physically and mentally abusive man the week before after a 3-year relationship, and that he had contacted her earlier that day and verbally threatened her. Thirty minutes after this intrusive event occurred, the patient began to complain of chest pain and then came to the ED. When the attending physician arrives and speaks to the patient in private, she states that she “no longer wants to live.” Healed scars are noted on her forearms, and the patient admits that she has been a “cutter” for more than 5 years. The patient has no prior history of suicidal or homicidal thoughts but states she has undiagnosed depression that has been worsening over the last 5 years. At the conclusion of the interview, the patient reports that she does not currently have a suicide plan. You wonder if this an active or passive suicidal patient. Should this patient be admitted to psychiatry or should a psychiatric consult be elicited?

Introduction

Suicide is a significant problem in the United States. In 2010 alone, there were a reported 38,364 cases of suicide. In the age group of 25 to 64 years, the rates of suicide have risen since 2000, and in 2010 there were approximately 12.4 suicides per 100,000 people. (See Figure 1.) In 2011, the numbers rose, and more than 487,700 people were treated in emergency departments for self-inflicted injuries. Suicide has become an increasingly burdensome public health problem, as an estimated $41.2 billion were spent in combined medical costs and work-loss costs.

Currently, the literature available on suicide in the hospital setting is minimal. The majority of studies thus far show that suicidal ideation and suicidal attempts are among the most important risk factors for completed suicide as well as an association between depression, alcohol and suicide; thus, it is crucial for physicians to have a fundamental understanding of the origins of their patients’ suicide attempts and ideation. When patients are diagnosed with a serious and/or chronic medical condition, some may begin to consider their mortality and may entertain suicidal ideation. Certain general medical conditions (ie, asthma and bronchitis) increase the odds of suicidal ideation by about two-thirds. These associations were still significant when controlling for major depression, heavy alcohol use, and demographic characteristics. (See Table 1.)

Critical Appraisal Of The Literature

A comprehensive literature search was conducted of the online databases including PubMed, MEDLINE®, Embase, PsycINFO, and Cochrane Library Online. The search terms used included suicide, risk factors of suicide, suicidal thoughts and ideation, and suicidal behavior and treatment. Articles that met the inclusion criteria were retrieved for further evaluation and critical appraisal. An assessment of the quality, a summary of the key points about the study, and the

Figure 1. Trends In Suicide Rates Among Both Sexes, By Age Group, United States, 1991–2009

Table 1. Lifetime Suicidal Ideation And Attempts In Patients With Depression Or General Medical Illness

<table>
<thead>
<tr>
<th>Suicidal Ideation</th>
<th>%</th>
<th>Adjusted OR</th>
<th>Suicide Attempt</th>
<th>%</th>
<th>Adjusted OR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any medical illness</td>
<td>25.2</td>
<td>1.32&lt;sup&gt;b&lt;/sup&gt;</td>
<td>8.9</td>
<td>1.56&lt;sup&gt;b&lt;/sup&gt;</td>
<td></td>
</tr>
<tr>
<td>≥ 2 medical illnesses</td>
<td>35.0</td>
<td>1.82&lt;sup&gt;c&lt;/sup&gt;</td>
<td>16.2</td>
<td>2.38&lt;sup&gt;d&lt;/sup&gt;</td>
<td></td>
</tr>
<tr>
<td>Specific illnesses</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hypertension</td>
<td>24.2</td>
<td>1.16&lt;sup&gt;b&lt;/sup&gt;</td>
<td>8.4</td>
<td>1.23</td>
<td></td>
</tr>
<tr>
<td>Asthma</td>
<td>30.4</td>
<td>1.69&lt;sup&gt;d&lt;/sup&gt;</td>
<td>18.7</td>
<td>4.34&lt;sup&gt;d&lt;/sup&gt;</td>
<td></td>
</tr>
<tr>
<td>Arthritis</td>
<td>28.8</td>
<td>1.20</td>
<td>7.5</td>
<td>1.15</td>
<td></td>
</tr>
<tr>
<td>Chronic bronchitis</td>
<td>33.1</td>
<td>1.61&lt;sup&gt;c&lt;/sup&gt;</td>
<td>18.4</td>
<td>2.56&lt;sup&gt;d&lt;/sup&gt;</td>
<td></td>
</tr>
<tr>
<td>Thyroid disease</td>
<td>28.6</td>
<td>1.28&lt;sup&gt;b&lt;/sup&gt;</td>
<td>8.5</td>
<td>1.19</td>
<td></td>
</tr>
<tr>
<td>Diabetes</td>
<td>14.2</td>
<td>1.45&lt;sup&gt;d&lt;/sup&gt;</td>
<td>5.4</td>
<td>1.0</td>
<td></td>
</tr>
<tr>
<td>Cancer</td>
<td>32.6</td>
<td>1.79&lt;sup&gt;d&lt;/sup&gt;</td>
<td>22.6</td>
<td>4.54&lt;sup&gt;d&lt;/sup&gt;</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>30.0</td>
<td>1.49</td>
<td>4.5</td>
<td>0.56</td>
<td></td>
</tr>
</tbody>
</table>

<sup>a</sup>Odds ratio represents the odds of suicidal ideation or behavior associated with the variable of interest, adjusted for presence or absence of major depression, number of depressive symptoms, history of heavy alcohol use, age, race, insurance status, income, education, and sex.

<sup>b</sup>P < .05
<sup>c</sup>P < .01
<sup>d</sup>P < .001

Abbreviation: OR, odds ratio.

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The prevalence of suicidal ideation varies by country; yet, across the world, the rates of actual suicide attempts are similar. One of the lowest suicidal ideation rates was found in Lebanon and the highest was in New Zealand. Other countries that were studied include the United States, Canada, Puerto Rico, France, West Germany, Taiwan, and Korea. As expected, the rates were higher in females than in males across all countries studied. Also, when taking marital status into account (ie, divorced or separated versus currently married or never married), the suicidal ideation rate was higher at every site. Across the countries included, the overall rate of suicidal ideation was 10% to 18% of the population. The rate of suicide attempt was 3% to 5%.  

**Risk Factors And Protective Factors**

The need to develop more evidence regarding suicide has led to numerous studies on understanding risk factors. Risk factors that have been identified include male sex, age > 45 years, marital status of divorce or separation, alcohol and/or drug abuse, unemployment, physical illness, and feelings of hopelessness. Other risk factors that can be identified include patients with a psychiatric diagnosis (ie, depression, severe personality disorder, and schizophrenia), previous suicide attempts, and family history of suicide.

Protective factors include effective clinical care for mental, physical, and substance abuse disorders; family and community support; and culture and religious beliefs that discourage suicide and support instincts for self-preservation.

**Symptoms Associated With Completed Suicide**

Busch et al conducted a retrospective study of 76 patient charts of inpatient suicides. They proposed a theory based upon acute versus chronic risk factors. Acute predictors of risk factors were timed as days, weeks, or months (up to 1 year) following the baseline clinical assessment. Chronic risk factors were considered those that persisted 2 to 5 years, or 10 years from the time of assessment. Severe hopelessness, suicidal ideation, and prior suicide attempts were found to be chronic risk factors. Acute risk factors associated with suicide within days, weeks, and months (up to 1 year) were mainly based upon symptoms. These included severe anxiety, panic attacks, severe anhedonia, and recent moderate alcohol abuse.

Outcomes that were studied included the patients’ admitting status, history of prior suicide attempts, suicidal ideation, psychosis, and anxiety/agitation. From a hospitalist’s perspective, the admitting status is most concerning because, at times, even suicidal patients are admitted on regional medical floors secondary to their comorbid conditions or form of suicide attempt (ie, drug overdose). In the Busch study, 26 of the 76 patients were admitted for reasons other than suicide, excluding both ideation and attempt. Nineteen patients were admitted for suicide attempt, and 30 patients were admitted for suicidal ideation but no actual attempt.

Suicidal ideation can be misleading, as 78% of the patients in this study denied any suicidal thoughts and intent as their last communication
before their suicide. Anxiety and agitation may be a more appropriate form of screening, as it was found to be the most significant risk factor during the 7 days prior to suicide, as 79% (60) of the patients noted to have severe anxiety and/or severe agitation. This assessment was based upon the Schedule for Affective Disorders and Schizophrenia (SADS) criteria.\(^7\)

**Psychiatric Disorders**

It is well known that suicide is associated with specific Diagnostic and Statistical Manual of Mental Disorders (DSM-V) diagnoses. In a 5- to 10-year prospective study of 413 patients, Beck and Steer found that 98% of the patient population had a DSM-II diagnosis.\(^8\) Approximately 48% (200) of the patients were diagnosed with a form of depression, as follows: 21 psychotic depressions, 168 neurotic depressions, and 11 manic depressions. Approximately 26% (109) were diagnosed with some form of schizophrenia, as follows: 24 schizoaffective schizophrenias, 43 paranoid schizophrenias, and 42 other schizophrenias. The rest of the distribution was: 52 personality disorders, 4 involutional melancholia, 6 organic syndromes, 1 anxiety disorder, 2 obsessive-compulsive neuroses, 3 other neuroses not otherwise specified, and 29 syndromes not otherwise specified.\(^8\)

Harris and Barraclough reported that suicide risk is approximately 20 times greater in a depressed individual than a nondepressed individual.\(^9\) In addition, if a suicidal patient has comorbid conditions (such as schizophrenia and depression), the risk of suicide multiplies in an exponential form.\(^10\) Certain characteristics of schizophrenia can be more alarming for potential suicide risk, as well. These include high premorbid functioning, early onset of diagnosis, and greater insight into the consequences of a diagnosis of schizophrenia.\(^11\)

**Hopelessness**

Hopelessness has also been cited as one of the most predictive risk factors of suicide. The state of hopelessness is more predictive than depression, although the trait of hopelessness is associated with depression.\(^12\) Beck et al, using the Beck Hopelessness Scale\(^8\), first described this. The scale consists of 20 true/false statements measuring the extent of negative expectancies about the future, with each item being scored a 0 for a nonpessimistic orientation and a 1 for pessimistic orientation.\(^8\) Maris describes that hopelessness and its correlation to suicide depend on a patient’s “...cognitive inflexibility, which includes difficulty in believing that there are nonsuicidal alternatives to life problems.”\(^12\)

**Substance Abuse**

Alcohol or substance abuse is also a positive predictor of suicide risk. Roy et al estimated that up to 18% of alcoholics will die by suicide. In this study, alcoholics were defined as individuals who had mean duration of alcoholism for 25 years and mean age of 47 years.\(^13\) However, in another study by Nielsen et al, alcoholics who made lethal attempts scored low on the suicidal intent scale.\(^14\) As evidenced by such wide discrepancies in the literature, these studies, again, bring up the shortcomings of the suicide screening process in a hospital setting.

**Video Games And Internet Use**

The Columbine High School massacre in 1999 was the deadliest mass murder committed on an American high school campus. This tragedy resulted in the suicide of the 2 murderers. Since that incident, the United States Centers for Disease Control and Prevention (CDC) has included the Youth Risk Behavior Survey (YRBS) as part of the surveillance system maintained by the CDC to monitor youth behavior and the influences on health. Studies have shown that excessive video gaming and Internet use can lead to physical and mental health problems.\(^15,16\)

Messias et al conducted a study to investigate the association between excessive video game/Internet use and suicidality.\(^17\) They used criteria similar to those listed in the DSM-IV for pathological gambling for what they termed “pathological gamers.” In addition, they used data from the YRBS that had been distributed across high schools in the United States to over 16,000 students during 2007 and 2009. When adjusting for age, gender, race, smoking, and sadness, there was a strong association between the suicidal ideation, planning, and even attempt at > 5 hours/day of video game/Internet use. The evidence becomes even stronger as the association is present in both the 2007 and the 2009 surveys. Interestingly, there was a protective factor with regard to sadness for children who used video games/Internet for < 1 hour/day when compared to those who did not play at all.\(^17\)

**Other Demographic Considerations**

As the suicide rate has increased over the last few years, there has been a push to understand other factors that may have been previously overlooked. Recently, the contribution of sexuality in youths and the marital status of adults has been studied for its effect on suicide.

**Sexual Orientation**

Although studies thus far have shown high rates of attempted suicide among gay youths aged 17 to 18 years, few studies have compared suicide risk among heterosexual versus homosexual youths.\(^18,19\) Only 1 study has compared these population groups, and it found only statistically significant differences between bisexual/homosexual men and heterosexual men. Although the trend was similar among females, there was no statistical signifi-
Although the study sample was not generalizable alone (36,254 Minnesota students’ were surveyed with self-reports), the study does have important implications for physicians. The study showed that bisexuality and homosexuality are risk factors for attempted suicide, and physicians must use this as a guide for assessment of possible suicide risk among patients.

**Marital Status**

In Kpowosa’s 2000 cross-sectional study of 471,922 patients, a patient’s marital status (especially if the patient is divorced), was noted to have strong net effect on mortality from suicide, but only among men. For the entire sample, higher risks of suicide were found with divorced patients. Divorced and separated persons were more than twice as likely to commit suicide as married persons. Being single or widowed had no significant effect on suicide risk. When the data were stratified by sex, it was observed that the risk of suicide among divorced men was more than twice that of married men. Among women, however, there were no statistically significant differences in the risk of suicide by marital status categories.

**Chronic Medical Disorders**

Suicide is conceived of as a multifactorial event; thus, it seems unlikely that there is a cause-and-effect association between medical conditions and suicide. However, Harris and Barracough showed there are certain medical illnesses that exceed the general population when it comes to suicide rates. The disorders that did not show an associated risk of suicide included amyotrophic lateral sclerosis, diabetes, heart transplant, hypertension, and rheumatoid arthritis. Whitlock found a significantly higher rate of suicide among patients with epilepsy, dementia, multiple sclerosis, head injury, cerebral tumor, cerebrovascular disease, peptic ulcer disease, cancer, and cirrhosis.

**HIV/AIDS**

For a single disease, HIV/AIDS shows the strongest evidence of being associated with increased suicide risk. There is, however, a difference in reports between suicidal ideation versus suicidal completion among HIV/AIDS patients. There is no consensus that an association exists between suicidal ideation and HIV/AIDS. In a review by Komiti et al looking at 18 different studies, 12 of the studies showed an association between suicidal ideation and HIV/AIDS, but 6 did not. Within each of these 18 studies, there were differences among population, study group, control group, assessment method, and results.

On the other hand, when looking at suicidal completion and HIV/AIDS, there does seem to be an association. As Table 2 depicts, the relative risk of persons with AIDS dying from suicide is higher than that of the general population. Nonetheless, some of these studies must be reviewed carefully. In 1995, Mancoske and colleagues revealed a relative risk of 134.6, much higher than all 5 other studies, comparatively, and this discrepancy existed in the documentation of their study sample. The other 5 studies used HIV/AIDS as the only diagnosis to be included from death certificates. However, Mancoske et al also included opportunistic infections commonly suffered by people with AIDS, such as cytomegalovirus, Kaposi sarcoma, and pneumocystis pneumonia. A limitation of this comparative study was that, although some studies adjusted their relative risk rates for sex, age, race, sexual orientation, relationship status, etc, other studies did not.

Some researchers believe that suicidal intent and suicidal completion among patients with HIV/AIDS are based upon psychological variables. Psychological variables that have been studied include having a partner with AIDS or symptomatic HIV infection (formerly called AIDS-related complex), unemployment, bereavement, poor adaptive functioning, hopelessness, and lower social support. Cooperman and Simoni conducted a study researching suicidal ideation and attempted suicide in women living with HIV/AIDS. This study used some of the psychological variables that other researchers have considered to play a significant role in HIV-related suicidal ideation and attempts. In a sample group of 207 women, they measured outcomes such as suicidal ideation and behavior, psychiatric symptoms, substance use, abuse history, spirituality, social support, employment, and HIV/AIDS status (HIV-positive with symptoms, HIV-positive without symptoms, and living with AIDS). The statistics revealed the following: 26% of the women had made a suicide attempt since the HIV diagnosis; 42% of the women first attempted suicide within the first month of receiving the diagnosis; and

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**Table 2. Suicidal Behavior In People With HIV/AIDS**

<table>
<thead>
<tr>
<th>Study</th>
<th>Unadjusted Relative Risk</th>
<th>Age-Adjusted Relative Risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kizer et al (1988)</td>
<td>17.0</td>
<td>20-59 years, 16.1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>20-39 years, 21.4</td>
</tr>
<tr>
<td>Plott et al (1989)</td>
<td>16.3</td>
<td>ND</td>
</tr>
<tr>
<td>Cote et al (1992)</td>
<td>20.4</td>
<td>7.4</td>
</tr>
<tr>
<td>Mancoske et al (1995)</td>
<td>134.6</td>
<td>ND</td>
</tr>
<tr>
<td>Marzuk et al (1997)</td>
<td>ND</td>
<td>2.0</td>
</tr>
</tbody>
</table>

Abbreviation: ND, no data.

27% percent of these attempted within the first week of receiving the diagnosis. Subjects were also asked to note whether their attempt was related to their HIV diagnosis as: 1 (not at all related), 2 (partly related) or 3 (very much related). Notably, 63% percent stated that their suicide attempt was very much related to their diagnosis; 23% percent stated that it was partly related, and 14% stated that it was not at all related.28

Multiple Sclerosis
Multiple sclerosis (MS) is an inflammatory disease in which the fatty myelin sheaths around the brain and spinal cord are damaged. This damage leads to symptoms that include sensory and motor loss, fatigue, pain, vision problems, cognitive impairment, and depression.29 MS can be very debilitating and can require substantial life adjustments. Harvard Medical School conducted a literature review on MS and suicide using 9 different studies from PubMed, the Cochrane Library, and Google Scholar.30 Each study found a higher rate of suicide among patients with MS. In a Canadian study, the suicide rate among 3126 patients with MS was 7.5 times greater than the age-matched general population.31 One factor contributing to the higher suicide rate among MS patients may be a history of depression. Depression has been found to be an incapacitating side effect of a MS diagnosis.32 In addition, some treatments of MS, such as interferon beta, have a well-known side-effect profile of causing depression and suicidal ideation.33

Insomnia
Although obstructive sleep apnea is acknowledged by sleep medicine specialists as a life-threatening condition, recently, insomnia has been receiving more recognition.34 Bjørngaard et al published a prospective study in 2011 that followed Norwegian residents aged > 20 years with self-reported sleep problems and depression/anxiety symptoms. Even after adjusting for depression and anxiety symptoms, there was a positive association seen between sleep problem frequency and suicide death. Specific findings included: (1) a stronger association in younger people, (2) a stronger association in the first 10 years of observation than the last 10 years of observation, and (3) the use of medications helped mitigate the risk of suicide.35

Chronic Pain
Chronic pain is a highly prevalent condition in the United States. Low-back pain, chronic neck pain, migraines, and various forms of arthritis have been concentrated on the most frequently in national surveys.36,37 Recently, there has been more research depicting chronic pain conditions and the association with higher rates of suicidal ideation and attempts.38,39 Ratcliffe et al published a 2008 study with 2 main objectives. The first objective was to examine whether back problems, migraine, arthritis, and fibromyalgia had a unique association with suicidal ideation and attempts. The second objective was to determine whether having a chronic pain condition correlated with a significant increase in the likelihood of suicidal ideation and suicide attempts among individuals with a mental disorder. After adjusting for social and demographic factors, mental disorders, and comorbidity, there was a positive association between chronic medical disorders and suicidal ideation and/or attempts. Also notable from their study was the fact that migraines had the highest significance of associated suicidal ideation and/or attempt.40 This study highlights the importance of suicidal assessment by clinicians (whether inpatient or outpatient) for patients with chronic medical conditions. Even in the absence of common mental disorders, chronic pain syndromes carry a high association that physicians must consider in their suicide assessment.

Cancer
In 2012, the journal Cancer Nursing published a literature review of suicide in cancer patients. The major findings associated with suicide rates included the type of cancer the patient had, the time from their diagnosis, the gender and age of the patient, and whether the patient had depression. Four site-specific malignancies were associated with higher suicide rates, including (1) prostate, (2) pancreas, (3) lung, and (4) head and neck.41 One study found the risk of suicide in men with prostate cancer was 4.24 times higher than the age- and gender-specific cohort.42 Akechi et al found that, in patients with unresectable lung cancer, 15% had suicidal ideation 6 months after their initial diagnosis. Using multivariate analysis, they found that pain and development of depressive disorder were significantly associated with suicidal ideation.43 At least 4 different studies demonstrated gender differences between men and women and associated suicide risk in cancer patients.

In Norway, the Cancer Registry shows that, although both men and women with cancer have increased risk of suicide, the standardized mortality ratio (SMR) for men was 1.55 (95% confidence interval [CI], 1.41-1.71) as compared to women. The SMR in women was 1.35 (95% CI, 1.17-1.56).44 Similarly, the Thames Cancer Registry in England also depicted a significantly higher risk of suicide in men. The SMR in men was 1.45 (95% CI, 1.20-1.73), while in women it was 1.19 (95% CI, 0.88-1.57).45 The generalizability across the world is seen, as the United States Surveillance, Epidemiology, and End Results (SEER) registry also found that being male is also a significant suicide risk factor among cancer patients.46 This is consistent with the general American population. Recency of cancer diagnosis also made a significant difference with regard to suicide risk,
Suicide among youths is a significant problem. At least 1 million adolescents attempt suicide each year, and millions more have thoughts about suicide. Although children and adolescents are known to have a high prevalence of suicidal ideation, many in this group do not have access to mental health care services, nor do they seek out such services. Husky et al found in a study of use of mental health services among suicidal adolescents that approximately two-thirds of adolescents with suicidal ideation and half of adolescents with a plan or an attempt did not have any contact with a mental health specialist in the preceding 12 months. Predictors of adolescents who do seek use of mental health services include patients of female gender, older age, increased socioeconomic status, greater severity of suicidal behavior, and the presence of a comorbid mental disorder. A proposal to link the gap between the youth and mental health access was screening in the emergency department. Persons aged 15 to 19 years are the most common age group to present to emergency department. Persons aged 15 to 19 years are especially within the first year. Robinson et al found that the SMR was 2.42 for men and 1.44 for women in the first year of cancer diagnosis. Likewise, Yousaf et al conducted a study that took into account the time of diagnosis and the patient’s gender. The authors reported that suicide risk was highest in men in the first 1 to 3 months after diagnosis and the suicide risk was highest in women between 3 to 12 months after diagnosis.

In 2012, Fang et al published a historical cohort study that involved examining the association between cancer diagnosis and the immediate risk of suicide among 6,073,240 Swedes. The relative risk of suicide was 4.8 (95% CI, 4.5-5.8) during the first 12 weeks after diagnosis of any cancer. The relative risk of suicide within the first 12 weeks of cancer diagnosis was highest in cancers of the esophagus, liver, and pancreas. Also worth noting is that, although the relative risk of suicide decreased with time among all cancers, the risk remained elevated beyond the first year.

**High-Risk Populations**

**Children And Adolescents**

Suicide among youths is a significant problem. At least 1 million adolescents attempt suicide each year, and millions more have thoughts about suicide. Although children and adolescents are known to have a high prevalence of suicidal ideation, many in this group do not have access to mental health care services, nor do they seek out such services. Husky et al found in a study of use of mental health services among suicidal adolescents that approximately two-thirds of adolescents with suicidal ideation and half of adolescents with a plan or an attempt did not have any contact with a mental health specialist in the preceding 12 months. Predictors of adolescents who do seek use of mental health services include patients of female gender, older age, increased socioeconomic status, greater severity of suicidal behavior, and the presence of a comorbid mental disorder. A proposal to link the gap between the youth and mental health access was screening in the emergency department. Persons aged 15 to 19 years are the most common age group to present to emergency departments with self-inflicted injuries and attempted suicides. Horowitz et al performed a study at Children’s National Medical Center to determine whether screening patients for suicide risk in the emergency department would help bridge the gap. They screened patients with psychiatric and nonpsychiatric complaints and found that 25% of the nonpsychiatric patients required additional follow-up with psychiatry because of concerns of depression or suicidal ideation. Psychiatric patients (as compared to nonpsychiatric patients) were more likely to report clinically significant suicidal ideation and previous suicide attempts. When adjusting for race, ethnicity, sex, and chronic medical conditions, there were no significant differences among these variables.

**The Elderly**

The elderly are automatically placed in a high-risk category. Although they attempt suicide far less often than the adolescent population, their methods of suicide are usually more lethal. One cross-sectional study conducted by Dombrovski et al examined factors associated with suicide attempt lethality and suicidal intent in older men and women. This study included 84 adults aged 50 to 69 years and 42 adults aged ≥70 years. They found that the association between suicidal intent and attempt lethality was the strongest in older men.

**Veterans**

Studies among veterans have demonstrated that elderly men with diminished social support as well as medical and psychiatric conditions are more likely to commit suicide. These studies were performed by the United States Department of Veterans Affairs on records of veterans who had committed suicide. However, there are still no clear data about the relative risk of suicide between the veteran and civilian general populations. Kaplan et al conducted a prospective population-based study to assess the risk of mortality from suicide among male veterans in the general population. They sampled 320,890 men, aged > 18 years, over the course of 12 years. They found that veterans were twice as likely to die of suicide compared to male nonveterans in the general population (adjusted hazard ratio [HR] 2.13; 95% CI, 1.14 to 3.99). Also important was that the risk of death from natural disease and from external causes (ie, accidents and homicides) did not differ between the 2 groups. When looking at the male veterans for predictive variables, they found significant variables, including older age, white race, high school graduate education, and activity limitations. The activity limitations were adjusted for both medical and psychiatric morbidity. An interesting and unexpected result was suicide risk and body mass index (BMI) in male veterans. Male veterans with a BMI of 25 to 29.9 kg/m² were at lower risk for completing suicide. More studies should be undertaken to look into this point, as some studies have shown that insulin resistance influences serotonin levels in the brain, and serotonin deficiency is implicated in suicidal behavior. This stresses the continued importance of primary care providers and other healthcare managers assessing for depression and suicide among veterans.
Initial Evaluation Of Patients

History
When obtaining the history of patients, it is always imperative to be thorough, but in assessing for suicide risk, certain aspects are key: sexual and marital history as well as marital status are extremely important. As noted earlier, divorced, separated, and widowed patients are at higher risk for suicide. Medications should also be reviewed thoroughly. Although most providers prescribing medications are responsible for discussing any black box warnings, it is still important that the hospitalist review all medications and their side-effect profiles.

The review of systems should include investigation of depression, anxiety, insomnia, and pain, as well as suicidal ideation, intent, or plan. In a study conducted by Barraclough et al., 100 cases of completed suicide were reviewed and some of the most common symptoms noted were as follows: disconsolate mood, insomnia, taking hypnotics, weight loss or gain, appearing anxious, complaining of sadness, difficulty in working, reduction in work, less interest, hopelessness about the future, anorexia, less social activity, less energy, slower movements, reproaching self, difficulty in concentration, weeping, restlessness, diurnal mood variation, reduced care with appearance, panic attacks, and disheveled appearance. Although it may be a difficult topic to broach, asking a patient if he has ever attempted suicide is also appropriate.

Physical Examination
Physical examination findings will range from head to toe. On examination, looking for a patient’s general appearance is important. Simple clues, such as a lack of personal cleanliness, can tell a great deal about a patient’s personal life. On head/neck examination, look for protruding masses or tumors, bruising, scars, thyroid nodules, and elusive gaze. Examining the extremities is important to determine whether a patient is a “cutter,” and rolling up a patient’s sleeves or having them in a hospital gown is completely warranted. A thorough skin examination should be performed. Looking in between toe digits for intravenous drug use is helpful, as is looking under the fingernails to see how important cleanliness is to the patient.

Treatment

Acute Management
Management for a suicidal patient in the acute setting should focus on the imminent safety of the patient. The patient should never be left alone and arrangements for a 1:1 observation and admission to a psychiatric hospital should be given immediate attention. If there are no available beds, then transport via ambulance or police should be arranged to a nearby psychiatric facility.

Management Of A Suspected Suicidal Patient
If a patient’s risk of suicide is not high but still suspected, there are 3 steps that should be taken. The first step should be to involve someone close to the patient (with the patient’s permission). A collaborative approach with someone close in understanding the personal life of the patient can be crucial. Knowing that there are people genuinely concerned about their well-being can help patients manage the hopelessness they may be feeling. The second step is to ask about and document the availability of any means of suicide including, but not limited to, firearms, ammunitions, drugs, and medications. Finally, physicians should convey to the patient and family the commitment they have in helping the patient. Increasing contact and communication, whether in an inpatient or outpatient setting, can also be helpful.

It is well documented that suicidal patients may have underlying medical conditions. Thus, it is crucial that physicians who suspect a patient of drug or alcohol abuse be referred to a treatment-based program. Likewise, if a patient has a known psychiatric disorder, especially depression, vigorous treatment with nonlethal medications should be initiated.

Long-Term Management Of A Suicidal Patient

The American Psychiatric Association practice guidelines recommend the following steps be taken to ensure the best quality care for patients:
1. Physicians should establish and maintain a therapeutic alliance and identify an appropriate treatment setting, which can range from involuntary hospitalizations to a more typical ambulatory setting. The least restrictive setting that is safe and effective is the ideal situation.
2. The physician should develop a plan of treatment in which both biological and psychosocial therapies are utilized. An interdisciplinary team approach should be a part of the treatment plan in which a social worker and psychologist is available, in addition to the primary psychiatrist. The collaborative help of this interdisciplinary team is what helps promote treatment compliance and adherence. A patient’s lack of compliance to treatment plans may be due to financial difficulties, in which case the aid of a social worker can help. Patients also may experience adverse side effects to the medications prescribed, so having the nurse and psychiatrist accessible may help alleviate these issues.
3. Providing education to both the patient and family members is vital. Education of the pa-
Suicidal Ideation And Suicide Risk Assessment

In order to properly risk stratify patients for suicide risk management, a time-efficient rating scale would be extremely helpful for hospitalists. Studies of risk factors predicting suicide consistently suggest that suicidal ideation and a history of suicide attempts are among the most salient risk factors for suicide.65-67 A structured assessment of suicidal ideation and behavior significantly improves identification of high-risk patients relative to a routine clinical interview.68-70 However, until recently, the field has lacked a single standard measure that assesses both suicidal ideation and behavior. To address inconsistencies in nomenclature, the impact of such inconsistencies on accurate identification, and the need for a single measure to assess the severity and to track changes in suicidal ideation and behavior, a team of investigators from Columbia University, the University of Pennsylvania, and the University of Pittsburgh developed the Columbia–Suicide Severity Rating Scale (C-SSRS).71,72

The C-SSRS was designed to distinguish 4 domains of suicidal ideation and suicidal behavior. These domains include: (1) severity of ideation, which rates the desire to be dead; (2) nonspecific active suicidal thoughts with methods, suicidal intent, and intent with plan; (2) intensity of ideation, which rates frequency, duration, controllability, deterrents, and reason for ideation; (3) specific suicidal acts and behavior, such as actual, aborted, and interrupted attempts; preparatory behavior; and nonsuicidal self-injurious behavior; (4) the lethality subscale, which assesses actual attempts, actual lethality, and potential lethality of attempts.71,72

In short, the C-SSRS is one of the most reliable tools available today to assess the full range of clinically important suicidal ideation and behavior, with criteria for next steps, including referral to mental health professionals. Locations for use include general medical and psychiatric emergency departments, hospital systems, and primary care settings.

Hospitalist Screening For Suicidal Ideation

The Screening Version of the C-SSRS is an ideal tool for use by hospitalists practicing in the general hospital population because it is effective and easy to use. It requires no mental health training to adminis-
Psychological Context Of Suicidal Inquiry

There is a long and ignominious history connected to suicide that marks it as a shameful act.\(^\text{75}\) The stigma of suicide lingers today, and strangers to utter hopelessness cannot imagine how the brain functions in extremis, perhaps because they never been clinically depressed themselves. Not surprisingly, one of the cardinal characteristics that is positively associated with addressing suicide includes having a personal or vicarious experience with depression.\(^\text{76}\)

The stigma of suicide may create discomfort in many physicians who inquire about it and among patients who choose to disclose suicidal thoughts. Questions and structured interviews are helpful tools to ascertain and acquire just enough information to make a clinical judgment about a patient’s risk for suicide and determine a path for treatment; however, use of a tool cannot replace an empathic and compassionate interaction in the context of an established doctor-patient relationship.

Creating a safe environment for patients to disclose stigmatized behaviors, and specifically asking about suicidal ideation, can be particularly challenging for the hospitalist’s initial patient encounter. These medical interviews systematically begin with questions to elicit patient health problems, establish a diagnosis, generate a treatment plan, and secure the physician-patient relationship.\(^\text{77}\) This approach relies heavily on patient disclosure of factors related to potential self-harm, particularly suicidal ideation.\(^\text{77}\)

### Quality Improvement

#### Hospitalists And Integrated Care

Collaborative care models for screening suicidal ideation in a general medical hospital population have the potential to decrease suicide risk. Hospitalists can apply a quality improvement process to improve mental and behavioral care with suicide prevention as an explicit goal. Successful approaches to integrate primary care with mental health services could be used as the basis for hospitalists to adapt comprehensive collaborative care models to reduce risk for suicide in a hospital patient population.

For example, in 2007, the Veterans Affairs health system started an initiative to integrate primary care with mental health services and they developed the Primary Care – Mental Health Integration (PC-MHI) program nationwide. Psychologists and psychiatrists embedded in the primary care clinic offer a wide range of mental health services, including initial psychological/psychiatric assessment, referral management, and transitioning patients to other services, if needed.\(^\text{78}\) The Veterans Affairs model is one example of how hospitalists caring for patients in an acute care medical inpatient setting might also develop an integrated model of care with psychologists and psychiatrists. These mental health clinicians can further assess and provide services to patients who have been identified by a hospitalist as at high risk for suicide. Further, they can engage and prepare medically ill patients at risk for suicide for a specialty mental health referral and follow-up post hospitalization to confirm that the patient has kept his or her appointment.
Clinical Pathway For Managing Patients With Suspected Suicidal Ideation

Does the patient appear to be a danger to self or others, or is there a risk of patient elopement?

YES

Perform or review results of evaluation:
- History
- Physical examination (vital signs)
- Diagnostic tests (as per history and physical examination)
(Class I)

NO

Assess suicide risk:
- Does the patient have sociodemographic risk factors? (Male, white, age > 65 years, single, living alone, no social support system)
- Screen/directly inquire about:
  - Suicidal ideation, intent, plan, available means
  - Personal history of suicide attempts
  - Family history of suicide
  - Past/current history of mental illness (especially depression, schizophrenia, bipolar disorder, borderline personality and anxiety disorders)
  - Screen for depression and/or anxiety (SAD PERSONS scale)
  - Past/current history of alcohol and/or drug abuse (CAGE questions)
  - Presence of psychotic symptoms (especially auditory command hallucinations, thoughts of external control, and religious preoccupation)
  - Recent life stressors (eg, marital separation, job loss)
- Corroborate details and assess home conditions with family member

Unlikely suicidal ideation:
- Initiate appropriate discharge planning and follow-up instructions (Class II)

Probable/possible suicidal ideation:
- Arrange 1:1 observation and emergent psychiatric evaluation
- If medication is needed, give benzodiazepines for anxiety and/or analgesics if patient reports pain
- Immediately assign 1:1 observation
- Search for sharps and medications (Class II)

Is the patient agitated, aggressive, or violent?

NO

YES

Staff should call for help if they feel at risk
- Check fingerstick glucose
- Check oxygen saturation
- Attempt to calm with verbal measures (Class I)

If patient is uncooperative or violent:
- Administer benzodiazepine or antipsychotic; titrate to effect
- Avoid haloperidol use with suspected drug intoxication
(Class II)

If patient remains uncooperative or violent:
- Repeat benzodiazepine/antipsychotic
- Use physical restraints, with proper documentation in chart; adhere to Joint Commission restraint guidelines
(Class III)

Abbreviations: IM, intramuscular; IV, intravenous; PO, by mouth.

Class Of Evidence Definitions

Each action in the clinical pathways section of Hospital Medicine Practice receives a score based on the following definitions.

Class I
- Always acceptable, safe
- Definitely useful
- Proven in both efficacy and effectiveness
- Level of Evidence:
  - One or more large prospective studies are present (with rare exceptions)
  - High-quality meta-analyses
  - Study results consistently positive and compelling

Class II
- Safe, acceptable
- Probably useful
- Level of Evidence:
  - Generally higher levels of evidence
  - Nonrandomized or retrospective studies: historic, cohort, or case control studies
  - Results are robust randomized controlled trials
  - Results consistently positive

Class III
- May be acceptable
- Possibly useful
- Considered optional or alternative treatments
- Level of Evidence:
  - Generally lower or intermediate levels of evidence
  - Case series, animal studies, consensus panels
  - Occasionally positive results

Indeterminate
- Continuing area of research
- No recommendations until further research
- Level of Evidence:
  - Evidence not available
  - Higher studies in progress
  - Results inconsistent, contradictory
  - Results not compelling

This clinical pathway is intended to supplement, rather than substitute for, professional judgment and may be changed depending upon a patient's individual needs. Failure to comply with this pathway does not represent a breach of the standard of care.

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1. “I assumed he wasn’t the ‘type’ to have a gun in his possession.”
The United States has the best-armed civilian population in the world, with an estimated 270 million total guns. A 2014 study by Briggs and Tabarrok noted that a 1% increase in household gun ownership rates led to a 0.5% to 0.9% increase in suicides.  

2. “On admission, she stated she was afraid to return home, but she seemed fine as discharge neared.”
Continuing documentation of suicide risk assessments is necessary at important clinical junctures (eg, inpatient admission, change of safety status, discharge), as suicide risk can elevate. The patient’s mood may appear normal, yet the risk is still present.

3. “I thought he was a heavy drinker, but I never asked him about being suicidal.”
Alcoholics may constitute the highest risk group for violent death. The potential for suicide among alcoholics is extraordinarily high. At least 85% of completed suicide victims show the presence of at least some level of alcohol in their blood.

4. “I was rushing in the ED and called the psychiatry consult, but the patient went to the medical floor before a proper assessment could be completed.”
Patients deemed to be imminent suicide risks should be placed on a 1:1 observation until cleared by psychiatry.

5. “I couldn’t get psychiatry in time, and I needed to expedite the admission, so I placed him on a medical ward.”
Suicidal patients are often admitted to inpatient units, where the length of stay may be less than 5 days. The physician may see the patient only briefly, sometimes just for 5-minute medication checks, with the goal of treatment is rapid stabilization, diminishment of suicide risk, and discharge. Without close monitoring/treatment and follow-up, the suicidal patient could worsen and a chance to help him will have been lost.

6. “She was smiling and more engaged prior to discharge, so I just assumed she was feeling more positive after hospital treatment.”
Don’t assume that if the patient’s mood is brighter, the suicide risk is gone. Suicidal patients will often appear less depressed once they have devised a suicide plan.

7. “She was already in therapy, so I assumed the risk was minimized.”
Therapists who treat clients with disorders that put them at high risk for suicide (eg, depression, borderline personality disorder, bipolar disorder) do not ask about suicide ideation and planning in a routine, frequent way. Some suicidal patients may seem calm, but may harbor a significant suicide risk.

8. “He was educated and privileged, with a fantastic job, and seemed to have it all.”
Assessment of and intervention with suicidal persons needs to be culturally competent, gender sensitive, and developmentally informed. Superficial appearances can be deceiving, and many risk factors are not apparent unless the physician specifically inquires about them.

9. “I thought the suicidal overtones in what he was saying were just a way to get sympathy. He told me he was not suicidal at the moment.”
Effective suicide risk assessment entails recognizing, discussing, and implementing a distinction between acute and chronic risk. Acute risk requires immediate diagnosis, while chronic risk requires ongoing and, in some cases, life-long follow-up.

10. “I called for a psychiatric consult. I did my job.”
Too often, there is a failure to have in place a network of services appropriate for suicidal clients in crisis. It is important for a physician to recognize and closely follow a patient having suicidal ideation. Simply referring a patient to a behavioral health specialist does not nullify responsibility.
Managing Patients At Risk For Suicide

Documenting psychiatric illness can put hospitalists outside their comfort zone. Following ICD rules can help. Here, using ICD-10, we’ll cover common psychiatric codes that hospitalists encounter.

Psychiatric ICD-10 Codes

- **Depression.** ICD-10 codes include F32 and F33. Describe depression with these characteristics: (1) mild, moderate, or severe; (2) single episode, recurrent, or in remission (partial or complete); (3) with or without psychotic features. Your coders will do the rest.
- **Suicidal ideation.** R45.851. Synonyms include “suicidal thoughts.” Note that, for admissions with suicidal ideation (SI), when you say “Day 2 pt without SI,” you just ruled it out as a diagnosis. Instead, state “SI-resolved.”
- **Attempted suicide.** T14.91. A disorder characterized by self-inflicted harm in attempt to end one’s own life. Characterized as trauma/injury. State the actual mechanism of the attempt (eg, “gunshot”).

Coding Alcohol Abuse

**Substance abuse, alcohol.** Codes F10 through F19, “mental and behavioral disorders due to psychoactive substance use.”

These concepts also apply for codes F11 though F19, which cover other categories: opioids, cannabinoids, sedative hypnotics, cocaine, and other stimulants including caffeine, hallucinogens, tobacco, volatile solvents, multiple drug use, and use of other psychoactive substances. For any substance, document the following:

- The substance: alcohol, tobacco, opioids.
- The state of use: acute intoxication, dependence, abuse/harmful use, withdrawal.
- The frequency of use: continuous, episodic, abstinent.
- The problem it causes: delirium, convulsions, injury or trauma, medical complications.

Substance use disorders are further defined by 9 modifiers. The 4 most commonly used are: acute intoxication, dependence, harmful use, and withdrawal state.

- **Acute intoxication.** Used when intoxication occurs without more persistent alcohol- or drug-related problems being concomitantly present. Note complications related to the intoxication such as delirium or injury. For a patient who is “drunk,” falls, and lacerates his forehead, the documentation is: “acute alcohol intoxication with associated forehead laceration.”

- **Dependence.** Diagnosed when > 2 of the following characteristics are present within the last year: (1) strong desire or compulsion to take the substance; (2) difficulty controlling the onset, termination, or level of use; (3) withdrawal when use ceases or is reduced; (4) tolerance requiring increased doses for the same effect; (5) use causes neglect of other interests; and (6) continued use despite clearly harmful consequences. If it is dependence syndrome, define whether the patient is abstinent, currently using, continuously using, or episodically using. COPD patients who still smoke have: “Tobacco dependence, continuous use.”

- **Harmful use.** This diagnosis requires actual damage caused by the substance (eg, tobacco use causing COPD). The term abuse, by default, is placed in ICD-10 category of harmful use.

- **Withdrawal state.** Withdrawing from a substance has 1 of 3 presentations: (1) with delirium; (2) with convulsions; or (3) uncomplicated. A patient who discontinues opioids and now complains of diarrhea and myalgia has: “Opioid withdrawal state, uncomplicated.”

Examples Of Coding Alcohol Use

- A teenager who has just begun drinking alcohol and presents delirious with elevated alcohol levels. This is described as: “Acute alcohol intoxication with delirium.”
- The patient who has been drinking for 20 years presents with elevated alcohol levels and delirium. This is described as: “Alcohol dependence, active.” (Can also say “currently using.”)
- The patient who has been drinking for 20 years stopped 3 days earlier, and now has tremors and hallucinations. The diagnosis is: “Alcohol dependence, in withdrawal, with delirium.”
- The patient who was admitted for a hip fracture, has been drinking 20 years, but has been abstinent for 6 years. The diagnosis is: “Alcohol dependence, currently abstinent.”

Pearls

- Document the mechanism of a suicide attempt and any sequelae.
- Do not be generic; state the drug or class of an overdose.
- Do not be generic with substance abuse. State the type (eg, “heroin”).
- If the depression is due to a medical condition, specify and link them.
- State the blood alcohol level; there is a code.
- Is the patient abusing more than 1 drug? Classify using the most important single substance (or class) used.
- Don’t say “intubated to protect airway.” State the medical condition (eg, “acute respiratory failure”).

Abbreviations: COPD, chronic obstructive pulmonary disease; ICD-10, International Statistical Classification of Diseases and Related Health Problems, 10th revision; SI, suicidal ideation.
Risk Prevention

The Joint Commission issued a Sentinel Event Alert in 1998 focused on preventing inpatient suicides. The strategies focus on hospitals and, specifically, medical/surgical units and the emergency department. Many patients who kill themselves in general hospital inpatient units often do not have a psychiatric history or a history of suicide attempt, and they are “unknown at-risk” for suicide.

Existing Joint Commission requirements for National Patient Safety Goal (NPSG) 15 (15.01.01) require hospitals and health organizations to identify individuals at risk for suicide. The elements of performance for NSPG 15.01.01 are as follows:
1. Conduct a risk assessment that identifies specific characteristics and environmental features that may increase or decrease the risk for suicide.
2. Address the individual’s immediate safety needs and the most appropriate setting for treatment.
3. When a patient at risk for suicide leaves the care of the hospital, provide suicide prevention information (such as a crisis hotline) to the individual and his or her family. An example would be the National Suicide Prevention Lifeline, 1-800-273-TALK (8255).

For a 2010 follow-up report on the Joint Commission Sentinel Alert, including risk reduction strategies and resources for medical professionals, go to: http://www.jointcommission.org/assets/1/18/sea_46.pdf. For more information about NPSG 15, go to the Joint Commission’s website at: http://www.jointcommission.org/mobile/standards_information/jcfaqdetails.aspx?StandardsFAQId=166&StandardsFAQChapterId=77.

Summary

Suicide remains a real threat to patients, their families, and their loved ones. Effectively managing suicide risk requires awareness and close follow-through by both the patient and the practitioner. Asking about depression, addiction, and family history can guide a physician to identify suicidal patients, while accurate documentation and communication of possible medical comorbidities is paramount in saving these patients. Suicide inquiries can be seamlessly woven into the psychosocial interview, and training for hospitalists should raise awareness of methods for creating a safe environment for patients to disclose stigmatized behaviors, methods for specifically asking about suicidal ideation, and how to communicate a supportive stance in light of potentially lethal psychological distress. The compassionate quality of this initial inquiry may likely establish the basis for further assessment of the patient’s risk for suicide utilizing a structured screening tool such as the C-SSRS and preventing suicide.

Case Conclusion

Your patient was transferred from the emergency department to a medical floor, and you gleaned from her emergency department record that she had endorsed suicidal ideation and had a history of depression. Subsequent to the medical interview, you broached the subject of her suicidal ideation and depression. The patient remained evasive and did not make eye contact. Although she did not endorse a suicide plan, she did have several years of untreated depression with a history of cutting and verbal/physical abuse. You administered the C-SSRS, and it was clear that this patient had active suicidal thoughts. You arranged for 1:1 observation and called for an immediate psychiatric consult.

References

Evidence-based medicine requires a critical appraisal of the literature based upon study methodology and number of subjects. Not all references are equally robust. The findings of a large, prospective, randomized, and blinded trial should carry more weight than a case report.

To help the reader judge the strength of each reference, pertinent information about the study, such as the type of study and the number of patients in the study, will be included in bold type following the reference, where available.


27. Schneider SG, Taylor SE, Kemeny ME, et al. AIDS-related factors predictive of suicidal ideation of low and high intent among gay and bisexual men. Suicide Life Threat Behav. 1991;21(4):313-328. (Cross-sectional study; 778 patients)


34. McCall WV. Insomnia is a risk factor for suicide-what are the next steps? Sleep. 2011;34(9):1149-1150. (Letter to the editor)


76. Heritage J, Maynard DW, Robinson J. Communication in Medical Care: Interaction Between Primary Care Physicians and Patients. Cambridge, UK: Cambridge University Press; 2006. (Book)
5. All of the following factors are protective against suicide EXCEPT:
   a. Cultural beliefs
   b. Religious beliefs
   c. Living alone
   d. Family support

6. Which of the following is considered to be an ACUTE risk factor for suicide?
   a. Severe anxiety
   b. Suicidal ideation
   c. Prior suicide attempts
   d. Severe hopelessness

7. Patients with psychiatric disorders are estimated to account for what approximate percentage of suicidal patients??
   a. 28%
   b. 54%
   c. 66%
   d. 98%

8. With regard to men and suicide, which of the following conditions of marital status was found to be a suicide risk factor?
   a. Being married
   b. Being divorced
   c. Being widowed
   d. Being single

9. Which medical condition has the strongest evidence for being associated with suicide risk?
   a. Rheumatoid arthritis
   b. Diabetes
   c. HIV/AIDS
   d. Hypertension

10. An individual exhibiting a single suicidal behavior identified on the C-SSRS is how much more likely to commit suicide?
    a. Two times
    b. Four times
    c. Six times
    d. Eight times
Diagnosing And Treating Cardiovascular Medication Toxicity

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As obesity rates continue to rise and the population ages, cardiovascular health also continues to worsen, necessitating increased use of antihypertensive agents. This review discusses the diagnosis and management of patients who have intentionally or unintentionally ingested toxic amounts of calcium-channel blockers, beta blockers, and cardiac glycosides. In 2011, poison control centers in the United States received a total of 101,753 calls related to cardiovascular medicine toxicity. However, these data are likely an underestimation of the true extent of the problem. There are a vast number of toxicities that occur with prescribed medications every year, with multiple hospitalizations that add to healthcare costs. When appropriate management is instituted rapidly, patients will have a positive outcome. Resources in the hospital setting are crucial to avoiding any future readmissions. Optimal management should be patient-specific and, consequently, all cases should be discussed with a toxicologist or a poison control center.

Managing Hospitalized Patients With Heart Failure With Preserved Left Ventricular Ejection Fraction

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Heart failure with preserved left ventricular ejection fraction (HF-PEF) is defined as a clinical syndrome in which patients have signs and symptoms of clinical heart failure and normal left ventricular ejection fraction. HF-PEF accounts for more than 50% of cases of heart failure. Acute management in HF-PEF focuses on symptom improvement, maintenance of euvoeemia, rate control of arrhythmias, management of hypertension, and modification of underlying cardiac conditions. Long-term treatment strategies have been shown to reduce hospitalization rates and improve diastolic function of the myocardium. Physicians must focus on reducing hospitalization rates, and tools that have been effective so far include patient education, specialized heart failure units, and organized discharge planning. HF-PEF continues to be a prevalent disease process, especially in the elderly and female population. As this population grows, it will become even more prudent to study this syndrome and discover novel therapeutic options.

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Target Audience: This enduring material is designed for hospital medicine physicians, physician assistants, nurse practitioners, and residents.

Goals: Upon completion of this activity, you should be able to: (1) demonstrate medical decision-making based on the strongest clinical evidence; (2) cost-effectively diagnose and treat the most critical presentations; and (3) describe the most common medicolegal pitfalls for each topic covered.

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