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Suicide risk assessment in the ER

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Individuals with suicidal thoughts, plans or behaviors are some of the most common and challenging patients for clinicians and allied health staff in emergency settings.

With a base rate of approximately 11.3 per 100,000 in the Canadian population, suicide is a rare and complex event.[1] Suicidal ideation however, is a common presentation in the psychiatric emergency room, with an estimated annual incidence of 5.6 per cent and an estimated lifetime prevalence of 13.5 per cent in the general population.[2]

Evaluation
Given its low baseline rate, no set of clinical features assessed at a single point in time can be expected to be a reliable predictor of suicide risk.

Standardized risk assessments have a low predictive value for completed suicide. Efforts to improve the sensitivity of risk measures result only in higher false positive rates, while an attempt to improve the specificity of a measure would increase the rate of false negative identification.

To illustrate the challenge of predicting specific cases in a low base rate environment, MacKinnon and Farberow (1975) showed that even an ideal measure, having an unrealistically low false positive and false negative rate of one per cent, results in only 20 per cent true positive accurate predictions.[3] Unfortunately, this discouraging reality is still very much the case today.

In the absence of an accurate, empirically-validated and reliable suicide assessment instrument, a skilled clinical interview is the best tool by which to estimate a patient's risk. During the evaluation, the clinician must obtain information about the patient's psychiatric history and his/her current mental state.

This information should be obtained through both the use of direct questioning and observation, as well as through whatever collateral sources are available.

The American Psychiatric Association's excellent *Practice Guideline for the Assessment and Treatment of Patients with Suicidal Behaviors* (2003) reviewed the important domains of a suicide risk assessment.[4] After addressing the patient's immediate safety, the goal of the evaluation is to identify the specific risk factors that influence the possibility for suicide, especially those that could be modified with acute interventions.

Specific risk factors
Research has confirmed an important and compelling relationship between suicidal acts and mental disorder.[5] Mood disorders, substance abuse or dependence, acute anxiety, and schizophrenia remain the most important axis I diagnoses that influence suicide risk. Cluster B diagnoses, especially borderline personality disorder, are clearly associated with suicidal acts. It is well worth remembering that the effective treatment of active psychiatric illness will result in a meaningful reduction of a person's risk of suicide.

A history of suicide attempts, including deliberate self-harm (DSH) behavior, is one of the strongest risk factors for future suicide. A follow-up mortality study in the United Kingdom of more than 11,000 patients who presented with DSH between 1978 and 1997 found that 300 had died by suicide or probable suicide by the time the follow-up period ended in 2000. Thus, for those who present with suicidal behaviors, the authors calculated a suicide risk of 0.7 per cent in the first year following presentation – a rate 66 times the annual risk in the general population.[6]

Access to lethal methods also increases suicide risk. Hanging, firearms and poisonings are the most common methods for suicide in Canada.7 Readily accessible lethal means may substantially increase the lethality of impulsive behaviors, and clinicians are well advised to investigate such access during periods of suicidal crises. This may include such things as stockpiles of over-the-counter and prescription medications, guns, knives, and other weapons, as well as alcohol and other illicit drugs, which may themselves be used as a means to end one's life.

Investigating past history of psychiatric treatment, including recent hospitalizations, is an important part of the evaluation of an individual's risk. Many studies have shown an increased risk of suicide following changes in both the intensity and the location of treatment. A substantial increase in rates of suicide after hospital discharge has been observed in individuals with major depressive disorder, bipolar disorder, schizophrenia, and borderline personality disorder. Although the rates generally decline with time, they may remain high for as long as a year following discharge.[8]

Rossow and Amundsen (1995) determined that the relative risk of committing suicide was almost seven times higher among alcohol abusers than non alcohol abusers.[9] The clinician must quantify the current and historical use of alcohol and drugs in patients presenting with suicidal thoughts or behaviors. It may even be necessary to observe an intoxicated patient in a safe setting until the intoxication resolves and a thorough suicide assessment can be completed.

Level of risk
In general, the higher the number of risk factors a person has; the higher that individual's risk would be.

A high-risk individual would be a person who:

- has made a nearly lethal or serious suicide attempt;
- has persistent suicidal ideation along with a significant intent to die and has taken planning steps toward an attempt;
- is psychotic and experiencing command hallucinations;
- was recently discharged from a psychiatric inpatient unit;
- has had a recent onset of severe psychiatric symptoms, especially depression and hopelessness for the future;
- is intoxicated; and/or
- has a history of previous suicide attempts or deliberate self-harm behavior.

Individuals at moderate risk might include those individuals who have suicidal ideation along with some intent to die, but who have not initiated any planning for an attempt, have few other current risk factors, and are currently in ongoing psychiatric treatment.

A lower risk category would include those individuals who have some mild or passive suicidal ideation, but who have no plan or intent to die, have no history of suicide attempts, and have a strong and accessible support system around them in the community.

Interventions within the emergency setting
Since it is impossible to eliminate a person's risk for suicide, emergency interventions should be targeted at reducing that risk while ensuring the person's acute safety.

Appropriate interventions will attempt to mitigate or strengthen risk and protective factors that can be modified. Examples may include: (a) reducing access to lethal means; (b) aggressively treating active psychiatric disorders and symptoms (insomnia, acute agitation, severe anxiety, etc.); (c) addressing psycho-social problems by utilizing collaborative, problem-solving crisis psycho-therapy; and (d) augmenting social support networks and ensuring appropriate aftercare.

As previously mentioned, intoxicated suicidal patients should be held in the emergency department until the intoxication fully resolves. The return of sobriety will itself reduce the acute risk and is thus an essential intervention technique.

A further goal of the evaluation is the determination of the most appropriate setting for treatment, be it inpatient, outpatient, or some form of short-term crisis hospitalization. The information obtained in the evaluation will allow a psychiatrist to develop an appropriate differential diagnosis with which to guide future treatment.

Conclusions

No single tool, technique or standardized measure can accurately predict a rare event like suicide. A skilled clinical interview remains the essential tool by which to estimate a person's risk. Clinicians are well advised to concentrate their acute management plans on those risk factors that can be modified so as to ensure that those most at risk are kept safe. Only at that point can a person be truly engaged in an effective treatment that is solidly grounded in a sound therapeutic alliance.

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