Triaging suicidal patients: Sifting through the evidence

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Abstract The triaging of individuals who present to general hospital emergency departments with suicidal thoughts and behaviours is especially challenging and fraught with uncertainty. Although the suicide literature is vast, and risk factor research has a long history, there is a dearth of articles that address the 'point of care' factors that need to be considered in triaging a suicidal patient. In order to address this dilemma for nurses performing the triage function, this paper is a targeted review of the suicide risk factor literature designed to discern factors that may have implications for making a triage determination with the intent of improving the accuracy and quality of triage for suicidal patients. Contextual and compositional factors suggesting long-term risk; situational, precipitating, factors that may impact one's immediate risk; and cues and clues to imminent risk are presented along with evidence-based suggestions for assessment and safety.

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Introduction

General hospital emergency departments (EDs) are often the first place for individuals and families in mental health crises to seek assistance. Timely and appropriate access to services in the ED for those with mental health problems is crucial, not only for preservation of life and limb for those...
who may be of danger to themselves or others, but also for provision of a vital link to mental health treatment services and resources. Triaging such patients can be challenging for many reasons not the least of which is the lack of skill and confidence to which ED staff frequently admit (Clarke and Hughes, 2002; Crowley, 2000; Karshmer and Hales, 1997). This paper is a targeted review of the suicide risk factor literature designed to discern factors that may have implications for making a triage determination with the intent of improving the accuracy and quality of triage for suicidal patients.

Background

The triaging of individuals who present to EDs with suicidal thoughts and behaviours is especially challenging and fraught with uncertainty. Some patients may present with an entrance complaint of suicidal thoughts, feelings and/or behaviours but many others may not admit to, be able to articulate, or even realise their suicidality at triage. Furthermore, simply asking the patient about suicidal ideation does not ensure that accurate or complete information will be given (American Psychiatric Association, 2003). Therefore, determining the urgency and potential lethality of the patient’s situation is crucial in deciding who is safe to wait unsupervised, who can wait with adequate safety measures in place, and who needs to be seen on an urgent basis.

Suicide assessment at triage should be considered high risk. Patients may be undertriaged, leave the ED after a long wait before they are seen, and subsequently attempt or complete suicide (e.g., Bindman et al., 1991; Fernandes et al., 1994). Negative encounters with the mental health and emergency systems may lead patients to use ED resources inappropriately (Barr et al., 2005) or to avoid future care until a period of crisis (Strike et al., 2006). Therefore, the attitude with which a patient is triaged can be as important as the content of the encounter and must be considered in any training and education (Anderson and Jenkins, 2006; McAllister et al., 2002) (Fig. 1).

Although the suicide literature is vast, and risk factor research has a long history, there is a dearth of articles that address the “point of care” factors that need to be considered in triaging a suicidal patient. PubMed was searched for the years June 1997–June 2007. The search strategy employed a combination of MeSH and keywords focusing on three concepts: suicide (including parasuicide and self-injurious behaviour), triage, and emergency department. The search was limited to articles published in English. It was not limited to adults but articles about children and adolescents as well as articles about treatment (e.g., treatment for drug overdoses) were excluded in the review process. This search yielded 213 articles. A review of article reference lists and consultation with experts in the field found additional literature related to the subject. This additional literature included grey literature such as unpublished reports. After reading all of the abstracts, 80 articles were selected for further review.

Definition of terms

Suicide is defined in the American Psychiatric Association (APA) practice guidelines as “self-inflicted death with the evidence (either implicit or explicit) that the individual intended to die” (APA, 2003, p. 81).
The World Health Organization estimates that one million people a year die from suicide worldwide, more than those due to homicide and war combined (2004). Suicide ranks among the top 10 causes of death for individuals of all ages in Canada. It is the leading cause of death in Canada for men in the age groups between 25–29 and 40–44 and for women between the ages of 30–34 (Canadian Association for Suicide Prevention, 2004; Kirby and Keon, 2004).

Individuals presenting to general hospital emergency departments may have made a suicide attempt (sometimes also referred to as "parasuicide") which has been defined as "self-injurious behaviour with a non-fatal outcome accompanied by evidence that the individual intended to die" (APA, 2003, p. 3). Another common presentation which may or may not look like a suicide attempt is deliberate self-harm (DSH), "the wilful self-inflicting of painful, destructive, or injurious acts without the intent to die" (APA, 2003, p. 3). The semantic distinction between suicide attempt and DSH is the patient's intent and, in actual practice, is not always clear or easily discerned (O’Carroll et al., 1996). Furthermore, trivialising DSH as nothing more than attention-seeking behaviour can be dangerous as it has been found that upwards of half of the individuals who committed suicide in the United Kingdom had a history of DSH (Foster et al., 1997). It is also important to note that evidence suggests up to 4% of individuals who self-harm on a chronic basis will eventually die by suicide (Hickey et al., 2001; Owens et al., 2005; Reith et al., 2004). In fact, in a follow-up of individuals presenting to an ED with DSH, Hawton and colleagues found that the risk of death from suicide within the next year was 66 times that of the general population (Hawton et al., 2003). Furthermore, in elderly people and in individuals living with schizophrenia, DSH in an individual who does not typically engage in that type of behaviour is a strong predictor of suicide or may indeed be a failed suicide attempt (Haw et al., 2005; Hawton, 2005). Repeated DSH suggests more severe psychopathology than single episodes (Forman et al., 2004). Furthermore, "self-injury" versus "self-poisoning" has not been found to be mutually exclusive in term of patient characteristics but is often treated differentially in the ED (Horrocks et al., 2003).

Suicidal ideation refers to "thoughts of serving as the agent of one’s own death" (APA, 2003). It has been estimated that 4% of individuals will have suicidal thoughts in a year (Kirby and Keon, 2004) although very few will act on them. The seriousness of suicidal ideation can vary greatly from passing thoughts which may be distressing to the individual but essentially harmless to thoughts of intent accompanied by a lethal plan and a means to carry out the plan. Daily variation in suicidal ideation may be seen in some individuals that may or may not be tied to mood symptoms (Witte et al., 2006).

Risk factors

Some individuals may be chronically suicidal throughout their lifetime while others may experience suicidal ideation as a response to life events. Since not all patients will present with suicidality as an entrance complaint, a knowledge of risk factors can assist the triage nurse in knowing who may need to be assessed and when. Risk factors can be conceptualized as being composed of contextual and compositional factors, those factors that are present in an individual’s life and comprise an overall long-term risk for suicide. Precipitating factors are events that can happen in an individual’s life temporarily disrupting an individual’s psychosocial and emotional equilibrium and increasing their risk for suicidal thoughts and behaviours. Finally, imminent risk factors are cues and clues that can suggest that a potentially lethal suicide attempt is a very real possibility for an individual.

When it comes to relying on assessment of risk factors for suicide prevention, however, a word of caution is necessary. Although suicides are most prevalent amongst those deemed to be at high risk, most suicides come from those who have never been identified as high risk (Safinosky, 2007). To quote Rosenman (1998, p. 100), “for conditions with multiple risk factors... each factor adds a little to the risk, but often only when it interacts with other factors. No single predictor or combination of predictors is present in every individual, and membership of the high-risk group changes from moment to moment. Half a bottle of whisky may create a high suicide risk within an hour.”

Contextual and compositional factors

Contextual effects are variations in health outcomes between groups or localities that can be explained in terms of characteristics at an aggregate level such as cultural, economic, or social factors. Compositional effects are explained in terms of individual characteristics such as social, psychological, or genetic factors (Platt et al., 2005). Together they comprise an individual’s overall long-term risk of suicide.
Contextual factors

Living conditions and life circumstances have an influence on one’s risk of suicide. In a systematic review of the literature from 1984 to 1999, it was shown that unemployment significantly increased suicide risk on an individual level (Platt and Hawton, 2000; Qin et al., 2005). Although individuals living in poverty have a higher risk for suicide, research suggests that the salient issue is that of unemployment rather than poverty per se. A longitudinal study examining the associations among suicide, socioeconomic status, and chronic illness demonstrated a stronger independent relationship between suicide and unemployment than between suicide and socioeconomic status (Lewis and Sloggert, 1998).

Many cultures have within them disenfranchised, marginalized groups for whom the risk of suicide is inherently very high. For example, First Nations populations in Canada have a suicide rate three to six times that of the non-aboriginal population (Canadian Association for Suicide Prevention, 2004; Malchy et al., 1997; Tester and McNicol, 2004; White and Jodoin, 2004). Similar data have been presented for Australian and New Zealand indigenous populations (Hunter and Harvey, 2002). In all these populations, the rate of suicide for young people has risen dramatically in recent years (Hunter and Harvey, 2004; White and Jodoin, 2004). In Canada, young aboriginal females between 15 and 29 are 7.5 times more likely to die by suicide than the average Canadian young woman while males are five times more likely to die by suicide than their cohort average (White and Jodoin, 2004).

Age-related factors

Men over the age of 75 have the highest suicide rate of all age groups in most industrialised countries (Conwell, 2001; Pearson and Conwell, 1995) although the rates are rising in older women as well. A possible reason for this is that older individuals are more likely to die in a suicide attempt (Conwell and Duberstein, 2005). A number of factors can account for this including more frail health which can render them less likely to survive an attempt, use of more forethought and more lethal means, and living alone meaning that they are less likely to be discovered in time (Conwell and Duberstein, 2005; Garand et al., 2006; Szanto et al., 2002). Elderly people may also demonstrate idiosyncratic reactions to antidepressants which may increase their suicide risk (Juurlink et al., 2006).

Family factors

Marital status appears to have an influence on suicide risk. A study of Danish suicides found that single people and those living in homosexual relationships had a higher rate of suicide than married, heterosexual people (Qin et al., 2003). This replicated similar findings in other populations (e.g., Kposowa, 2000).

Family history of psychopathology, completed suicides, and hospitalisations for psychiatric disorders can also increase suicide risk (Qin et al., 2003, 2005). Whether the link is genetic, contextual, or both is under investigation (van Heeringen, 2005).

Mental health status

Virtually all psychiatric disorders carry with them an increased risk of suicide. Harris and Barraclough (1997) performed a meta-analysis of existing literature at the time and found that, of 44 mental disorders considered, 36 carried with them a significantly raised standardised mortality ratio. Suicide rates were found to be highest for functional disorders such as mood disorders, psychotic disorders, and eating disorders, lowest for organic disorders such as dementia, with the rates for substance misuse disorders lying in between. Mood disorders, particularly recurrent major depression, appear to be the principal high risk diagnoses in most studies (e.g., Brown et al., 2000; Foster et al., 1997; Seguin et al., 2006) with an estimated one-quarter of affected individuals making a lifetime suicide attempt (Nemeroff et al., 2001). There is some evidence to suggest that co-morbidity of major mood disorder with a substance misuse disorder may amplify an individual’s risk of suicide (Seguin et al., 2006) although the relationship may be stronger in males (Baxter and Appleby, 1999).

The lifetime risk of death by suicide for individuals living with schizophrenia has been estimated to be between 9 and 13% and is 20 to 50 times higher than that of the general population (Pinikahana et al., 2003). Most studies have found that the risk of suicide is highest within the first three years after initial diagnosis. A national suicide survey in the United Kingdom (UK) demonstrated that the risk of suicide in the first year of illness was increased by 20 times for women and 30 times for men compared with general population rates (Appleby et al., 2005, 1999). The findings of another study, part of an international suicide prevention trial, suggested that the increased risk in individuals with schizophrenia may be mediated by depression and...
high levels of hopelessness (Bourgeois et al., 2004).

These findings further support the conclusions reached by Pinikahana and colleagues, in a 2003 literature review, that the young white male, who is depressed, unemployed, socially isolated, and in the early stages of psychotic illness is at highest risk.

The literature is mixed on the risk of completed suicide in individuals with personality disorders. Harris and Barracough (1997) found the risk was high but the sample they examined was heavily biased towards American Veterans’ Administration data where individuals were typically male. Baxter and Appleby (1999) in a UK sample of 770 suicides found that the risk ratio for women with personality disorders was the highest of any diagnostic category. Issues of impulsivity and emotional dysregulation, symptomatic of personality disorders, may have a role to play in not only DSH behaviours but also in completed suicides (Farmer and Bethel, 2006; Mann et al., 1999).

Although individuals with diagnosed mental illnesses should be assessed for suicidality, a word of caution is warranted. For a variety of reasons, many individuals who suffer from mental health problems do not seek diagnosis or treatment until a period of crisis (Strike et al., 2006). Therefore, the triage nurse must be alert to presenting signs and symptoms of mental illness and not rely solely on an established diagnosis.

Physical health status

Poor physical health status can carry with it a risk of suicide although symptoms of depression and hopelessness seem to be the common factors in distinguishing those patients who are suicidal from those who are not. Researchers have examined suicidality in patients with cancer (e.g., Breitbart et al., 1998; Kendal, 2006) and multiple sclerosis (e.g., Brønnum-Hansen et al., 2004; Feinstein, 1997) among other illnesses.

Precipitating factors

Adverse events in an individual’s life can increase one’s risk of suicidal thoughts and behaviours. It is not necessarily the nature of the event as much as it is the person’s subjective response to the event and the ensuing hopelessness or inability to cope that result in the suicidality. The nature of the kinds of events which can precipitate suicidality are typically dependent on the age and stage in one’s life: young people are more vulnerable to events surrounding relationship, family, childcare, and work/employment/financial issues while older individuals will experience more bereavement and health issues (Appleby et al., 2005).

Some events, however, objectively carry with them a high risk of suicide. Exposure to traumatic stress – events which have the capacity to create fear and an intense sense of threat (Melhum, 2005) – can increase one’s risk of suicide. Some traumatic events can be easily delineated and of limited duration such as an accident or violent assault, while others are chronic and long-lasting such as living in a war-zone or in a long-term abusive relationship. As with other adverse events in a person’s life, it is the effect of the trauma on the individual, the fear and helplessness it creates, rather than the trauma itself which will be important to assess. An expression of feelings of helplessness and hopelessness ("no escape" or "no rescue") are indications that an individual may need prompt intervention (van Heeringen, 2005).

Parents who have lost a child, particularly a young child, are at high risk for suicide and at even higher risk if that death was itself suicide regardless of the "child’s" age with an incidence risk ratio of 34% for men and 76% for women (Qin and Mortensen, 2003). This risk is highest within the first month of the bereavement.

Release or discharge from protective custody can also increase suicide risk particularly for those with mental illness. Individuals who have been discharged after being a psychiatric inpatient (Appleby et al., 1999; Qin et al., 2005) are at high risk of suicide. As well, those who have been recently released from jail are at increased risk of death from a number of causes, suicide being a major one (e.g., Binswanger et al., 2007; Bird and Hutchinson, 2003; Jones et al., 2002). The highest risk of death for both groups is typically seen within the first week after release or discharge. Skeem and colleagues (2006) however, did not find a "peak" but instead found a relatively stable rate of post-discharge suicidal behaviours over a one year period post-release.

Factors suggesting imminent risk

For individuals living with chronic mental illness there are number of cues and clues to evidence of relapse and a potential suicide attempt. For individuals living with mental illness, "proxy indicators" such as an increase in substance use, self-harm, and non-compliance with care can be an indication of decompensation and a sharply
higher suicide risk (Appleby et al., 2005; Haw et al., 2005). In a sample of almost 5000 completed
suicides in the UK, breakdown in care prior to suicide
was reported in 20% of the sample. This in-
cluded patient-initiated non-compliance with
usual treatment such as not taking medications
and missing appointments (Appleby et al., 2005).
Conversely, in another case-control sample, break-
down in care was not patient-initiated. Individuals
who took their own lives were almost four times
more likely to have had their care reduced at the
final appointment (Appleby et al., 1999). In a sim-
ilar vein, Mino and colleagues (1999) found that
drug users who completed suicide were more likely
to be unable to access care.
Psychomotor agitation, irritability, and distract-
ability have been found to be predictors of an
imminent suicide attempt in psychiatric in-patient
populations where individuals and their changes/
escalation in behaviour can be easily observed
(Angst et al., 1999; Busch et al., 2003). Balazs
and colleagues also recorded agitated behaviour
in outpatients before they made a suicide attempt
(2005). Observation of patients’ behaviour at tri-
age in addition to collateral information from an
accompanying person could be invaluable in mak-
ing a triage decision.

Assessment

The objectives of a triage assessment are typically
three-fold: to rapidly identify those individuals
with an urgent, life threatening condition; to
determine the most appropriate treatment area
for a particular patient; and to provide a structure
for ongoing re-assessment of those patients who
need to wait (Beveridge, 1998). Thus, the assess-
ment will determine who needs to be seen quickly
versus who can wait and with what safety measures
in place, and should the patient be seen by special-
ity services such as a psychiatric emergency/liaison
nurse (e.g., Clarke and Hughes, 2002; Clarke et al.,
2005; Happell et al., 2002) if such are available.

For those patients whose entrance complaint is
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For those patients whose entrance complaint is
suicidal ideation, assessment is fairly straight-for-
ward. Once the presence of suicidal ideation has
been established, the patient is asked if they have
a plan, and if yes, what is the nature of the plan.
The triage nurse must be careful to assess the ex-
pected outcome of the plan and not necessarily
relate to the objective lethality of the plan (APA,
2003). For example, a patient may plan to take
an overdose of vitamins fully expecting to die from
the attempt. Thus, the patient’s intent to die and
expectation of death as a result of their planned
action rather than the lethality of the plan puts
them at higher risk.

For patients whose presenting symptoms are va-
gue and non-specific, and who may be in a high risk
category as a result of any of the factors previously
identified, it is suggested (Horgan, 2002) that the
tragic nurse ask about: current stressors, anxiety
or fear, hopelessness about their situation, and sui-
cidal thoughts. Questions about suicidal thoughts
include:

- Are things so bad you sometimes wish you did
  not wake up in the morning?
- Do you wish you were dead?
- Have you thought about harming yourself?
- Have you made plans/preparations?
- Have you been close to doing something?
- Have you done something?

The latter question may reveal an actual attempt
which may require urgent medical intervention.
Clinical rating scales, although abundant in the lit-
erature, typically lack specificity for ED assessment
decision-making regarding admissions (Cochrane-
Brink et al., 2000) and thus, are of questionable
value in making a triage determination.

Finally, some patients who may have been
brought into ED by a family member, friend, or police
may not volunteer any information. The revised
Canadian Triage and Acuity Scale (CTAS), antici-
pated to be released in 2008, will include a category
for mental health presentations called “ uncertain
flight and safety risk” which will allow the nurse to
“ up-triage” so the patient can be assessed quickly.

Issues regarding patient safety

In determining the level of acuity for those at risk
of self harm, the triage nurse must assess the indi-
vidual’s risk factors (Doyle et al., 2007) however,
critical thought must also be given to maintaining
the individual’s safety while in the ED. Mechanisms
to ensure the safety of the individual presenting
with suicidal thoughts or behaviours, pending a
psychiatric assessment, vary widely dependent on
the available resources and the physical character-
istics of the department. The risk assessment
should include the availability of a responsible per-
son who may stay with the individual in the waiting
room and once transferred to the treatment areas.
Furthermore consideration should be given to who
that person could be (family member, community
support/care provider, facility security, a constant
attendant), or whether extra staff resources such
as a psychiatric emergency nurse are available.
Literature on patients who leave without being seen (LWBS) from emergency departments has suggested that the LWBS rate is highest in the triage categories of urgent (level 3) and semi urgent/less urgent (level 4) (Mohsin et al., 2006) however, one study found that as many as 25% of patients who LWBS were characterized as needing emergent or urgent medical care (Ding et al., 2006). Of note other authors have found that a significant percentage of mental health presentations are triaged into urgent and less urgent levels (Clarke et al., 2005). Triage nurses must therefore be concerned with the safety of suicidal patients or those with self harm behaviours while in the department but must also be cognisant of those patients where there is an uncertainty of flight risk.

The physical layout and the current attendance level in the emergency department should also be considered. In situations of clear risk, active measures need to be taken to ensure the individuals safety. In those circumstances where individuals are vague with their presenting complaints and in their responses during the triage assessment particular attention should be paid to the ''waiting'' environment. Specifically how chaotic is it, how easy is it to keep a close watch on the individual and how accessible are extra staff, for example security or constant attendants. Trust and rapport are considered necessary elements of a risk assessment and therefore efforts should be made to ensure privacy (McAllister, 2003; Crowley, 2000). While interview rooms should be private, they should also be equipped with monitoring equipment, personal safety devices, and be free of anything that may be used for self harm (McAllister, 2003), for example; IV tubing, cleaning solutions, or sharp objects. Also important is the location of assessment rooms for mental health patients, which should be close to or part of the main emergency department receiving area (NICE, 2005).

The triage process as described by the CTAS (2007) includes patient reassessment based on timelneses that correspond to the individual's level of acuity. During each reassessment, triage nurses should verify that safety measures, if currently in place, such as constant observation, need to continue. In the event that a family member has agreed to remain with the patient, the nurse conducting the reassessment needs to ensure the family member is still able to stay. During initial triage, if the patient was deemed safe to wait alone, upon reassessment the triage nurse should confirm that the patient agrees to return to triage if their symptoms worsen. ''No suicide'' contracts are of questionable utility even within the context of a therapeutic relationship (e.g., Farrow, 2002; Kelly and Knudson, 2000) and are not recommended for use in EDs (APA, 2003). Finally, careful documentation of the triage assessment and safety measures in place is of crucial importance (Simpson and Stacy, 2004).

**Conclusion**

Much has been written about the assessment and management of suicidal individuals or those with suicidal behaviours, in the emergency department. This paper is meant to shed more light on what the triage nurse in particular, needs to know in order to conduct an accurate triage assessment and provide the most hospitable, safe environment possible pending a more in-depth psychiatric assessment. Emergency department waiting rooms are busy, chaotic places that are apt to create stress and anxiety for many if not all patients who attend them. Particular attention needs to be paid to those patients who are vulnerable to the highly stimulated environment, the limited time and privacy available for assessment and management at the point of triage. Triage nurses must be aware of long-term and imminent risk factors, as well as specific physical characteristics and resources of the emergency departments in which they work, if they are to conduct risk assessments that are accurate, and that provide the best quality care possible during the initial assessment and ''waiting period''.

**Uncited reference**

Bertolote et al. (2003).

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