



Clinical Practice Guideline: Suicide Risk Assessment Full Version

What risk assessment tools and predictors are effective in screening for self-harm or suicidal ideation during initial assessment of patients across the life span in the emergency care setting?

Authored by the 2012 ENA Emergency Nursing Resources Development Committee

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Background/Significance

Suicide is the leading cause of injury mortality in the United States (Rockett, et al. 2012). The Joint Commission National Patient Safety Goal (NPSG) requires facilities to “Conduct a risk assessment that identifies specific patient characteristics and environmental features that may increase or decrease the risk for suicide (The Joint Commission, 2012, p.10).” The NPSGs require that patients seeking mental health care in general hospitals, for attempted or suspected suicide attempts and suicidal ideation, are provided with an organized approach for suicide assessment and triage (Jacobs, 2007). Individuals who attempt suicide or have suicidal ideations can present multiple challenges for emergency care providers. Patients often do not volunteer that their injuries are due to self-harm. Care providers need to have a high level of suspicion and attempt to identify potential risk factors and personal characteristics that are associated with suicidal behaviors. Although tools are available to help with assessing potentially suicidal patients, the tools often have limitations for use in the setting of initial assessment in an emergency department (ED). Once a person is identified as a potential suicide risk, care providers need to provide safety and preventive care until the patient can be transferred to an area or facility that can provide further psychiatric evaluation and services (Jacobs, 2007; Knesper, 2011).

This Clinical Practice Guideline (CPG) evaluates the scientific and research literature for the initial assessment and evaluation of patients who present to the emergency setting who have suicidal ideation or after attempted suicide and/or those patients at high risk for future attempts of suicide. The CPG evaluates screening tools and scales used to assess potential suicidal patients and predictors of suicide risk for emergency patients.

Methodology

This CPG was created based on a thorough review and critical analysis of the literature following [ENA’s Guidelines for the Development of Clinical Practice Guidelines](#). Via a comprehensive literature search, all articles relevant to the topic were identified. The following resources were searched: PubMed, Google Scholar, Medical Literature Analysis and Retrieval System Online (MEDLINE), Cumulative Index to Nursing and Allied Health Literature (CINAHL), OVID, TRIP Data Base, HAPI, Cochrane - British Medical Journal, Agency for Healthcare Research and Quality (AHRQ; www.ahrq.gov), and the National Guideline Clearinghouse (www.guideline.gov). Searches were conducted using a variety of different search term combinations. These included “initial psychiatric emergencies,” “behavioral health emergency” and “mental health emergency.” Additional search terms were “assessment,” “management” with the filters “and” and “or” added. Finally, the topics searched included “suicide,” “suicidal ideation,” “suicide assessment,” “suicide scales and/or tools,” and “suicide predictors.” Initial searches were limited to English language articles from 2000-2012. The reference lists in the selected articles were hand searched for additional pertinent references. Research articles from ED settings, non-ED settings, emergency care settings, position statements and guidelines from other sources were also reviewed. Articles that did not address the PICO question were excluded for the purpose of this systematic review of evidence. Other articles that evaluated specific medications or mental health pathology, such as schizophrenia were not included.

Articles that met the following criteria were chosen to formulate the CPG: research studies, meta-analyses, systematic reviews, and existing guidelines relevant to the topic of suicide risk assessment. The CPG authors used a standardized reference table to collect information and assist with preparation of tables of evidence ranking each article in terms of the level of

evidence, quality of evidence, and relevance and applicability to practice. Clinical findings and levels of recommendations regarding patient assessment were then made by the 2012 Emergency Nursing Resources Development Committee according to ENA's classification of levels of recommendation for practice, which include: Level A High, Level B Moderate, Level C Weak or Not recommended for practice (Table 1).

Table 1. Levels of Recommendation for Practice

<p><u>Level A recommendations: High</u></p> <ul style="list-style-type: none"> • Reflects a high degree of clinical certainty • Based on availability of high quality level I, II and/or III evidence available using Melnyk & Fineout-Overholt grading system (Melnyk & Fineout-Overholt, 2005) • Based on consistent and good quality evidence; has relevance and applicability to emergency nursing practice • Is beneficial
<p><u>Level B recommendations: Moderate</u></p> <ul style="list-style-type: none"> • Reflects moderate clinical certainty • Based on availability of Level III and/or Level IV and V evidence using Melnyk & Fineout-Overholt grading system (Melnyk & Fineout-Overholt, 2005) • There are some minor or inconsistencies in quality evidence; has relevance and applicability to emergency nursing practice • Is likely to be beneficial
<p><u>Level C recommendations: Weak</u></p> <ul style="list-style-type: none"> • Level V, VI and/or VII evidence available using Melnyk & Fineout-Overholt grading system (Melnyk & Fineout-Overholt, 2005) - Based on consensus, usual practice, evidence, case series for studies of treatment or screening, anecdotal evidence and/or opinion • There is limited or low quality patient-oriented evidence; has relevance and applicability to emergency nursing practice • Has limited or unknown effectiveness
<p><u>Not recommended for practice</u></p> <ul style="list-style-type: none"> • No objective evidence or only anecdotal evidence available; or the supportive evidence is from poorly controlled or uncontrolled studies • Other indications for not recommending evidence for practice may include: <ul style="list-style-type: none"> ○ Conflicting evidence ○ Harmfulness has been demonstrated ○ Cost or burden necessary for intervention exceeds anticipated benefit ○ Does not have relevance or applicability to emergency nursing practice • There are certain circumstances in which the recommendations stemming from a body of evidence should not be rated as highly as the individual studies on which they are based. For example: <ul style="list-style-type: none"> ○ Heterogeneity of results ○ Uncertainty about effect magnitude and consequences, ○ Strength of prior beliefs ○ Publication bias

Evidence Table and Other Resources

The articles reviewed to formulate the CPG are described in the [Evidence Table](#). Other articles relevant to care of psychiatric patients in the ED were reviewed to serve as additional resources (See [Other Resources Table](#)).

Glossary of Terms

Attempted Suicide: A self-inflicted injury that has sufficient evidence (either explicit or implicit) to allow others to rule that the person intended to die. (Jacobs, et al, 2003)

Self-harm: A deliberate act of self-induced poisoning or injury, without regard for motivation (Bilen, 2010).

Suicide: A self-inflicted death that has sufficient evidence (either explicit or implicit) to allow others to rule that it was the person's wish to die. (Jacobs, et al, 2003)

Suicidal Ideation: Thoughts of causing one's own death. (Jacobs, et al, 2003)

Suicidal Intention: Desire to cause a self-destructive and lethal act. (Jacobs, et al, 2003)

Summary of Literature Review

Initial Suicide Risk Assessment

The purpose of screening for suicide risk is to determine which patients are in emergent or urgent need of mental health care so that appropriate safety interventions can be implemented. A defined process with suicide screening tools should be used for patients who present to the ED with emotional or behavioral disorders (Cristine, Hartford, Vingilis, & White, 2007; Gaynes, West, Ford, et al., 2004; National Institute for Clinical Excellence (NICE), 2011; The Joint Commission, 2012; Royal College of Psychiatrists (RCP), 2010; Vergare, Binder, Cook, Galanter, & Lu, 2010). The B-SAFE five step method of evaluation is recommended by the Joint Commission (Jacobs, 2007). This five step method includes identification of the following factors risks, protective factors, suicidal thoughts or history, and the documentation of planned treatment and setting for care. The Royal College of Psychiatrists (RCP) recommends if "...risk assessment tools are used they should be seen as part of routine assessment and not as a separate exercise" (RCP, 2010, p 11).

The use of computer-based tools for suicide risk assessment in the ED is feasible and acceptable to staff and for some patients (Choo, Ranney, Aggarwal, & Boudreaux, 2012). Fein et al. (2010) studied the use of web based assessment tools in 857 adolescents' age 14-18 years old; 11.1% reported one or more suicidal thoughts within the past year and 3.6% within the past two weeks. Garner et al. (2010) studied suicide assessment in 1547 youths between the ages of 11-20 years; 14% reported suicidal thought(s) within the past month.

Suicide screening for appropriate pediatric patients is recommended in the ED setting (DeMaso, Martini, & Cahen, 2009; Dolan, Fein, & the Committee on Pediatric Emergency Committee, 2011; Gaynes, et al., 2004; Horowitz, et al., 2010; Pallier, et al., 2009; Royal College of Nursing [RCN], 2009). Horowitz et al. studied the feasibility and practicality of screening pediatric

patients over age ten including those presenting with non-psychiatric complaints. They found that 25% of the non-psychiatric participants required further assessment for suicide risk and that 6% reported clinically significant suicidal ideation. A qualitative study by Pallier et al. (2009) found that 85% of patients and 90% of parents were supportive of universal screening for depression in participants' ages 12-18 years.

In the military population, screening with assurance of anonymity is important. A study of military personnel in non-anonymous routine screenings found that 20.3% of soldiers who screened positive for depression or PTSD reported that they were uncomfortable being honest while answering questions (Warner, et al., 2011).

Personnel training

Multiple studies recommend training to improve the confidence of ED personnel in screening patients for suicide risk (Coristine, Hartford, Vingilis, & White, 2007; al., 2007; Currier, et al., 2012; DeMaso et al., 2009; Dolan, Fein & Committee on Pediatric Emergency Medicine, 2011; National Institute for Clinical Excellence [NICE], 2011; Royal College of Psychiatrists [RCP], 2010). Currier et al (2012) evaluated an approach to increase health care providers' ability to manage potentially suicidal patients. The intervention consisted of placing suicide awareness materials, such as posters or suicide hotline numbers, in four EDs, in areas where providers could easily view them. Providers in the four intervention EDs were surveyed before and after exposure to the materials. Providers in a fifth, control ED were also surveyed twice but did not receive the intervention. More providers (28.3%) in the intervention group reported using a management guide after being exposed to the materials. This was compared to the control group in which the number of providers increased by 14.8% after only having been surveyed. Overall the intervention increased or improved providers' perceptions of their knowledge in identifying and treating patients who had attempted suicide.

The presence of nursing staff with specialized psychiatric training or their availability in the ED may be beneficial in areas with limited access to psychiatric services. Sinclair et al., (2006) concluded that "experienced psychiatric nurses working in the emergency setting can provide appropriate clinical assessments and management of patients with mental illness (p. 691)." Murphy, Kapur, Webb and Cooper (2010) found suicide risk assessment completed by psychiatric nurses (25%) in the ED compared to psychiatrist (23%) had a positive predictive value of repetition of self harm. A qualitative study by Coristine et al., (2007) explored the role of a registered nurse with two years of crisis intervention training to provide care for ED patients with mental health complaints. The benefits attributed to the implementation of the role were decreased wait times, improved discharge and follow up care. A study comparing ED triage nurse and psychiatric nurse consultant (PNC) found poor agreement (kappa coefficient= 0.029) in assigning level of urgency at triage (Happell, Summers, & Pinikahana, 2002). The ED nurses assigned more patients to the emergent level (16.7%, 5.1%) as compared to the PNC ; ED nurse assigned fewer patients to the non-urgent level as compared to the PNC {6.5%, 27%} (p. 68)."

Instruments Used to Assess Potential Suicide/ Self-Harm Risk

A variety of assessment instruments are used to identify individuals who are at an increased risk of suicide. Some instruments are intended for use within specific settings. For the most part these instruments consist of large questionnaires (more than 12 questions), making them time prohibitive in most if not all EDs (see Appendix 1).

After a careful review of the literature, five instruments were identified that may be useful for nurses for initial assessment of patients. The instruments are The Mental Health Triage Scale (MHTS) (Happell, B., Summer, & Pinikahana, J., 2002; Smart, D., Pollard, C., & Walpole, B., 1999); the Behavioral Health Screening-Emergency Department (BHS-ED) (Fein et al., 2010); the ReACT Self-Harm Rule (Steeg et al., 2012); the Manchester Self-Harm Rule (Cooper, et al., 2006); and the P4 tool (Dube, P., Kroenke, K., Bair, M. J., Theobald, D., & Williams, L. S., 2010).

1. *The Mental Health Triage Scale (MHTS)*. Smart et al. (1999) developed the MHTS for use with the Australian Triage System (ATS). ATS did not have an adequate method to identify the severity of mental health patients. MHTS assigns a triage category (Emergency, Urgent, Semi-Urgent, and Non-Urgent) based on a description of the patient's behavior. The category determines how quickly a patient is seen by a physician. Happell et al. (2002) evaluated the degree of inter-rater reliability between triage nurses and psychiatric nurse consultants who used the MHTS. Triage nurses and psychiatric nurse consultants assigned the same category only 34% of the time. Differences by one category occurred 43% of the time and by two categories 18%. They found the differences to be statistically significant ($P = 0.029$). Triage nurses were more likely to over-triage mental health patients as compared to psychiatric nurse consultants.
2. *Behavioral Health Screening-Emergency Department (BHS-ED)*. This instrument is a modification of the more comprehensive BHS tool. Internal consistency of the instrument was reported to be adequate and the overall accuracy ranged from 78% to 85% (strong sensitivity and specificity). The BHS-ED focused on depression, suicidal ideation, posttraumatic stress, risk behaviors and stress. It is a 37 item and 14 item follow-up web-based instrument taking approximately 10 minutes to complete making it feasible to screen patients outside of the initial intake process. The information can then be made available to a triage or primary nurse as they are assessing the patient. Fein et al. (2010) studied the BHS-ED to determine if the instrument is a feasible method of identifying adolescent (14-18 years) patients with psychiatric problems within a busy pediatric ED. The authors found there was a significant increase (4.2% vs. 2.5%) in the number of patients identified with psychiatric complaints even though they did not present with a mental health chief complaint.
3. *Manchester Self-Harm Rule*. (Cooper et al., 2006; Randall, Colman & Rowe, 2011) The Manchester Self-Harm Rule (MSHR) uses four questions to identify patients with potential suicide risk. The questions include whether there is/was: (1) history of self-harm, (2) previous psychiatric treatment, (3) current psychiatric treatment, and (4) benzodiazepine taken as an overdose. If the patient answers "yes" to any one of the questions they are considered at risk. It is a simple, easy-to-use instrument that could be used when screening patients for risk in triage and/or other points of time during the ED visit. This 4-question rule identified patients of higher risk with a sensitivity of 94% (95% CI) and specificity of 25% (95% CI).
4. *The ReACT Self-Harm rule*. The ReACT Self Harm uses four elements to identify patients who may be at-risk for suicide (Steeg et al., 2012). These include (1) recent self-harm (past year), (2) living status (alone or homeless), (3) cutting used as a method of harm, and (4) currently under treatment for a psychiatric disorder. The ReACT Self-Harm rule is designed to assist with decisions related to aftercare (e.g. the patient is assessed as low risk for repeat self-harm per ReACT Self-Harm rule and, therefore, safe to discharge with outpatient follow-up care). Steeg et al. compared the ReACT Self-Harm rule to the MSHR

(Cooper et al., 2006), which measures history of self-harm, previous psychiatric treatment, current psychiatric treatment, and benzodiazepine taken as an overdose. When comparing the two instruments, Steeg et al. concluded that MSHR performed with a high degree of sensitivity 95% (95% CI 94–95), but the ReACT Self-Harm Rule was better at identifying patients who were at low risk for repeat self-harm. Both instruments are feasible to use in an ED but at different times in the course of treatment (MSHR-initial assessment and ReACT Self-Harm Rule-consideration for disposition).

5. *The P4 screener.* The P4 screener assesses patients via four types of questions (4P's): past suicide attempts, plan for acting out suicide, probability of completing suicide, and preventive factors (Dube et al., 2010). Depending on patient responses, patients are classified as minimal, lower, or higher risk for suicide. This instrument is potentially useful in EDs but further research is still needed.

All five instruments described above contain elements that would be useful for assessing potentially suicidal patients in the ED. However, further research is needed to determine the most effective method of screening patients during initial assessment for the risk of suicide.

Other instruments may be used in the ED to assess patients after the initial assessment. These instruments can further delineate patients who may be at increased risk for suicide or who potentially require inpatient admission. A summary of the additional instruments may be viewed in Appendix 1. Further research is needed to refine current instruments or develop new instruments that will rapidly and effectively screen patients who are at risk for suicide and present to an ED.

Potential Predictors for Suicide

In the absence of well-validated risk assessment instruments, certain predictors have been found to be associated with increased risk for suicide. A review of the literature has identified the following broad groups of predictors which tend to overlap: demographics, prior psychiatric and medical history, and significant life events. These factors are not considered to be all inclusive nor should they be used in isolation as predictive of suicidality. However, awareness and consideration of these factors should be considered in the assessment of individuals who present to the ED setting.

Demographics

A number of studies have found that individuals may be at an increased risk for attempted suicide when a combination of gender, socioeconomic status, and age factors co-exist. Lower socioeconomic status has been found to be a predictor of suicide (Ilgen et al., 2009; Kuo, Gallo, & Tien 2001; Murphy et al., 2010; Rockett et al, 2012; Zhang, McKeown, Hussey, Thompson, & Woods, 2005). The Zhang et al. study found that “Attempted suicides of men were more likely to be associated with income while attempted suicides of women were associated with lower educational attainment” (2005, p. 172).

Multiple studies have found that females are at greater risk of deliberate self harm than males (Bilen et al., 2011; Cooper et al., 2010; Diefenbach, Woolley, & Goethe, 2009; Gardner et al, 2010). Zhang et al. (2005) reports the “prevalence of lifetime attempted suicide in females (7.58%) is twice that of males (3.69%)” (p. 169). A study conducted in the primary care setting found that, “Patients who reported suicidal thought were more likely to be younger and female,

to have used substances or carried weapons in the previous month, and to have been in a fight in the previous year” (Gardner et al., 2010, p. 948). Joe and Niedermeier (2006) report the gender difference in rate of attempts being greater for female with rate of suicide completion being higher in males. However with older populations, white participants have a higher rate of self harm compared to non-whites (Cooper et al., 2010)

Prior Psychiatric and Medical History

Previous suicide attempts and the methods used are considered to be strongly predictive of future risk for suicide (Bilen et al., 2011; Dube, Kurt, Bair, Theobald, & Williams, 2010; Haney et al., 2012; NICE, 2011; Plutchik, van Praag, Conte & Picard, 1989; Steeg et al, 2012 and Ting et al., 2012). Deliberate self-harm (DSH) has been shown to be strongly associated with an increased risk of suicide: the cumulative incidence for patients repeating DSH within 12 months after the index episode was 26.8% (95% CI: 24.6 to 29.0)(Bilen et al.).

Assessing the methods used for DSH is also important for identifying high-risk patients. Self-poisoning by prescription and over-the-counter medications is predictive of future attempts of suicide (Bilen et al, 2011; Horesh, Sever, & Apter, 2003; Murphy, Kapur, Webb & Cooper, 2010). And, although self-cutting is also a predictor of suicide, Steeg et al. (2012) found that participants were significantly less likely ($p < 0.001$) to receive a psychiatric assessment compared to those who had used other methods.

Having a previous mental health diagnosis is a strong predictor of suicide risk (Aseltine, 2009; Bilen et al., 2011; Diefenbach, Woolley, & Goethe, 2009; Gardner et al., 2010; Haney et al., 2012; Horesh, Sever, & Apter., 2003; Ilgen et al., 2009; Murphy, Kapur, Webb, & Cooper, 2010; NICE, 2011; Steeg et al., 2012; Ting et al., 2012; and Warner, 2011). Depression and hopelessness are commonly included in many risk assessment tools. “Among diagnoses, having a mood disorder was associated with a 4-fold increased prevalence of suicidality” (Deifenbach et al., p 94). Deifenbach et al, also found “...a doubling of likelihood of suicidality...” associated with anxiety symptoms independent of demographic and clinical variables, including depression (p 96). Further, Zhang et al. (2005) reports having a history of major depressive disorder for both genders is the strongest risk factor for suicide after risk adjustment for other factors.

Of particular concern is the military population, where post traumatic stress disorder (PTSD) is a factor related to suicide attempts. Young men who serve in the military and have a history of PTSD have been identified as being at an increased risk of suicide (Haney et al., 2012; Warner et al., 2011).

Substance abuse, of both alcohol and other drugs, is a predictor of increased risk for suicide (Aseltine, Schilling, James, Glanovsky, & Jacobs, 2009; Haney et al., 2012; Ilgen et al., 2009; Kuo, Gallo, & Tien, 2001; Murphy, Kapur, Webb, & Cooper, 2010; NICE, 2011, & Ting et al., 2012). Youths who binge or have heavy episodic drinking (HED) defined as “having five or more alcohol drinks in a row on one occasion” are an at-risk group (Aseltine et al, p. 263). The researchers found that HED was associated with a substantially increased risk for self-reported suicide attempts among adolescents. Subjects 18 years of age and older with HED were noted to have 1.2 times higher suicide attempts than non-drinkers. Younger adolescents, ages up to 13 years, were 2.6 times more at-risk for suicide attempts. This study found positive and statistically significant ($p < 0.001$) associations among depressive symptoms, HED, and suicide attempts.

Chronic physical illness was found to be an important predictor of increased risk for suicide (Joe & Niedermeier, 2006; Murphy, Kapur, Webb, & Cooper, 2010). Oude- Voshaar et al., (2011) noted that patients “older than 55 years of age considered physical health problems significantly ($p=0.005$) more often as main precipitant for their act (p. 740).” Ilgen et al., (2009) found that “suicidal thought were associated with physical and mental health functioning ($p<0.0001$) (p. 511).”

Significant Life Events

Living alone or not having a significant other are risk factors that contribute to an increased risk for suicide in individuals across all ages groups (Haney et al., 2012; Ilgen et al., 2009; Joe & Niedermeier, 2006; Kuo, Gallo, & Tien, 2001; Murphy, Kapur, Webb, & Cooper, 2010; Steeg et al., 2012). Ilgen et al. (2009) found recent suicidal thought were statistically significant ($p<0.0001$) for people who were not married or lived alone.

Significant negative life events (SLE) are predictors of suicide (Bilen et al., 2011; Haney, 2012; Horesh, Sever, & Apter, 2003; Joe & Niedermeier, 2006; Motto, Heilbrin, & Juster, 1985; Murphy, Kapur, Webb, & Cooper, 2010). Joe & Niedermeier, (2006) found that having a history of sexual abuse places both genders at increased risk of suicidality with the relationship being stronger in females. They also found a positive relationship between divorce rates and suicide for both genders.

Description of Decision Options/Interventions and the Level of Recommendation

Please note that the references listed after each recommendation represent the evidence considered when making the recommendation. This does not mean that the evidence in each individual reference supports the recommendation

Initial suicide assessment:

- A. Suicide screening tools should be used as a part of the assessment process for appropriate ED patients (based upon presentation). **LEVEL A - High** (Coristine, Hartford, Vingilis, & White, 2007; Gaynes et al., 2004; Holden, Kerr, Mendonca, & Velamoor, 1998; Jacobs et al., 2003, NICE, 2011; RCN, 2009; RCP, 2010; The Joint Commission, 2012; Vergare et al., 2010)
- B. The use of computer based tools for suicide risk assessment in the ED is feasible and acceptable to staff and for patients ages 11 and older. **LEVEL C - WEAK** (Choo, Ranney, Aggarwal, & Boudreaux, 2012; Fein et al., 2010, Gardner et al., 2010)
- C. Screening for risk of suicide in pediatric patients over age 10 based upon presentation, is appropriate, feasible and practical in the ED. **LEVEL B - Moderate** (DeMaso, Martini, & Cahen, 2009; Dolan, Fein & Committee on Pediatric Emergency Medicine, 2011; Gardner et al, 2010; Horowitz, et al 2010; NICE, 2011; Pallier et al., 2009)
- D. Training ED personnel improves confidence in screening for suicide risk. **LEVEL B - Moderate** (Currier et al., 2012; Dolan, Fein & Committee on Pediatric Emergency Medicine, 2011; NICE, 2011; RCN, 2009; RCP, 2010)

Suicide risk instruments:

- A. The Behavioral Health Screening –ED (BHS-ED); Mental Health Triage Scale (MHTS); Manchester Self-Harm Rule (MASH); P4; and Re-ACT Self-Harm Rule are valid and feasible for initial assessment of suicide risk in the ED. **Level B - Moderate** (Cooper et al., 2006; Cooper et al., 2010; Dube et al., 2010; Fein et al., 2010; Happell, Summer, & Pinikahana, 2002; Randall et al., 2011; Steeg et al., 2012)
- B. The following instruments are feasible, valid and reliable measures for use assessing risk for suicide in the ED setting. **Level B - Moderate** (see Appendix 1).
- C. The following suicide risk instruments are not recommended for assessment of risk in the ED setting. **Not recommended for practice** (see Appendix 1).

Suicide risk predictors:

- A. Previous episodes of deliberate self harm are a strong predictor of future suicide attempt. **LEVEL A - High** (Bergen, Hawton, Waters, Cooper, & Kapur, 2010; Bilen et al., 2011; Haney et al., 2012; NICE, 2011; Steeg et al., 2012).
- B. Screening for suicide risk should be a part of the assessment process based upon patient presentation, is appropriate, feasible and practical in the ED. Patients with the following presentations should be considered for screening:
 - a. History of Major Depressive Disorder (MDD) or Post Traumatic Stress Disorder (PTSD) **Level B - Moderate** (Bergen, Hawton, Waters, Cooper, & Kapur, 2010; Diefenbach, Wooley, & Goethe, 2009; Dube et al., 2010, Gardner et al., 2010; Haney et al., 2012, Warner et al., 2011)
 - b. Chronic illness in adults. **Level C - Weak** (Haney et al., 2012; Ilgen et al., 2009; Oude-Voshaar et al., 2011)
 - c. Young female. **Level C - Weak** (Cooper et al., 2010; Diefenbach, Wooley, & Goethe, 2009; Gardner et al., 2010; Kuo, Gallo, & Tien, 2001)
 - d. Males over 55 years of age. **Level C - Weak** (Joe & Niedermeier, 2006; Oude-Voshaar et al., 2010)

- e. Lethal methods of self harm with self-cutting being significantly associated with repeat episode. **Level C - Weak** (Bergen, Hawton, Waters, Cooper, & Kapur, 2010; Bergen et al., 2012; Haney et al., 2012; Steeg et al., 2012)
- f. Substance abuse. **Level C - Weak** (Haney et al., 2012; Ilgen et al., 2009; Ting et al., 2012)
- g. Binge or high episodic drinking for adolescents and young adults. **Level C - Weak** (Aseltine, Schilling, James, Glanovsky, & Jacobs, 2009)
- h. Recent negative life events. **Level C - Weak** (Coristine, Hartford, Vingilis, & White, 2007; Horesh, Sever, & Apter, 2003; Joe & Niedermeier, 2006)
- i. Living alone. **Level C - Weak** (Ilgen et al., 2009 and Steeg et al., 2012)
- j. Lower socioeconomic status. **Level C - Weak** (Ilgen et al., 2009; Murphy, Kapur, Webb, & Cooper, 2010; Zhang, McKeown, Hussey, Thompson, & Woods, 2005)

Appendix 1

Table A: Feasible, Valid, and Reliable Instruments for Use in the ED Setting.

Instrument	Articles	Adult	Peds	Teens	Geriatric
Beck's Suicide Intent Scale (SIS)	Stefansson Santa Mina	X			X
Depressive Symptom inventory-Suicidality Sub-scale (DSI-SS)	Joiner	X			
Geriatric Depression Scale (GDS) GDS-30/GDS-15/GDS-5	Cheng 2010	X			
Risk Assessment Matrix (RAM)	Patel 2009	X			
Suicidal Ideation Questionnaire (SIQ)	Santa Mina 2006 Dolan 2011			X	
Suicidal Ideation Questionnaire (SIQ-JR)	Santa Mina 2006 Dolan 2011	X	X	X	
Violence and Suicide Assessment Form (VASA)	Plutchik 1989	X			
Nurses Global Assessment of Suicide Risk (NGASR)	Cutcliffe 2004	X			
Risk of Suicide Questionnaire (RSQ)	Dolan 2011	X	X		

Table B: Instruments Not Recommended for Use in the ED Setting.

Instrument	Articles	Adult	Peds	Teens	Geriatric
Beck Hopelessness Scale (BHS)	Cochrane-Brink 2000 McMillan 2007		X		
Beck Scale for Suicide Ideation (BSS)	Cochrane-Brink 2000 McMillan 2007 Holden 2005		X		
Behavioral Activity Rating Scale (BARS)	Schumacher 2010	X			
Centers for Epidemiologic Studies Depression Scale (CES-D)	Joiner	X			
Centers for Epidemiologic Studies Depression Scale for Children (CES-DC)	Gardner 2010	X			
Columbia Suicide Screen (CSS)	Aseltine 2009		X	X	
Death/Suicide Implicit Association Test (IAT)	Nock 2010	X			
General Health Questionnaire (GHQ-12)	Joiner	X			
Geriatric Suicide Ideation Scale (GSIS)	Cheng 2010				X
Modified SAD Persons Scale (MSPS)	Cochrane 2000 Bolton 2012	X			
Patient Health questionnaire for Adolescents (PHQ-A)	Gardner 2010	X			
SAD Persons Scale (SPS): S=Sex, A=Age, D=Depression, P=Previous Attempt, E=Ethanol Abuse, R=Rational Think Loss, S=Social Support lacking, O=Organized Plan, N=No Spouse, and S=Sickness all items = 1 point	Bolton 2012 Randall 2011	X			
Scale for Suicide Ideation (SSI)	Holden 1998	X			

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